ECONOMIC RESEARCH INSTITUTE

IMPACT OF MINING ON LOCAL LIVELIHOOD AND SOCIAL LICENSING

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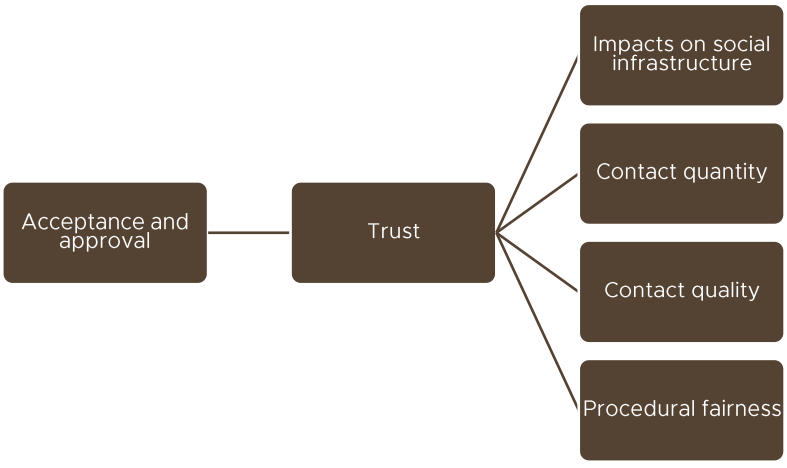
Introduction

In Mongolia, obtaining a social license to operate in mining is becoming one of the most important issues in the sector. In addition to obtaining legally required licenses to operate mines from the government and other regulatory agencies, a social license has been increasingly needed to operate mining activities in the country within the last few years. This trend has also been observed on a global level.

There is no one commonly accepted definition of a social license to operate. A social license to operate, in a broad sense, refers to the ongoing acceptance of a company or industry's standard business practices and operating procedures by its employees, stakeholders, and the general public. A social license does not refer to a formal agreement or document but to the real or current credibility, reliability, and acceptance of organizations and projects. A social license to operate is created and maintained slowly over time as the actions of a company build trust with the community it operates in and other stakeholders. The concept has evolved fairly recently from the broader and more established notions of “corporate social responsibility” and “social acceptability,” and is also closely tied to the concept of sustainability. During the last two decades, the concept of a social license to operate has become more significant.

Why has social licensing become more important? One reason is that communities are becoming more aware of and concerned about the industrial activities in their neighborhoods and the ways in which those activities can affect local livelihood and the environment. On the other hand, as sustainability has become a more salient issue, companies and governments are paying more attention to the environmental and social impacts of industrial activities. The central idea is that some things that make sense from a cost-cutting perspective can cost a company or an economy much more in the long run if it endangers their social license.

FIGURE 1. MOFFAT AND ZHANG (2014) MODEL OF SOCIAL LICENSE



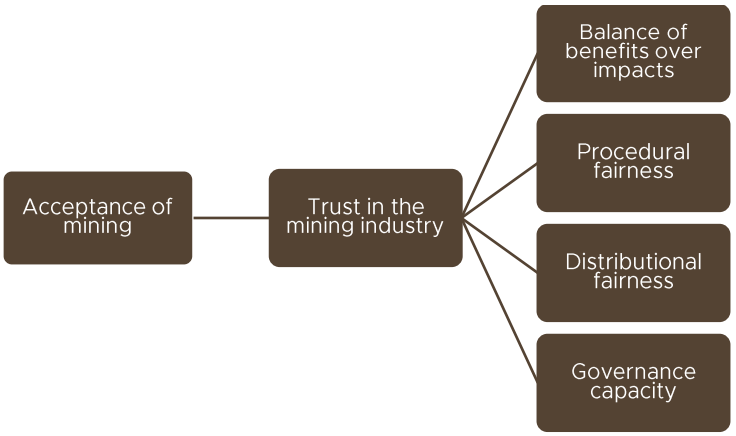
Source: Moffat and Zhang (2014)

Moffat and Zhang (2014) proposed the model in Figure 1 to explain the process of obtaining a social license. According to Moffat and Zhang (2014), the main factors defining the state of a company's social license are the following:

- fair treatment
- high-quality engagement with communities
- mitigation of operational impacts

Moffat et al., (2018) later updated the defined model for social license as seen in Figure 2.

