Community Perceptions of a Cooperation Agreement:
A Case Study of the Oyu Tolgoi Cu-Au Mine in Southern Mongolia

By:

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Abstract

The worldwide demand for minerals and metals has increased since the last century, and is expected to increase along with the global population growth and increases in standards of living. Meeting this demand for mineral resources necessitates mining and extraction, which inevitably involves land disturbance, environmental impacts, and disruption to local communities. In recent decades, the extractive industry has made significant improvements in management of environmental and social impacts, protection of the wellbeing of workforces, energy efficiencies, respect and support of human rights, employment, and economic opportunities, but problems still arise.

Mongolia, a mineral-rich developing country, has been experiencing a mining boom with large mining developments, and its economy has become increasingly reliant on the resource sector. The Oyu Tolgoi mine is an example of one such development project: it is one of the world's largest Cu-Au mines, located in southern Mongolia, and has been operated by Turquoise Hill Resources since 2009. Under the Mineral Law (2006), Oyu Tolgoi Company signed a Cooperation Agreement with local community governments in 2015. This study aims to understand the Cooperation Agreement from the perspective of local communities. A phenomenological approach was used, and semi-structured interviews were conducted with 19 participants including herders and residents of partner communities.

Results from this study indicate that local communities are generally in favor of the mine because of employment and economic opportunities. Oyu Tolgoi Company annually allocates approximately 5 million USD determined by the Consumer Price Index of the US to the Gobi Oyu Fund to support the projects towards sustainable development of South Gobi communities.

Few significant problems were reported by interviewed community members regarding implementation of the Cooperation Agreement to date, but it was noted that the agreement lacks effective methods for public discussion and communication between community citizens and the company. Moreover, an impartial method for allocating jobs within partner communities is required to minimize the impacts of Project Induced In-Migration on proximal towns such as Khanbogd, and to maximize benefits to more distal towns such as Manlai and Bayan-Ovoo. In addition to company-related issues, the current national policy on land tenure causes conflict between mining companies and local communities, and a more integrated approach is needed to better protect the rights of both parties.

Preface

This thesis is an original work by Chimedlkham Enkhbayar. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "Cooperation Agreement and Community Development of Eastern South Gobi Regions, Mongolia: A Case Study of Oyu Tolgoi", No. Pro00071101, 17 March 2017.

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List of Acronyms

CA – Cooperation Agreement

CSR – Corporate Social Responsibility

CRA – Complaint Resolution Agreement

DSF – Development Support Fund

EBRD - European Bank of Reconstruction and Development

EITI – Extractive Industries Transparency Initiative

FPIC – Free, Prior, Informed Consent

GDP – Gross Domestic Product

GoM – Government of Mongolia

IBA – Impact Benefits Agreement

IFC – International Finance Corporation

MRPAM – Mineral Resources and Petroleum Authority of Mongolia

NGO – Non-Government Organization

OT LLC – Oyu Tolgoi Company

PIIM – Project-Induced In-Migration

SLO – Social License to Operate

1. INTRODUCTION

1.1. Background

The worldwide demand for mineral resources has increased since the last century, and is expected to increase along with the global population growth and increases in standards of living (Brooks and Andrews, 1978; Gordon et al., 2006; Krausmann et al., 2017). Minerals and metals have played a key role in fulfilling a range of socio-economic necessities for humanity, including power generation, transportation, housing, health, education, and communication (Gordon et al., 2006; Krausmann et al., 2017). Furthermore, several metals such as Li, Co, Ni, and Cu will serve important functions in lowering society's carbon footprint in the future (Drexhage et al., 2017). For example, new technologies for the generation of cleaner energy (wind, solar and hydrogen systems) require significant quantities of these metals for electricity generation, storage, and transmission (Vidal et al., 2013; Drexhage et al., 2017).

Meeting this demand for mineral resources necessitates mining and extraction, which inescapably involves land disturbance, environmental impacts, and disruption to local communities. The extractive industry has historicallynot managed these problems well, with numerous instances ofenvironmental degradation, displacement of settlements, worsening economic and social inequality, armed conflicts, gender-based violence, tax evasion and corruption, and increased risk for many health problems (Winterhalder, 1996; Filer, 1990; Arsel, 2013; Bowes-Lyon et al., 2009; Azapagic, 2004).These negative impacts were ignored by many resource developers in the past until their effects on corporate reputation began to affect their ability to do business in the late 20thcentury (Jenkins, 2004).In recent decades, the industry has made significant advances in improving how companies manage their environmental and social

impacts, protect the health of their workers, achieve energy efficiencies, respect and support human rights, provide opportunities for viableemployment, and foster economic development(Richards, 2005; Jenkins and Yakovleva, 2006). Moreover, many project developers, especially in the developed world, have begun to acknowledge their corporate responsibility by addressing adverse impacts and increasing benefits to local people (Jenkins and Yakovleva, 2006). An important element of all mineral projects is the impact assessment of mine operations on surrounding inhabitants (Carvalho, 2017).

Participation of civil societies in the discussion and assessment of mining-related issues is seen to be of critical importance because active engagement with surrounding communities throughout the project life leads to a constructive relationship that can help to secure local acceptance of the project (Prno, 2013). Also, addressing local ideas and concerns helps to sustain communities after mine closure. Local acceptance of the project is known as a 'social license to operate' (Jenkins and Yakovleva, 2006; Thomson and Boutilier, 2011; Prno, 2013). The need to obtain a social license to operate has become as important as other operational licenses (Owen and Kemp, 2013; O'Faircheallaigh, 2013). The most common way for a mineral developer to gain local permission for their operations is to negotiate an impact and benefit agreement (IBA). Impact and benefit agreements are established between mining companies and local stakeholders, and outline the impacts of the mine, the obligations and responsibilities of both parties, and how benefits of the mining operation are to be shared with the community.

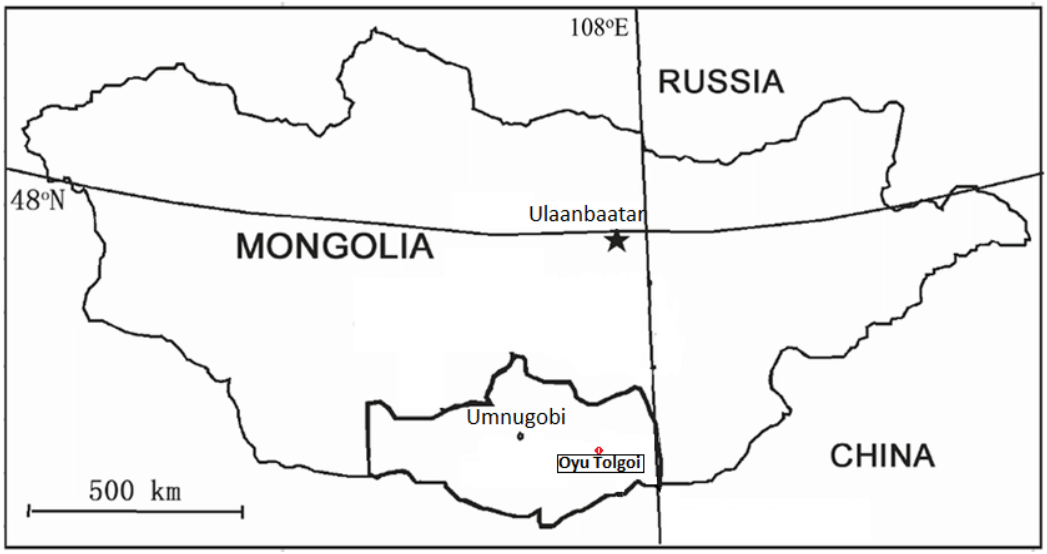
1.2. Justification of the research

The mineral industry has expanded rapidly in Mongolia since the 1990s and has brought a range of economic advantages, such as increased revenue, employment opportunities, and improved infrastructure (Chultem, 2014). In particular, the intense development of mineral resources has brought a rapid growth in GDP over a short period of time between 2009 and 2013, from USD 1700 to 4300 per capita (The World Bank, 2016). On the other hand, the industry has also been criticized for causing many socio-economic and environmental problems, including income inequality, pastureland degradation, and water shortages to surrounding communities (Gankhuyag and Banzragch, 2014; Yeung and Howes, 2015).Despite this rapid development, Mongolia is still a post-Soviet country with underdeveloped social infrastructure, a highly politicized economy, and weak institutional governance (Liu et al., 2006; Plueckhahn and Bumochir, 2018).Like many other developing countries, public participation in decision-making processes in Mongolia is limited by a lack of awareness and capacity to effectively engage in public forums and policy dialogues (Reisinger et al., 1995; Dalaibuyan, 2015; Chado and Johar, 2016). In recent years, however, traditional herders' voices regarding the development of mineral resources that impact their pasturelands have been taken into account. In particular, the Government of Mongolia (GoM) made IBA-type agreements a legal requirement for project advancement in 2006, although enforcement has been limited until recently (2016).

Despite extensive research on international approaches to IBA negotiations, the novelty of this practice in Mongolia has limited research in this country to descriptions of the phenomenon. For many IBAs negotiated in Mongolia, it is too early to assess and evaluate their effectiveness and outcomes. However, it is feasible and useful to examine communities' perceptions of the concept at early stages. The term "IBA" is here used as a general reference for such agreements, but in Mongolia the term "Cooperation agreement" (CA) is typically used.

This research aims to study the implementation and impacts of a CA that was negotiated for the giant Oyu Tolgoi copper-gold mine in Southern Mongolia (Figure 1.1) from the perspective of signatory communities, and to examine the challenges and achievements of the agreement.

Figure 1.1: Location map of Oyu Tolgoi mine



1.3. Research Questions and Objectives

This thesis uses the agreement between OT LLC (66 percent owned by Turquoise Hill Resources and 34 percent by the Government of Mongolia) and five partner communities focusing on the three closest localities (Khanbogd, Manlai and Bayan-Ovoo) to answer the following questions:

- How do mining communities understand the objectives of the CA that was ratified to mitigate adverse impacts of the mine and to promote community development?
- How has the CA benefited or impacted partner communities?

- What are the challenges for communities and the company for successful implementation of the CA?

These research questions are addressed by:

- Comparing the elements and provisions of the Oyu Tolgoi CA with successful agreement examples worldwide;
- Evaluation of community perceptions of the agreement provisions and implementation based on qualitative interview data;
- Identifying constraints that may affect performance of the CA related to providing opportunities for sustainable development in partner communities.

1.4.Outcomes of the research

There are several potential outcomes of this research. First, this study gives a better understanding to international mining corporations and investors about community expectations when ratifying an IBA-type agreement in Mongolia. Second, this research contributes to the existing literature on challenges and achievements of IBAs in developing countries. Third, this study identifies areas that need improvement in order to increase accountability and effectiveness of agreement implementation. Fourth, the research findings reveal a considerable gap in the national legislation regarding land-use rights of local herders versus mine developers.

2. BACKGROUND ON MONGOLIA AS A RESOURCE-RICH COUNTRY

2.1. General background to the economy

Mongolia is a developing country with a population of over 3 million people. A third of the population lives in the capital, Ulaanbaatar, whereas around 40 percent of the population practices a traditional nomadic lifestyle, herding livestock on vast pasturelands.

Until 1989, Mongolia was highly influenced by the Soviet Union and had a state planning economic system where production and investment decisions were regulated by the Government of Mongolia with limited roles for the private sector. Following the fall of the Soviet Union in 1989, Mongolia, like other Soviet countries in Central Asia, has experienced a considerable change in both its political and economic systems, from a communist to a liberal democratic system, and from a centrally planned economy to a more decentralized system. Mongolia has been divided into 21 main administrative units, or "Aimags" (provinces). Aimags are further divided into "Soums" (counties), and Soums are subdivided into "Bhags" at the lowest level of administration. Governors of Aimags are appointed by the Prime Minister, Soum governors by the Aimag, and Bagh governors by the Soum for four-year terms.

Major drivers of the Mongolian economy were agriculture and traditional herding until the early 2000s when they were replaced by the development of mineral resources and the mining sector (Humphrey, 1978). Severe weather conditions during 1999-2002, summer droughts, and harsh winters have since resulted in a massive loss of livestock and extensive in-migration of herders to the capital city (Ulaanbaatar) for non-herding job opportunities (Siurua and Swift, 2002).

2.2. The minerals industry in Mongolia

In the last two decades, Mongolia has been experiencing a mining boom with extensive mineral exploration and development projects. The GoM adopted several policies and programs to encourage foreign investment in the minerals sector during the late 1990s (Byamba-Oyu and Tsedendorj, 2007; Oyunchimeg, 2016), leading to the discovery of 16 deposits of strategic importance, four of which are being developed.

Article 4.1.12 of the Minerals Law defines strategic discoveries as mineral deposits that have the potential to contribute to national security or national and regional economic development, or can produce more than five percent of the country's GDP. Three of the largest strategic deposits are the Oyu Tolgoi (Cu-Au), Tavan Tolgoi (coking coal), and Tsagaan Suvarga (Cu-Mo) deposits in the southern Gobi region. These mining projects are expected to impact the country's development significantly and to complement the ongoing Erdenet (Cu-Mo) mine, the main copper producer that has operated since the 1970s. The Erdenet mine, jointly owned by Mongolia and Russia, was the main source of copper exports until it was overtaken by the Oyu Tolgoi mine in 2013 (NSO, 2013).

In 2008, economic growth slowed due to weak commodity markets worldwide, a decline in exports to Russia and China, and a decline in foreign investment in the mining industry due to legal instabilities (Naudé, 2009; Batchuluun and Lin, 2010; Walker and Hall, 2010). However, in late 2009, commodity prices rebounded and the economy stabilized. The intense development of mineral resources brought rapid growth in GDP over a short period between 2009 and 2013, from USD 1700 to 4300 per capita (The World Bank, 2016).

Many scholars have noted the challenges faced by transition countries such as Mongolia to secure effective regulations within rapidly expanding mining sectors (Walker and Hall, 2010; Chultem, 2014; Gankhuyag and Banzragch, 2014; Dalaibuyan, 2015; Oyunchimeg, 2016).Challenges related to the weakness of political institutions, such as a lack of transparency in regulatory and legislative processes, and mismanagement of mineral wealth have obstructed stable development of the minerals industry in Mongolia.

