DEVELOPING A LOCAL PROCUREMENT FRAMEWORK FOR MINING COMPANIES OPERATING IN MONGOLIAN RURAL COMMUNITIES

by

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Developing a local procurement framework for mining companies operating in Mongolian rural communities

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Abstract

There is an increasing pressure for mining industry to guarantee that sustainability considerations are included in business policies. The traditional philanthropic response to economic, social and environmental issues is shifting towards new models that embrace the importance of community engagement on all levels to create value for industry and society. Local procurement, in this regard, has been justified as an effective tool to foster community engagement, thus obtaining social license to operate and create shared value.

The research used a case study approach using Erdene Resources Corporation's Bayan Khundii gold project and asked, "How can mining companies develop their local procurement strategies in Mongolian regions where businesses and services are limited?". The data is collected through twenty-four semi-structured interviews. The interview participants represent industry representatives, academics, local stakeholders, investors, and consultants with diverse experience and insights into the mining industry. Qualitative interview data was scrutinized using the NVivo 12 data analysis software and collectively reviewed for main themes and patterns.

The study findings identified a definition for "local" and challenges, strategies to overcome the obstacles and impacts and benefits related to local procurement initiatives. When defining "local," any business registered within any administrative division in Mongolia could be considered "local," provided that employment is created within the local community.

The most significant challenge is the lack of awareness of commercial mining projects. The most relevant benefits for local communities and mining companies are creating job opportunities and improving community engagement or maintaining the social license to operate, respectively.

In summary, this project defines “local,” addresses the main challenges related to local procurement initiatives, finds potential strategies to overcome the obstacles, and indicates impacts and benefits. These advances shape a local procurement framework for mining companies operating in Mongolian rural communities, eventually helping local businesses grow, develop, and build mining share value.

Lay Summary

Local procurement in mining industry is recognized as an effective tool for fueling community engagement, creating shared value for the industry and host communities, obtaining social license to operate for mining companies, and contributing to the sustainable development goals.

Although local procurement has been well examined in the literature, an approach or process is required that can guide mining companies to develop their local procurement strategies. This research used a case study approach on Canadian mining company Erdene Resources Development Corporation and interviewed twenty-four participants. The research recruited diverse set of participants and asked "how mining companies can develop their local procurement strategies in Mongolian regions where businesses and services are limited?".

This research develops a local procurement framework as a guide for mining companies operating in Mongolian rural communities to develop their local procurement initiatives, bringing about benefits for local communities and nations as well as mining firms.

Preface

This thesis is the original and unpublished work of the author, Zorigtkhuu Bat-Erdene. I am responsible for the design, data collection, and writing process of this study. The interview questionnaire, semi-structured interviews, interpretation of the collected data, and analysis were carried out by me.

Based on the work of this research, the author was the co-author of two peer-reviewed journal articles and a research report indicated below, and was also invited to present at an online conference, "Creating Opportunities for Land-Connected Culture and Businesses," that was organized by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) in 2020.

- Article 1: Fraser, J., Bat-Erdene, Z., Lyons, J., & Kunz, N. (2021). Local procurement, shared value, and sustainable development: A case study from the mining sector in Mongolia. Business Strategy & Development, 1– 10. https://doi.org/10.1002/bsd2.193
- Article 2: Fraser, J., Bat-Erdene, Z., & Kunz, N. (2020). Social license needs business strategy. The Extractive Industries and Society. https://doi.org/10.1016/j.exis.2020.10.007
- Research Report: Fraser, J., Bat-Erdene, Z., & Kunz, N. (2020). Starting local: Creating value from mining in rural communities. A Research Report. The University of British Columbia: Vancouver, Canada.

Finally, the qualitative data collection methods for this study complied with the UBC requirements and were approved by the UBC Behavioral Research Ethics Board

(Certificate of Approval: H19-03695).

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List of Abbreviations

CDA	Community Development Agreements
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CIRDI	Canadian International Resource and Development Institute
CSR	Corporate Social Responsibility
CSV	Create Shared Value
DRC	Democratic Republic of Congo
EDP	Economic Development Partners
EWB	Engineers Without Borders
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
IBA	Impact and Benefit Agreements
IFC	International Finance Corporation
IISD	International Institute for Sustainable Development
ILO	International Labor Organization
IOS	International Organizations for Standardization
LLA	Local-Level Agreements
LP	Local Procurement
MSV	Mining Shared Value
SDG	Sustainable Development Goal
SLO	Social License to Operate
SME	Small and Medium Sized Firms

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My warmest thanks go to Dr. Julian Dierkes. You are a guiding star to many Mongolian students who get lost in this world of academia. Your office has served us all as a touchstone and recharging station.

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Dedication

To all women in academia.

May the journeys in life be less difficult for my daughters.

Chapter 1: Introduction

1.1 Sustainable Development and Local Procurement. Problem and Significance

From the development of communication to life-saving medical advancements, undoubtedly modern human civilizations have benefited from the technological innovations, inventions, and engineering applications that have become an essential part of our societies' ability to thrive and evolve.

In this context, mineral commodities such as metals, industrial minerals, and rocks are key components of those innovations, inventions, and applications. Without mining, the modern world simply could not function as we know it (Lopes et al., 2018; Moran et al., 2014). As an example, the roughly 130 million retired cell phones retired annually in the United States contain about 2,100 metric tons of copper, 46 metric tons of silver, 3.9 metric tons of gold, 2 metric tons of palladium, and 0.04 metric tons of platinum (Mielli, 2016). In other words, the mining industry is positioned at the starting point of a critical value chain that is the social and economic foundation of today's world. 70 countries are tremendously dependent on the mining industry, and most low-income countries simply need it to survive (Mielli, 2016).

Provided that natural resources are wisely and prudently used to create wealth, they could be a source of sustainable development, i.e., development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland, G H., 1987).

In this respect, in 2015 all the United Nations member states endorsed "The 2030 Agenda for Sustainable Development," which contains a collection of 17 interlinked Sustainable Development Goals (SDGs) corresponding to an urgent call for action by all countries in a global partnership (United

Nations, 2016). The SDGs represent a “blueprint to achieve a better and more sustainable future for people and the planet” (United Nations, 2016).

The mining industry is crucial for modern human civilizations, as it contributes to sustainable development. This importance not withstanding, decades of exploration and operations, in many cases, have not been translated into social and economic development for local communities in areas where mining projects are being developed. One example of this is the mining boom and bust cycle (Liebenthal & Cheelo, 2018; NRGI, 2015; Perry & Rowe, 2015). When prices of mineral commodities increase, new mines are constructed in a hurry, benefiting local and national economies by creating jobs and harvesting significant amounts of revenue in royalty, rents, and payments in taxes and wages (*boom*). But, when prices drop, production slows down, and mines are either put in care and maintenance or closed, creating unemployment, loss of income, and a declining population (*bust*). A second example of this is the resistance by local communities to mining explorations and operations, i.e., the inherent conflicts and tension between local and national rights to mineral wealth and the other benefits brought about by mining such as the implementation of technology and skills (Kemp & Owen, 2013; Owen et al., 2021).

The aforementioned situation, where countries with large endowments of mineral resources such as gold, diamonds, and crude oil counterintuitively tend to perform worse economically than those without natural resources, is especially common in resource-rich developing countries. It is commonly explained through a phenomenon widely known as “paradox of plenty” or “resource curse,” i.e., nations governed unwisely and with bias have typically been both blessed and cursed by their vast resource wealth (Auty & Warhurst, 1993). The resource curse occurs when nations that are rich in non-renewable natural

resources become highly dependent on a single sector in terms of economy and production (e.g., mining, oil, or gas) and investments in other economic sectors are neglected.

It has been suggested that local procurement (section 2.2) – the purchase of goods and services from host suppliers – is an effective tool to tackle the resource curse (Ba & Jacquet, 2021; Geipel, 2017). Local procurement helps mining companies obtain social license to operate (Section 2.3.1). It also supports SLO, the level of acceptance or approval by local communities (Mining Shared Value at Engineers Without Borders, 2015), and reduces the overall supply chain time and cost.

Local procurement in the extractive sector is increasingly mandated through what are generally referred to as "community development agreements," or CDAs (Section 2.3.3). CDAs are arrangements made between extractive companies and the communities affected by their operations that include practical mechanisms for recognizing the rights, needs, and priorities of local communities unlike traditional philanthropic approaches. In Canada, CDAs are also known as "impact benefit agreements" (IBAs) in Canada.

Local procurement has been approached from different perspectives, creating a lack of consensus and common misunderstandings about its implementation. One of the reasons for the research problems in this area is the lack of a clear definition of "local." Distinct definitions of "local procurement" can be found in five countries including Kazakhstan, South Africa, Botswana, Ghana, and Australia. (Ramdoo & Cosbey, 2019).

In the research for this thesis, semi-structured interviews were conducted to establish a definition of "local," to identify main challenges related to local procurement initiatives in Mongolian rural

communities, to propose strategies to address those challenges, and to explore impacts and benefits for miners and communities. Using Erdene Resource Development's (Erdene) proposed mine development project in the Bayan Khongor province of Mongolia as a case study, a local procurement framework was developed. The local procurement framework was designed to be of use both for Erdene and for other mining companies in Mongolia developing local procurement strategies. Erdene has over 20 years of experience investing in and exploring precious and base metal resources in Mongolia.

Finally, this project implemented the research methodology in four phases: preliminary research (Phase I), interview questionnaire development (Phase II), comprehensive data collection (Phase III), and data analysis (Phase IV).

1.2 Justification of a Local Procurement Framework by Mining in Mongolia

As was mentioned in Section 1.1, local procurement, the purchase of goods and services locally, has been suggested to be effective for building mining shared value and helping local businesses grow and develop, thereby contributing to the sustainable development (Xing et al., 2017). Nonetheless, one of the most important components that local procurement initiatives require to be successfully implemented by miners is a clear definition of "local" (Section 2.2.1).

Another component involves the challenges related to local procurement initiatives that vary widely, because every country, jurisdiction, and community has distinct skill sets, experiences, and geographic locations (Baraka, 2017).

Even though many mining companies recognize the importance of local procurement initiatives for all stakeholders, an approach is required that can guide a mining company not only to define "local" (i.e.,

What is local? Who is local?) but also to identify and overcome the challenges or obstacles to the development of a local procurement plan. This thesis addresses this gap in the literature by developing a local procurement framework that is shaped from the interviews' findings, which include a definition of "local," challenges, strategies to overcome these obstacles, and, eventually, the impacts and benefits for both miners and host communities. This framework is intended to act as a guide for mining companies operating in Mongolian rural communities such as Erdene's gold project, which is taking place in the Bayankhongor province of Mongolia.

Mongolia has been selected for this research because the mining industry is one of the country's main economic sources, contributing 23.7% of the national gross domestic product (GDP). In 2019, mining accounted for 26.13% of the national budget revenue (*Mongolia EITI Report* , 2019)

This thesis is guided by the proposition that local procurement wisely implemented by miners could bring about further social and economic benefit to the local and regional communities where mining projects are located, even more than traditional community investments. In other words, local procurement of goods and services by mining companies represents a staggering development potential in Mongolian rural communities through the creation of local jobs, promotion of skills, and technology transfers and integration of local companies into the sub-national, national, and global values chain.

This thesis examines the practice of local procurement closely through the case study offered by the Canadian-based mining company Erdene Resource Development Corporation ("Erdene"). Erdene has over 20 years of experience investing in and exploring for precious and base metal in Mongolia. Erdene was chosen as a case study because the company has committed to increasing the project's benefits and sharing them with the surrounding communities. Now that Erdene is moving from the exploration to the

development phase, the company is positioned at a critical moment to implement a local procurement initiative that may fulfill its commitment to communities.

1.3 Research Question and Objectives

The question that this research seeks to answer is:

- How can mining companies develop their local procurement strategies in Mongolian regions where businesses and services are limited?

This project seeks to develop a local procurement framework that could serve mining companies operating in Mongolian rural communities as a guide for the development of their local procurement strategies in contexts where businesses and services are limited.

The specific objectives are:

1) To define “local” in the context of the study region;

2) To address challenges related to local procurement in mining regions of Mongolia;

3) To identify strategies to overcome obstacles related to the current and future implementation of local procurement in mining regions of Mongolia;

4) To identify impacts and benefits to the local communities and mining companies.

1.4 Summary and Thesis Outline

The future of mining and modern societies more broadly relies on more effective stakeholder engagements and relationships. As was previously mentioned, local procurement could potentially foster both healthy mining-community engagements and contribute to long-term sustainable development. While many companies acknowledge the relevance of local procurement, an approach or process is needed that can guide a mining company to clearly define "local" as well as to identify and address the challenges of procuring locally. This research focussed on the need of an approach or process that could be applied in Mongolian rural communities.

This thesis consists of five chapters. Chapter 2 expands the topical and theoretical significance of the research based on the current literature. Chapter 3 frames the research design, research paradigm, and the choice of methodology. Chapter 4 delves into the analysis and findings from the research. Chapters 5 illustrates the discussion points and summarizes the work.

Chapter 2: Literature Review

"Local procurement is a win-win for the economy and social development."

(Anglo American, 2015)

2.1 Introduction

The literature was reviewed, first, by identifying the keywords such as local procurement, local content, local sourcing, locally procurred and manufactured or the main concepts related to local procurement, and second, by using a process of searching Google scholar, University of British Columbia Library, and its online journal data base. Additionally, the author looked for key papers in the field recommended by the supervisory team. Those papers were reviewed as well as the ones that have been cited.

Local procurement is discussed both in academia and grey literature, however, there is a gap in the academic literature related to the mining industry in Mongolia. The existing academic and grey literatures are therefore examined in contexts of mining and similar contexts, i.e., aboriginal communities and emerging economies.

To identify the research gap within the existing literature on local procurement, the author carefully examined documents made available to the public by the world's leading mining companies related to these companies' procurement policies and strategies.

2.2 Local Procurement. An overview

Over the past two decades, local procurement has been suggested as an important part of a solution to address extractive industry-associated challenges, tackle the resource curse, and contribute to long-term sustainable development (Geipel, 2017). If managed wisely and without bias, local procurement's contributions have a larger potential to contribute to the economy, in terms of capital retained in the host

countries and local communities, than traditional payments in royalties, taxes, wages, and rents of a particular commodity extraction (Ovadia, 2014; Ramirez, 2016).

Local procurement is defined as "the purchase of goods and services from local businesses" (Geipel, 2017; Hanlin & Hanlin, 2012; International Finance Corporation, 2011; Ramdoo & Cosbey, 2019; Xing et al., 2017). It is being increasingly prioritized and used by mining companies because its positive impacts have the potential to create value simultaneously for mining firms as well as the countries and host communities in which they operate (Nickerson et al., 2017).