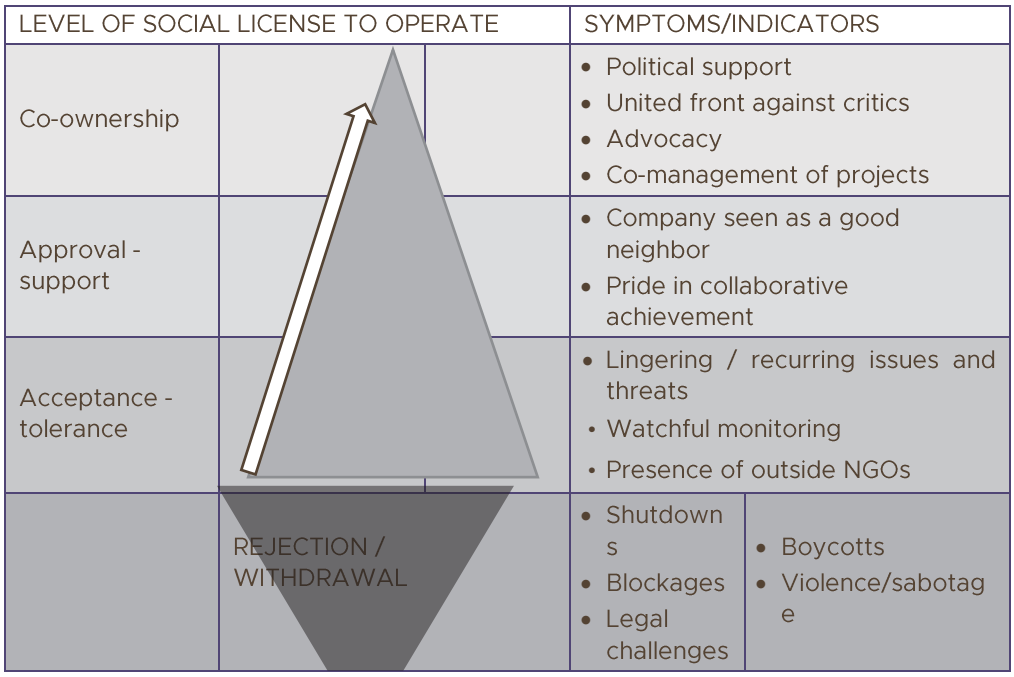
FIGURE 2. MODEL FOR SOCIAL LICENSE TO OPERATE



Source: Moffat et al., (2018)

Balance of benefits over impacts, procedural fairness, distributional fairness and governance capacity are the most important factors which determine the level of trust in the mining sector and hence, the quality of a social license. These indicators can be measured by large-scale citizen surveys assessing the community attitude towards mining operations.

FIGURE 3. LEVEL OF SOCIAL LICENSE TO OPERATE



Source: Sustainable Business Council (2013)

Boutilier and Thomson (2011) describes the level of social license to operate in Figure 3. They propose that most companies and projects are located at the acceptance or approval level most of the time.

In summary, most literature on social licensing has been descriptive or intended to give guidance for companies striving to obtain a social license to operate by hypothesizing the path to a social license. However, empirical validation of these hypothesized models is lacking.

Main principles of social licensing: A company must be seen operating responsibly, taking care of its employees and the environment, and being a good corporate role model. When problems emerge, the company must act quickly to resolve the issues or their social license to operate may be at risk. In order to protect and build a social license to operate, companies are encouraged first to do the right thing and then be seen doing the right thing. Overall, obtaining a social license means creating a mutually beneficial relationship between stakeholders who are involved in or affected by resource-intensive activities.

In Mongolia's case, obtaining a social license has become more relevant to the mining sector. There have been several instances where mining developments have been delayed, interrupted or even shut down due to opposition from the public and/or local communities. Thus, in order to avoid these costly conflicts, mining companies need to obtain and maintain a "social license" to operate from local communities. Some of the most commonly cited means of maintaining a civil and

respectful relationship with the public is through ongoing communication with stakeholders, transparent disclosure of information and community development agreements.