Several attempts by the GoM to coordinate mineral development and to maximize benefits from the industry through new laws and regulations have failed in the past. In fact, these efforts have had the effect of making the legal environment unstable and unattractive to international investors. According to the Fraser Institute's survey on the Investment Attractiveness Index[1], Mongolia fell back to 85thplace (out of 109 countries) in 2015 compared to 36thplace (out of 79) in 2010 (Oyunchimeg, 2016). A particularly problematic piece of legislation was the Prohibition Law for Granting New Exploration Licenses, which was enacted in February 2012 but repealed after two years. This law imposed a suspension on accepting new mineral exploration projects until amendments were made to the Minerals Law (2006). Following the introduction of this legislation, international investors in mineral exploration withdrew from the country, and some national companies closed down.

Another example of legal instability was the Windfall tax law, which was introduced in 2006 and repealed in 2009 (Batchuluun and Lin, 2010). This law set a 68% tax on copper (Cu) and gold (Au) production when copper prices reached US$2,600 pertonne ($1.18 per pound), and when

[1]The Fraser Institute is an independent, non-partisan research and educational organization based in Canada. Investment Attractiveness Index is a measurement that combines a mineral attractiveness of the country with its state policy towards exploration investment.
https://www.fraserinstitute.org/studies/annual-survey-of-mining-companies-2017

gold reached US$500 perounce. This law received much opposition from foreign investors due to its sudden introduction and severity, especially from Ivanhoe Mines Ltd., which was advancing the major Oyu Tolgoi Cu-Au deposit. An additional impact was that many small and medium-sized gold miners underreported their production to avoid these tax increases (Batchuluun and Lin, 2010).

2.3.The legal environment in Mongolia's minerals industry

Mining-relatedenvironmental policy and regulatory institutions in Mongolia are based on the Minerals Law and other relevant legislation. The last major amendments to the Minerals Law (2006) were enacted in July 2014, and included new provisions to promote power decentralization and public participation.

The Ministry of Mining develops policy and oversees implementation through the Mineral Resources and Petroleum Authority of Mongolia (MRPAM). The MRPAM enforces legal regulations, and manages geological data, mineral licenses, monitoring, property evaluation, and statistics (Batchuluun and Lin, 2010).

According to current regulations, a mining license holder must enter into aland-use agreement with the Soum authorities to obtain a Land-use Certificate. A water-use agreement must be negotiated with the relevant river basin authority, in addition to the Aimag and Soum governors. This arrangement for granting land- and water-use permissions is seen as a reflection of power decentralization.

Taxes and royalties

With respect to the minerals industry, article 23 of theBudget Law (2011) dictates that the State collects:

- corporate income tax;
- value-added tax (VAT);
- excise tax;
- air and water pollution fees;
- employment income tax;
- mineral exploration and mining license fees;
- mineral royalties that are 5% net smelter return and 2.5% on goldsales. 65% of all collected royalties are paid into the Future Heritage Fund, 30% to mining-host Aimags, and 5% to the Local Development Fund (Figure 2.1);
- 70% of petroleum royaltiesthat are 5-15% based on revenue; the remaining 30% of royalties are paid into the Local Development Fund;
- 70% of petroleumexploration and mining license fees; the remaining 20% of royalties are paid to the Aimag and 10% to the Soum.

The Aimag authorities collect or receive:

- land- and water-use fees;
- 20% of petroleum exploration and mining license fees;
- personal income tax other than employment.

The Soum governments collect or receive:

- fees from the mining of surface minerals (clay, sand, and gravel);
- 10% of petroleum exploration and mining license fees.

2.4. Resource wealth distribution

Most of tax and royalty revenues generated by the minerals industry are currently retained by the State, but the central government has been making some efforts towards more equitable distribution of resource wealth and increased fiscal decentralization (Bauer et al., 2016). However, its attempts to manage resource revenues by investing in development funds have not succeeded to date. The GoM previously established two funds: the Mongolian Development Fund in 2007, which was replaced by the Human Development Fund in 2009, with the goal of accumulating revenues from mineral development and reinvesting to contribute to the economic and human development (Chimeddorj, 2015). But because of inefficiencies in regulatory institutions, the funds were used by political parties during election campaigns to fulfill their promises towards child monetary programs and cash payments to the public. These exaggerated expenses resulted in bankruptcy of the fund (Yeung and Howes, 2015; Chimeddorj, 2015; Oyunchimeg, 2016).

A universal child monetary program has been in effect since 2006, and initially offered monthly MNT 3000 per child (USD 2.5 as of June 2006) cash payments to the parents with children under 18 (Hodges et al., 2007; Gankhuyag and Banzragch, 2014); this amount has increased to MNT 20000 (USD 8.3 as of March 2018). Managed through the Mongolian Development Fund, this arrangement was effective in meeting poverty reduction and social protection goals of the country (Hodges et al., 2007; Gankhuyag and Banzragch, 2014; Yeung and Howes, 2015).

However, the popularity of the program led political parties to adopt another cash-aid distribution scheme ahead of Parliamentary elections in 2008 (Yeung and Howes, 2015; Chimeddorj, 2015). Promising MNT 1.5 million (USD 1,282 in June 2008) to every citizen through the Human Development Fund, the Mongolian People's Revolutionary Party succeeded

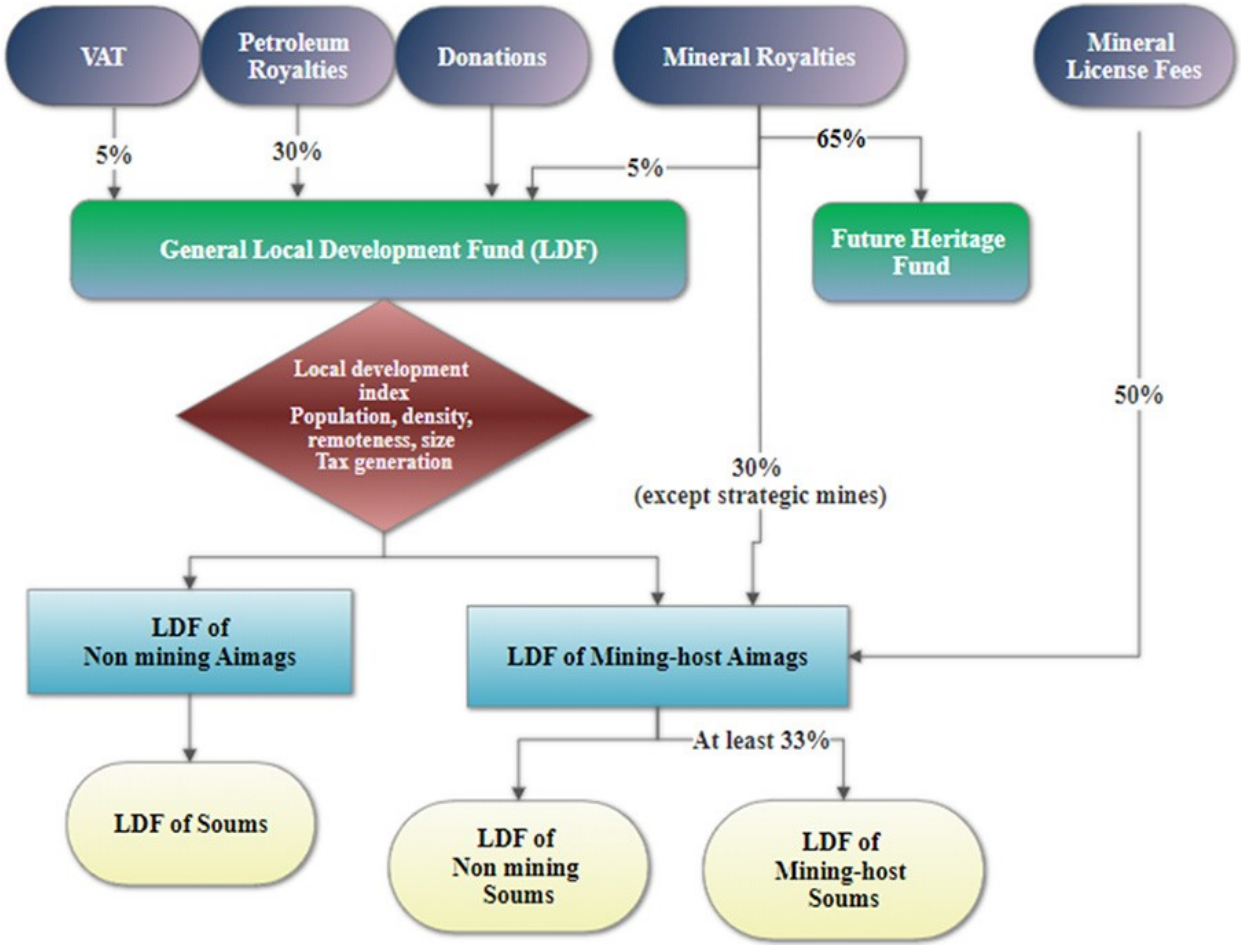
in winning the election. However, the pledge was enormous compared with Human Development Fund revenues, and caused the country to seek international loans and advance payments from mineral developers (Gankhuyag and Banzragch, 2014; Yeung and Howes, 2015). Consequently, the development funds of 2007 and 2009 brought economic instability rather than economic and human development (World Bank, 2014; Yeung and Howes, 2015; Chimeddorj, 2015).

A new Future Heritage Fund replaced the Human Development Fund in January 2017. The purpose of this fund is to accumulate mineral revenues and to save them until 2030 for future development investments. The main sources of this fund are state dividends from the development of strategic deposits, 65 percent of mineral royalties, and 20 percent of mineral revenue windfalls (NRGI, 2015). No withdrawals from the fund would be made until 2030.

Amendments in 2015 and 2016 to the Budget Law (2011) promoted greater benefits to mining-host communities through their local development funds. Figure 2.1illustrates how petroleum and mineral revenues are shared in Mongolia. The figure was developed by Bauer et al. (2016), and new changes/clarifications, including a share of the Future Heritage Fund and a difference between mining-host and non-mining Soums' local funds, were added in this thesis. General local development funds have four sources: 5 percent of domestic VAT, 5 percent of mineral royalties, donations from national and international organization, and 30 percent of petroleum royalties, which are allocated to the Aimag based on indicators such as local development index, population density, remoteness, size of the Aimag and tax generation. Mining-host Aimags receive an additional 30 percent of mineral royalty from mines, except those of strategic

importance. Aimags further allocate at least 60 percent of the fund to lower level Soums based on similar indicators (Figure 2.1).

Figure 2.1: Mongolian Mineral Revenue Sharing Scheme
Adopted and updated from Bauer et al., 2016



2.5.Cooperation Agreements

Following the rapid development of the minerals industry in Mongolia, increasing societal demand for inclusion in local development decision-making has resulted in modifications to socio-economic regulations.

In order to increase public participation in local developments and to promote responsible mining, article 42.1 of the Minerals Law (2006) requires a mining license holder to work in cooperation with local authorities to establish an agreement on mining-related issues, such as environmental protection, mine exploitation, infrastructure development, and job creation. The mandatory cooperation agreement (CA) is a form of agreementwidely used in mineral-rich countries, elsewhere known as"Impact and Benefit Agreements" (IBA) in Canada (Sosa and Keenan, 2001; Hitch and Fidler, 2007), "Indigenous Land Use Agreements" in Australia, and "Community Development Agreements" (CDA) in Peru and Ghana (Gibson and O'Faircheallaigh, 2010; Sarkar et al., 2010; World Bank, 2012; O'Faircheallaigh, 2013).

Although article 42.1 does not specify which local authority should establish the CA, the Extractive Industries Transparency Initiative report(EITI, 2016) indicates that mine developers should negotiate the agreement with Soum administrations, considering that the direct impact of mining is on the local Soum area rather than the provincial Aimag (Dalaibuyan, 2015; EITI, 2016).

An official template for CAs between local authorities and mining license holders was introduced by the Ministry of Mining in March 2016, ten years after the legislation was introduced. The adoption of a template aims to clarify the rights and responsibilities of public administrations, and to improve regulations over mineral development in local regions (EITI, 2016).

The Law on Glass Account was introduced in 2014, and requires all CA-type agreements to be disclosed. An EITI working group has since striven to collect hard and soft copies of such agreements, and as of March 2018 has made 35 agreements publicly available, 21 of which were

entitled ‘cooperation agreements’ or ‘social responsibility agreements’, whereas others were land-use agreements. The number of released agreements to EITI is comparatively low compared to the 1674effective operational licenses as of November2018 (MRPAM, 2018), which Dalaibuyan (2015) considered as a possible reflection of limited enforcement of the law on agreement-making since 2006.

3. OVERVIEW OF IBAs IN THE MINING INDUSTRY INTERNATIONALLY

For over two decades, the minerals industry worldwide has acknowledged the significance of establishing a good relationship with local communities. A 'social license to operate' (SLO) has emerged into global practice with the dual intention of securing public rights to participate indecision-making relating to development, and to avoid social conflict (Owen and Kemp 2013; O'Faircheallaigh, 2013; Bruckner, 2015). From a company's perspective, the benefits of obtaining a social license to operate are access to land and a reliable workforce, public support, good community relations, and a good international reputation. On the other hand, from a community's perspective, the benefits include meaningful involvement in decision-making processes, respect of rights to the land, employment opportunities, livelihood and environmental protection, and long-term benefits for sustainability.

Many scholars have discussed the complexity of SLOs because they are not a physical document; their perception varies from the scale of communities, from national to local, and there are no agreed criteria to assess a company's SLO performance (Prno and Slocombe, 2012; Prno, 2013; Owen and Kemp 2013). Despite these complications, companies can secure an SLO through an Impact and Benefit Agreement (IBA)-making process whereby communities and industries build firm relationships, define potential benefits and harms of the project, respect the rights and obligations of each other, and agree to cooperate throughout the lifetime of the project(Lapierre and Bradshaw, 2008; Prno and Slocombe, 2012; O'Faircheallaigh, 2013; Hustins, 2016).