Local procurement builds a robust linkage between mining activities and local suppliers that can branch out to meet the needs of other sectors. This strong network of suppliers within the resources-rich regions can help to reduce the local community's and nation's dependency on mining so that economic development can remain powerful even after the mine closure or bust phase (International Finance Corporation, 2011; Ramdoo & Cosbey, 2018).

The potential benefits of local procurement include increasing inclusive social and economic development, creating local jobs, and promoting skills and technology transfers, thereby bringing integration, economic diversity, and sustainability to the local communities while mining companies could also potentially benefit by maintaining their social license to operate (Figure 2.1).

Figure 2.1 Potential benefits of local procurement (Source: Engineers without Borders, Mining Shared Value 2015)

As an example of local procurement strategies managed wisely and without bias by mining, the case of some of Tanzania's gold mines established in the Democratic Republic of Congo (DRC) can be cited, with specific attention to Mine D. The management of this mine arranged a new procurement office that continuously encouraged and supported its personnel to engage with local businesses and explore their offered opportunities. Personnel did so by travelling widely throughout the region to evaluate the availability and quality of products and services required during the mine's activities. As a result, Mine D's catering supplier sources 100% of fresh produce from local DRC suppliers, which is an attainment not achieved by the much longer-lived Tanzanian mines operating with similar local supply constraints (Hanlin & Hanlin, 2012).

The three main reasons why mining companies must pay close attention to increased local procurement are to reduce or eliminate risk to company, address government policies that stipluates local

procurement, and benefits the local community through the creatin of sustainable business opportunities by engaging local business owners (International Finance Corporation, 2011).

The World Economic Forum, Columbia Center on Sustainable Investment, and the United Nations Development Program emphasize that the mining sector has the potential to influence all of the SDGs. Local procurement is featured as a potential strategic tool to enhance SDG 8, i.e., decent work and economic growth through capacity building and economic prosperity of local communities and host countries (Geipel, 2017; World Economic Forum, 2016). Additionally, creating direct and indirect local jobs can help positively reduce poverty alleviation to meet SDG 1 (no poverty) and contribute to SDG 11, i.e., develop sustainable cities and communities within the host countries (United Nations, 2016).

In the following sections of Chapter 2, past and current literature on local procurement is reviewed. The objective is to examine the context that developed local procurement concept and practice and the gaps in the literature that could serve as a conduit in advancing the concept and its practice. But first, *what is local? Who is local?*

2.2.1 Defining "Local" Procurement

Even though local procurement is widely referred in literature to the "purchase of goods and services from suppliers who are registered and originated from the nearby communities," there are significant variations in defining "local" across different actors, i.e., academics and practitioners, international institutions, and mining companies (Table 2.1). "Local" should be defined clearly in a country's local content policy and in a mining company's local procurement strategy to successfully implement local procurement initiatives (Korinek & Ramdoo, 2017). This is because, in the absence of a clear definition

for “local”, mining companies are most likely to purchase the goods and services that are not locally produced and manufactured but which are purchased from the suppliers who simply import the goods from overseas (Korinek & Ramdoo, 2017; Weldegiorgis et al., 2021). Importing goods does not necessarily create meaningful economic development because it only guarantees short-term economic value. It does not guarantee long-term benefits for the rural communities and the host countries (Baraka, 2017; Nwapi, 2015; Ovadia, 2016; Weldegiorgis et al., 2021).

The author found an academic gap in the literature that there is no globally-accepted definition of “local.” Rather, it is defined in different ways across countries (Nwapi, 2015; Ramdoo, 2015).

Table 2.1 Summary of the definitions of "local" in literature

	How “local” is defined?
Globally	No agreed-upon definition/defined variously across countries Relies on where its operation is taking place and who its stakeholders are
Factors that should be considered	• Geography • Value-add • Ownership

In nations such as Zambia, “local” procurement has a national focus, whereby “local” refers to Zambian citizens or citizen-owned businesses. This contrasts with the definitions used in Australia and Mongolia, wherein local is defined at community and provincial levels (World Bank Group and Kaiser EDP, 2015).

In Australia, The Queensland Government’s 2017 Local Procurement Strategy defines four concentric zones (Standing Committee on Industry, Innovation, Science and Resources, 2018) including:

Local Zone 1 – the vicinity of the mine – includes suppliers within a 125 km radius of the place where goods and services are to be supplied;

Local Zone 2 – the local region – if a supplier cannot be found within Zone 1, then suppliers within the local region should be considered;

Local Zone 3 – the State – if suppliers cannot be found within Zone 1 or 2, then suppliers within all of the State will be considered; and

Local Zone 4 – Australia – if suppliers cannot be found in Zones 1, 2, or 3, then suppliers across all of Australia will be considered.

In Ghana, on the other hand, companies registered in the country are qualified as "local" suppliers, and businesses from mining communities are considered "local-local" (Intergovernmental Forum on Mining, Minerals, 2018).

In Kazakhstan, a certificate of origin that has the status of "national manufacturer" is issued if the goods are totally manufactured within the Kazakhstan territory. In addition, this country also considers the suppliers as "local" if the percentage of employees is ≥ 95% of Kazakhstan citizens (Grata International, 2015).

On the other hand, the author found, in the grey literature, three fundamental measures that should be considered when defining "local" (World Bank and Kaiser EDP, 2015). These include:

Geography – "Local" can be defined by geography and the physical location of suppliers. As noted above, practices are different across nations. Local businesses that originated and are registered only in the vicinity of a mining project are qualified as "local" suppliers. In some cases, businesses that originated and registered in the province and region are also considered as "local" suppliers. In other

cases, the location of suppliers and service providers is not important, as long as businesses that are registered in the country they can be considered as "local" suppliers.

Value Addition – means a process by which the monetary value of a products or service increases with additional processes. When this category is prioritized, goods and services are deemed "local" because different manufacturing stages involve a certain percentage of value addition and promote domestic business and industrial development.

Ownership – encourages nationals or citizens of a country to actively participate in the supply of goods and services purchased by mining companies. It includes many types of ownership participation such as: a minimum percentage of a supplier company's share or capital must be owned by local or national citizens of a county. A supplier is obligated to hire a maximum number of local employees (local citizens). If the senior management positions of a supplier are occupied by nationals or citizens of a country, it would be considered "local." A foreign importer is obligated to enter as a joint venture with domestic firms.

The above considerations are important because the contribution of mining activities to the local and national economy will depend on how and which criteria are prioritized. For example, the World Bank and Kaiser EDP's work on local procurement in West Africa (Figure 2.2**Error! Reference source not found.**) shows various levels of domestic participation and value-add, according to the government's definition of "local" suppliers. "Supplier A" represents a foreign importer who does not have any local participation and local value-adding, while Supplier D represents a full value-adding and full participation of citizens of a country (Ramdoo & Cosbey, 2019; World Bank Group and Kaiser EDP, 2015).

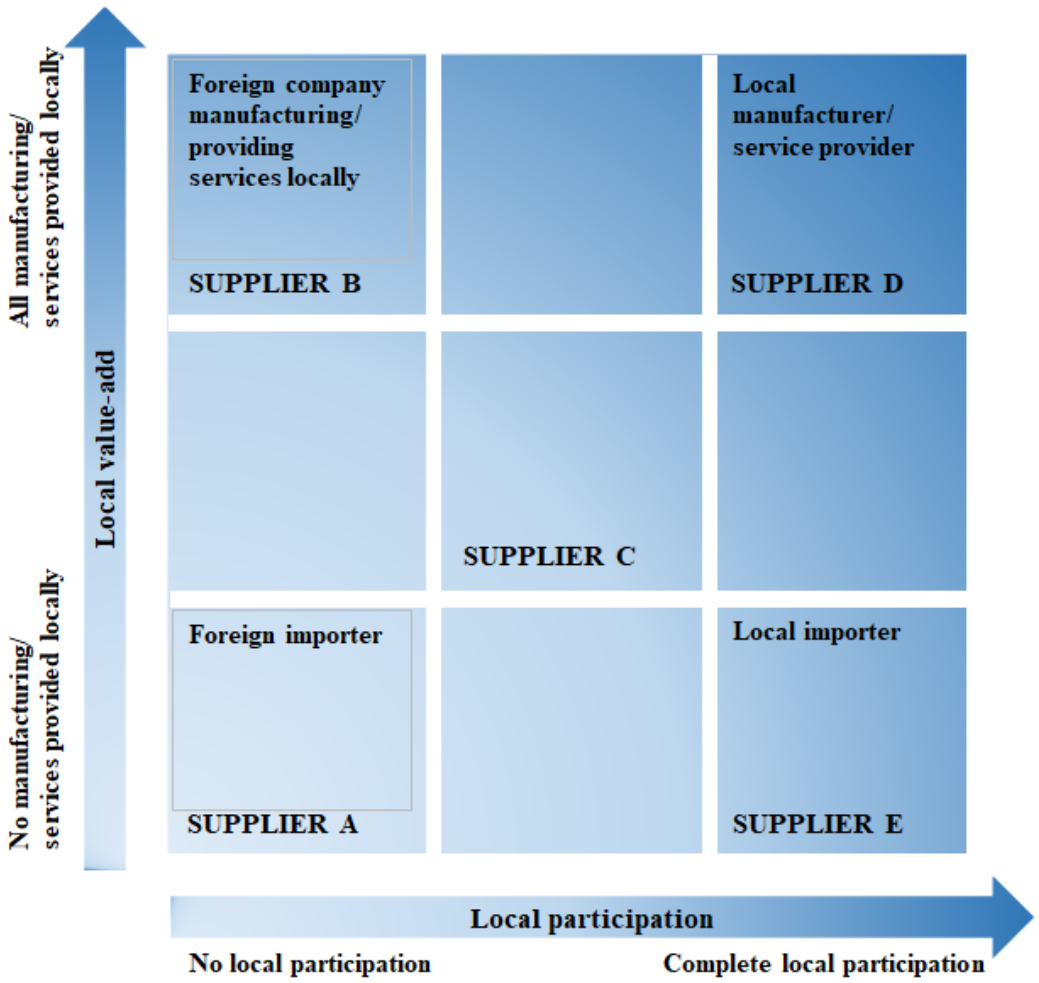

Figure 2.2 Framework for categorizing supplier (Source: World Bank and Kaiser EDP, 2015)

Finally, the question arises as to how mining companies define "local." Businesses from the communities that are close to a mining company's exploration or operation site can be considered as the "local" supplier(s), or businesses within the region(s), or even within a country where the company operates, depending on how mining companies define the "local" suppliers (Weldegiorgis et al., 2021).

A mining company's definition of "local" procurement relies on where its operation is taking place and who its stakeholders are. An example of a company's definition of local is provided by Newmont

Ghana. The company's 2010 Local Procurement Policy and Action plan condenses the vision, investment agreement commitment, and key definitions as well as the action plan (Newmont Ghana, 2010). The vision states: "*To be the most respected mining company in Ghana in terms of optimizing the value of in-country spend and the development of sustainable local businesses"* (Newmont Ghana, 2010).

2.3 Mining and Sustainability. An Overview of Strategies

2.3.1 Social License to Operate (SLO)

One of the biggest challenges that the mining industry faces today includes community conflicts as well as inequitable distributions of benefits, impacts, and risks (Kemp & Owen, 2013; Mancini & Sala, 2018). Social license to operate (SLO) – the perceptions of local stakeholders that a project, company or industry operating in a given area is socially acceptable or legitimate (Raufflet et al., 2013) – will consequently be one of the most significant non-technical obstacles the industry will deal with (Dunbar et al., 2020; EY, 2018). SLO exists when a mineral exploration or mining project is seen as having the approval and the broad acceptance of society to conduct activities (Joyce and Thomson, 2000). SLO was later expanded to include three "normative components" (Thomson and Joyce, 2008) as shown in Figure 2.3.

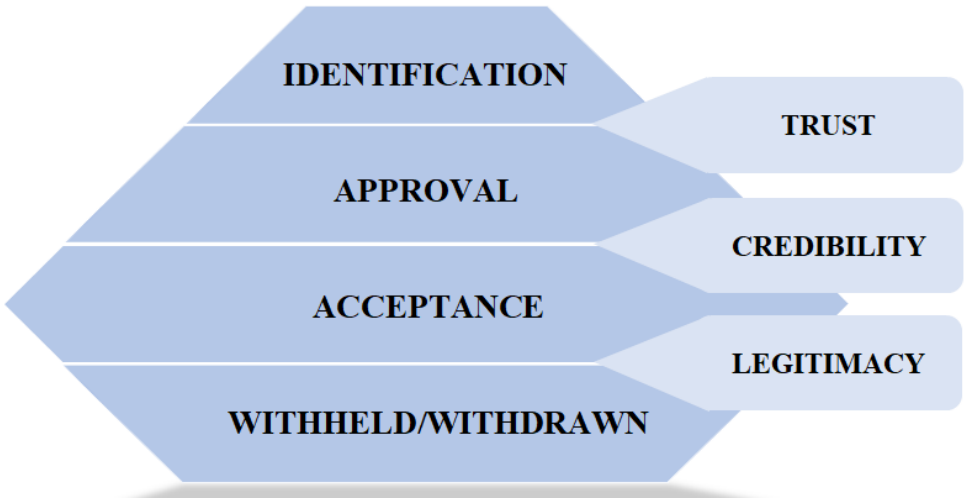

Figure 2.3 The pyramid model (source: Thomson and Boutilier, 2011)

2.3.2 Creating Shared Value (CSV)

The term "shared value" has been a relatively new approach to attaining social benefits through business. This concept initially referred to choices that must benefit both sides, i.e., businesses or corporations and society (Porter and Kramer, 2011). The authors also indicate that *"if either side pursues policies that benefits its interests at the expenses of the other, it will find a dangerous path."*

Creating shared value (CSV) is where businesses look at their corporate assets and expertise, find the relevant social needs – where the assets and expertise can contribute – and then find business opportunities, i.e., business strategy to make profit by solving those needs (Figure 2.4).

Figure 2.4 Creating shared value (Source: Shared Value Initiative Hong Kong)

2.3.3 Community Agreements with Mining

The concepts of sustainability, sustainable development, and sustainable mining certainly involve not only the practices of mining per se, but also the relationships and socio-economic environment that are impacted by mining projects (Sarkar et al., 2010). Therefore, nowadays, a key challenge is ensuring that local communities have access to the legal, technical, and other help they needed to assert their interests, negotiate unbiased deals, and establish adequate practices for receiving, managing, and growing economic benefits (Dalupan, 2015). That endeavor is commonly achieved by the Community Development Agreements (CDAs) that are endorsed by international agencies including the World Bank Group (Sternberg et al., 2019). The CDAs have great potential to support the delivery of tangible benefits from mining projects and directly impact local communities (Loutit et al., 2016).