In this study, we assess the current state of the relationship between the Mongolian mining sector and local communities – i.e., social licensing. In doing so, we determine the key challenges companies and communities are facing in this regard. We also analyze the ways in which they are trying to cope with these challenges. This analysis covers government actions which have been implemented to address the problems related to social licensing and sustainable mining. The analysis relies on international and domestic case studies which reflect either successful or unsuccessful developments of social licensing.

The literature review covers various conceptual and theoretical studies. Some of our (ERI) previous studies discussed several issues related to sustainable development, dispute resolution and contracting in the Mongolian mining sector while one study briefly covered social licensing. In this study, we connect the ideas in these studies to obtain a more complete picture.

In addition, the study provides an overview of the legal environment affecting social licensing by reviewing relevant legislations and regulations. We collected quantitative and qualitative information on how companies are interacting with local communities using various sources like the Extractive Industries Transparency Initiative and websites of mining companies. These generate a general overview of the current state of social licensing in Mongolia.

The international and domestic case studies further clarify the actual practical issues of social licensing. In particular, by drawing on the experience of companies, who have successfully gained a social license, we will define the main factors contributing to establishment of favorable relationship between mining companies and their respective communities. Comparative analysis is conducted by taking into account the characteristics of successful and unsuccessful cases and their differences. Exploring the story of successful cases will shed light on what should be done by those who have been unsuccessful. Some of cases that have been analyzed are the San Cristobal mine located in Bolivia and the Tintaya copper mine in Peru. The social licenses of these projects have gone through various stages in its development including gaining the license, problems in the relationship, regaining credibility, etc. An example of mining project which has faced strict community protest in Mongolia is Aspire Mining Ltd's Ovoot project. Since the project commenced in 2008, Aspire Mining Ltd has been continuously trying to gain social license through various activities. However, the company has been unable to establish a favorable relationship with the local community. We analyze such cases to reveal key barriers for social licensing. On the other hand, the Bayan-Khundii gold project which is located in Bayankhongor province and implemented by Erdene Resource Management Corporation can be considered as a good example of social licensing in Mongolia. Thus, we will look at these cases to analyze their success factors.

Overall, this study will look into how the relationship between the mining sector and local communities in Mongolia have evolved to define the stage at which the country's mining sector is presently on to the appropriate state of social licensing.

On the basis of this, the study provides insights on what policymakers should do in order to improve the current situation of social licensing.

This report contains four main sections. The first section will describe the legal environment and policy issues related to social licensing in Mongolia. The second section will then focus on international trends and best cases of social licensing in the mining sector. The third section includes good and bad cases in local mining activities related to social licensing and corporate social responsibility in Mongolia. The final section concludes the main findings and provides policy recommendations.

1. Impact of mining and social licensing in Mongolia

In this chapter, we briefly review the impact of mining on the national and local economy and public perceptions of mining. Then we consider the legal environment relative to the social licensing issues in the country.

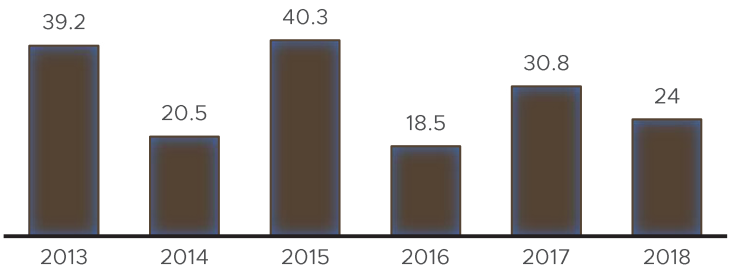
1.1. Mining impact at national and local levels

The mining sector has a strong influence on the Mongolian economy through both direct and indirect factors. As of 2019, the mining sector accounts for 23.2 percent of GDP, 83.7 percent of total export, and 48.6 percent of total investment. As of 2018, the contribution of mining sector to the state budget is about 22 percent (ERI, Sustainable mining development, 2019). In 2019, 4.7 percent of the total workforce was employed by the mining sector with an average wage of MNT 2.6 million, 2.3 times higher than the national average wage.