Even though agreements vary in terminology and definition, the underlying principles are consistent (Sosa and Keenan, 2001; O'Faircheallaigh, 2013). Most IBAs include community-

specific provisions to mitigate adverse mining impacts, to enable local communities to benefit from the project, and to ensure that resource rents are shared locally. Although the contents and provisions of IBAs are unique and specific to local contexts, O'Faircheallaigh (2004) has developed eight core elements of an effective agreement:

- Environmental management
- Cultural heritage protection
- Rights and interests in land
- Financial payments
- Employment and training
- Business development
- Indigenous consent and support
- Implementation measures

O'Faircheallaigh (2008) further suggested that the advantages communities gain from IBA-making, such as employment and training opportunities, ability to supply goods and services, and improved infrastructure, should be beyond the minimum legal requirements. In other words, a good IBA should offer greater benefits and power to communities than could be acquired without a specific agreement (Sosa and Keenan 2001; Hitch and Fidler, 2007; O'Faircheallaigh, 2008).Through the IBA, a community agrees to host the project with the guarantee of the developer not to harm nearby societies, to share benefits in a negotiated way, and to provide effective dispute resolution mechanisms.

Impact and benefit agreements are voluntarily negotiated in many parts of the world, and are required by law in some countries. In developed countries, such as Canada, the negotiation of

IBAs has become the norm for mineral developers, although there is no strict legal requirement. However, in several countries such as Mongolia, Ghana, and Papua New Guinea, negotiating such agreements is legally required. Most voluntary IBAs are confidential, prohibiting information about the details of the agreement being made public. Confidentiality of IBAs arises from the interests of both negotiating parties: some communities prefer not to reveal the benefits gained from the development for fear that the government might reduce public funding to those communities (Hitch and Fidler, 2007; O'Faircheallaigh, 2010); resource developers are concerned that knowledge of specific benefits offered to one community but not another may cause inter-community conflict, requests to renegotiate agreements, and inflation of demands for benefits(Hitch and Fidler, 2007; Cameron and Levitan, 2014). On the other hand,scholars almost universally discourage confidential IBAs because non-transparent negotiations can restrict the ability of communities to learn from each other and to secure their decision-making rights in meaningful ways, causing serious risks of corruption (Sosa and Keenan 2001; O'Faircheallaigh, 2008; Caine & Krogman, 2010; Cameron and Levitan, 2014).

Despite the confidential nature of most IBAs that may limit researchers' ability to examine and evaluate their effectiveness in different contexts, many scholars have contributed to knowledge aboutIBAs by identifying theirconcepts and intentions (e.g., Sosa andKeenan, 2001; O'Faircheallaigh and Corbett, 2005; Salkin, 2007), conducting power analyses (e.g., Caine and Krogman, 2010), and evaluating their outcomes and efficacies(e.g., O'Faircheallaigh, 2004; Prno, 2007; Prno et al., 2010).

By international laws and standards, IBAs have evolved to promote more involvement of community members into the project (Storey and Shrimpton, 2008). In Canada, for instance,

during the 1970s and early 1980s, IBA-type agreements were mostly ratified between mineral developers and the federal government, which served on behalf of Aboriginal communities, but today most negotiations are made directly between companies and Aboriginal groups (Prno, 2007; Prno and Slocombe, 2012).

The following section discusses the most significant issues that are commonly covered by IBAs.

3.1. Rights to land use and free, prior, informed consent (FPIC)

Resource developers in Canada and Australia are required to obtain 'free, prior, informed consent' in order to operate in territories of Aboriginal groups who inhabit the region and whose lifestyles are closely connected with the land (MacKay, 2004; Owen and Kemp, 2014). Free, prior, informed consent is a human rights standard, established in the United Nations Declaration on Rights of Indigenous peoples (UNDRIP; UN, 2007). It states that Indigenous peoples have the right to self-determination, lands, and resources (MacKay, 2004; Hanna and Vanclay, 2013).

FPIC is an Aboriginal-specific and more documented form of SLO at the lowest local level (Prno and Slocombe, 2012). There are some differences in these two concepts: FPIC is a legal obligation whereas SLO is mostly voluntary; and FPIC is expected to be obtained before developing a mine, whereas SLO needs to be maintained throughout the development (Sosa, 2011; Prno and Slocombe, 2012). However, the fundamental principles of FPIC to acquire public support for the project are similar to those of SLO in non-Indigenous cases. Therefore, a negotiation of IBAs with Indigenous communities is also seen as a reflection of FPIC (Sosa, 2011; Council 2012; Bradshaw et al., 2014).

Sometimes, to avoid possible incidents and disturbances caused during project development, Indigenous communities who have settled in the area are asked to resettle to other safe locations, with compensation. In these circumstances, IBAs are useful tools to manage either international or national legal rights of both parties to lands and resources, and to arrange compensation packages. This practice is common between Indigenous communities and mineral extractors in countries such as Canada and Australia, where Indigenous rights are legally acknowledged (Brereton et al., 2011; Council, 2012).

The compensation provisions of IBAs consist of different amounts that arise from the affected interests. For example, in the IBA for the Victor diamond mine in Northern Ontario, the compensationincludes a one-time payment for ratifying the agreement, annual payments for road use and occupation of lands, and annual payments as compensation for disturbance of Indigenous rights (Craik et al., 2017).

3.2. Capacity building and communication

Shared power and responsibility, together with better communication between mineral developers and local communities, provides a more holistic understanding of resource management (Rooke, 2016; Kofinas, 2005). A common understanding between parties, increased dialogue and interaction, and equal control and responsibility are critical elements for improving relationships and securing benefits for all parties (Rooke, 2016; Armitage et al., 2011). IBAs help mining-affected communities to build their capacity to negotiate, participate in decision-making, and to monitor agreement processes.

3.2.1. Community readiness

Because many ore deposits in the developed world have already been mined out, mineral development today commonly takes place in remote rural regions with small populations, where social services and education systems may be inadequate, and there is likely a lack of understanding about the mining industry. Mine developers in some countries make efforts to increase public knowledge about mineral development projects during the early stages of negotiation. For example, at the Afaho project in Ghana, the mining company Newmont spent almost three years on a capacity building program before establishing community agreements in 2008 (Odumosu-Ayanu, 2012). Many scholars consider this arrangement as a good example of corporate-community relationships (Sarkar et al., 2010; Brereton et al., 2011; Odumosu-Ayanu, 2012; Loutit et al., 2016).The program included meetings with individual communities and groups aiming to improve knowledge of landownership laws, technical and negotiating skills, and to raise awareness of the project, the company's policies, and performance (Sarkar et al., 2010). This pre-negotiation process also helped the company to get a better understanding of the specific needs and expectations of communities, and led to more productive ways of communication.

3.2.2. Respect of local culture

The power of decision-making has commonly been held by non-Indigenous groups (e.g. corporations, government officials) who may not completely understand the relationship between natural resources, Indigenous cultures, and the traditional respect of Indigenous people for the environment (Fidler, 2010; Rooke, 2016).This disregard of traditional knowledge has weakened the reputation of companies among partner communities, resulting in poor communication. As

Aboriginal perspectives have become increasingly included and respected in the planning and regulation of resource development projects, alternative management strategies for successful partnerships become more achievable (ESMAP, World Bank and ICMM, 2005; Kemp et al., 2006; Fidler, 2010). Understanding the way in which Indigenous communities manage the natural resources available to them will help to determine the best strategy to involve these communities in planning and management associated with future development projects.

3.2.3. Transparency

Corporations should develop a transparent, two-way dialogue that shares up-to-date information about all steps of the project (De Oliveira, 2010). This form of communication establishes trust and a clear understanding of current and potential impacts of the mine, and helps to effectively address the concerns of affected communities (Remy and MacMahon, 2002; Environmental Law Institute, 2004; ESMAP, World Bank and ICMM, 2005; Parker et al., 2008). Moreover, allowing third party audits of project activities and investments throughout the mine's life would improve transparency (Kemp et al., 2006; Mining Association of Canada, 2007; Parker et al., 2008).

3.3. Employment opportunities

3.3.1. Preferential hiring of locals

The negotiated benefits in IBAs usually include employment opportunities for communities. Historically, agreements had provisions requiring a certain percentage (commonly more than 50 percent) of employees to be hired from local communities (Storey, 2010). However, the educational backgrounds and workplace experiences of many Indigenous groups does not qualify

them for skilled jobs, with the result that many companies failed to meet agreed employment quotas. Clear examples of this failure are described by Storey (2010, p. 1170): "the Nanisivik zinc mine, in 1976, had hoped for a 60 [percent] Aboriginal workforce, but by 1992 had settled for 25 [percent] or less"; likewise, in 1982, the Cominco Red Dog mine in northern Alaska promised to hire 100 percent Red Dog residents by 2002, although only 50-60 percent had been employed by that time.

These experiences have resulted in a tendency for recent IBAs to promote the preferential hiring of local applicants but without specifying the percentage, although some may include a minimum expectation (Storey, 2010; Mills and Sweeney, 2013). Because of deficiencies in education and technical skills among residents of rural communities, many of the positions offered to local workforces are lower-skilled jobs (Mills and Sweeney, 2013).

3.3.2. Project induced in-migration (PIIM)

Another impact of local employment opportunities is in-migration of workers from outside the project area. Many people move from other cities and towns to take advantage of preferential hiring policies and to seek better jobs and entrepreneurial opportunities within the development (Gellert and Lynch, 2003). This situation is characterized as a social phenomenon: project induced in-migration (PIIM), as described by the International Finance Corporation (IFC). Project induced in-migration is related not only to the extractive industry, but also occurs in many large-scale infrastructure projects (construction of dams, highways, etc.). It appears due to direct and indirect economic opportunities, such as employment, local benefits offered by developers, and new business opportunities in supplying goods and services within the project (Gellert and Lynch, 2003; IFC, 2009).Many mine developers have established their own

standards and policiesto address the issue, but currently the IFC's Handbook for Addressing Project-Induced In-migration (2009) is the only publicly available set of guidelines (Bainton et al., 2017). The handbook identifies the sources of PIIM occurrence, socio-economic and environmental impacts of the phenomenon, and management strategies to address the problem.

If planned and managed properly, PIIM can bring positive changes to the project area, including improved access to quality goods and services, the creation of more jobs, an increased number of local taxpayers, and other benefits. For example, development of the Erdenet Cu-Mo mine in Mongolia has led to the establishment of the country's second-largest city, Erdenet. During the 1970s, Erdenet was the home of Russian and Mongolian engineers and specialists who in-migrated with their families to work at the mine. Today, it has been expanded into a major industrial center, including ore-processing facilities, a carpet factory, and food-processing plants.

On the other hand, there are many cases in which PIIM has led to significant problems, including environmental, social, and health issues resulting from population increases that stress available resources (IFC, 2009). For instance, new migrants may cause: unplanned resettlements; increased cost of living; gender and age inequality due to the disproportionate number of male miners; increased violence and crime; increased alcohol consumption, drug abuse, and prostitution; and increased demand on public services, hospitals, and schools that were designed only for local needs (IFC, 2009; Bowes-Lyon et al., 2009).

3.4. Benefit sharing

Besides local employment, business opportunities, and compensation for land loss, sharing of mineral wealth is an essential element of IBAs that promotes long-term sustainability of mine-affected communities. The benefit sharing provision of an IBA defines the distribution of mineral revenues from the company to a signatory community in non-financial and financial ways (Söderholm and Svahn, 2015; Loutit et al., 2016). This distribution is distinct from a royalty-sharing arrangement between the State government and communities.

Non-financial benefit sharing means investment in educational and medical facilities, and vocational training that is not solely related to the minerals industry. For example, training of teachers, nurses, accountants, or carpenters would enable communities to strengthen their economic, social, and human capacity to continue beyond the finite period of the mine life (Loutit et al., 2016).

Financial benefit sharing is usually managed through local development and investment funds, to which corporations contribute as fixed, production-based, or profit-based annual payments, or host communities receive as dividends from the project (Gibson and O'Faircheallaigh, 2010;Hitch and Fidler, 2007; Loutit et al., 2016). The main purpose of a fund governed by representatives of both the corporation and the community is to promote local sustainability and economic diversity within the community by investing in long-term projects. These projects should contribute to community self-development independent from mining, including expansion of local infrastructure, improved social services, and creation of manufactures.

The arrangement and forms of benefit sharing are specific to the context as they are framed by the specific needs of host communities. For instance, the agreement at the Newmont Ahafo mine,

which uses a mix of production- and profit-based revenue sharing approaches, requires the company to allocate US$ 1 per ounce of gold sold and 1 percent of net pre-tax profit to the community foundation (Loutit et al., 2016; Danso et al., 2016). The foundation management which is comprised from representatives of ten host communities manages implementation of proposed projects (Danso et al., 2016).

4. EXPLORATION AND MINE DEVELOPMENT HISTORY OF THE OYU TOLGOI MINE

The Oyu Tolgoi copper-gold (Cu-Au) mine is located in the Javkhlant Bagh area at Khanbogd Soum of Umnugobi Aimag (Fig.4.1). In the 1980s, a joint Mongolian-Russian geology expedition found a molybdenum occurrence in the area (Perelló et al., 2001). However, geologists Mr. Tseveendorj and Mr. Garamjav noted archeological evidence of old diggings and relics of smelted copper, which suggested that copper was mined in the area during the Bronze Age.

An extensive mineral exploration program was undertaken by BHP between 1996 and 2000. The first two phases of drilling encountered Cu mineralization, but the third failed to bring significant results. The exploration project was suspended after drilling 23 diamond core holes due to a reduction in BHP's exploration budget. In May 2000, Ivanhoe Mines gained 100% interest in the Oyu Tolgoi project and started a reverse circulation (RC) drilling program. The exploration team completed 109 holes within a four-month period by September 2000.The results were encouraging and added additional copper resources (Oyu Tolgoi, 2016).A further expansion of the exploration program discovered a large underground Cu-Au resource, the Hugo Dummett deposit, which meets the criteria of a very high-grade Cu-Au porphyry system (Khashgerel et al., 2006; Richards, 2013).

In 2006, Rio Tinto established a partnership with Ivanhoe Mines. The agreement made Rio Tinto the largest shareholder in Ivanhoe Mines, owning 50.8 percent. Under the memorandum of

agreement with Rio Tinto, Ivanhoe Mines changed its name to Turquoise Hill Resources [2](Turquoise Hill Resources, 2012).