Therefore, rather than having communities rely on philanthropic traditional funding sources (Section 2.3), the CDA can be used negotiations between local communities and mining companies.

During the negotiation of such agreements, local communities may express their interests in supplying locally sourced or a certain level of value-added goods and services to the mining companies. In some cases, if the local suppliers are not qualified to supply mining needs in terms of quality and quantity, the companies take the lead to address what goods and services can be sourced locally. Moreover, the companies may provide training, mentoring programs, and financial aids to weak suppliers and other nascent sectors (Weldegiorgis et al., 2021).

While community agreements are not required consistently across governments or jurisdictions, they are considered as best practices under international principles and standards relevant to mining (Dalupan, 2015). Consensual agreements between mining companies and impacted communities have the potential to deliver mutual trust and respect, improve the distribution of socioeconomic benefits. For communities, effective agreements recognize and respect for community rights, incorporate social and environmental protections, and facilitate economic benefits. For companies, effective agreements can facilitate consultations, help to community support, and provide project stability (Dalupan 2015).

In Australia, roughly one third of Aboriginal land was subject to existing exploration licenses or new applications under negotiation in 2020 (Central Land Council, 2021). Exploration or mining activities invoke under the *Native Title Act* the 'right to negotiate,' which provides a chance for native title parties to reach agreements with proponents. This includes, in some cases, provision for Aboriginal business development opportunities, employment and training for employees and local businesses, environmental or cultural heritage protection, or compensation and payments (Parmenter & Trigger, 2018).

In Canada, the community agreements are known as impact benefit agreements (IBAs) or participation agreements (PAs), and are negotiated by the mining company and with Indigenous nations located in

proximity to the proposed mine development. IBAs commonly include provisions for employment, economic opportunities, indigenous business development, financial, environmental protection, and social and cultural (Kielland, 2015). Certain jurisdictions in Canada, permits and licenses are not granted until IBAs have been granted (Korinek & Ramdoo, 2017) Although there are significant variations in regulatory requirements related to IBAs at the provincial and federal level there is a growing recognition and expectation that these agreements will be in place before permitting is completed.

In Mongolia, community development agreements are known as Local-Level Agreements (LLAs), and they are commonly signed between local government authorities and mining companies. The *Mineral's Law of Mongolia* (particularly Article 42) is unclear and uncertain regarding whether or not the exploration and operational permits and licenses are granted to mining companies until those LLAs have been previously agreed upon, and it does not require a negotiation and consultation process with local communities (Dalaibuyan, 2017).

Furthermore, Dalaibuyan (2015) points out that local citizens' expectations, concerns, and participation opportunities tend to be excluded in the LLAs in Mongolia, and, as a result of not widely accepted transparency norms, there were not any agreements in the public domain.

2.4 Government Policies to Local Procurement

A significant body of research states that many nations have been struggling to translate their abundance of mineral wealth into meaningful and long-term sustainable benefits (Gani, 2021; Ogunleye, 2008; Sachs & Warner, 1995). As mentioned earlier, this "resource curse" has adverse impacts the economy, politics, and the environment of the national and subnational levels of government, and, consequently,

results in negative developmental outcomes such as poor economic performance, unbalanced growth, deindustrialization, high levels of corruption, ineffective governance, authoritarianism, and greater political violence across the developing world (Dijohn, 2010; Luong & Weinthal, 2006; Manzano & Gutiérrez, 2019; Van Der Ploeg, 2011). Resource-rich developing nations often have higher rates of social conflict and lower rates of economic stability and economic growth compared to non-resource-rich nations (NPRI, 2015; Papyrakis & Gerlagh, 2004).

Over the past two decades, governments' efforts have shifted towards more sustainable and inclusive solutions to increase the sustainable economic benefits from the extractive industry. Unfortunately, these attempts have often failed (World Bank Group and Kaiser EDP, 2015).

By way of example, the mining boom and bust cycle can be mentioned. Governments receive significant revenue from mining royalties and taxes during mining boom cycles. However, when the bust cycles occur, countries' economies can get trapped. As a result, due to overdependence on the extractive industry, many resource-rich nations remain undeveloped economically and industrially with a high unemployment rate and weak industrial capability (Ramdoo, 2015; Ramdoo & Cosbey, 2018).

Different types of policies and the sequence of reforms tailored to country conditions, i.e., considering the intraregional differences in terms of resource endowments, geography and level of development, have been developed to harvest more economic and industrial benefits from their wealth of resources (Salazar-Xirinachs et al., 2014).

The policies are being revised and reformed to attract more foreign direct investment (FDI) by enabling a more sustainable business environment (Haudi et al., 2020). Moreover, some policies aim to increase

the purchase of locally-manufactured and sourced products, create more job opportunities for citizens, support economic reform, and encourage more mutually beneficial partnerships with domestic and multinational mining companies (Hanlin & Hanlin, 2012).

Ramdoo (2015) differentiates government policies related to local procurement according to whether they specify qualitative or quantitative requirements. The quantitative requirement includes measurable indicators such as the number of local employees, the number of contracts to be awarded to locals, and the value of the total amount spent on a local purchase that is reflected in agreements. Whereas the qualitative requirements include knowledge and technology transfers that are less binding in the agreements among stakeholders.

Many resource-rich nations have a combination of quantitative and qualitative requirements, and some important factors determine the balance between these requirements. These include the nation's level of development, and the capacity to implement and monitor the measures (Ramdoo, 2015; Ramdoo & Cosbey, 2019).

As was mentioned earlier, governments can design demand- and supply- side policies, which, according to the International Institute for Sustainable Development (IISD, 2019), may encompass mandatory quantitative or qualitative requirements or incentives, or a mix of both. In addition to these, countries also adopt policies that incentivize domestic and multinational mining companies to successfully implement local content and procurement policies. These include tax and tariff reduction on imports of heavy machinery and equipment, tax exemption or tax refund, etc. In Senegal, for example, exploration and extraction companies are released from value-added tax on locally sourced and manufactured products during the first three years (Fulbright, 2015). This practice gives opportunities for both mining

companies and local suppliers. From the mining companies' perspective, purchasing tax-free, cheaper goods and services can lower the company's operating costs. On the other hand, local suppliers can strengthen their financial and manufacturing capacities by supplying their products to nearby mining projects. As a result, local producers can build their competitiveness to compete with suppliers from foreign countries.

Finally, many international research institutions and practitioners suggest that governments can enhance their fiscal and industrial capacities by adopting and maintaining local procurement policies, which are increasingly adopted by most of the resource-rich developed and developing nations (Ramdoo & Cosbey, 2018). If such policies are implemented wisely, it has an enormous power to leverage a country's economic and industrial development at the local, regional, and national levels (Geipel, 2017; Ramdoo & Cosbey, 2018, 2019).

2.5 Challenges related to local procurement implementation

Although local procurement is proposed as a "medium to reframe the conversation and identify opportunities to create shared value" (Dunbar et al.,2019), there is a strong need to overcome the complexities that arise in implementing local procurement plans.

Research conducted by CIRDI, Mining Shared Value (MSV), and Engineers without Borders (EWB) (2017) found that a fundamental barrier to implementing a successful local procurement strategy is to find local suppliers with sufficient capacity (Durant et al., 2016; Nickerson et al., 2017). Mining companies, particularly those registered on the foreign stock exchange, must follow specific domestic and international standards and requirements. For example, the companies must adhere to International

Organizations for Standardization (ISO) standards and International Finance Corporation (IFC) standards if they have funding from the IFC or from banking institutions that endorse the Equator Principles. Those requirements and standards create a huge gap in collaboration between extractive companies and local SMEs to meet the needs of the mining operation (Nickerson et al., 2017).

Secondly, the financial and technical capacity of existing local suppliers is another challenge of successful local procurement. The research by CIRDI, Mining Shared Value (MSV), and Engineers without Borders (EWB) (2017) notes that many local companies that participate in the tendering process tend to submit incomplete bids that fail to address required technical specifications and information. Although such companies are not sufficiently equipped to carry out the bids successfully, they express a willingness to do anything, while their education, certifications, and experience clearly indicate that they are not ready. Furthermore, suppliers from local communities often lack sufficient cash flow to complete contracts (Nickerson et al., 2017).

Thirdly, another significant difficulty is communication. Local SMEs are more likely not to have technical access to receive information regarding ongoing and upcoming tenders and opportunities for business co-operation. Moreover, there maybe lack of communication between mining companies and communities about which kinds of products and services can be sourced from local SMEs. In this respect, local SMEs tend to be left out of economic opportunities to supply potential goods and services that can be produced locally, while mining companies look for the goods and services from other markets (Baraka, 2017; Nickerson et al., 2017).

In order to overcome these challenges, mining companies need to “create, capture, and deliver value to a broader range of stakeholders than just shareholders (through a return on their investment) and host

governments (through taxation and royalty payments)" (Dunbar et al., 2019). Dunbar et al. argue that the mining industry needs to be situational and iterative and to recognize the importance of formulating a competitive strategy.

To implement local procurement strategies, mining companies need to be committed in terms of resources and timeline. Local businesses, in most cases, tend to be small and medium enterprises (SMEs) that require a series of training and development programs to enable them to compete with foreign suppliers and work more profitably.

In order to do so, a company's business and local procurement strategies should be aligned with the development plans of the host communities. If the strategy is planned and implemented carefully, purchasing locally sourced goods and services can create more value than the mining company's local employment and community development investments (Geipel, 2017; International Finance Corporation, 2011; Ovadia, 2014; Ramdoo & Cosbey, 2019). During an interview with Mining Shared Value, Ashlin Ramlochan, senior manager at Anglo America, stated that only 1% of the increase in local procurement by the company equals over 125% of their traditional global social investment programs each year (Mining Shared Value, 2015).

2.6 Summary of the Literature Review

The literature review shows that local procurement has increasingly been identified by academics, practitioners, international organizations, and mining companies to be a powerful tool with the potential to support mining companies in creating shared value with communities, obtaining a social license to operate, and contributing towards the sustainable development goals (SDGs). Furthermore, in most

cases, if it is managed and implemented appropriately, it has a larger economic potential than the traditional payments (e.g. taxes, loyalties) from the extractive industry.

A successful long-term local procurement initiative is, therefore, widely recognized as beneficial for both extractive companies and the host communities. From a community and host country's perspective, local procurement creates employment, transfers technologies, and promotes domestic economic opportunities. Although local procurement tends to require a real commitment and time from extractive companies to support local suppliers to become more competitive and profitable (International Finance Corporation, 2011), companies may also get the benefit of maintaining their social license to operate (SLO) and, potentially, reduce overall operating costs in the long-term (Geipel, 2017; World Bank, 2012).

Although local procurement has been well justified, there are research gaps that the review of the academic and grey literature identified. The primary research gap is that, although many practitioners recognize the importance of local procurement more broadly, there is not an existing approach that can guide mining companies to define "local," and to identify and overcome the challenges of procuring local, in Mongolia. This gap represented the foundation for the **research question** to be investigated within this MASc thesis as defined in Section 1.3:

- *How can mining companies develop their local procurement strategies in Mongolian regions where businesses and services are limited?*

Through this review, it was found that even though local procurement is widely referred to as the "purchase of goods and services from local businesses," there are significant variations in defining

"local" across different actors, i.e., academics and practitioners, international/development institutions, and mining companies. In the literature, there is no globally accepted definition of "local", it is rather defined variously across countries. On the other hand, there are also three fundamental measures that should be considered when defining "local," i.e., geography, value addition, and ownership. Finally, a mining company's definition of "local" procurement relies on where its operation is taking place and who its stakeholders are.

Subsequently, the author found that the challenges in the implementation of local procurement strategies, and the strategies to overcome the challenges or obstacles, are also dependent on the region. Based on these literature review findings, the **overarching goal** of this thesis is as follows:

- *Develop a local procurement framework specific to the rural context of Mongolia, where existing businesses and services are limited.*

The **specific objectives** are:

1) To define "local" in the context of the study region;

2) To address challenges related to local procurement in mining regions of Mongolia;

3) To identify strategies to overcome obstacles related to the current and future implementation of local procurement in mining regions of Mongolia;

4) To identify impacts and benefits to the local communities and mining companies.

A clear definition of "local," an understanding of the challenges, and, consequently, a successful inclusion of local procurement strategies along with sustainable business practices has the potential to

foster a wise, continuing, and long-lasting use of the finite and limited natural resources for modern human societies to thrive, evolve, and even survive.

Chapter 3: Research Methodology

3.1 Introduction

The mining industry plays a crucial role in Mongolia's economy, and the industry is alone responsible for 23.7% of the national GDP and 26.13% of the national budget revenue. The traditional economy consists of animal husbandry, mainly nomadic herding, an important traditional economic and cultural activity. In recent years tension between herders and mining has been seen in some parts of the country.

This research uses a case study approach examining Erdene Resources Development, hereafter cited as Erdene. This is a Canadian-based resource exploration company with over twenty years of experience in Mongolia, particularly in the Khundii gold district (Figure 3.1). The company participated in the voluntary Code of Practice for responsible water use initiative in Mongolia run by the International Financial Institution with funding from the Government of Canada and other international funders, including the International Council on Mining and Metals. Through the IFC's voluntary Code of Practice initiatives, the company has met with the author's supervisor Dr. Nadja Kunz. The company expressed a research partnership, which led to research projects being carried out in three phases. The author participated in the research in 2019 and 2020 (see below for reports).

Fraser, J.; Bat-Erdene, Z.; Kunz, N. (2019). *Engaging Communities of Interest to Secure Input to Mine Design Decisions: A Research Report*. The University of British Columbia: Vancouver, Canada.

Fraser, J.; Bat-Erdene, Z.; Kunz, N. (2020). *Starting local: Creating value from mining in rural communities. A Research Report.* The University of British Columbia: Vancouver, Canada.

In addition to the long-standing research partnership, Erdene was chosen as a case study because the company has committed to increasing the project's benefits and sharing them with the surrounding communities. The management of the company holds the philosophy of creating shared value, which aligned with the author's research interests. Now that Erdene is moving from the exploration to the development phase, the company is positioned at a critical moment to implement a local procurement initiative that may fulfill its commitment to communities.