Mining activities also have a significant impact on the local economy. For instance, local governments receive income from taxes and fees as well as the Local Development Fund (LDF). As mentioned in the "Sustainable Mining Development" study by ERI, the per capita budget expenditure of provinces with mining activity have been higher than that of non-mining provinces over the past decade (except in 2013) (ERI, Sustainable mining development, 2019).

In addition to taxes and fees, mining companies donate money to promote local and national development. According to Mongolia's EITI's 2018 annual report, mining companies donated MNT 24 billion at the national level which accounts for about 0.3 percent of mining GDP in 2018.

FIGURE 4. CASH AND NON-CASH DONATION TO GOVERNMENT ENTITIES, MNT BILLION



Source: Mongolia's EITI annual report 2013-2018

However, there have been some major conflicts between the local community, the government and mining companies. For instance, the number of arbitration cases in Mongolia was 41 in 2014, 70 cases in 2015 and 58 cases in 2016 (Amarjargal, L., 2017). According to the UNTCAD's Investment Dispute Settlement Navigator,

Mongolia has had 5 known treaty-based investor-state dispute settlements cases since 2004 (ERI, 2019b).

- Alstom Power v. Mongolia (2004), Settled
- Paushok v. Mongolia (2007), Pending
- Beijing Shougang and others v. Mongolia (2010), decided in favor of Mongolia
- Khan Resources vg. Mongolia (2011), decided in favor of the investor, Settled
- Munshi v. Mongolia (2018), Pending

Mining companies also implement local development projects by establishing a joint fund with the local governments. Oyu Tolgoi LLC, the largest mining company in the country, established the Gobi Oyu Development Support Fund (Gobi Oyu DSF) in line with the Community Cooperation Agreement with the local government in 2015. MonEnCo, who operates at the Khushuut project in Khovd province, established the Khushuut Development Fund to promote local development in 2014. Another local development fund is the Dornogovi Great Development Fund which was established in 2016. The fund is financed by donations from mining companies operating in Dornogovi province (ERI, Sustainable mining development, 2019).

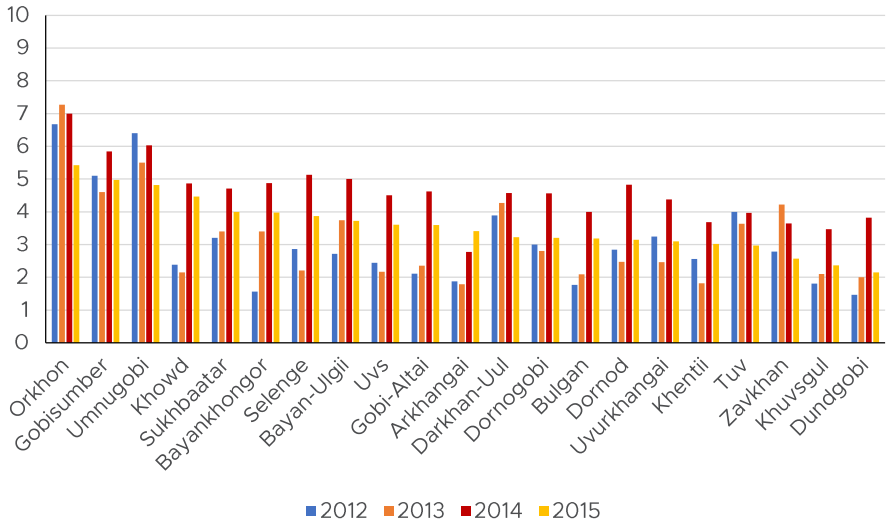
In the Annual Provincial Competitiveness Study conducted by the Economic Policy and Competitiveness Research Center (EPCRC, 2019), the provinces are ranked by their Competitiveness Index. The index shows how competitive a province is compared to other provinces. Based on the 2019 Competitiveness Index, Orkhon and Umnugobi provinces, the two largest mining regions, are ranked first and second. This ranking confirms that the impact of mining is significant on the local level. To compute the Provincial Competitiveness Index, provinces are measured and ranked against 180 different criteria across four main categories: economic performance, governance efficiency, business efficiency, and infrastructure. If we look at all these indices in detail, the provinces with major mining projects tend to perform better than other provinces. For instance, according to the survey of local citizens, the most improved provincial economies are mining provinces such as Umnugovi (#1), Dornod (#2) and Orkhon (#4), and the most improved provinces for standard of living are also mining provinces such as Umnugovi (#1), Dornod (#2) and Darkhan-Uul (#4). As for bank deposit per capita, Orkhon, Umnugovi and Darkhan-Uul provinces are the top 3.