Because the Oyu Tolgoi is a deposit of strategic importance and, according to article 5.5 of the Minerals Law (2006), the government of Mongolia should hold at least a 34 percent interest in a project. On October 6, 2009, Turquoise Hill Resources and Rio Tinto signed a long-term, comprehensive Investment Agreement with the government of Mongolia for the construction and operation of the Oyu Tolgoi mine, creating a legal entity, Oyu Tolgoi LLC (hereafter referred to as "OT LLC"). The agreement created a partnership between the government, which retains a 34 percent interest in the project through the state-owned enterprise, Erdenes Oyu Tolgoi, and Turquoise Hill Resources, which holds a controlling 66 percent interest.

The year of 2013 was a major highlight in OT LLC's development history when production and export of Cu and Au concentrate from the open pit mine started. This led to an increase of the country's Cu exports by 112% from 2013 to 2014 (EITI, 2016).

It is estimated that the open pit mine contains only 20 percent of the total deposit reserves, whereas the majority occurs in the underground Hugo Dummett and Heruga deposits. Underground development is taking place in the Hugo Dummett deposit, with full production planned for 2023.

[2] "Turquoise Hill" is an English name for "Oyu Tolgoi".

4.1. OYUTOLGOI's SOCIAL ENGAGEMENT

Since obtaining a social license to operate (SLO) has become an essential part of the mineral development process, the Oyu Tolgoi developers, Turquoise Hill Resources and the GoM, have acknowledged the importance of their social obligations and have put significant effort into maintaining a respectful relationship with affected communities by addressing issues such as migration, economic equality, and water shortages. However, during the exploration period (1996-2006), little commitment was made by BHP and Ivanhoe Mines, except for some resettlement activity in 2004 (Oyu Tolgoi, 2016). A greater consideration of socio-economic issues, as described below, started at the beginning of Oyu Tolgoi mine development with the ratification of the Investment Agreement in 2009. This agreement requires OTLLC to implement its corporate social responsibility (CSR) strategy and to establish negotiations with local communities.

4.1.1. Social engagement at the national level

Social engagement of OT LLC at the national level can be characterized by its contributions to Mongolian socio-economic development through taxes and fee payments, employment and procurement payments, and educational programs. Major inputs of OT LLC to Mongolia are shown in Table 5.1. The overall payment by OT LLC to the GoM in 2016, in the form of taxes, royalties, and other fees, was over USD 173 million, and OT was acknowledged as the largest taxpayer of that year (EITI, 2016). As of the third quarter of 2017, OT LLC reported that 94 percent of its employees were Mongolian, 80 percent of whom were from the capital city,

Ulaanbaatar. Many students have been granted scholarships to pursue studies either internationally or domestically, and OT LLC has contributed to the construction and expansion of several technical schools across Mongolia (Table 4.1). These contributions mostly reflect the provisions of the Investment Agreement and Laws of Mongolia.

Table 4.1: OT LLC's national contributions
Sources: Social Investment (2012); Oyu Tolgoi (2016)

Contributions	**Details**	**Related provisions of the Investment Agreement (2009)**
Student scholarship program	During 2010-2015, 200 students were supported through their studies at universities across Mongolia, with a further 30 scholarships granted to study in mining-related fields at international universities.	8.15. The Investor shall establish a graduate scholarship program for assisting in the education of Mongolian nationals in mining-related disciplines, with an emphasis on engineering-related disciplines, within which scholarships over a 6 (six) year period from the Effective Date will be granted to 120 (one hundred and twenty) students studying at Mongolian universities and to 30 (thirty) Mongolian students studying at international universities. The scholarship program will cover tuition fees and living expenses".
Vocational training program	OT LLC has built three Technical and Vocational Educational and Training Schools in Khanbogd and the cities of Dalandzadgad and Nalaikh. OT LLC has contributed to extension and construction of four facilities in Erdenet, Dalanzadgad, Darkhan and Choir cities. As of 2012, 6600 people were trained at these establishments.	8.13. The OT LLC Training Strategy and Plan will focus on training skilled workers for the OT Project and training them for professions, and improving their vocational and professional skills, relevant to the OT Project and mining in Mongolia generally and specifically in the Southern Gobi region.
94 percent of employees are national	Employees, who commute from Ulaanbaatar under a fly-in fly-out routine and work at the Ulaanbaatar head office, comprise 80 percent of national workforce.	8.4. By Article 43.1 of the Minerals Law, not less than 90% (ninety percent) of the Investor's employees will be citizens of Mongolia.

58 percent of key suppliers are national contractors	669 national suppliers are among 1146 businesses collaborating with OT LLC. 105 contractors are from local South Gobi regions.	4.12. The Investor shall support special business development programs to assist in starting and growing local businesses so they can supply the OT Project, as well as the expansion and diversification of Mongolian business partners.
Payments to the Government in the form of taxes, fees, and royalties	Between 2010 and the end of 2017, USD$1.48 billion was derived from the OT project in taxes, fees, and royalties.	2.1. The Parties agree that, in accordance with Article 29.1.1 of the Minerals Law, the following the Stabilized Taxes: corporate income tax; customs duty; value-added tax; Excise tax; payment for the use of mineral resources (royalty); payment for mineral exploration and mining licenses; Real Estate Tax; and tax on the price increase of some products.

4.1.2. Social engagement at the local level

4.1.2.1. Local setting

The Oyu Tolgoi mine is located in the Khanbogd Soum area (Fig.4.1). In 2005, the population of Khanbogd was 2870 but this number has increased rapidly due to the migration of people seeking jobs at the mine, expanding to 6978 in 2017 (NSO, 2005; 2017). Sixty percent of the population resides in the town-center of Khanbogd Soum. There are 1768 households, 669 of whom (about 40 percent) are registered as herder families (NSO, 2016). Herders usually live in the areas outside the Soum center and move their herds seasonally, mostly within their respective Bagh territories. At times of local drought, they have to travel to neighboring Baghs, or even other Soums, to graze their livestock. Livestock remains the primary source of income for many families; however, some may have additional incomes, such as running small shops or participating in temporary labor. Water resources at the location of their seasonal camps play

themain role in herders' daily lives. Herders mostly extract water from hand-dug wells, while some have access to deeper wells drilled by the GoM or OT LLC (Resettlement Action Plan, 2015).

4.1.2.2. Cooperation agreement (CA)

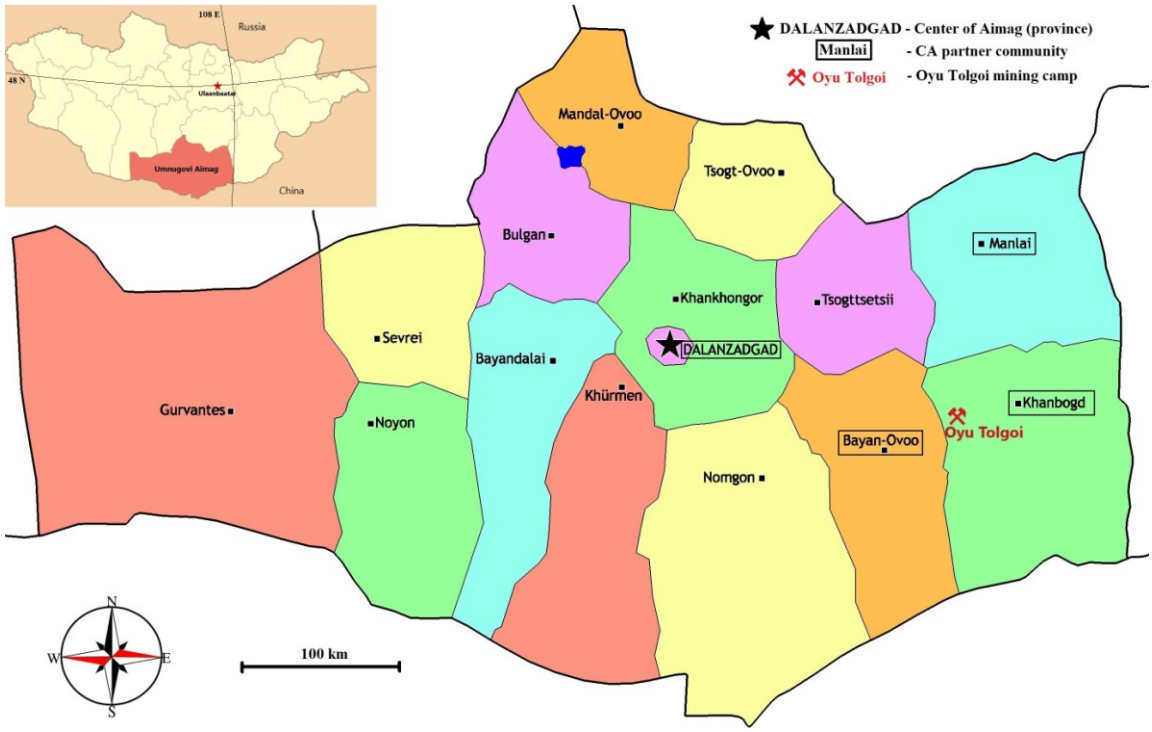
The potential of the OT project to contribute to the development of the Gobi region was first described publicly in February 2002 during a conference held in Dalanzadgad, a central town of Umnugobi Aimag (OT, 2016).

Under articles 4.5, 4.6 and 4.9 of the Investment Agreement, and article 42.1 of the Minerals Law, OT LLC is required to develop partnerships with local authorities through a cooperation agreement to ensure sustainable benefits from the project are distributed to the local Umnugobi communities. Consequently, a Memorandum of Understanding and Process Agreement were established between OT LLC and governors of Umnugobi Aimag and Khanbogd Soum in 2011 and 2012, respectively. They were a key first step in the development of the more comprehensive CA which was signed in April 2015, and added two neighboring Soums, Manlai and Bayan-Ovoo (Fig. 4.1).

The CA comprises development strategies of all parties in seven "thematic schedules": water management; environmental management; pastureland management; national history, culture, and tourism; social services; local businesses development; and infrastructure management. A range of development programs has been established since 2011 (Social Investment, 2012), including:

- The Gobi Prosperity Program, which was developed to support local businesses that are not tied to the mining industry;
- The Pastureland Management Program, which was established with the aim of encouraging the sustainable development of traditional livestock husbandry and the nomadic lifestyle of local herders;
- The Cultural Heritage Program, which strives to manage and minimize mining impacts on local culture and heritage, and to restore and preserve cultural heritages across the region;
- The Community Health, Safety and Security Program, which aims to prevent communities from diseases and accidents, to promote healthy behavior among youth, and to contribute to strengthening the local medical sector.

Figure4.2: Map of Umnugovi Aimag



4.1.2.3. The Gobi Oyu Development Support Fund (DSF)

The CA is implemented through the Gobi Oyu Development Support Fund (DSF) and the Relationship Committee, which consists of four OT LLC representatives and nine representatives of the communities. The DSF was established in September 2015 as a standalone legal entity and is located in Dalanzadgad, a center of Umnugobi Aimag. The main financial contribution arising from the CA is an annual USD 5 million allocation to the DSF for support of local development projects and programs. The annual contribution was fixed in the first two years, 2015 and 2016. Since January 2017, the amount has been calculated by an equation where the Consumer Price Index of the United States is the main indicator (Cooperation Agreement, 2015):

$$\boldsymbol{AnnualContribution_t = US\ \$5,000,000 \times \frac{CPI^{US}_{t-1}}{CPI^{US}_{baseperiod}}}, \text{ where}$$

$AnnualContribution_t$ – contribution by OT in year of t;
CPI^{US}_{t-1} – overall seasonally unadjusted Consumer Price Index of the US, published by the United States Bureau of Labour Statistics, in July of year;
$CPI^{US}_{baseperiod}$ – overall seasonally unadjusted Consumer Price Index of the US, published by the United States Bureau of Labour Statistics, in the base period of July 2015.

The Gobi Oyu DSF manages the fund by receiving project proposals, and summarizing and categorizing them into CA-based themes. The DSF Board members meet quarterly to discuss and select the proposed projects for further approval. The DSF has made the funding guidelines publicly available through a book which was distributed to partner communities. The book is written in Mongolian and contains information on steps in the approval process, eligible applicants, and eligible projects.

4.1.2.4. Community newsletters by OT LLC

OT LLC attempts to provide residents with up-to-date information on the company's ongoing activities and social performance by distributing a monthly 'community newsletter'. Based on editions from January-March 2017 reviewed by the author, the newsletters were written in plain Mongolian language with clear illustrations and graphs, and contained materials mostly about OT-community relations. They included, but were not limited to:

- the company's 2016 production report, in brief;
- a list of prospective proposals developed by the DSF;
- data on OT-sponsored students and OT local employees;
- a chart with numbers of comments, complaints, or petitions received from residents, and their status.

4.1.2.5. Local employment

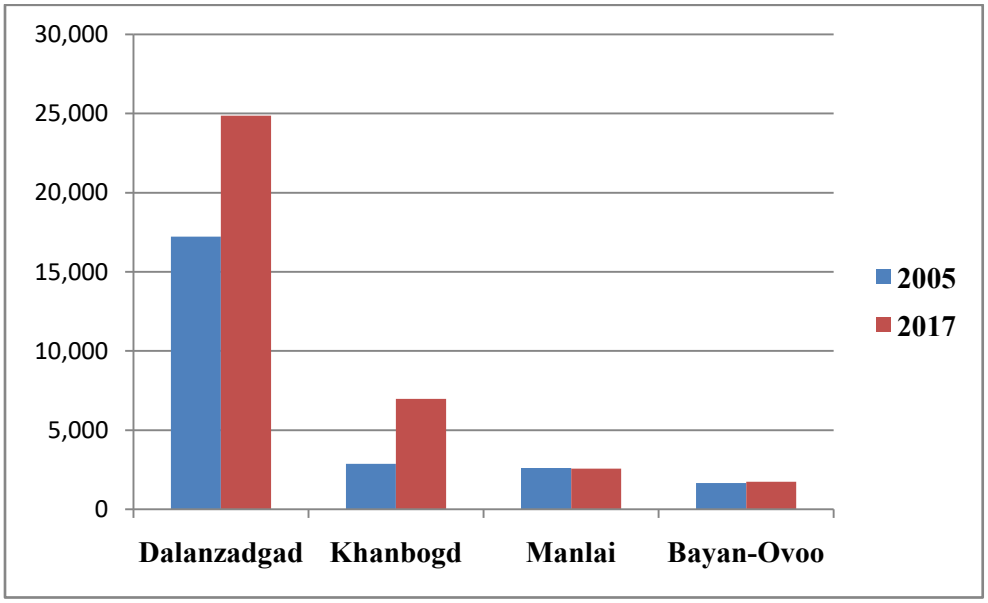
Clause 4.11 of the Investment Agreement states that "the Investor shall make as priority training, recruiting and employing citizens of local communities in the Southern Gobi region, with preference to Umnugovi Aimag". Employees from CA partner communities comprise around 20% of the total OT labor force, and 95.5% of all South Gobi workers as of March 2017 (Table 4.2). OT LLC accommodates different commuting arrangements for employees depending on their travel distance from the mine site. The fly-in/fly-out roster is for employees based in Ulaanbaatar (550 km distance) and Dalanzadgad (240 km), whereas bus-in/bus-out is for employees based in Manlai (130 km), Bayan-Ovoo (160 km), and Khanbogd residents (45 km).