Bayan Khundii will be the first commercial mine in a region that may see some significant growth and development in the coming years. Also, the project is representative of the geological prospect of the Gobi area, known as the last untapped mineral reserves in the world.

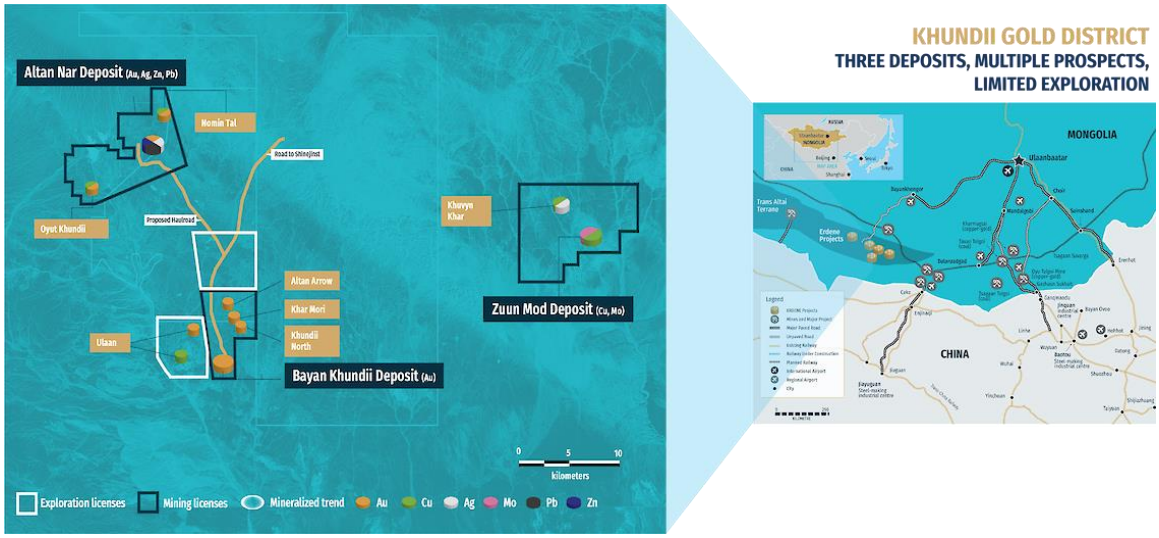

Figure 3.1 Khundii Gold District (Erdene Resource Development, 2020)

Twenty-four semi-structured interviews were conducted to collect primary data. A field work was scheduled between February 14th – April 16th, 2020 to visit the case study region, i.e., Erdene's mine site in Bayan Khundii and the Mongolian capital city of Ulaanbaatar, UB (Figure 3.2), to conduct these

interviews in person. However, due to travel restrictions during the COVID-19 pandemic, the author shortened the trip (February 14th -March 18th, 2020) and limited the field visit to UB, where six of the interviews were conducted in person. The research team decided to conduct the remaining eighteen interviews over Zoom and by VOIP telephone.

During the field visit, in addition to the six interviews described above, the author spoke with approximately fifteen people with expertise in the mining industry, procurement, and local community engagements. Some of these individuals were acquaintances with whom the author previously studied at the Mining School of the Mongolian University of Science and Technology and former colleagues from Mongolian Mining Corporations and other mining companies. The remainder of the individuals were identified through a snowballing strategy. Unlike the aforementioned twenty-four interviews, those meetings were not formal interviews which followed the designed interview questionnaire, but were rather conducted to understand the existing context of the case. These informational discussions were, valuable for the research, as they provided additional local-level knowledge to position the Erdene case study within the broader Mongolian context and to triangulate the main findings from formal interviews.

Figure 3.2 Bayan Khundii project's location (source: Erdene Resource Development, 2020)

3.2 Selection of Research Methodology

Research design is a comprehensive plan for data collection in an empirical research project. One of several approaches to perform qualitative research is a case study.

The case study approach has been investigated since the early 1900s. The first approach in social sciences flourished in the 70s as a "special case" of experimental, statistical or comparative methods (Morgan, 2015). The use of case studies for building and testing social theories has increased in recent years because a significant number of researchers have argued that the social sciences rely too heavily on quantitative research and formal models (Bennet & George, 2005). To address this gap, attempts have been made to develop and refine rigorous methods for using case studies.

A case study is *"A strategy for conducting research that involves an empirical investigation of a particular contemporary phenomenon within its real context using multiple sources of evidence."* (Robson, 2002).

A case study can be exploratory, explanatory, or descriptive (Table 3.1).

Table 3.1 Types of case study (source: Kahkonen, 2014)

	Exploratory	**Explanatory**	**Descriptive**
Aim	To define questions and hypotheses for a subsequent study, or to determine the feasibility of the desired research procedure	To explain how events happened by comprising data based on cause-effect relationships	To present a complete description of the phenomenon within its context
Questions	How, Why	How, Why	Who, What, Where

This thesis uses an exploratory case study focused on both the process and the outcome, asking: "How can mining companies develop their local procurement strategies in Mongolian regions where businesses and services are limited?" In order to answer this question, the research investigated: "What is going on here?", "Who is doing what to whom?", "How are they doing it?", and, for the outcome, "whether or not something worked out."

The strength of the case study approach lies in its potential to bring together various research methodologies, including quantitative and qualitative methods, to produce empirical knowledge from which researchers can draw analytic generalizations as a final output while contributing to additional investigations (Yin, 2015).

An important advantage of the case study as a research method is that it investigates a phenomenon in its actual context (Yin, 2015), drawing out personal meaning suitable for expansion through external data,

unlike the use of quantitative methods that can be perceived as dry, abstract, and narrow (Platt, 1992). A limitation of the case study research approach is that it *"lacks the strength and depth to provide reliable outcomes for the ability to make broader generalizations"* (Abercrombie, Hill, & Turner, 2015). When interpreting findings from case study research, it is therefore important to be mindful of this limitation.

3.3 Selection of Case Study

The aim of this research is to study a proposed mine to be located in Bayan Khundii (Figure 3.2) and owned by Erdene Resource Development – hereafter referred to as "Erdene" - which is in the process of transitioning from exploration phase to mine development phase. Erdene's deposits are located in the Edren Terrane within the Central Asian Orogenic Belt, which hosts some of the world's largest gold and copper-gold deposits (Figure 3.1).

The Bayan Khundii project is located about 70 kms to the nearest community, Shinejinst Soum. Shinejinst Soum has a population of 2450, and most of the populations earn their livelihood from nomadic herding of goats, sheep, and camels. Shinejinst soum is located 270 kms from the province capital Bayankhongor, and 900 kms from the capital city, Ulaanbaatar. From the province capital Bayankhongor to Shinejinst, there is no paved road. The Erdene's Bayan Khundii project is transitioning from exploration phase to mine development phase, integrating the planning of local procurement strategy, and working with the remote community of Shinejinst.

3.4 Research Design

The research design is broken down into four phases: Preliminary Research, Interview Questionnaire Design, Data Collection, and Data Analysis (Figure 3.3). These steps are iterative in nature, thus this is

not a linear process, though the designing of the research questionnaire was not changed as a result of the consecutive steps.

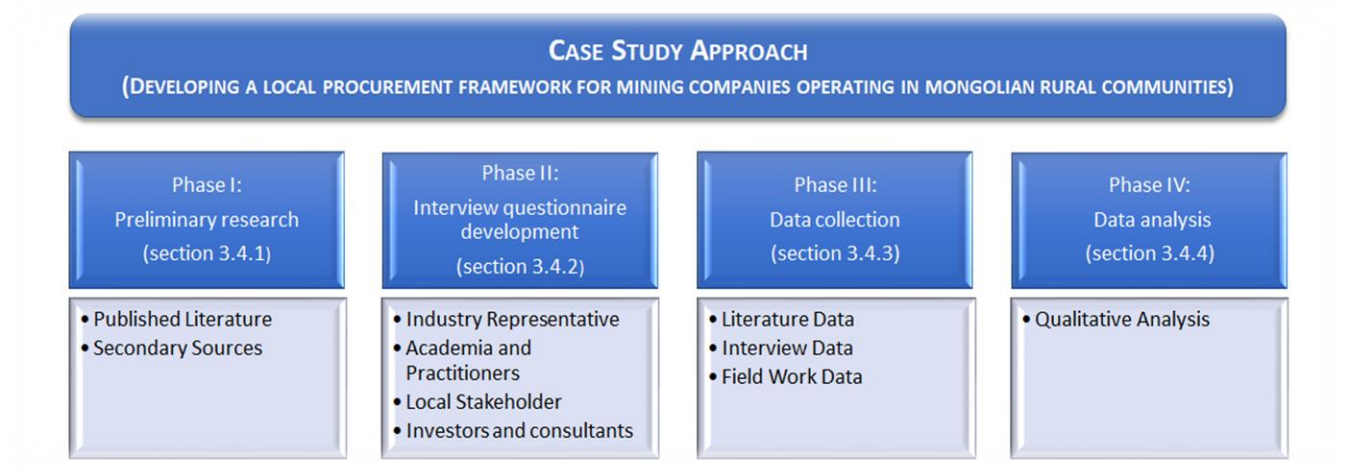

Figure 3.3 Research methodology overview

The research employed a case study approach, collecting primary source data through interviews with N=24 participants. The author conducted the field study and analyzed the data based on grounded theory. More on each phase is explained in greater details in the following sub-sections.

3.4.1 Phase I: Preliminary Research

Phase I consisted of a systematic and diagnostic literature review of existing published and grey literature regarding local procurement initiatives. The literature review was completed using the following sources:

- University of British Columbia Library (books, journals, and grey literature)
- University of British Columbia Library online journal databases (urban, community, and regional planning; mining engineering; psychology; economics; epidemiology; and sociology)

- World Wide Web (Google scholar, mining companies' websites, municipal, state and federal government websites, relevant blogs, and news media)

Other sources included the Erdene Resources Development website and corporate materials, as well as online and print news associated with the case study communities and operations.

The literature review helped the author to frame and define the research question through the process of understanding, meaning-making, and transmitting information pertinent to the topic of interest.

3.4.2 Phase II: Interview Questionnaire Development and Sampling Strategy.

Phase II is based on the literature review and consists of developing four sets of semi-structured questionnaires used to guide individual interviews. These four categories of interview questionnaires targeted four different groups that represent differing perceptions, experiences, and interests. One set of questionnaires was developed for industry representatives, the second set for academics, the third set for local stakeholders, and the fourth set for investors and consultants.

The first three sets were developed in English and then translated into Mongolian, while the fourth set was only used in English without translation. The original versions of the questionnaires are provided in Appendix A.

3.4.2.1 Sampling Strategy:

Twenty-four interviews were conducted. Ten interviewees were identified through Bayankhongor aimag's database on small medium enterprises, Shinejinst Soum's registered small and medium business owners, accessible data from the Shinejinst's Governor's office, and through experts in the mining

industry. An additional fourteen interview participants representing industry, academics, local business owners, investors, and consultants were identified through snowball sampling (i.e., the initial interview subjects were asked to connect potential participants).

The mining business contacts and scholars were contacted prior to the fieldwork through a letter of initial contact (Appendix B). During this phase, the researcher requested that the initial participant to pass the request for interview letter to the snowball contact themselves on his behalf. All interviewees were infomred of the consent in written and oral forms (Appendix C). Interviewees representing industry are identified as participants # 1 to 8 and correspond to workers employed in the mining industry located in Mongolia and abroad. In all the cases, these employees are actively involved in local community relationships and procurement policies.

The criteria used to select industry participants (N=8) was based on their professional experience, the companies that have local development agreements with local communities, also that they represent a company that have an overall positive reputation. In this respect, the author identified local informants early on during the preliminary research as a means to gain access, information, and ongoing feedback. The criteria used to choose interviewees representing academia (N=2) were people with experience in a field of research related to sustainability and community engagement.

The criteria used in this research to select local stakeholder subjects (N=10) was based on a list of registered businesses in the study region. Participants # 11 to 20 encompassed local merchants (small and medium enterprises, SMEs), local government officials, and local NGOs from the study region.

The final candidates (N=4) represented investment banks and/or socio-economic impact assessment consultancies. Participants # 21 to 24 have specific experience and knowledge regarding mining development in Mongolia, socio-environmental assessments and Erdene Resources Development.

3.4.3 Phase III: Data Collection: Interviews

In this research, the comprehensive data collection was based on the literature review, the qualitative interview data, and one field trip to Mongolia from February 14, 2020, to March 18, 2020.

The research employed a semi-structured interview method to obtain in-depth information on an individual basis about perceptions and concerns related to mining local procurement in the case study region abiding by the ethical approval H19-03695 as per the University of British Columbia's Behavioral Research Ethics Board (BREB). The certificate of "Minimal Risk" was granted for the proposed research design.

The field study mentioned above was intended to observe local capacity and response in mining sites and communities; however, it was interrupted by the global pandemic COVID 19. Therefore, the research team decided to conduct online and phone call meetings which lasted from 30 minutes to 2 hours per interview. A total of 24 recorded interviews were then transcribed into Microsoft Word by the author, and those interviews in Mongolian were translated, and these Word files (.doc) were imported and analyzed using NVivo software, the details of which are described below in Section 3.4.4.

The data collected was qualitative, seeking to understand the issue from the participant's perspective. The interviews were recorded on a voice recorder, which does not have any transmitting capacity through a network connection such as Bluetooth, and a wireless network for any potential data leakage

or loss through those networks. All interviews were transcribed and translated by the author for coding analysis using NVivo (QSR International, 2009). All the recordings are deleted after they are transcribed and are kept on encrypted files on secure UBC servers. Any hardcopy data is stored at the University of British Columbia for five years in a locked cabinet in the office of the research supervisor, Dr. Nadja Kunz.

3.4.4 Phase IV: Data Analysis

The research used grounded theory in analyzing the data. The grounded theory is defined as an inductive method in which the researcher seeks patterns in the data that lead to theory development (Glaser & Strauss, 1967). Although in this research, the author did not use it to develop a theory but rather used it to develop a framework.

The ground-up procedure is also advocated by Yin (2015), as the case study would require careful analysis of the qualitative data thus would benefit using the inductive process. Analysis of qualitative data is not a structured, static, or rigid process. Indeed, it is a free-flowing and creative process in which researchers need to move back and forth between types of coding, using analytic techniques and procedures freely and in response to the data being analyzed (Strauss and Corbin, 1998b).

The qualitative analysis includes the coding of semi-structured interviews and fieldwork notes. This investigation also provides an overview of the data management and analysis methods with the use of the NVivo version 12.0. The coding process of labelling and organizing the qualitative data helps to identify different themes and the relationships between them (Figure 3.4).