According to the “Mining Impact on Local Livelihood: A Case of Mongolia” by the Economic Research Institute (ERI, 2017), mining activities have greater impact on standard of living even at the rural district level. For instance, in rural soums with mining activity, average household income was about 7.2 percent greater than household income in soums without substantial mining sector activity between 2010-2016. Mining sector activities also have a substantial effect on other livelihood indicators. For instance, in mining soums, household consumption is 11 percent higher and poverty is 8 percent lower than in non-mining soums. In addition,

individual wages in mining soums were 9.4 percent greater than individual wages in soums without mining (ERI, 2017).

Although the mining sector has a positive impact on both the national economy and standard of living, local citizens and small businesses tend to disagree with that impact. In the annual surveys conducted by EPCRC (EPCRC, 2015), small businesses were asked about their opinion on the impact of the mining sector on their local economy and other sectors. The survey covers 50 business executives from each province. Respondents were asked to rate the impact on the mining on a scale of 1-10, with 1 as the most negative score and 10 as the most positive score. The results of the survey are shown in the figure below. According to the survey, with the exception of mining provinces such as Orkhon, Umnugovi and Govisumber, the impact of mining on the economy has been assessed as low or negative.

FIGURE 5. CITIZEN'S OPINION OF THE IMPACT OF MINING ON THE ECONOMY, BY PROVINCES



Source: EPCRC (www. aimagindex.mn)

As mentioned previously, the mining sector has had a positive impact both on the country's economy and local living standards, but public perceptions towards mining activities are likely to be lower or negative. Therefore, it is important to improve the legal and cultural environment of social licensing in the mining sector. In addition, in order to be accepted by and to get approval from the local communities, mining companies should adopt and implement global and local good practices such as inclusiveness, transparency and accountability, civic engagement and communication strategies with local communities.

1.2. Review of the legal environment of social licensing in Mongolia

Social license to operate is a relatively new concept for mining sector stakeholders and the general public in Mongolia. Prior to 1990, mines were developed under central planning and thus, the social acceptance of mine operations were automatically assumed to be granted. According to Byambajav (2015), "in the central planned economy, mining and industry towns served not only the industrial and economic aims of socialist state, but also were often designed to serve the existing regime and its course of development". During the socialist period, public participation and voices were completely absent in the policy making process.

After the collapse of the Soviet Union, assistance from socialist countries completely halted and the Government of Mongolia (GoM) faced an economic crisis and a large cash deficit. In order to overcome this economic crisis, the GoM implemented the "Gold Program" to promote gold mine production. The Gold Program was implemented in 1992 when the new Constitution was approved. Under the program, the GoM disclosed information about identified gold deposits, allowed private companies to hold mining permits, and provided financial support to mining companies via central bank soft loans. Furthermore, a new Minerals Law was adopted in 1997 and significantly relaxed the rules and processes for obtaining a mining license, thereby permitting full foreign ownership of mining ventures and easing gold export restriction (Byambajav, 2015).

In light of the Gold Program and the new Minerals Law, many gold mines emerged and annual gold production reached 10.2 tons in 1999 from 0.7 tons in 1992 (NSO). In addition, 110.4 tons of gold reserves were explored between 1992 and 2000. Since 1997, the program was revised and renamed as "Gold-2000". As of 2006, Mongolia ranked within the top ten countries worldwide in terms of the amount of investment made into gold exploration. The gold sector had been constituting over 20 percent of annual GDP and up to 10 percent of state budget revenue as well as becoming the main source of foreign exchange reserves in Mongolia. Overall, the Gold Program, fueled by relaxing the licensing process, helped the GoM to overcome the economic crisis after the collapse of the socialist regime. However, the growth of the gold sector brought with it extensive environmental degradation and other detrimental social impacts as environmental rehabilitation during mining operations and mine closures were almost fully ignored during the Gold Programs. The exploitation of placer deposits located near headwaters, outdated mining technology and inefficient water usage in gold mines caused extensive soil and water pollution as well as the drying-up of rivers. This environmental degradation threatened the local community's health and the production of the traditional livestock sector as environmental capital is a fundamental input for livestock husbandry.