Table 4.2: Number of OT LLC employees from partner communities and elsewhere in Umnugovi
Source: OT LLC community newsletter of March 2017

Partner Communities	**Direct OT employment**	**Indirect OT employment (through suppliers and subcontractors)**	**Total**
Dalanzadgad	127	486	613
Khanbogd	197	857	1054
Manlai	9	103	112
Bayan-Ovoo	2	47	49
			1828
Other communities			
Bayandalai	4	5	9
Bulgan	1	2	3
Gurvantes		1	1
Mandal-Ovoo	1	2	3
Noyon	3	2	5
Nomgon	2	4	6
Sevrei	3	2	5
Khankhongor		14	14
Khurmen	2	3	5
Tsogt-Ovoo		3	3
Tsogt-Tsetsii	2	30	32
			86

Given the latest available census of 2017, and the data provided in Table 4.2 and Figure4.2, the OT LLC employment rate per capita in Khanbogd is much higher than the other three partner communities. The high employment rate in Khanbogd has potential risks for negative impacts from project induced in-migration (PIIM) as described by Bainton et al. (2017), such as insufficiency in public services and growing pressure on available resources. However, OT LLC considers a growth rate of less than 8 percent per annum manageable for Khanbogd, which was monitored as 7.5 percent in 2017 (In-migration Management Plan, 2017).

Figure 4.2: Population growth in Partner Communities
Source: National Statistics Office of Mongolia (2005; 2017)



4.1.2.6. Physical resettlement – 2004

During the main exploration period in 2004, the company needed to drill at several locations in the license area that overlapped with the traditional lands of 10 herder families[3] and their winter/spring shelters (Resettlement Action Plan, 2015). In consideration of the possible impacts of this activity, herders were asked to move out of the license area.

Given the public nature of pasturelands declared in the Constitution of Mongolia (1992) and that the land is state property, there is no legal document to certify herders' land ownership or possession; however, mine developers can obtain such certificates for their own activities through the land-use agreement with local Soum authority. Herders' traditional and economic activities in relation to the land and their rights to the land have not been acknowledgedin mining

[3] Later, this was reported as 11 households because one family with adult children requested to be recognized as two households (Resettlement Action Plan, 2015).

legislation (Dalaibuyan, 2015). Thus, when nomadic lands overlap with mine license areas, herders have commonly had to evacuate the area. Article 41.1 of the Minerals Law states that a mine developer has to undertake all relocating expenses, and rebuild winter shelters and wells at the new locations.

Despite the deficiency of Mongolian regulations on the resettlement, OT LLC followed Performance Standards of the International Finance Corporation (2012), Environmental and Social Policy of the European Bank of Reconstruction and Development (2008), and Rio Tinto's own standards and policies that set requirements and recommendations for land acquisition and involuntary resettlement. Accordingly, a confidential resettlement contract, which has become public since May 2017, was concluded and signed by the head of each family, the Khanbogd Soum governor, and the CEO of Ivanhoe Mines (Resettlement Action Plan, 2015).

4.1.2.7. Economic displacement – 2011

Due to the expansion and construction of the mining infrastructure, Khanbumbat airport, the Gunii Khooloi borefield and water pipeline, and a paved road from the Oyu Tolgoi mine to the Gashuun-Sukhait border post, OT LLC identified 89 additional households who resided in areas of potential impact (Resettlement Action Plan, 2015). As a result of poor planning during the first resettlement, seven of these 89 herder families were disturbed a second time. Although affected herders were not asked to physically resettle from the areas, new developments had limited their access to pasturelands and water resources.

In order to mitigate the negative impacts of resettlement, the 2015 Resettlement Action Plan provided compensations that are shown in Table 4.3.

Table 4.3: Economic Displacement-2011 Entitlements
Source: Resettlement Action Plan (2015)

Compensation element	Comments
1. One job per family. A family with adult child is recognized as two households.	One job position was provided to nominated person from the eligible households. OT offered a job for herders as 'Road Maintenance Workers' (RMW). Their role is to maintain cleanness along the OT camp-Khanbogd, the OT camp-Gashuun Sukhait roads.
2. Education assistance for school children	All primary/secondary school students of each family are provided with a fixed amount ofstationery materials, equipment and uniforms for five years.
3. Sustainable pastureland management and additional livelihood support	MNT 35000 (USD 15), as pasture management assistance is provided to each family. The frequency of these payments is unclear.
4. Tertiary education scholarships	A scholarship for one student from each of the families enrolled in Mongolian institutions. It covers the tuition fees, travel and accommodation fees for each student for the duration of the program, subject to satisfactory performance. By 2014, seven students from compensated households were supported.
5. Short-term vocational training	Short-term vocational training has been offered for an agreed amount covering one training course for each family (up to 45 days) in Mongolia. The agreed amount is not identified. As of 2014,five herders attended certified short courses in driver training and retail training.

4.1.2.8. Socio-economic surveys of affected families

In 2011 and 2014, OT LLC conducted socio-economic quantitative surveys of directly impacted herders, comparing the social and economic situations of herders before and after resettlement (Resettlement Action Plan, 2015). The herding activity remained as the main source of family

income at 66 percent, and the employment rate in non-herding sectors had increased by 11 percent since 2011. Based on the increase in employment rate, increased number of livestock, and increased number of accessible wells, studies concluded that the economic situation of families in impact zones had improved since 2004, and compensation measures for impact mitigation had succeeded.

However, open discussions by OT LLC found that several families were dissatisfied with the compensation package in general terms (Resettlement Action Plan, 2015), physically resettled herders were disappointed with some elements of their relocation experience and OT LLC's engagement after relocation.

4.1.2.9. Civil society organizations and herders complaints

Oyu Tolgoi (OT) Watch NGO

In March 2010, after negotiation of the Investment Agreement in October 2009, individuals from civil society organizations established a national watchdog organization to monitor the compliance of Oyu Tolgoi LLC activities with international and human rights standards (SOMO, 2018). OT Watch was founded as a non-governmental organization (NGO) with goals to seek transparency in the Investment Agreement, and to ensure holistic and meaningful environmental and social impact assessments for the Oyu Tolgoi project.

Gobi Soil NGO

A Khanbogd-based local NGO, the Gobi Soil, was established in response to herders' disturbance by OT activities with the purpose of protecting their rights in a systematic way. One of the NGO's founders was a subject of the physical resettlement in 2004.

Relocation activities, and a diversion of the Undai River, which flowed into the mine open-pit, received much opposition from affected herders. Gobi Soil, with the assistance of OT Watch, filed two complaints to the Compliance Advisor Ombudsman[4] (CAO) in October 2012 and February 2013. The first complaint letter was about an underestimation of project impacts, and inadequate compensation to mitigate them (Gobi Soil & OT Watch, 2012). Although the public essence of pasturelands and the sparse numbers of herder families in the Gobi region gave herders access to non-claimed lands, Gobi Soil wrote that the short notice did not allow herders to select good locations with protection from wind and cold (Gobi Soil & OT Watch, 2012). In addition, pressure from the local authority caused herders to rush their decisions (Gobi Soil & OT Watch, 2012). The second concern was about OT's water use, increased of water scarcity, and extinction of an ancestral spring resulting from alteration of the river flow (Gobi Soil & OT Watch, 2013).

Herders' self-identification as Indigenous

In both letters, herders identified themselves as Indigenous to the area because they practice a traditional nomadic lifestyle highly dependent on land and water resources, and criticized OT for failure to obtain free prior informed consent before any construction began (Gobi Soil & OT Watch, 2012, 2013). Although the IFC (2012) agreed to work towards a resolution of the herders' concerns, it responded that herders in Mongolia were not considered Indigenous in compliance with the World Bank's Operational Manual (2005), because "nomadic herders represent the mainstream tradition lifestyle in the country and have no distinctive ethnic features from the rest of population of the country" (IFC, 2012: p.3). Therefore, the IFC concluded that

[4] CAO is an independent accountability mechanism for the International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA), members of World Bank Group and investors in OT.

the Performance Standard 7, which focuses on Indigenous populations, was not applicable to the Oyu Tolgoi project (IFC, 2012). Similarly, the European Bank for Reconstruction and Development (EBRD)noted the problematic status of Mongolian herders as Indigenous, considering on one hand the strong ties of their livelihood to pastureland and water resources, but their non-distinction from the majority of the population "within national societies" on the other (EBRD, 2017: p.12). However, no systematic analysis was conducted by the EBRD or OT in this regard (EBRD, 2017), and the situation remains unresolved.

5. METHODOLOGY

This research aims to study the implementation and impacts of the CA that was negotiated for the giant Oyu Tolgoi copper-gold mine in Southern Mongolia, from the perspective of signatory communities, and to examine the challenges and achievements of the agreement by employing a phenomenological approach of qualitative research. The study uses qualitative interviews and participants observation methods to explorecommunities' perceptions of the CA.

5.1. Theoretical considerations

5.1.1. Critical Realism

A critical realist perspective was employed throughout the thesis. The concept of critical realism draws from epistemological and ontological positions that consider both the limitations of the researcher and alternative ways of understanding the world to better explain a social phenomenon: in this case, mining-community relationships.

Critical realism is a philosophical perspective that presents a fundamental alternative to the traditional forms of positivism and interpretivism (Houston, 2001; McEvoy and Richards, 2003). It is a philosophy of science that is based on truths about the nature of the world. Critical realists identify three different ontological forms of reality: empirical, where by aspects of reality can be experienced either directly or indirectly; actual, whereby aspects of reality occur, but may not necessarily be experienced; and real structures that generate a phenomenon (Bhaskar, 1978; Delorme, 1999). Qualitative methods of research, from a critical realist perspective, are capable of explaining reality because they are open-ended. Theoretical approaches to critical realism tend

to rely on dialoguing methods that foster conversation and reflection, for example combining observations and interviews.

5.1.2. Phenomenology

Given the exploratory nature of this study, a qualitative research design is the most suitable. Community perception of the relationship between the mining company, OT LLC, and the surrounding communities is examined through the undertaking and analysis of interviews (Elliott and Timulak, 2005). This qualitative study employed a phenomenological approach as it sought to explore how communities comprehend the phenomenon, the CA, and how they participate in its implementation. The was done through generating insights derived mainly from common experiences of the community members of OT LLC's social engagement, and gaining a deeper understanding of the effects of implementation of the Cooperation Agreement (Creswell, 2007; Mayan, 2016). The phenomenological design has enabled me to study the perspectives of different groups, including herders and town residents, and to investigate their current understanding of the phenomenon (Creswell, 2007). Study participants were selected from Khanbogd, Manlai, and Bayan-ovoo Soums, signatory communities of the CA, to apply community perspectives to the research. These perspectives provide an in-depth understanding of OT LLC's social engagement and the CA, in addition to public documents offered by OT LLC. By studying the phenomenon in a real-life context, these data create the opportunity to look more extensively at the topic from a community viewpoint. Perspectives of communities are integral to this research as they reveal how mining development is understood by local stakeholders.

5.2. Methods

5.2.1. Semi-structured interviews

The study employed in-depth interviews as a primary method of data collection. Kvale (1996) considered in-depth interviews as appropriate for phenomenological studies by obtaining people's experiences and perceptions of the context.

Semi-structured in-depth phenomenological interviews were conducted with 19 informants during March 20-31, 2017. Interviews sought information about how the participants "think and feel in the most direct ways" (Bentz and Shapiro, 1998, p. 96). Although an interview guide was maintained throughout the dialogue, the participants were given the opportunity to talk about the issues and experiences they wanted to share.

The duration of interviews and the number of questions varied from one participant to another, depending on individual circumstances and preferences. The longest interview lasted an hour and a half while the shortest was about 30 minutes. Interview questions were originally prepared in English; however, the researcher translated them into Mongolian as most of the participants did not communicate in English. Audio-recorded interviews were later transcribed and, where necessary, translated back to English for analysis.

5.2.2. Participant Observation

As a secondary method of collecting data, I used participant observation in the field. This method enabled me to learn about local lifestyles and activities, to identify relationships with

informants, and to select a sampling method for the interviews (DeWalt and DeWalt, 2002; Kawulich, 2005). This research used unstructured observations for two purposes: to provide information on the physical environment of the case study; and to increase the credibility of the interview data by observing additional non-verbal information that might provide insight (Maxwell, 2012). According to Yin (2009, p. 94), participant observation involves "being a resident of the neighborhood that is the subject of a case study, taking some other functional role in a neighborhood [and] serving as a staff member in an organizational setting."This method can reveal information from the 'insiders' viewpoint that would otherwise be unavailable (Yin, 2009). Considering that the author of this thesis is Mongolian and speaks fluent Mongolian, participant observation was used to complement the main method above. Through daily interactions with the herders and town residents, I was able to obtain, among other observations, a general understanding of the perception of the impacts of the mine within the community. Additionally, I was present as an observer at a seasonal meeting of the Relationship Committee (made up of four representatives of OT LLC and nine representatives of partner communities), held by Gobi Oyu DSF on March 14, 2017.

5.3. Researcher's positionality

In a qualitative study that provides understanding to participants' responses, it is critical to acknowledge that the interpretation of data can be influenced by social and cultural identities of a researcher. The researcher's insider/outsider positionality is a process of evaluation rather than a separate definition which constantly shifts from one to another (Breen, 2007; Naaeke et al.,

2011). As a result of my dual positions in this research related to Mongolian rural communities, both opportunities and challenges are faced throughout the research.