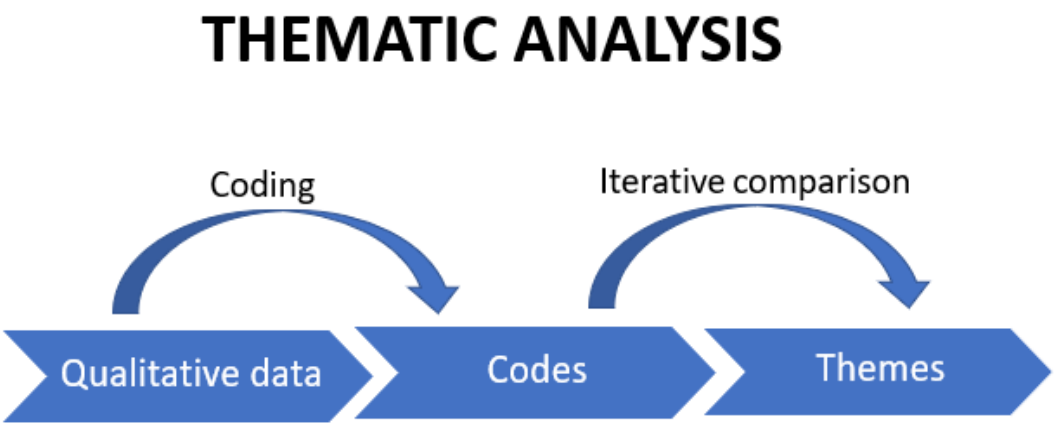

Figure 3.4 Thematic analysis (adapted from: Rosala, 2019)

The research used the key questions from the interview as the basic structure for the data analysis. Those four main questions are: 1. Defining "local" procurement, 2. Identifying challenges, 3. Strategies to address the challenges, and 4. Impact and benefits. The qualitative data that were categorized under each of these main themes further broken down into eleven attributes, which will be further discussed in Chapter 4.

Chapter 4: Analysis and Findings

4.1 Introduction

Chapter 4 explores the findings from the qualitative data analysis of the twenty-four interviews with the use of the NVivo12 software (QSR International Pty, version 2018) . This exploration is carried out by associating data in *nodes*, which are collections of references to a specific theme. The qualitative data of the interviews is then structured into four main themes/nodes below, which are consistent with the overarching research objectives of this thesis, i.e.:

1) Defining "local" procurement;
2) Identifying challenges;
3) Strategies to address the challenges;
4) Impact and benefits.

These themes have been further broken down into 11 attributes (Figure 4.1) based on their common characteristics or dissimilarities.

Figure 4.1 Main themes and their attributes

As an example, Research Objective 4 (Impacts & Benefits) was divided into two sub-attributes determined that surfaced as common themes or nodes across the qualitative interviews. These sub-attributes, "Community Benefits" and "Company Benefits," refer to the perceived recipients of the Impacts & Benefits. More of these sub-attributes are discussed in the following sections.

4.2 Theme I: Defining "local" procurement.

A key goal of the data analysis was to identify how the interview participants define "local" in the context of the study region. As explained earlier in the literature review, defining "local" is an important aspect of the successful implementation of a local procurement strategy. The literature review found that there is no agreed-upon definition for "local" globally, and that this term is defined differently across countries. However, the World Bank and Kaiser (2015) suggest that three factors should be considered

when defining "local" procurement: geographic location, ownership, and value-adding. Interestingly, these factors also arose through the interviews, with the participants discussing a wide spectrum of options for all three factors: geographic location, value-adding and ownership. Firstly, industry representatives highlighted their preference to purchase goods and services from the businesses and individuals that operate in the region. On ownership, however, the interview data reveals that the industry participants do not focus on the factors of ownership and value-adding. Secondly, local stakeholders' perceptions of ownership were relaxed, however, on the value adding, they emphasized employment. Lastly, academic participants discussed the importance of mining companies purchasing goods and services available in the local *soums (*refers to local level administrative unit), as well as the *aimag* (refers to provincial level administrative unit) in which they operate. The following sections will discuss these findings in more detail.

4.2.1 Ownership

The attribute of "ownership" means that local and/or national residents own the business. In this case, industry participants shared that "ownership" criteria are considered by with some, while other businesses do not consider these criteria as long as the price is competitive and the quality and quantity meet their needs. All interview participants felt that, as long as the business creates jobs and the business license registration is with Mongolia or with the aimag, ownership is not a significant criterion to fulfill the "local" requirement.

> *"Some national companies have established their branch companies in the province and soums due to the standards and requirements of local procurement by mining companies. We consider*

those branch companies as local procurement as the employees are hired from the impacted communities and provinces, and a certain level of value is added locally."

"Participant 2 - Industry representative"

Local soum and aimag participants mentioned that locally-registered businesses that operate in the local community should qualify as local ownership because the business potentially pays taxes and employs locals.

"If someone comes to our aimag to produce and sell goods, it can be understood as local procurement because they create local jobs, pay taxes in the local area, and create more economic opportunities in the aimag despite the ownership. Of course, the owner gets the main profit, but he or she employs local people, and taxes get paid to the local government."

"Participant 11 – Local representative"

"I think the ownership of the factory is not important if the investment is absorbed in the aimag, jobs are created, taxes are paid, it is still a form of local procurement."

"Participant 12 – Local representative"

4.2.2 Value-adding

The attribute of value-adding refers to additional benefits beyond the transactional procurement process. In the words of the local community participants, the company's local procurement processes' value add comes from direct and indirect job creation and taxes.

"I have been running a local business that sells both locally-produced and imported goods. Of course, there are very few types of locally-produced products, such as bread and bakery. But I still create jobs and pay the taxes."

"Participant 15- Local representative"

Participants' responses differed in considering the imported goods as a value add, as some participants feel that it still creates jobs and taxes. In contrast, some participants think imported goods should not be considered local procurement. Company representatives agree with this view in theory, as an ideal, but indicate that it is often impossible to find value-added products and services due to the lack of community capacity and market size.

"I do not think simply imported products from other places should be considered as local procurement. Selling the imported good does not create jobs; this is a way that one to two people make a profit for the short term. So, it is a bit hard to say that it is local procurement."

"Participant 19 – Local representative"

"Whereas purchasing products from our company would be considered as local procurement since our company does everything locally, such as planting, harvesting, and selling, etc., I do not see it as local procurement if someone brings any product and resells it to the mining companies. Because it does not add any value to our aimag, it does not create jobs; it is just a product that sells for a profit."

*"**Participant 16 – Local representative"***

The interview participants suggested that companies need to establish categories representing different levels of local participation and value add. This is important because not all "local" procurement has the same impact. However, with planning and investment in local business and capacity building, more local products and services emerge, according to some examples from the community.

> *"In terms of value-adding and ownership, it is nice to purchase value-added products from soum, but there are not so many products available. Our company is open to cooperating with anyone who owns the local business, as long as the price is competitive, and quality and quantity meet our needs."*
>
> *"**Participant 3 - Industry representative"***

4.2.3 Geographic location

The attribute of the geographic location identified that all participants agreed that the soum level is "local" in terms of geography. Thus, a purchase from the "soum" is considered to be a local purchase. As was discussed in the method section (*Монгол Улсын Засаг Захиргаа Нутаг Дэвсгэрийн Нэгж Түүний Удирдлагын Тухай Хууль*, 2006) soum is the second level of the administrative unit in Mongolia. Soums (Level 2) are further subdivided into baghs.

In addition, there are many permits and licenses that need to be obtained from the aimag, thus requiring mining companies to collaborate with the aimag to some extent. Interview participants suggested that, if the project is small, the company should create its local procurement at the aimag, where the local suppliers are more established than the soum suppliers. The aimag would open up opportunities to the

mining companies as the soum's market is small and mostly limited to meat, milk, and potatoes on a seasonal basis.

> *"First of all, I think, local procurement is a process of purchasing the needs of the mining company's employees from soum—including groceries, fruit, vegetables and drinking water, etc."*
>
> ***"Participant 14 – Local representative"***
>
> *"Local procurement is the purchase of products from the soum in which we operate. However, we purchase directly from UB through our procurement team if we cannot find our needs from the soum. Generally, our company prioritizes the soum first. As you know, procuring goods and services from the soum is very limited. We purchase meat, dairy products, and some sort of vegetables."*
>
> ***"Participant 3 - Industry representative"***

Participants from both soum and aimag also verify that soum could offer products and services. However, aimag businesses, given the larger market, would have more capacity to serve the mining business. Also, the "soum" belongs to the "aimag," meaning that many local participants from aimag justify that it is their territory in which the mining company is conducting the business, thus obliging the companies to purchase from aimag businesses.

> *"Well, local procurement is a process of purchasing goods and services from the area where the mining activity is taking place. Generally, local means soum according to our administrative structure. However, I would say aimag is also local because soum belongs administratively to the aimag. In this specific case, I think the company should prioritize the aimag (referring Bayankhongor aimag) level business because of the economic situation, local capacity, and*

skills. There are more realistic local businesses in the aimag. For the soum, it might be possible to supply the mining company's meat supply, vegetables, and some sort of groceries. However, it might be challenging for soum citizens to meet the company's health and safety standards, since there is no meat factory and dairy plant. Local people can supply meat and dairy products that are prepared traditionally. I suppose the mining companies require some qualifications from the suppliers because the companies are responsible for their employees' health. Therefore, aimag-level businesses can meet the mining companies' requirements and standards. So, I think it might be a better option for both the mining companies and aimag-level businesses."

"Participant 11 – Local representative"

Although suggestions to include businesses from elsewhere in Mongolia were made by some, most participants suggested that these would not be considered "local" procurement, but would instead be considered "national" or "domestic" procurement.

4.3 Theme II: Identifying Challenges

Principle challenges to local procurement identified by the participants were classified into three issues: the "lack of awareness and absence of relationship," "bottlenecks of standards," and "characteristics of the local market."

4.3.1 Lack of Awareness and Absence of Relationship

Participants shared that the "lack of awareness" of commercial mining among local suppliers is one of the main challenges to building effective local procurement initiatives. This lack of awareness is perceived differently by the industry participants versus local community participants. The industry

participants' concerns of this unawareness of the local community and businesses paralleled with their concern of negative impacts left behind by the region's artisanal and small-scale miners. The artisanal and small-scale miners have had conflicts with local herders over the pastureland and diverted and polluted the surface water for their operations. Thus, the industry participants framed the unawareness in the context of "responsible mining project" and "commercial mining project."

> *"As I said before, they do not know about the potential opportunities that arise from the responsible mining projects. I think the main challenge for them is that they do not know what to do and how to do it."*
>
> ***"Participant 4 – Industry representative"***

On the other hand, local community participants confessed to a lack of knowledge about emerging opportunities or the types of goods services that mining projects require. Moreover, the locals perceive that the artisanal and small-scale miners did not create socio-economic benefits.

In addition, a participant who runs a local business shared that they were never asked or invited to participate in mining business tendering processes and did not know how to work with the mining business.

> *"The main challenge is that we do not know much about what mining projects are and what they purchase. We lack information. If we have enough information, we can increase our types of products. For example, we produce 2-3 types of noodles, and, because of the small and limited market, we cannot increase our volume and diversify our products. I hope mining uses noodles*

> *for their food, if they do not like our noodles, we can change. We can produce different noodles based on the mining company's needs."*
>
> *"**Participant 12 – Local representative"***

The "lack of awareness" shows the local business owners perception that given the information and opportunity that they too can partner with the mining companies. This attitude among the local participants had diverse range of attitude towards collaboration with the mining companies, from willing to learn more to willing to engage.

> *"We can diversify our business and expand accordingly, if they provide information about collaboration opportunities, including what types of goods and services they may need. People's attitude changes, even though they do not like the mining. We might change our mind if they keep providing us with information."*
>
> *"**Participant 16 – Local representative"***

The perceived lack of effort that the mining business makes to establish a relationship with locals and provide information also interpreted negatively within the local community. Some local participants mentioned that they want to receive a fair share of benefit by participating in the business and economic opportunities from the mining projects operating in their traditional territories. They said that mining companies do not share sufficient information about potential opportunities. On the other hand, the industry participants shared their company's experience with potential hostility from a local business. Their experience was that a local business owner violated contractual terms and conditions multiple times, which led to the cancelation of the contract. That local business owner initiated a negative discussion about the mining company in the community.

The mining company's approach of directing locals to their "website" is not regarded as effective, as the locals feel social media and in-person meetings are more suited to their way of life, which is not integrated into practices of the mining businesses.

> *"There is no information about business opportunities from both mining companies as well as local government. If we have more information, we will research more business opportunities to work with mining companies. There are various ways to provide the information, such as social media, local press, or printed materials. Some companies say that everything is on their website, but it is not an effective way, I think. Why do they not organize an open-door event to find potential suppliers from the community? I do not think they have an office in the province, and if they have an office, we can go and get information. But they do not have it."*
>
> ***"Participant 20 – Local representative"***

In summary, industry interviewees suggested that the local community is unaware of the benefit that responsible mining can provide. On the other hand, the local community felt that mining companies do not do enough work to share information and build relationships with the local businesses. The lack of awareness reflects the absence of a relationship between the two main stakeholders, mining businesses and local business owners.

4.3.2 Mind the Standards

Participants from the mining business shared that the standard practices of the mining business and widely accepted practices of contractual responsibilities, international standards, and requirements set for their suppliers are often not known or honored by local business owners. Though the standards of

health, safety, timeline, quality, and quantity are critical to the smooth operation of the mining practice, they are also a key barrier to increasing the participation of local businesses in the supply chain.

> *"Suppliers and vendors do not meet the standards, even the minimum standards. Also, they just follow what they say, and they do not follow the commitment."*
>
> ***"Participant 8 – Industry representative"***

At the same time, participants from the local community share that the standards mining companies require are not common practice in conducting business in the local market and are unrealistic for local businesses. Furthermore, standards are sometimes understood as a "polite decline," meaning that mining businesses are not genuine in their desire to work with the local community and use the requirement of international standards as an excuse not to partner.

> *"Honestly speaking, if they will not provide training, guidance, and support to us by giving any project, no matter if it is small or large, we can never meet their qualifications, because the mining companies require too high standards. Of course, it is easier for them to work with already-established national suppliers. I think this is because they simply do not want to work with us. On the other hand, we might not see the opportunities, because we have no experience working with mining projects. It is true that we cannot meet the requirements*."
>
> ***"Participant 13 – Local representative"***

To summarize, mining company standards are acknowledged as a barrier to local businesses by most participants. Somehow, the local businesses' way of doing business is faulted by participants from the industry. Although local business owners acknowledge their limitations, they share that, if they are

provided with the opportunity and training on this standard, they, too, can offer products that meet the mining businesses' needs.