Being born and raised in Mongolia, my insider status was an advantage during data collection – I could easily access to the mining communities, ask comprehensible and relevant questions, understand the nuances of the language while remaining sensitive (Merriam et al., 2000). As an insider I was also able to interpret the Mongolian culture and language which contributes to minimal marginalization.

While my insider status offered rapport and easy access to mine-affected communities, I also had a position of an outsider due to my urban residency and educational background. Levels of mine-related impacts experienced by study participants are at greater extent varied from that of the researcher who lives in the capital city. Having an academic knowledge of geosciences, understanding of mining processes also differed between me and participants. However, these different perspectives did not influence interviewees' participation in the study or hinder the data collection process. Instead, the outsider position helped me to negotiate objectively before entering the research setting with the same rigor as any other researcher, although I share cultural, linguistic and ethnic identities with my informants.

5.4. Ethical Consideration

All interviews were audio-taped upon prior consent from participants and followed all ethical considerations of research involving a human (Bailey, 1996; Arkley and Knight, 1999).Based on Bailey's (1996) recommended items, I developed a specific informed consent form to gain

permission from participants (Kvale, 1996; Arksey and Knight, 1999; Bless and Higson-Smith, 2000), which included a description of:

- the purpose of the research,
- the procedures of the research,
- the risks and benefits of the research,
- the voluntary nature of research participation,
- the procedures used to protect confidentiality.

The informed consentform was reviewed and approved in March 17, 2017 by the Research Ethics Board 1 ofthe University of Alberta (Gray et al., 1978; Kvale, 1996; Holloway, 1997)

5.4.1. Compensation and Incentive

In an effort to develop a comprehensive understanding of the relationships between OT LLC and its partner communities, autonomous and voluntary participation was pursued. Interviewees were not monetarily compensated for their time, but incentivized for their participation in the study, which is common in qualitative studies in Mongolia. Each interviewee received a chocolate with a value of $2 because an hourly wage in Mongolia was $2, and one interview was planned for one hour.

5.5. Case Study and Participant Selection

The Oyu Tolgoi mine was chosen as a case study in this research because:

- it is a recent and large project that is having a major impact on the country's economy;
- it significantly impacts surrounding South Gobi communities; and

- it involves a disclosed Cooperation Agreement.

I used purposive sampling, which Welman and Kruger (1999) suggested as the most useful type of non-probability sampling, to identify the primary participants. I selected the participants based on my judgment and the purpose of the research (Babbie and Wagenaar, 1995; Schwandt, 1997), focusing on those who "have had experiences relating to the phenomenon to be researched" (Kruger, 1988 p. 150). With the aim of reaching additional participants, I used snowball sampling. Snowballing is a sampling method to expand the sample size by asking participants to recommend others for interview (Crabtree and Miller, 1992; Babbie and Wagenaar, 1995).

Nineteen interviews were conducted with Khanbogd, Manlai,and Bayan-ovoo residents, a Manlai government official, and NGO representatives (Table 5.1). Interviews involved 7 herders including 2 members of the NGO, and 12 town residents including a government official, elders and people with disabilities. Profiles of the respondents are kept confidential in accordance with the informed consent agreement. These interviewees are the primary unit of analysis (Bless and Higson-Smith, 2000). Each interview was assigned a code. Because more than one interview took place in a day, the different interviews were identified by an alphabetic character followed by the date, for example, "Participant-A, 20 March 2017".

Table 5.1: Study participants

<table>
<tr><td rowspan="3">Khanbogd
58% (n=11)</td><td rowspan="2">Herders (n=7)</td><td>Herders (n=5)</td></tr>
<tr><td>NGO rep (n=2)</td></tr>
<tr><td colspan="2">Town residents (n=3)</td></tr>
<tr><td colspan="2">Minority group (elders, people with disabilities) (n=1)</td></tr>
<tr><td rowspan="3">Manlai
26% (n=5)</td><td rowspan="2">Town residents (n=3)</td><td>Residents (n=2)</td></tr>
<tr><td>Government official (n=1)</td></tr>
<tr><td colspan="2">Minority group (elders, people with disabilities) (n=2)</td></tr>
<tr><td>Bayan-Ovoo</td><td colspan="2">Town residents (n=2)</td></tr>
</table>

16% (n=3)	Minority group (elders, people with disabilities) (n=1)
TOTAL 100% (n=19)	

5.6. Data Analysis

In order to deal with the large amounts of textual data involved in this research a process of coding, condensation, and interpretation was used. Contextual thematic analysis involved taking large amounts of textual data and reducing them to a manageable volume by coding and categorization, followed by analysis based on data relationships.

5.7. Qualitative Rigor

Establishing the rigor and trustworthiness of qualitative research is essential for increasing the significance of the study. It requires qualitative researchers to evaluate the consistency of methods undertaken and the credibility of final conclusions (Noble and Smith, 2015). The criteria of credibility, transferability, dependability and confirmability are general principles for establishing the rigor of qualitative research (Lincoln and Guba, 1985; Baxter and Eyles, 1997).

5.7.1. Credibility

Credibility refers to the degree to which the researcher conveys participants' real-world experiences through his/her interpretation (Baxter and Eyles, 1997; Creswell, 2007). In other words, credibility requires the researcher to link the research's findings with reality in order to establish the truth of the findings. Compared to the other three aspects of trustworthiness, there

are a variety of techniques available to establish credibility. In this study, data and method triangulation were used to establish credible results. Consistency of data from different sources and methods strengthens confidence that the findings are credible (Shenton, 2004; Pereira, 2012). Data gathered from documents and reports from OT LLC, discourse data obtained from interviews, and unstructured observations were used to determine the trustworthiness and compatibility of the data. Data triangulation was also achieved using quotations from several of the participant interviews. Method triangulation, including interviews, unstructured observations, and field notes increased credibility.

5.7.2. Transferability

Although the findings of a qualitative study are specific to a small number of particular sites and individuals, if other researchers find their context to be similar to that outlined in this study, the findings may be correlated (Shenton, 2004). In order to enable the reader to make such transfers, contextual background information about the Oyu Tolgoi mine and its neighboring communities has been provided (Lincoln and Guba, 1985; Firestone, 1993; Shenton, 2004).

5.7.3. Dependability

Lincoln and Guba (1985) established a close link between credibility and dependability arguing that achieving credibility ensures dependability (Shenton, 2004). Dependability addresses validity of research design, and its consistency with data interpretation. In order to achieve dependability, the researcher ensures that future readers thoroughly understand the methods undertaken and their effectiveness. In this research, techniques to secure dependability include

field notes, recorded interview data, and detailed reports on processes within the study (Baxter and Eyles, 1997; Yin, 2013).

5.7.4. Confirmability

Confirmability is the last criterion of qualitative rigor which refers to the level of confidence that research findings are based solely on the participants' responses rather than researcher biases (Baxter and Eyles, 1997). There are a number of techniques to enhance confirmability, including audit trail and reflexivity (Lincoln and Guba, 1985; Mayan, 2016). The latter strategy is used to achieve confirmability of this research. Reflexivity requires researchers to consider how their background and experience would influence the processes of data collection and analysis (Malterud, 2001). As a non-resident of the study communities, this researcher had the benefit of impartiality and objectivity towards the study area. However, when developing an interview guide, a lack of prior research on IBA-type agreements in a Mongolian context made the researcher solely depend on the company's available reports and documents.

6. RESULTS

Research findings are based on the responses from 19 participants of three CA partner communities, Khanbogd, Manlai and Bayan-Ovoo. The interviews highlight many significant influences of the Oyu Tolgoi mine on local communities. In this chapter, five key themes that emerged from coding and analyzing the data are presented: communication; public perception of the CA and Gobi Oyu DSF; impacts of employment and migration; water resources; and resettlement and displacement. But in addition to these issues, there was recognition of benefits arising from the mining operation. These perceived benefits are reviewed first, followed by more problematic issues.

6.1. Perceived benefits of the Oyu Tolgoi mine

Most of the study participants (N=12) from Oyu Tolgoi mine-affected communities agreed that OT LLC's contribution to regional development is significant when they were asked if they believed that the company would help their communities to develop sustainably. Participants linked these contributions to improvements in public infrastructure, especially road improvements and construction of hospitals, even though they did not know clearly who they were financed by (OT LLC or the Government). Many residents (N=8) of Khanbogd, including 4 herders, stated that they were happy to see the development and expansion of their hometown. Communities agreed that some of OT LLC's activities, such as the building of new hospitals and kindergartens, had helped to improve their overall social wellbeing since 2010.

All participants (N=19) also had a common expectation that the mine would bring equal opportunities for local workers and businesses. Residents (N=8) of Manlai and Bayan-Ovoo Soums believed that OT LLC had a policy to hire equal amounts of workers from each partner community. Many interview respondents (N=13) claimed that even unskilled laborers expected to be trained and hired by OT LLC.

It was clear from all of the interviews (N=19) that the three communities surrounding the project supported the mine because of its input not only to South Gobi communities but also to the country's development. Herders and town residents had no interest in stopping or delaying the project because they acknowledged OT LLC as a major economic driver for the country. However, some elders (N=2) and herders (N=3) who trusted in spirits of land and resources believed that resources underneath the Oyu Tolgoi mine area were inherited from their ancestors and expressed worries about how these resources were being exploited.

6.2.Communication

6.2.1. Inconsistency of preferred methods of communication

Many residents (N=9)of three communities, mostly Khanbogd herders (N=6), expressed some dissatisfaction with OT LLC's interaction with them. A resident of Khanbogd wanted to directly speak with OT LLC's general manager in Regional Development and Social Performance who works in the Ulaanbaatar office. Although each partner community hosts an OT LLC local office and OT LLC's local representative, the interviewee did not believe that a local representative would be able to fully address his concern.

I wish Baigalmaa [a general manager] came and met us in-person, but we rarely see her in town, except the public meetings and the opening ceremonies where we cannot express our personal matters. Listening to our problems directly from us is different from reading someone's report, isn't it? (Participant-B, 21 March 2017)

When community members were asked whether they could reach the office to share any concerns, most participants (N=11) were not sure, while some of them (N=6) claimed they could but were skeptical that their appeals would be addressed in a meaningful way.

We [Khanbogd herders] wrote a petition that we want to be included in the compensation plan as for the other 89 families, because we felt dust and water shortages in our everyday lives as well. They [OT LLC] refused it as we were out of their so-called impacted area. But, they [OT LLC] advertize through televisions and newspapers implying that the compensation plan covers all the herders! People from other parts of the country keep thinking us as low-pressure and relaxed herders whose everyday work is done by OT LLC and we receive money from OT LLC for that. OT LLC distributes this kind of false information! They better stop doing that. (Participant-A, 22 March 2017)

According to interviews, public meetings run by OT LLC were mostly designed to educate the audience on environmental issues, like climate change and global warming. Five study participants, however, perceived those meetings as a conviction of OT LLC that environmental degradation was not entirely caused by the mine.

I believe the discussions carried out by OT LLC at community meetings are abrainwashing technique to avoid or minimize its responsibilities, because OT LLC tends to blame global issues for degrading the environment. In reality, OT LLC's constructions, like water pipeline, are reasons of such a change. We see that in our own eyes, it's obvious. Well…, theremight be some effects of global warming, ok. I agree. But not like OT LLC says. (Participant-D, 24 March 2017)

For this reason, some community members were less likely to attend the public meetings (Participant-A, 25 March 2017; Participant-A, 24 March 2017).

6.2.2. Skepticism about information provided by OT LLC

It was observed that most participants do not have internet access or the computer skills and knowledge needed to get publicly available reports and documents from OT LLC. The "community newspapers" produced by OT LLC, which were not highly appreciated by interviewees, appeared to be the only source of information about OT LLC activities available to many participants (N=7).

> *OT LLC distributes the "community newsletters" which they claim to be a report of their activities. I think they're partially true, but they just highlight little things they've done right. We want to know both good and bad. I see those newspapers as a cover of negatives. (Participant-A, 23 March 2017)*

> *... It's bullshit! In one of last year's publications, they put a sensational headline, stating "Khanbogd's long awaited road is being built by Oyu Tolgoi LLC" [laughs]. You see the road? It is better to be announced after something's done. (Participant-C, 24 March 2017)*

OT LLC and the Khanbogd authority had announced the construction of an asphalt road connecting the town center with the Oyu Tolgoi camp site in September 2016. The interviews were conducted in March 2017, and indeed, there was no sign of a road construction. Later, however, the road was completed and delegated to Khanbogd authority in December 2018.

The Gobi Soil NGO criticized OT LLC for not consulting with herders prior to establishing a job position, Road Maintenance Worker, for herders:

They [OT LLC] just wouldn't ask us what we need. For example, they didn't ask us whether we want to collect rubbish to earn money or not. They just introduce the final decision. We, herders, have no choice. (Participant-C, 21 March 2017)

Bayan-Ovoo and Manlai residents (N=2)reported that they had not communicated directly with OT LLC as they did not have a reason to contact the company, hoping the Citizens' Representative[5] would speak for them.

So far, I haven't had a reason to contact OT LLC. If I had one, I don't even think OT LLC would accept my individual concern. They cooperate only with people of a higher position. Hopefully, our new Citizen Representatives (CRs) will work closely with OT LLC. But we'll see how they work. Previous CRs were pretty weak. (Participant-B, 23 March 2017)

6.3. Public perception of the Cooperation Agreement (CA) and Gobi Oyu DSF

The Gobi Oyu, a development support fund (DSF), is the main mechanism for implementing the Cooperation Agreement. Therefore, public knowledge about and perception of the DSF is central to this study.

In a 1-day DSF meeting that I attended where Board members discussed project proposals, their enthusiasm for OT LLC's support of regional development was clear. During the meeting, members commonly used words and expressions, such as "contribution of OT LLC", "promotion of sustainable projects", "sustainability", and "community development".

[5]The Citizens Representative is a member of the local Khural (Parliament) of Soum, which is elected for a term of four years. Citizens Representative's roles include but are not limited to ensuring the implementation of the laws and regulations as well as decisions of the Khural, and protecting legal rights and interests of citizens.

Gobi Soil NGO had successfully received 88 million tugriks (USD$33,100) for its gardening project (Participant-C, 21 March 2017). This was one of the first projects to be implemented in Khanbogd.

6.3.1. Public knowledge about the CA and the DSF

Most respondents (N=10) from the communities were not certain what the CA and the DSF did when asked if they were aware of the CA signed between OT LLC and their communities, and the funding available through the DSF. Some participants (N=6), mostly Khanbogd herders (N=4), were familiar with local terms "Gobi Oyu" and "green book", a public manual published by the DSF and distributed through the OT LLC office, rather than the actual Cooperation Agreement (CA).

The reluctance of some community members to actively pursue information about their opportunities and to cooperate with OT LLC was also observed. After looking at the researcher's copy of the "green book", a resident of Manlai wanted to keep it, although it was distributed through the OT LLC office for free.

> *If I closely dig into the published books and materials, it seems like many opportunities are actually available to local residents. We [community members] just miss them mostly because of our unwillingness to try and explore new possibilities. [For example], although I know that I can come up with a project idea to propose to DSF, I have no experience in writing proposals. So, I just refuse to try it. (Participant-B, 29 March 2017)*

6.3.2. Community perceptions of the DSF

Interviewees (N=6) who knew about the DSF and its purposes were doubtful about the whole process of project selection.

> *… I heard that they [DSF] support only the projects proposed by acquaintances of some leaders or stakeholders. We are ordinary people and have nothing to do with it. I don't think it's worth trying unless you have someone to help the proposal going.(Participant-B, 29 March 2017)*

Wanting to keep the majority of the funds within their communities, Khanbogd residents expressed their disagreement with the location of the DSF office in Dalanzadgad, the center of Umnugobi province. The Development Support Fund receives the project proposals and discusses them in Dalanzadgad.

> *I don't understand the idea of keeping the funds at the provincial level. The [DSF's] first two projects were the constructions of two kindergartens in Dalanzadgad. I thought most of the funding would be spent on development of Khanbogd community. But in 2015, Dalanzadgad took all of it. Let other mining companies invest in Dalazadgad town. For me, it's ideal to keep local funds locally. (Participant-C, 25 March 2017)*

> *… They didn't ask us or inform us about the DSF before establishing its office in Dalanzadgad. We want it to be in Khanbogd. Of course, allocations to other communities could be made, but it is better made from Khanbogd. Khanbogd isn't meant to be dependent from Dalanzadgad. If the mineral resources belong to Khanbogd, it's fair to hold money in Khanbogd, isn't it? (Participant-C, 21 March 2017)*

In addition, respondents who were aware of the possibilities claimed that their writing skills were not sufficient to produce a proposal of the required quality. A representative of the disabled (Participant-B, 20 March 2017) reported that she had an idea to gather all women of the [disabled] group and to produce handmade products that could be marketed to OT workers, but

she needed a workplace. She said that this would not be easy to propose to DSF because she did not believe that her eight-year education would allow her to articulate a meaningful proposal.

> *I feel that the idea behind DSF is pretty good. I believe they open lots of opportunities to us [disabled people], but I heard that proposals submitted to them [DSF] were in such a good shape and appearance. To be honest, I can't write on my own … [laughs]. There are people who'd help me with writing and formatting but I'd have to pay them. (Participant-B, 20 March 2017)*

6.4.Impacts of employment and migration

6.4.1. The rapid growth of Khanbogd

The population of Khanbogd has more than doubled in the last12 years, since the Oyu Tolgoi mine development, whereas there has been a slight decrease in the populationof Manlai, and a small increase in the Bayan-Ovoo population (Table 6.1).

Table 6.1: Population growth in three partner communities
Source: National Statistics Office of Mongolia (2005; 2017)

Partner community	2005	2017
Khanbogd	2,870	6,978
Manlai	2,613	2,577
Bayan-Ovoo	1,656	1,733

The high employment rate at Khanbogd was noticeable during the researcher's stay there. During the day, only elders, women and children were walking in the streets, but after dinner time, around 8 pm, groups of men with safety jackets appeared. They were easily identified as OT employees by orange jackets with the OT logo, and commuted on the daily bus-in/bus-out

schedule. There was also a weekly bus-in/bus-out roster (Participant-A, 24 March 2017). A Khanbogd resident said:

> *You won't find a single family in town a member of which is not employed by OT LLC, and there is more than one member of some families that work for OT LLC and its contractors.(Participant-B, 25 March 2017)*

When a government official of Manlai Soum (130 kilometers from Oyu Tolgoi campsite) was asked what his concerns were about this Soum's sustainability, he responded that Manlai was losing workers to Khanbogd (which is located in 40 kilometers from Oyu Tolgoi campsite). He added:

> *Khanbogd and Manlai were at the same level of development and almost with the same population before OT LLC started, but today's difference is huge. Khanbogd is five times bigger than Manlai, which remains as an underdeveloped town. (Participant-A, 28 March 2017)*

The population growth of Khanbogd brings overall community development, including infrastructure and social services. Despite the fact that three communities are party to the CA, with shared rights, development of the nearest town, Khanbogd, over distant Manlai and Bayan-Ovoo towns (130 and 160 kilometers from Oyu Tolgoi campsite respectively) was evident. For example, in Khanbogd, there are three to four choices of motel, whereas there are only two at Manlai, and one at Bayan-Ovoo (which was out of electricity at the time of this research trip). Moreover, the main roads within Khanbogd town are paved whereas the other two towns have only dirt roads.

6.4.2. Anxiety of Khanbogd locals about in-migrants

Residents born and raised in Khanbogd expressed concerns about the behavior of in-migrants. They were very skeptical that job-seekers were likely to contribute to community development.

> *Newcomers are here just for a job. They don't care whether this town develops or not because they aren't going to settle here. They'd leave as mining closes. (Participant-A, 24 March 2017)*

> *Tons of people come from all parts of Mongolia to Khanbogd. They bring both good things and bad. People of different backgrounds act differently and have different tempers. The natives with "КИ"registration[6] have become almost less than in-migrants. During the 90th celebration of the Khanbogd Soum, only natives tended to donate 30-40 thousand tugriks. In-migrants' donations were very rare like a daylight star. (Participant-C, 24 March 2017)*

An elder said that in-migrants tend to have addresses in Javkhlant Bagh because of Oyu Tolgoi mine's geographical location in Javkhlant.

> *Looks like OT LLC is likely to hire people from Javkhlant Bagh, because the mining takes place in Javkhlant. Therefore, people pick addresses in our Bagh. Because having an ID with a local address is just a formal thing, they don't live or physically move here. And the number of those in-migrants hired by OT LLC is more than actual local residents. That's the big problem. (Participant-C, 20 March 2017)*

A mother of two was concerned about crowded classrooms and insufficient school equipment resulting from in-migration.

> *Every year, the number of students at the secondary school increases. My son's class has 38 students. It has exceeded the maximum capacity of 30. Because of that students share their handbooks and stuff … Kindergartens are not an issue here because private ones are available. (Participant-B, 25 March 2017)*

[6] Each Mongolian citizen has a registration number which starts with two letters followed by the date of birth and a 2-digit random number. These letters identify the place of birth. For example, a person, born in May 12 of 1985 in Khanbogd, has a registration number КИ850512**.

6.5. Scarcity of water resources and demand for external monitoring

The findings from the interviews suggest that community members of Khanbogd, Manlai,and Bayan-Ovoo were very concerned about the environmental impacts resulting from large-scale development in the study area. Words and phrases such as "water shortage", "dust", "pollution", and "pastureland loss" were common in responses from herders.

Water shortage appears to be the most concerning issue among all residents in the South Gobi region, which has limited rainfall and surface water. OT LLC reported in 2017 that 16,488,129 cubic meters of underground water was pumped from the Khunii Khooloi pipeline for varied purposes (including household, forestry, road construction), but mostly for mineral processing. The water fees can vary depending on intended use. For mineral exploitation and ore concentration purposes, OT LLC pays USD 37cents per cubic meter. In compensation, OT LLC paid USD 5,892,418.98to Umnugobi Aimag authority as of December 2017.

Herders complained that "the hand-wells for domestic use did not fill back up how they used to" (Participant-A, 25 March 2017).The time taken for full recovery of well water levels is the main indicator that herders use to measure the flow rate into their wells. According to interview responses, the wells now take 2-3 hours to replenish in full, compared to 20-30 minutes a decade ago (Participant-A, 22 March 2017; Participant-D, 24 March 2017).

> *Traditional herders regulate the water levels based on the number of camels watered from the well. Wells that watered 200 camels in the past can't exceed 150 now. Obviously, the ground water would be reduced after pumping it out with two gigantic pipes. It's so painful to see thirsty camels. (Participant-A, 21 March 2017)*

Khanbogd herders revealed that they were suspicious and doubtful of OT LLC's measurements of water flow, and expressed their willingness to get involved in the monitoringprocess, or to employ an independent hydrological survey.

> *OT LLC does measurements in the morning before 10 o'clock. This would mislead the results because herders don't water their stock on an empty stomach. They let herds eat before watering. So the watering happens after 10. (Participant-A, 22 March 2017)*

The field observations also included that there were many studies of environmental and social nature conducted in the Oyu Tolgoi mine area, but mostly done either by OT LLC or by other organizations with its support. Many interviewees (N=9) said that they had participated in lots of surveys and studies but never received their reports.

Most of the herders and a Manlai Soum official explicitly noted the importance of collecting water fees at the Soum authority.

> *This is us who experience a water shortage problem, not the people happily living in apartments! (Participant-D, 24 March 2017).*

> *Soum residents pay water-use fees at each well station. See, we [Soum residents] pay 50 tugriks [1.5 cents] per 25 litre. Does this money go to the province? No, it stays at Soum. Then, why does OT LLC's water compensation have to go to the province? (Participant-C, 20 March 2017)*

A Manlai Soum official explained that a proposed arrangement to allocate 50 percent of water payments from mining companies into the host Soum Government in addition to the general budget would enable Soum authorities to implement their development strategies, particularly regarding water issues. According to the current Budget Law (2011), the Umnugovi Aimag

authority collects water fees from OT LLC and allocates them to all Soum governments in the form of a general budget.

6.6. **Physical Resettlement and Economic Displacement of Herders**

Five participants of this study were herders, two of whom were resettled in 2004, one was included in the Economic Displacement of 2011, and two others were located outside the impacted zones. According to interviews with herders, in 2004, 11 householdsinitially moved their winter camps because they were located in the OT LLC licensed area.

Dissatisfaction of herders with the resettlement and displacement processes was also expressed during interviews. Herders stated that they were not given enough time and information to make good decisions during the resettlement process in 2004. Although they were asked to select new locations for winter camps, it was not clear from the herders' responses and the Environmental and Social Impact Assessment whether they were given alternative options for locations, or how they should go about selecting a new location.

The expansion of mining infrastructure in 2011 was clearly not planned when the 2004 physical resettlement took place. Although the Economic Displacement in 2011 did not require herders to relocate physically, it affected seven households that were physically resettled in 2004. One herder anxiously said:

> *A big company, like OT LLC, plans everything many years ahead. OT LLC should've informed us about locations where the further construction would be held! If done so, some of us wouldn't pick the areas of potential harm. (Participant-A, 21 March 2017)*

Employment appeared to be the issue of most concern for herders within the impact area. Some herders felt disrespected that they were treated as "rubbish collectors". They wanted the herders' dignity to be respected and wanted their practical knowledge to be recognized.

On the other hand, two herders were interested keeping their "Road Maintenance Worker" (RMW) positions and wanted to increase the employment quota per family. One of them responded concerning the one-job-per-family rule:

> *"My son will graduate soon [from the University] and I expect him to come back home and work for OT LLC. But, I also don't want to quit the RMW job because it helps to meet my financial needs. But, if this would help my son to get a job at OT LLC, I'll probably have to give up." (Participant-C, 24 March 2017)*

However, given that OT LLC recognizes a family with an adult child as two households (Resettlement Action Plan, 2015) and the University graduate would be considered to be an adult, this issue could probably be resolved by better communication.

6.7.Herders Complaint Resolution Agreement – May 2017

In March 2017 when interviews were conducted for this study, most of the complaints heard had not been resolved. However, in May 2017, OT LLC and herders managed to establish a Complaint Resolution Agreement (CRA) after more than four years of a dispute resolution process which began in March 2013. This agreement will hopefully address most of the herders' concerns about the resettlement and displacement processes that were raised during field trip interviews in March 2017 (Table 6.1). Media platforms, like www.devex.com and

www.mining.com, note that ratification of the CRA was an historic success for the Mongolian herders (Edwards, 2017; Accountability Counsel, 2017).

Table 6.2: Herders' concerns observed during interviews in March 2017 and their reflection in the CRA

Major concerns of affected herders	Provisions of Complaint Resolution Agreement
Herders were worried about inadequate access to water at new locations. Wells built by OT LLC broke and were unable to water livestock sufficiently.	1.2. Encourage traditional herder mobility and open access to water and land. 2.2. Construct new shallow hand wells based on hydrological studies in the way that they are dispersed across the 4 Baghs. 2.3. Create a maintenance group of herders to build, repair and monitor the new and old wells. 2.5. Equip two boreholes at Gunii Khooloi for herders' household water needs. 2.7. Fund and commission a hydrogeological study by a professional organization.
Herders were disappointed with limited pasturelands.	1.1. Re-establish a grazing system to adjust for the lost pasture areas in the Khanbogd territory. 1.3. Open new and additional pasture through the well building program based on hydrological study results. 1.9. OT LLC to rehabilitate disturbed lands to make pastures available.
Inability to increase a herd size due to the lack of water and land access.	1.7. Carry out more detailed analysis of increases in livestock numbers and absentee livestock ownership in Khanbogd Soum.
Some herders were not included in a compensation plan as their homes were 50-100 meters outsideof designated territories. They were willing to be included.	No provision to expand affected territories.
Herders thought their treatment was non-respectful as they were hired mostly as rubbish collectors or road-side cleaners by OT LLC.	No provision on this issue, but: 2.3. Create a maintenance group of herders (a mix of full-time and part-time workers) to build, repair and monitor the new and old wells. 3.1. Promote local monitoring on pasture, water, soil and vegetation, dust, wildlife, river flows, etc., and build the capacity of local specialized organizations and herders in professional monitoring. 3.1.3. Build capacity of herder groups to collect, process, and report monitoring data.