> *"It depends on the mining project's genuine interest; if they really want to create value in our community and build capacity, it is not impossible. If they are just pretending to work with us, the outcome is zero. If they really try and make efforts, we also try our best. Together, we can solve many problems."*
>
> ***"Participant 12 – Local representative"***

4.3.3 Characteristics of the Local Market

All participants shared their descriptions of the local markets. Although most participants felt that the local market's existing capacity was somewhat deficient in collaborating with the mining business, local businesses exist and have served the community for a long time.

> *"Well, obviously, there is a lot of challenges because of our industry development, economic diversification, remote location, small populated communities with limited infrastructure and business opportunity, etc. For my own business, I have been running successfully for the past 15 years, producing foodstuff including different bakeries, bread, noodles and so on that are very popular in the province."*
>
> ***"Participant 20 – Local representative"***

Local businesses representatives shared that they have been serving their community, and they prepare the noodles, baked goods, and sausages in the ways that their customers like and supply goods and services based on market demand. The perception of local businesses' lack of capacity is the attitude that

most participants disclosed, including the industry representatives, academia, local representatives. On the other hand, there is a perception that local businesses are not given the opportunity to try serving the mining company. As one participant from the local community shared:

> *"Give us like 10-15% of their total uniform for the first time. We then gradually increase our skill set, equipment, and volume. If they still think we cannot meet their quality standards, they could ask the sewing company where they currently purchase the rest of their uniforms to train a few of us. Then it would be easier for us, since we know the material and quality standards. Once we are experienced, it would be easier for the mining company just to call us, and we produce and deliver very soon."*
>
> ***"Participant 14 – Local representative"***

This comment includes a specific model of collaboration proposed by a local business owner that, on the one hand, shows awareness of the local businesses' existing capacity, and, on the other hand, a businesslike attitude to collaborate with the mining business.

In addition to the remote location, small population, limited infrastructure, and socio-economic context, political discourse in Mongolia is also important to consider. Participants shared that local politics is an important factor that influences power dynamics and that it is a relationship that concerns all businesses. Sometimes changes in politics can come in the way of changes in personnel or via rules and expectations from the local governments.

> *"Also, there is another challenge related to local politics. It is very hard. For example, the Mongolian People's Party has been governing for the past four years. We agreed upon many things with the*

mining company to support our local business and community development. This year is an election year, and I wonder if our party, the current local government, can constitute the majority of the citizens' representative council. In that case, the proposed collaborating projects with the mining project can be continuing. However, if the other party comes into power, they will change some or most of the initiatives that impact our business and community development opportunities."

"Participant 17 – Local representative"

4.4 Theme III: Strategies to address the challenges

Participants discussed various factors and strategies that could help overcome the challenges of implementation and future implementation of the local procurement. These strategies are categorized into three parts: 1. Increase and improve communication and engagement, 2. Enable access to local business, and 3. Build local business capacity.

Local participants indicated interest and willingness to learn about mine supply opportunities and to participate in supplying the mine. The existing local business structure, culture, and capacity have been successful in serving the community. However, with the proposed mining operation, local businesses are looking for the opportunity to expand, learn, and grow with the mining project. This provides an excellent opportunity for the mining project to build relationships and partner with the local community.

4.4.1 Communicate & engage

One of the fundamental gaps in building a successful local procurement program is the lack of awareness, knowledge, understanding, and relationships (4.3.1). Interview participants suggested that information sharing, communication, and simply getting to know each other was important. A

participant from the mining industry emphasized the importance of building relationships with the local people and authorities, having a local office and a local team to provide information, and being transparent.

> *"The company should meet local business owners, economic development officers, local elected officials and, other local stakeholders to talk about their interests and potential opportunities for collaboration. That feedback will help to refine the local procurement strategy."*
>
> ***"Participant 1 – Industry representative"***

One of the local community participants said that information from the local government as well as the industry (mining company) is not sufficient. Suggested communication platforms included Facebook, mobile texts, local radio, local walk-in offices, and support centers where local businesses can get information from the mining company. These are often not the channels that mining businesses use in the Bayankhongor context, according to the participants.

> *"Communicate with us, invite us to their office, call us, or just send us a text. This is how two-way collaboration works. If you communicate with us, we can work together."*
>
> *"**Participant 15 – Local representative"***

The process of communication, consultation, and engagement channels prescribed by the local community is advised to be adopted by the mining company. A few representatives from the mining industry have shared that forced, mandated, and simulated approaches are less productive than the approaches of information transparency and meaningful consultation that is sensitive to cultural nuances. In addition to assisting with the application for tender, another company representative shared that it is

important that local businesses that do not win the contract need to have the opportunity to understand the reasons for their failure. The participant further illustrated that this feedback is key to building genuine trust with the community and reducing speculation and false accusations among the local businesses on the mining businesses' intent to collaborate or the process of procurement.

4.4.2 Enable access for the local businesses

All participants emphasized the need to have easier access to the local small and medium businesses to apply for the contract from mining companies. The local participants described a range of businesses, from a factory that has been operational for over twenty years and a grocery store that served the community for eight years to potential local entrepreneurs. The access and opportunity for small businesses to engage with the proposed mining project is identified as the major hurdle for the mining business.

An industry participant shared their business design that enables a local business to participate in the supply chain.

> *"For example, we offer some supportive programs such as a loan with flexible payback period, long term contracting opportunities, we require our contractors to employ workers from both local communities, we ask them to provide training for their local workers. This is a good strategy because, initially, local workers and local businesses do not have professional experience and knowledge. If our contractors train their local workers professionally, they will be able to gain experience; eventually, they will be able to do their own business. We are enabling local suppliers and workers to partner with experienced national and international suppliers where they can learn everything. We include everything that is dedicated to supporting local content and procurement in our contracts with our contractors."*

*"**Participant 2 – Industry representative"***

Industry participants and the local community recognize the existing limitations and gaps in the demand and supply discourse. The tiered approach provides new and small businesses with access to their supplier network while gaining experience.

4.4.3 Build Capacity

The participants discussed various ways to build the capacity of local suppliers to meet extractive industry requirements and demand. This capacity-building initiative is framed in a wide range of contexts, starting with exposure of mining businesses, local exploration camp and extractive sites, the health and safety requirements that dictate technical specifications, tendering and/or contracting processes, and decision-making processes. In addition, according to the interviews, local businesses can benefit from improved capacity in financial management, human resources, marketing and production (quality control), and management.

"The biggest problem is that the local businesses do not have much experience of running a business. In other words, they lack business management knowledge. Without this, companies find it difficult to manage their finances as well as human resources and business planning. Our company had provided some technical and management consulting services via professional organizations in the past when we started our mining project in the region. Now we do not really provide this kind of training or business consulting services, because our suppliers are already aware of the standards and requirements that our company asks for."

*"**Participant 5 – Industry representative"***

As for the industry, the commitment to build relationships with local suppliers is important. However, the respondents from academia and the investor participants mentioned the need for companies to improve their capacity to respond to and collaborate with the local suppliers. This is especially critical at the early stages of mining projects, as this provides the opportunity for small businesses to benefit from the next stages of the mining operation and to build a long-term partnership that can be mutually beneficial.

Beyond a detailed understanding of the procurement process and how to participate in it, training efforts are needed to enable business owners to build a variety of skills. The local community participants shared the need to get formal training on "sewing," "management and quality control," "finance, human resources," and "health and safety."

When asked about the capacity-building initiatives, a few participants representing the industry shared that past lectures/workshops on business management held for the local community attracted delegated staff rather than business owners. In addition, the interviewees shared that, in the Mongolian rural community context, workshop attendees do not tend to ask questions in a group; instead, they prefer to ask the questions individually. As a result, after the lecture or workshop, there would be a long line of people wanting to talk to the instructor. It was felt that a more effective way to build business management capacity is to engage with the interested local businesses on an individual basis.

The issue of local businesses' financial capacity presented different perspectives in the interviews. Some industry participants expressed that local businesses are unable to acquire the financial means to advance and upgrade their capacity to serve the mines' needs when they are awarded contract opportunities. One

industry representative explained the challenge of building successful collaborations with local businesses as follows:

> *"First, we need to talk about the capacity of the local small and medium enterprises in the community. When we prioritize local suppliers from the community, there is an issue about their financial and workforce capacity. When they produce something for our company's needs, they cannot meet the quality and quantity. When we ask them to improve their capacity, they say there is an issue with regard to their equipment and tools; when we say to replace your equipment and purchase a new one, they say they do not have funding."*
>
> ***"Participant 8 – Industry representative"***

On the other hand, local business owners from both the soum and the aimag shared that funding to expand their businesses can be resolved through various means if they know what goods and services the mining projects need. Potential funding sources include investment from wealthy local herders, government grants for small and medium enterprises, and government funds for local development. In addition, a few mining companies also assist the local businesses to get collateral-free and low-interest loans from the financial institutions with which they collaborate.

> *"For the funding, each community receives about 300 hundred million tugrugs from the community development fund. In addition, there is another fund for supporting small and medium businesses. Everyone who is eligible and has a successful business project proposal can get some funds. This is how we support our small and medium businesses. So, I do not think we have a financial challenge for our small businesses as long as they reliable business projects."*

"Participant 14 – Local representative"

4.5 Theme IV: Impacts and Benefits

The potential outcome of the effective local procurement was framed by participants as impacts and benefits to the local community and the company. As discussed by participants, the local community's anticipated benefits are direct and indirect jobs, increased capacity of the local businesses, and improved market capacity. Participants' outcomes for the company were improved community relationships, reduced cost, and shortened delivery time. In the following two sections, local community benefits, as well as company benefits, are discussed.

4.5.1 Local Community: Jobs, Increased Capacity of Local Business, and Increased Market

The local community opportunities discussed by participants are divided into three main areas: jobs, increased capacity, and increased markets. The local community participants anticipated the most significant outcomes as direct and indirect jobs. The impacts of increased employment were enumerated as improved economy, talent retention, and improved quality of life for the next generation of the local community.

> *"I think the most important thing that I think of is local jobs. People will have jobs, which means they will have more sustained income. It is very important. They will have increased opportunities to develop their community. People can be more knowledgeable; eventually, they can contribute to the regional economic and infrastructure development."*
>
> ***"Participant 19 – Local representative"***

The local businesses lack capacity in the areas such as skills, experience, management, and quality control. For many local businesses, cooperation with the mining business through local procurement

initiatives is seen as a stepping stone to improve their local business capacity through exposure to collaboration. Local business participants also shared that they do not feel confident investing in their businesses without first engaging and collaborating with the mining company, as the local market is saturated with existing businesses.

> *"Local procurement would enable the local supplier to develop their current businesses and brings indirect job opportunities to the community, this eventually helps to build capacity. The quality of the products and services will also be improved because they will learn from their business. The mining companies and other customers will require [local suppliers] to produce high-standard goods and services. It is a great chance for them to strengthen their capacity, skill and experience. It is good that, if local people can increase their income as a result of local procurement, then they can contribute to developing their community."*
>
> ***"Participant 9 – Academia"***

The increased local market attribute includes the diversity, quality, and quantity of goods and services offered at the local market. In addition, gradual improvement in the infrastructure and human capital through talent retention and attraction is expected due to the successful local procurement program. Several local participant suggested that the job opportunities generated by local procurement could encourage the younger generation to stay in the soum rather than seeking jobs in the aimag and the capital city.

4.5.2 Mining Business: Cost Saving, Reduced Delivery Time, and Improved Community Relationship

Participants discussed a variety of opportunities for mining companies from local procurement. The most immediate outcome of a successful local procurement program was cost savings and reduced delivery time of goods and products. These are crucial indicators of an efficient local procurement program. The ability of local procurement programs to support social license considerations and improve the perception of mining within the local community is equally important.

> *"We also save some cost and time by having the suppliers within the community. Ultimately, a positive relationship with the local community helps us to maintain our rights to operate; we have almost no problem with the locals."*
>
> *"**Participant 2 – Industry representative"***

The interview participants reflected on different sizes, scales, commodities, and opportunities that might accrue at different stages of mining projects. Some participants shared that "responsible mining" and its input, in the forms of training, workshop, community engagement exercises, and initiatives, are translating into a positive relationship with the local community. Some participants from the mining industry also shared some failed experiences of engaging with local businesses, as the business culture differs drastically and expectations are not met.

> *"When we purchase ten work uniforms from the local community for the newly hired workers, the uniform must be ready on time because they cannot work without work uniforms. But the locals we hired say that they are still producing the uniforms and will have the uniforms ready tomorrow, but they delay again. This clearly shows that local businesses do not know about the*

> *contract obligations, I know some of them are trying to work with the mining project, but they really lack business ethics and morals."*
>
> *"**Participant 7 – Industry representative"***

On the other hand, local business owners feel that they can, with practice, training, and exposure, learn and gradually adapt to the standards and expectations of the mining project if they are given the opportunity.

The opportunities for the company from local procurement initiatives can yield outcomes of social license to operate while gradually increasing the cost savings and efficiency of the supplier network. However, the local procurement design and implementation requires careful consideration and planning based on the life of the mine, commodity, and scale of the mine in addition to the local context.

4.6 Summary of Data Analysis

In Mongolia, there is no formal definition of "local" procurement. Participants referred to the soum as the local territory based on the Mongolian Law of Administrative Unit. On the criteria of ownership and value add, participants from the local community emphasized the creation of employment. Participants from academia, industry and local business owners also offered views on the challenges of engaging with only soum businesses and provided a rationale for including the aimag and nationally-owned businesses.

In Bayankhongor, the absence of a relationship between local suppliers and mining companies is recognized as a challenge. Commercial mining is new to the region; thus, there is not much awareness of what kinds of business opportunities a mining business operation could bring to local businesses. In addition to the lack of awareness, there is not a direct business relationship between the local business and the mining project. Secondly, the issue of standards, requirements, and contracts creates challenges for both local businesses and mining businesses to create a successful partnership. The traditional expectations and experiences of the local businesses and mining businesses around the issue of standards and contracts differ, creating a large gap. Lastly, the local market's existing capacity to serve the incoming clients of the mining business is limited, requiring a proactive solution.

Table 4.1 Key summaries of the interview data

Themes	Attributes	Summary of key findings
4.2Theme I: Defining "local" procurement.	4.2.1 Ownership	The company's registration with the national or sub-national governments could qualify – but it is not expected. Ownership from outside of the soum or aimag is acceptable to all participants. However, regardless of who owns the business, the creation of employment is mandatory.
	4.2.2 Value-Adding	Direct or indirect employment creation is seen as the biggest value-add expected from the mining project and its local procurement initiative within the rural region. In addition to jobs, participants mentioned "tax," "improved capacity," and "improved infrastructure" as value-add from the local procurement initiatives. There were differing views on "imported" goods. Some held that reselling of imported goods would not count as value-adding, but others asserted that, as long as they create jobs, then they qualify as bringing value add to the community.
	0 Geographic Location	"Soum" is the territorial boundary for the "local" definition. However, participants from aimag, industry, and academia rationales that aimag could be considered "local" as soum belongs to

Themes	Attributes	Summary of key findings
		aimag, and aimag could meet some of the quantity and quality requirements of mining businesses. This rationale also was used for national businesses.
4.3 Theme II: Identifying Challenges	0 Lack of Awareness & Absence of Relationship	Interview participants, have all emphasized the lack of awareness within the local community regarding the mining business was limited if not in existence. In addition, within the case context of Bayankhongor, there was not a direct relationship between the local business owners and the mining businesses. Most of the perception in the local community is shaped through word of mouth, media, and artisanal mining.
	4.3.2 Mind the Standards	The national and/or international standards, terms of reference, contractual obligation, and requirements create a big bottleneck for the successful partnership between the mining business and local businesses. In the context of the local business culture, these are not often required; however, in the mining business, these standards and requirements are of utmost importance.
	4.3.3 Characteristics of Local Market	The case context is shaped by the remote location, which lacks strong infrastructural development and is not integrated into the road system. Due to the small population of the soum, the local businesses that serve it offer small quantities and limited variety. In addition, all participants emphasize the ripple effect of the political discourse on the soum and aimag.

Themes	Attributes	Summary of key findings
4.4 Theme III: Strategies to address the challenges	4.4.1Communicate & Engage	The existing communication platforms in the Bayanhongor include social media, text messaging, local radio, and in-person offices, as per the interviews with local participants. Companies in the case context often refer local businesses to websites. Some good practices shared from the mining businesses are local offices, information transparency, one-on-one assistance, and consultation on the application for tender. Feedback after the project for the successful and non-successful businesses is a critical engagement process for local procurement.
	4.4.2 Enable access to local business	The existing mining businesses' supply chain design makes it hard, if not impossible, for a local community member to qualify as a supplier to the mining business. However, there are various strategies that mining businesses implement which can make the local businesses to access the opportunities successfully.
	4.4.3 Build capacity	The local business needs to upgrade its capacity to meet the new client–mining business in the region. Expanding or building the capacity of local businesses can start with practical steps of granting small contracts to the local business, partnering the local business with bigger and established contractors that already have strong management, and facilitating the funding from

Themes	Attributes	Summary of key findings
		financial institutions to support local business with initiatives that can improve their capacity to meet the contracting requirements.
0 – Local representative" Theme IV: Impacts and Benefits	4.5.1 Community benefit	The local benefit is perceived as employment creation, improved capacity, and increased market capacity, as described by participants from the local community.
	0 Company benefit	All participants emphasized the benefit of the successful local procurement program for the companies as being improved social relationships with the community, and, with some consistent commitment to the program, the cost-saving and reduced delivery time would be achieved. Some companies mentioned the "social license to operate" as being the key benefit for the company.

A variety of solutions to most of the existing challenges were offered. However, it was noted that the lack of awareness and relationships between the local business and mining business would require ongoing communication and engagement. Participants shared both effective examples of communication and engagement, such as using platforms popular in the community (such as Facebook) as engagement avenues, and ineffective examples such as hall-style workshops and lectures. The challenge of standards also could be countered with innovative designs such as twinning local businesses with established contractors, dividing contracts into smaller parts, and simply sharing information and feedback with the local businesses on their unsuccessful bids. It was suggested that the challenge of a small market, and the limited capacity of the local community, could be partially offset by endorsing the financing applications from local businesses to financial institutions and lending agencies.

Interview participants felt that the greatest benefit to the community from a mining company's local procurement program would be highly concentrated on job creation, directly or indirectly. There was also mention of tax revenue, capacity building, improved access to the market, and induced benefits of talent retention within the community. The benefits for the company were named as cost savings and reduced delivery time, with the most significant benefit identified as improved community relationships or maintaining the social license to operate.

In the next chapter, author will discuss the highlights, implications, and potential recommendations concerning local procurement initiatives in the Mongolian remote communities with a small population of about 2500 to the industry partners.

4.7 Local Procurement Framework

The outcomes of the literature review were used to identify the research gaps and design the interview questionnaires. The interview data were then analyzed according to the four objectives guiding the research, i.e. the concept of "local" was defined (Section 4.2), challenges in the implementation of local procurement strategies were identified (Section 4.3), the strategies to address the obstacles were defined (Section 4.4), and the benefits and impacts for mining companies and local communities were described (Section 0). The overarching findings were subsequently used to develop a local procurement framework based upon the Erdene case study (Figure 4.2).

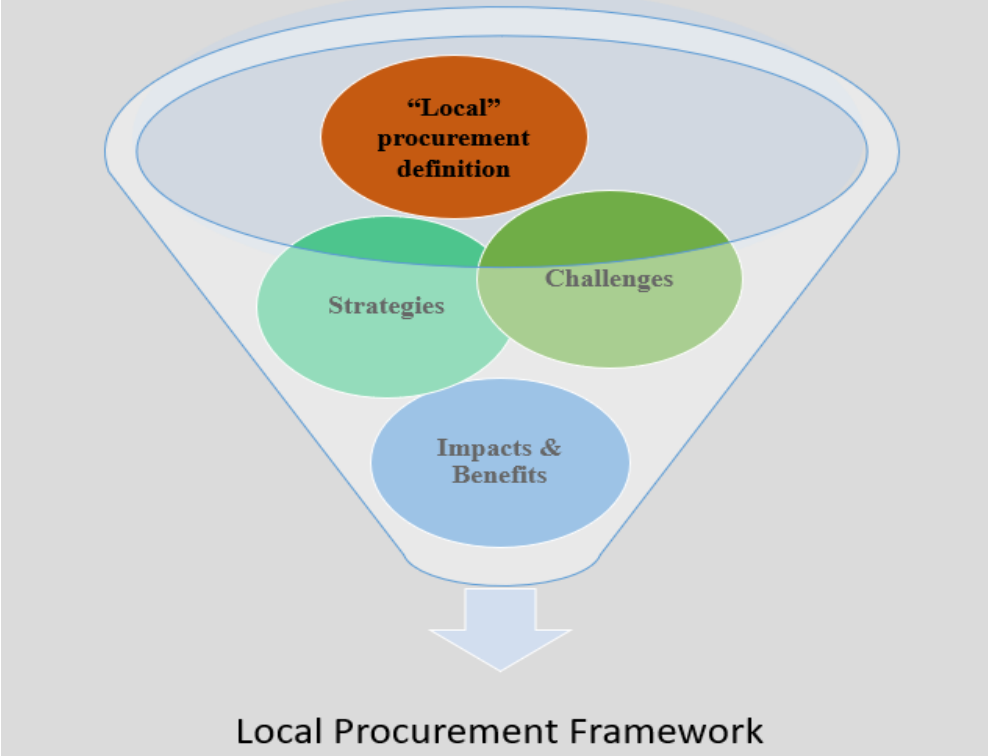

Figure 4.2 The local framework logic funnel

The framework was developed to guide the case study company Erdene, as the Bayan Khundii project transitions from exploration to the mine development. This framework is built around the

mine's eight-year lifecycle. The aim of the Local Procurement Framework is to strengthen local suppliers that can contribute to the local economy during and after the mine.

Table 4.2 Local procurement framework

Activities	**Phase 1** **Directions, Roles & Procedures**	• Develop job descriptions for local procurement team/position • Define "local" procurement • Establish cross-functional team (CSR, Procurement, Local procurement) • Develop LP process • Develop pre-qualification process and diagnostics • Develop LP performance indicators • Meetings with potential key partners • Identify opportunities for collaboration on supplier development program
	Phase 2 **Communication, Training & Annual Planning**	• Training programs • Develop advisory program on target issues • Carry out local business pre-qualification and diagnostic evaluation • Workshop on pre-qualification porcess • Provide advisory service • Establish targets and monitoring system for local procurement • Carry out regular reviews for tools and materials update • Conduct monthly/quarterly reviews of target against metrics
	Phase 3 **Supplier Engagament & Strategic Opportunities**	• Provide Advisory service • Facilitate & support local business participating in tender process, including feedback on non-selected bids • Carry out regular reviews for tools and materials update • Conduct monthly/quarterly reviews of target against metrics
Output (1-3 years)	• Reduced market inefficiencies and improved quality of goods and services. • Increased competitiveness of local suppliers • Strengthened partnerships with local suppliers	
Outcome (3-5 years)	• Increase the project's contribution to local economic development by collaborating with local suppliers. • Improve the capacity of local business to respond to demand-supply shifts and new opportunities over time.	
Ultimate Impact (5-8 years)	Targeted, deliberate local procurement that strengthens local suppliers and contributes to local economic development, while also creating value for the business.	

The activities listed can be divided into three broad categories: Phase 1: Direction, roles, and procedure setting; Phase 2: Communication, training, and annual planning; and Phase 3: Supplier engagement and strategic opportunities.

At an output level (year 1-3), the company will be working with local suppliers, thus increasing competitiveness (through workshops, coaching and mentoring activities) and reducing market inefficiencies

At the outcome level (year 3-5), the objetive is for the company to achieve a collaborative relationship with local suppliers while improving the local businesses' capacity to respond to demand-supply shifts and other new opportunities that arise within or outside of the geographic region.

Chapter 5: Discussion and Conclusion

5.1 Local Procurement Definition for Mongolia

Local procurement is defined in various ways around the world, according to context-specific needs and priorities. This thesis focuses on three elements suggested by World Bank Group and Kaiser EDP (2015) that are used extensively in the local procurement literature: geographic location, ownership and value-add. These elements are examined to establish a definition for local procurement that is relevant in the Mongolian context. Based on the interviews with a variety of interested parties, this research considers a definition for local procurement in the Mongolian context (Table 5.1 and Figure 5.1).

All of the suppliers who participated in this research consider themselves to be local suppliers, no matter where they have originated. For example, suppliers from the soum say that they are local suppliers because the mine is operating in their territory, while suppliers from the aimag also express that they should be considered local suppliers because the soum belongs administratively to the aimag. Moreover, suppliers from different regions or national levels state that they are local suppliers because there are few products and services from the soum and aimag levels. In this respect, they also want to be considered local suppliers despite their geographic location.

Based on the findings, the following research elements are essential to consider the local procurement definition which may be useful for host communities and countries that do not manufacture and produce critical items for a mine.

Table 5.1 Mongolian "local" definition elements based on interview data analyzed in this research

Geographic priority	Ownership	Value-addition
Expanded from the project to soum, aimag, and Mongolia.	Supplier based within Shinejinst soum	Local job creation, manufacturing where possible, and capacity building for both local hiring and businesses
Regional	Supplier based within Bayan-Undur soum and Bayankhongor province	-Local job creation, sales tax, and other taxes paid -Strengthen local businesses, and capacity building for both hiring and businesses
National	Supplier based within Mongolia	-Local job creation, sales tax, and other taxes paid; -Expand local and national suppliers

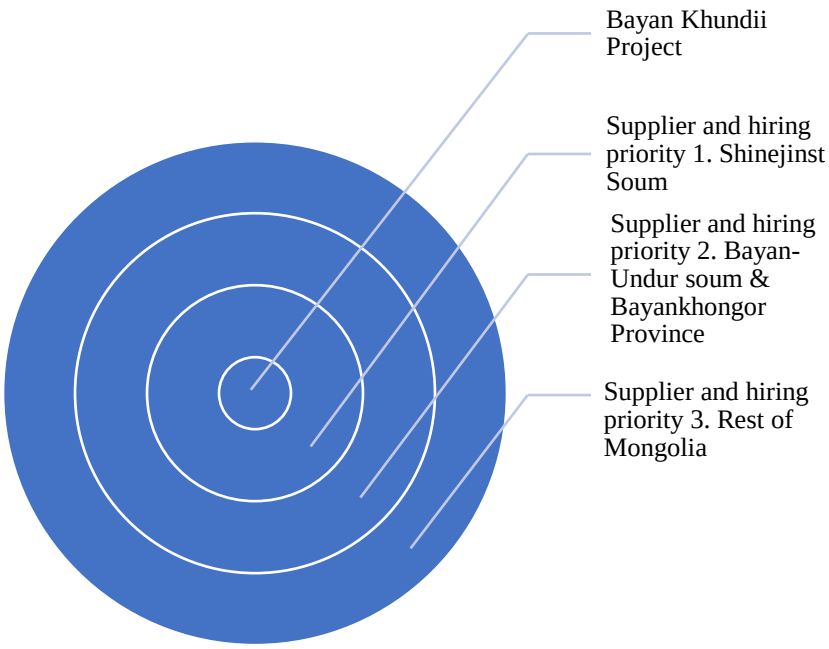

Figure 5.1 Concentric model for "local"

5.2 Job creation

The research findings highlight the importance of job creation within the local community. The International Labor Organization (ILO, 1998) defines a job as "a source of personal dignity, family stability, peace in the community, democracies that deliver for people, and economic growth that expands opportunities for productive jobs and enterprise development." The expectation of job creation is logical, given that the community is small, remote, and most residents rely on traditional economic activities or are employed in the local government with limited employment. The local government jobs are not secure, as people change depending on the election results and party alliances experienced by the participants.

In practice and in literature, the jobs created from the extractive industry are divided into three categories: direct, indirect, and induced (Kemp & Owen, 2013). The number and type of direct jobs depends on the mine's lifecycle. Each stage of the mine, exploration, construction, operation, and closure, requires employees with varying skillsets. For example, the construction phase requires intensive labour for a short period of time relative to the exploration phase (Esteves et al., 2013; World Bank Group, 2014).

Indirect jobs are created through local suppliers. Although, according to the interviews, indirect jobs are created in communities and regions with commercial mining, the areas that have no experience working with the mine would take focused effort and time to create, expand, and develop local businesses.

The third category, induced jobs, refers to the jobs created by the income spending resulting from the direct and indirect jobs. The earnings influence this multiplier effect; higher earnings

would generate more spending (Bacon and Kojima 2011). The correlation coefficient is higher between the number of direct and indirect jobs in developing countries than in developed countries. For example, in Ghana, jobs in mining multiply by 28, and, in Chile, they multiply by 7 (UNCTAD, 2015). Therefore, mining projects in developing contexts such as our case need to consider both the quantity and the quality of jobs they can create in the local community.