	4.10.3. Pay salaries or incentives for monitoring work.
Herders and residents of Khanbogd wanted to raise their concerns directly with OT LLC community-relations managers, not to their representatives.	3.4. Community relations team will maintain strong relationships with herders and local residents, providing them with up-to-date information about OT LLC activities and will visit herder households annually.
Herders wanted water fees collected from OT LLC to be paid directly to the affected local Soum authority, not to the Umnugovi Aimag(province).	2.1. Submit a request to the national Government to re-allocate 50% of OT LLC's water use fee back to the Soum government budget.

7. DISCUSSION

Findings of this study indicate that the Cooperation Agreement has benefited South Gobi communities through the Development Support Fund, and the dispute resolution mechanism of the CA has been efficient. However, not all community members are familiar with the CA and its purposes. This study found two limitations that might hinder the effectiveness the agreement. First, disagreement in communication methods preferred by communities and the company (oral vs. written) leaves the communities unknowledgeable about existing benefits and opportunities. Second, the current legal regulations regarding herders' rights to land-use might hinder an effectiveness of the CA.

These findings are discussed below in terms of the primary objectives of the study:

- To compare elements and provisions of the CA with other agreement examples worldwide;
- To evaluate community perceptions of the agreement provisions and implementation based on qualitative interview data;
- To identify constraints that may affect performance of the CA related to providing opportunities for sustainable development in partner communities.

7.1. Review of the CA

7.1.1. Application of the CA to the national framework

The review of EITI reports and the CA's compliance with national legal regulations show that the CA is one of the most comprehensive agreements that has been established between local

governments and mining companies in Mongolia to date (Dalaibuyan, 2015) for the following reasons. First, the CA has included neighboring communities (Manlai and Bayan-Ovoo) in addition to the host Soum (Khanbogd), and Aimag. Many resource developers in Mongolia tend to enter into agreement only with the host Soum authority (EITI, 2016). The inclusive arrangement at Oyu Tolgoi suggests that OT LLC acknowledges the broadness of the project's impacts. Second, in contrast to a template agreement established by the GoM, OT LLC's CA has a measurable implementation mechanism, and has explicitly defined the annual contribution through the Development Support Fund. Third, the CA has developed a systematic and adaptable plan (Thematic Schedules) to address local concerns. This focus on sustainable development goals of communities is missing in the template agreement used by most mine developers in Mongolia.

7.1.2. Application of the CA to the international framework

Unlike numerous IBA-type agreements worldwide, OT LLC and partner communities made the CA non-confidential and bilingual. This promotes transparent negotiations, improves the ability of communities to learn from each other, and reduces risks of corruption(as suggested by many scholars including: Sosa and Keenan, 2001; O'Faircheallaigh, 2008; Caine and Krogman, 2010; Cameron and Levitan, 2014).

The CA has adopted six of the core elements of an effective agreement suggested by O'Faircheallaigh (2004): environmental management, cultural heritage protection, financial payments, employment and training, business development, implementation measures. However, the CA did not include two additional aspects relating to herders' free, prior, informed consent: rights and interests in land, and Indigenous consent and support. According to Dalaibuyan (2015)

and the EBRD (2017) report, it is difficult to require companies to obtain FPIC given the questionable Indigenous status of Mongolian herders. However, this research has found that the absence of these two elements in the CA has resulted in dissatisfaction among herders and caused them to file complaints.

Nonetheless, the CA's dispute resolution mechanism has shown its effectiveness by resolving herders' complaints regarding their rights and interests in land, and ratifying the Complaint Resolution Agreement (CRA), although it is too soon to assess its outcome. O'Faircheallaigh (2017: p.1190) noted that IBA-type agreements can be considered successful when they provide a meaningful solution to project-related 'conflicts within a community', giving communities strength to negotiate and secure their rights. Moreover, following the CRA enactment in May 2017, OT LLC submitted a request to the GoM to re-allocate 50 percent of OT LLC's water use fee back to the local Soum Government as desired by communities. If the request gets approved, it would show the influence of local communities on government policy through the CA.

7.2.Financial contribution of the CA

The main financial contribution arising from the CA is an annual allocation of approximately USD 5 million to the Development Support Fund according to the equation which depends on the quotient of the Consumer Price Indexes (CPI) of the US of 2015 and the year of contribution. In contemporary economies when the CPI is steadily increasing each year over the last two decades, this arrangement presents a minimal risk for communities because it does not have direct relation with the commodity price drop and the production slow down.

However, a re-calculation of the CA contribution would be needed along with OT underground mine's production which is expected to grow beyond 2023.

In contrast to OT's benefit sharing structure, at the Ahafo Gold mine project, Newmont pays to Ahafo Development Foundation USD 1 for every ounce of gold sales, also 1% of the company's net pre-tax income, and of any gains made in selling assets that total USD 100,000 or more. Many scholars, including Gibson and O'Faircheallaigh (2010), Hidler and Fitch (2007) and Loutit et al. (2016) consider the scheme to be an optimal example for financial benefit sharing; however, Loutit et al. (2016) note that it would be vulnerable to commodity price decreases and dependent on the company's profit.

7.3.Community perceptions of the CA

7.3.1. Insufficient public understanding about the CA

Study findings show that public awareness of the CA is not sufficient to place community members in a strong position for negotiations. The same pattern was also observed in a study of the Ahafo Benefit Agreement in Ghana by Boakye et al. (2018). These authors found that Ahafo community members not directly involved in the agreement-making process had not heard of the Benefit Agreement at all.

This raises a critical question: whose responsibility is it to inform ordinary community members? Is it an obligation of the OT LLC or community representatives on the Relationship Committee, or is it the community members' individual responsibility to seek information?

According to the CA, one of the primary purposes of the Relationship Committee, which consists of nine community representatives and four OT representatives, is to secure comprehensive and transparent consultation involving community interaction. On one hand, community representatives are government agents who are driven by more political and economic ambition to enhance employment rates and to generate state income rather than running public discussions between companies and communities (O'Faircheallaigh, 2017; Rodríguez-Garavito, 2011). On the other hand, findings from this study suggest that OT LLC's attempts to conduct public meetings and to report its activities through the community newsletter do not succeed, mainly due to skepticism among community members regarding company-provided information. Therefore, the involvement of independent mediators might help in this regard.

This study observed that some community members, especially town residents, were reluctant to seek information about OT LLC activities and participate in decision-making, although some herders had been successful in fighting for their rights. This reluctance is seen as a persistence of ideologies from the former Soviet regime. The Soviet period was characterized by a passive or absent civil participation (Reisinger et al., 1995). Because Mongolia was highly influenced by this regime, public awareness and participation were barely taken into account before the 1990s, because the State government made all the decisions and planned all projects (Reisinger et al., 1995; Dalaibuyan, 2015).

7.3.2. Uneven Impacts of Employment within Partner communities

A significant number of people seeking better job opportunities have moved to Khanbogd town, increasing the impacts of project induced in-migration (PIIM; Gellert and Lynch, 2003). This research has found that Khanbogd experiences both positive and negative impacts of PIIM, whereas the Manlai and Bayan-Ovoo communities remain underdeveloped in terms of infrastructure and social services. It is clear that the higher migration rate to Khanbogd from other parts of the country, even from other CA partner Soums, is associated with development of infrastructure and social services within Khanbogd, and its proximity to the Oyu Tolgoi mine (45 km).

In order to avoid imbalanced development between partner communities, OT LLC needs to ensure that it provides equal employment opportunities by adopting a policy regarding local employment that has a clear validation for community citizens. For example, in the Ahafo case, Newmont ratified a Local Employment Agreement (2014) that includes criteria for distributing unskilled jobs across ten partner communities in order to address employment of affected communities' members. The Local Employment Agreement requires Newmont, including contractors, to have 24% of workforce from Ahafo communities with an aspiration to reach 35% within ten years (Boakye et al., 2018). This local workforce must be citizens of the ten affected communities, with a citizen being defined as a person who either: is from or whose parents are from the community; lives in the community and has immovable property in the community or nearby; lives outside of the community but is married to a native of the community; or who is honored according the rights of citizen and approved by community leaders (Local Employment Agreement, 2014).

7.3.3. Demand for independent hydrological study

The study found that communities closest to the mine have special needs, for example to conduct extensive hydrogeological studies and monitoring surveys independent from the company. Because of insufficient funding, study communities claim to be reliant on OT LLC's surveys which some herders are doubtful of.

The current Budget Law (2011) requires OT LLC to pay water fees (USD 5.8 million in 2017) to the Umnugovi Aimag authority from where these fees are distributed to all Soum governments in the form of a general budget. Therefore, this arrangement of water fees does not give mine-affected communities an advantage for hosting the mine.

7.4.Constraints on the CA performance

7.4.1. Differences in preferred methods of communication

One of many challenges to implementing long-term agreements is an understanding of all parties about the contents and intentions of the agreement. This study found that many provisions of the CA are not clearly understood by members of the local communities, mainly due to a mismatch of communication expectations (verbal versus written), making CA benefits effectively inaccessible and incomprehensible to the population.

On one hand, to secure transparency, the company may choose written and formal communications with communities, including group meeting protocols, project proposals, and petitions. On the other hand, local residents stated that they preferred oral communications and

private meetings with company managers. This preference is mostly because of the low literacy rate among Soum natives, and partially due to their preference to raise personal concerns in private, rather than through public discussions.

Similar to leading practices of the Newmont in Ahafo mine and Rio Tinto in Argyle mine (Loutit et al., 2016), OT LLC had established a Memorandum of Understanding and Process Agreement prior to negotiating the CA in order to establish common understandings and shared methods of communication with communities. However, study findings show that those early formal processes, including public consultations and community involvement events, do not appear to have been effective enough to fulfill their initial goals to inform public about a scope of the community-company partnership and to discuss expectations of both parties from the cooperation.

7.4.2. Land use rights of herders

Dissatisfaction was recorded from herders about land use during the resettlement process. State ownership of pasturelands puts herders, who do not have an official document to certify their access to pasturelands, in a weak position when they enter into negotiations with project developers, who hold a permit for land-use.

In contrast with international practices where, for example in Canada, agreements regarding land-use tend to be negotiated by companies directly with Indigenous communities (Prno, 2007; Prno and Slocombe, 2012), OT LLC ratified a land-use agreement, by law, with the Khanbogd Government authority, who represent the whole community including herders. Nonetheless,

herders are dissatisfied that their concerns are not addressed during negotiation of the land-use agreement. As a result, herders have self-identified and appealed to be treated as Indigenous. However, the Indigenous status of Mongolian herders is confusing given the long history of Mongolians as nomadic herders before establishing cities. Nonetheless, it is critical to enact and document that herders have rights to their traditional lands.

7.5. Study limitations

This study faces a variety of limitations. First, there might be a gap in translation of transcripts from Mongolian to English. Even though I strived to fully convey meanings and emotions of participants, the word choices have possibly been limited to the researcher's English vocabulary range as an ESL speaker. Second, the confidentiality of the Resettlement and Displacement contracts, at the time when interviews were conducted, limited herder participants' ability to reveal details of the process and compensation measures. Therefore, the researcher relied solely on available publications. Third, the novelty of IBA-type agreement negotiations in Mongolia resulted in a lack of experience and familiarity of participants with the process. Another limitation in respect to this research approach is the biases of participants that are limited to community residents. While these biases might misinform the research, they are useful to support different views and perspectives that arise from different viewpoints, access to information, and experiences.

7.6. Recommendations

According to this research, following recommendations can be made to help improve the CA's efficiency.

First, a re-formulation of the financial payment is needed to maximize benefits for partner communities from the underground mine which will begin in 2023.

Second, the Gobi Oyu DSF may be worth considering more ambitious and generative projects that prepare the communities for life after the mine. Amendments to the funding criteria could be considered to allow and encourage these projects to be conceived.

Third, given the weak public consultation, a mixed approach for communication should be used. For instance, private meetings as wanted by study participants can be combined with public discussions. Moreover, communities' representatives of the Relation Committee should devote sufficient time and effort to allow community members to be well advised and informed, and to communicate their opinions.

Fourth, in order to provide equal employment opportunities and to address imbalanced development across partner communities, an explicit policy on local recruitment with a citizen validation criterion is needed.

Fifth, it is suggested that the Government of Mongolia should adopt a detailed policy on herders' ownership of pasturelands and herders' rights protection during resettlement processes. This can be achieved by utilizing relevant policies from multinational investors, for instance the World Bank's involuntary resettlement policy or the IFC's standards on land acquisition, and reframing them into the Mongolian-specific context.

8. CONCLUSION

Since the 1990s, the Government of Mongolia has experienced fundamental adjustments in many sectors including development of the minerals industry. In response, a number of multinational corporations began mineral development operations in rural communities across the country. The results were an improvement in the national economy and unprecedented growth in the mining sector. However, the negative impacts of mining development were felt primarily at the local level. In order to minimize such negative impacts and to enhance benefits to local communities, community agreements have been struck between local populations and mining developers. In contemporary Mongolia, negotiation of CA-type agreements is closely linked to the concept of a social license to operate (SLO). Such concepts did not exist during the socialist period in Mongolia, but have become increasingly important with the rapid and extensive development of the minerals industry.

This study used a case study of Oyu Tolgoi Cu-Au mine in Southern Mongolia to explore public understanding of the Cooperation Agreement established between OT LLC and mine-affected communities. Additionally, it has sought to identify how the CA has benefited and impacted partner communities, and what barriers might exist to implementing an effective agreement. To examine these effects, 19 interviews were conducted with residents of three local communities.

The experience of the South Gobi communities, Khanbogd, Manlai and Bayan-Ovoo, with respect to the implementation of the CA offers a number of relevant observations for extractive industry companies and policymakers. For example, despite an efficient dispute resolution mechanism, the CA's scope has not been adequately acknowledged and understood within partner communities. Moreover, a more balanced job distribution between the partner

communities is needed in order to avoid negative impacts of in-migration, especially in the closest community to the mine, Khanbogd. Management of these issues would improve the performance of the agreement and company-community relationships in long term.

Because the mining industry is the main economic driver of Mongolia, but animal husbandry is the traditional lifestyle of nomadic herders, it is critical for the GoM to improve its policies on agreement-making and land-use rights to manage fair access to land resources for these two important sectors of the economy.

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