Given the small scale of the local economy, the jobs can ensure essential ties to the community and economic impact. Skill training from employment in mining continues to earn income for local community members even after the mine's closure. For example, electrical, welding, automotive, sewing, and other vocational and professional trainings could help community members secure work with another employer in the region.

5.3 Cultural Awareness – Communication and Capacity Building

Another significant finding from the research data is the importance of cultural awareness in communication and capacity-building efforts. The literature on the nexus of mining and community engagement indicates that strong cultural awareness within the company (and industry) is important in building effective relationships (International Finance Corporation, 2011). The culture drives communication and relationship building and can have important implications on behavioral outcomes (Bjerregaard et al., 2009; Gibson & Klinck, 2005; Parmenter & Trigger, 2018). According to the research findings, cultural awareness and integration could make a difference in the areas of communication and capacity building for local procurement. In this research, the use of formal communication platforms, i.e., the company's website, differs from the community's commonly-used and preferred communication

channels. Social media, local radio, and word-of-mouth communications appear highly valued by local participants rather than formal, structured, and streamlined communication.

The cultural insights on capacity building from this case study are that classroom workshops and training are ineffective in building capacity in the cultural environment of remote soums in Mongolia. According to participants from the industry and locals, people who come to the training do not ask questions, and it is therefore hard to know if knowledge is transferred. As soon as the lecture, training, or workshop is over, the attendees form a long line to speak with the instructor. This behavior may suggest that, culturally, people are not used to asking questions in peer settings, though most may have questions. In place of these group trainings, companies that have been operating for some time have observed that it is important to have accessible support and one-on-one training for the local businesses.

5.4 Local procurement exposes the company to SLO risk

Local procurement could enhance the positive outcome of the mining operations (Geipel, 2017). The literature suggests that the business case for the mining industry is that local procurement could bring about reduced costs, increased supply chain efficiencies, reduced risk, access to a social license, compliance, and increased revenue (Dunbar et al., 2020; Maria et al., 2010).

The findings from this research complimentary to previous literature on SLO by discovering additional dimension to the conversation. Although it is possible that local procurement can help build a relationship with the community, the SLO can be eroded if/when the local procurement does not meet the community's expectations. The relationship-building process is an organic,

reflexive process in political, economic, and social environments shaped by various interests, media, and actors.

As per the analysis section, a company representative shares that local business owners started to talk negatively about the mining company after the local business violating the terms of conditions of the contracts. Community representatives also feel that the mining companies do not provide enough time, support, or opportunities to grow. This perceptual difference may create a potential risk for the company and its social license, given that the community is isolated, relatively small, and close-knit.

5.5 Local procurement framework

The local procurement framework has been informed by the primary source of data and its analysis, as triangulated by the literature (Table 4.1). The framework was developed for Erdene's Bayank Khundii project. The objective of the framework was to deliver impact within the life of the mine. Impact will be achieved by strengthening local suppliers so their operations remain viable once the mine is closed. Before reaching the ultimate target, the framework targets outputs from year one to three, and outcomes during year three to five. Although the existing framework is developed based on an 8-year mine lifecycle (relevant for Erdene), it is possible to adjust the timeline based on the mine's lifecycle.

The action plan is an important part of the local procurement framework. Although the framework has been developed on an annual basis, it is important to anticipate the different phases of the mine's lifecycle, from construction to closure and post closure. In anticipating the need to tailor the timeline to the context, and through a continuous strategy to enhance the

capacity of the local suppliers, this research proposes to have an action plan under three phases (Table 4.2): (1) Setting direction, roles, and procedures; (2) Communication, training, and annual planning; and (3) Supplier engagement and strategic opportunities. These actions and phases are not linear, i.e., it is expected that they can occur either synchronously, or complementary to each other.

5.6 Summary

The initiation of local procurement in Mongolia requires a focused effort from the company. The existing challenges facing the Erdene case study are that neighboring communities are small, remotely located and with limited soft and hard infrastructure. The existing local (regional) supply chain capacity can not meet the standards of critical items required by the mining operations. The supply of common consumables will also require the additional capacity building of the local businesses. Nevertheless, local procurement remains an important tool to increase the long-term positive outcome for the community.

As for the company, local procurement can deliver business value in reducing cost, improving delivery time, and by increasing the relationship quality between the partners.

The core research question asked in this thesis was: “How can mining companies develop their local procurement strategies in Mongolian regions where businesses and services are limited?” To answer the question, the research aimed to better understand the local procurement theory and its practical application in the rural settings of Mongolia. It then aimed to develop a local procurement framework that could serve as a guide for the development of local procurement strategies by mining companies operating in Mongolian rural communities.

While examining the local procurement theory and practical application in Mongolia, the findings from the research offered several theoretical and practical implications.

- Definition: Based on the IFC Guideline (2011) for developing a local procurement definition, the research characterized local procurement definition elements specific to Mongolia.

- Jobs: The job creation through local suppliers is called “indirect jobs.” The community interviewed did not have previous mining experience and regarded benefits from the mining as through direct jobs, meaning work at the mine. The skill training would ensure enduring economic activity within the community; therefore, the mine needs to allocate the time and resources to train employees.

- Cultural Awareness: The delivery of workshops and training is more effective when there is a walk-in center that can provide individual advising. Rather than the formal website for the local business opportunity, the mining business can use local radio, social media, and a local office, as many local businesses and communities actively engage with social media.

- The literature claims that local procurement has the potential to increase the SLO. However, this research indicates that local procurement also exposes potential risk to the company’s SLO.

Two potential limitations of the research should be mentioned. The first limitation concerns the single case study with small sample size, which restricts generalization to other contexts. A second potential limitation is that the global pandemic COVID-19 cut short the fieldwork in

Mongolia. As a result, the interviews with the local community took place over Zoom and telephone calls. Therefore, observational data is missing.

Despite these limitations, this study has contributed to the local procurement literature by providing insights into the gap in the local procurement theory, which often claims that it will enhance the SLO. However, in practice, it is a double-edged sword. The SLO can be eroded in a remote, tight-knit community if the local procurement does not go well or meet local businesses' expectations. The study confirms previous literature that there is an existing gap in cultural awareness in communication and capacity building. This knowledge can be utilized so that the community engagement and capacity-building programs can benefit from direct in-person and customized approaches. Group learning and workshops can offer one-on-one meetings after the training.

Although much work remains to be done before a full understanding of the extent of perceived social license risk triggered by the local procurement, it is important to note that there has not been discussion of the direct link between local procurement programs and risk of social license. This creates an opportunity for future research by scholars interested in community development, local procurement, and social license to operate.

As an applied contribution, the research offers a local procurement framework model that could serve as a guide for the development of local procurement strategies by mining companies operating in Mongolian rural communities. The testing of this framework is beyond of the scope of this thesis, and this therefore represents an interesting direction for future research.

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Appendix A INTERVIEW QUESTIONNAIRE

Interview questions for industry participants

Target participants

- Mining companies operating in the gobi region
- Case study representatives

Context building

1. Can you tell me a little bit about yourself, your current role and how long you have been working in the industry? *(prompts: areas of responsibility, i.e. finance, csr, background)*
2. What type of collaborative strategies does your company employ in engaging with the local community? *(prompts: job, training, donation, local company representative office, company representative officer in the local aimag, soum)*
3. What is your company's position (attitude, or strategy) in developing and maintaining relationship with the local community?
4. What sources of tension do you have with the local community and why?

Theory development

1. Do you have local procurement definition? If so, how is it defined?
2. If not, how would you define "local" in your collaboration with the community (*prompts: geographic, value addition, ownership*)?

Practice development

3. Does your local procurement practice is embedded to any legal documents or agreements? *(prompts: company strategy, CDA, MOU, verbal agreement)*
4. How would you assess the effectiveness of your Local procurement practice, do you have any key performance indicator for it?
5. What are the challenges of local procurement implementation? (*prompts: quality, quantity, variety, capacity, capability*)?
6. What challenges would you say that the suppliers would encounter and how do you think these challenges could be overcome?
7. What are the factors that make your local procurement successful or unsuccessful?
8. What kind of opportunities do you see for companies to improve engagement with local businesses?

9. Do you think that having a local procurement practice would have any impact on the reputation of your business?
10. Could local procurement program can prevent or reduce potential conflict between the local citizen and the company?

Interview questions for local participants

Target participants

- Local business owners, product-based (dairy, bakery, meat, felt, cashmere, clothing)
- Local business owners, service-based (training, hairdresser, catering etc)
- The local chamber of commerce

Context building

1. Can you tell me a little bit about your current role?
2. What are you most proud of in the soum and aimag (products, services, in the given geographic scale)?
3. What are the products that are locally made that you like to use?
4. What do you see as opportunities in your soum in general and specifically the economic development?

Theory building

1. What is a "Local procurement" in your words? (theory)
2. What do you think the local procurement can bring to your soum (aimag)? (expected impact)

Practice development

3. What kind of opportunities do you see for companies to improve engagement with local businesses?
4. What kinds of products and services do you see that the soum could provide the company (or local mining companies) within:
    - the near term (1-3 years),
    - midterm (4-6 years) and
    - long term (7 and more years)?
5. What challenges would you say that mining companies would encounter in purchasing goods and services from local suppliers?
6. How do you think these challenges could be overcome?
7. In your experience, can you provide any examples of companies that have achieved success with local procurement?
8. Could you explain to me what you feel is a successful local procurement cooperation?

Appendix B LETTER OF INITIAL CONTACT

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

LETTER OF INITIAL CONTACT DELIVERED **VIA EMAIL** customized for each invited participant

Dear *insert name*:

I am conducting interviews as part of a master's research study to develop a local procurement strategy for mining companies, with a case study focused in the mineral-rich Gobi region of Mongolia. Based on your experience and expertise I would like to invite you to do an interview to share your valuable first-hand perspective.

The interview would last for up to 1 hour to 1.5 hour, depending on your availability, and would be completed in person, over the phone or via Skype. The findings will form the basis of my Master of Applied Science' thesis. At your request, I will be pleased to make my thesis available to you.

If you would like additional information on the research project, I would be happy to answer any questions. Alternatively, you may wish to contact the Principal Investigator from UBC, Dr Nadja Kunz, at nadja.kunz@ubc.ca.

Thank you for considering this interview request. I look forward to hearing from you to confirm your availability and to arrange a convenient time for the interview.

Best regards,

Zorigtkhuu Bat-Erdene
Master' of Applied Science Candidate
NBK Institute of Mining Engineering
The University of British Columbia

Appendix C CONSENT FORM

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RESEARCH CONSENT FORM

Principal Investigator:	Dr Nadja Kunz, Assistant Professor, School of Public Policy and Global Affairs and NBK Institute of Mining Engineering, The University of British Columbia (UBC). Email: nadja.kunz@ubc.ca Ph: +1 604 822 9782
Co-Investigators:	Mr. Zorigtkhuu Bat-Erdene, MASc Candidate, NBK Institute of Mining Engineering, The University of British Columbia (UBC).
	Dr. Jocelyn Fraser, Post-Doctoral Research Fellow, School of Public Policy and Global Affairs and NBK Institute of Mining Engineering, The University of British Columbia (UBC).
Project Title:	**Local Procurement Model for Mining Companies Operating in the Gobi Region of Mongolia**

Your views are sought for an academic research project which seeks to develop a local procurement model for mining companies operating in the Gobi region of Mongolia and to enhance the contribution of mining to the local community.

This UBC's master's thesis research project is supported and administered by Mitacs. Mitacs is a non-profit organization that connects companies with graduate students and postdoctoral fellows at Canadian universities, who apply their expertise to business challenges. The objective of the Mitacs Accelerate Program is to enable academics to apply theory to real-world applications and to involve companies in high-quality, independent research. At least fifty per cent of the funding for Mitacs Accelerate projects is provided by the participating company, with the remaining funds coming from Mitacs. Mitacs receives and administers the research funds to ensure independence and administrative rigor of the projects.

Erdene Resource Development Corporation (Erdene) is the industry partner of this Mitacs Accelerate project being undertaken by UBC. Erdene is a publicly traded Canadian resource development company (TSX: ERD, MSE: ERD) focussing on precious and base metal exploration in Mongolia.

The research will take the form of an interview, lasting approximately 60 minutes to 90 minutes, and we consider that the risk and benefits to you as an interviewee will be minimal. We will request that your interview be recorded. If you consent to the interview being recorded, this should be clearly indicated at the beginning of the recording. All recorded interviews will be destroyed following transcription.

All interviews are confidential, in that we will not disclose any identifying information about you during the publication of results, unless you specifically request to be identified. Your consent to participate will be taken orally at the beginning of the interview. Only the researcher (Zorigtkhuu Bat-Erdene, and Dr. Jocelyn Fraser) and the lead investigator (Dr. Nadja Kunz) will have access to the audio file and

transcript files. The results of each interview will be preserved in a hand-written copy or in electronic format as indicated below. The materials will be available for review upon request.

By agreeing to this consent, you, as the research participant understand that:

- Your consent will signify that a member of the researcher (Zorigtkhuu Bat-Erdene) has explained the research procedures for this study that you have received adequate opportunity to consider any personal risks (physical, psychological, emotional and social), and that you voluntarily agree to participate in the project.
- Your participation will involve answering questions about your views and opinions.
- You may be asked to participate in a follow-up interview.
- You may withdraw your participation in the research at any time.
- You may obtain copies of this study upon its completion by contacting the researcher supervisor Dr. Nadja Kunz at nadja.kunz@ubc.ca
- The results of your contribution will be preserved in a hand-written copy, or transcribed copy of your interview in electronic format. Hard copies will be put in a folder and stored in a locked file cabinet in the office of Dr. Nadja Kunz, at the UBC School of Public Policy and Global Affairs for a period of five years. Electronic data will be stored on the secure UBC server and/or encrypted computers with password protection. They will be available for your review at any time.
- This consent is taken orally at the beginning of each interview. The researcher will not use your name in the written notes. Only the researchers (Zorigtkhuu Bat-Erdene; Dr. Jocelyn Fraser) and the supervisor (Dr. Nadja Kunz) will have access to these forms.
- Confidentiality is the default for this study. If you wish for your name to be specifically mentioned for acknowledgement, you may indicate this on this written consent form or during the oral consent process.

If you have any concerns or complaints you may have about your rights as a research participant and/or your experiences while participating in this study, you may contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822- 8598.