As the number gold mines increased, many artisanal miners began prospecting for gold near gold mines. According to the ILO (2006), as of 2006, about 20 percent of the local workforce or 100,000 people were involved in informal gold mining. Artisanal miners usually operate in bad health and safety conditions and contribute to the degradation of crops and farmland thereby affecting food production, polluting streams, rivers and drinking water sources of the local population (ERI, 2020). In particular, according to the results of sample survey conducted by the

NSO (2016), 48.2 percent of surveyed artisanal miners were homeless, 53.6 percent lived in places that were not connected to any electricity generator and 36.6 percent used water from rivers, lakes, or unprotected fountains. Moreover, only 19.5 percent of surveyed artisanal miners answered that they had sufficient occupational health and safety knowledge. 2 percent of the surveyed artisanal miners experienced accidents during mining activity. The major causes of accidents experienced by artisanal miners include dust crush, lack of oxygen and falling into holes (NSO, 2016).

These harmful consequences provoked public grievances against mine operations. Local community grievance about the environmental degradation caused by mines eventually led to local movements against mining operations. Growing local community opposition against irresponsible mining pushed the GoM to introduce new laws and amendments towards stricter environmental requirements, local community participation and requirements for local development and employment of local citizens.

The Minerals Law of 1997 was deemed as one of the most liberalized laws in Asia by international mining sector stakeholders at the time (Byambajav, 2015). However, local communities who are the most affected by mining activities were left out of the decision-making processes under the law (Mendee, 2013). In addition, environmental requirements were not formulated adequately in this law. For instance, according to the law, there were no environmental requirements to fulfill when requesting for the issuance of mining licenses. In addition, local community's participation was completely absent in the Environmental Impact Assessment. Pushed by the demand from local communities, the GoM made important amendments, including requirements related to the environmental and social responsibilities of mining license holders, to the Minerals Law.

The GoM adopted a new Minerals Law in 2006. Important amendments made under the Minerals Law of 2006 include mandatory Local-Level Agreements (LLAs), local revenue sharing and voluntary community consultation (Byambajav, 2015). The law allowed for cooperation agreements between license holders and the local administration on issues of environmental protection, mine exploitation, infrastructure development in relation to the mine-site development and job creation. Moreover, license holders and local administrations could organize open public discussion on the provisions of LLAs. As of October 2020, 167 LLAs have been disclosed by iltodgeree.mn, the official website of resource contracts in Mongolia. Additionally, numerous contracts for the usage of water and land between local administrations and mining companies were disclosed through the website (GoM). According to Byambajav (2015), "in some cases, LLAs are used as a way of formalizing the management of the impacts and benefits of mining in addition to being used by some companies to secure the support of local communities and other stakeholders".

The Parliament of Mongolia (PoM) approved the "Law on the Prohibition of Mining Operations in the Headwaters of Rivers, Protected Zones of Water Reservoirs and Forested Areas" in 2009. Under the law, mining exploration in protected headwater, watershed and forestry areas were prohibited. The exploration of strategically important deposits was allowed only in fore-mentioned areas. According to the law, the revocation of a mining license does not release the licensee from the obligation

to rehabilitate the environment. The licensee was obligated to rehabilitate the environment under the monitoring of local communities within 2 years of license revocation (PoM, 2009). Associated with the adoption of the law, the GoM revoked numerous mining licenses and provided compensations for licensees. According to Mendee (2013), over 200 exploration and mining licenses were revoked following the ratification of the law.

In 2012, the PoM approved the Law on Environmental Impact Assessments (EIAs) and amended the Minerals Law to be consistent with this new law. Public participation in EIAs were outlined in the law. The state central administrative body is responsible for the promotion of public participation in the EIA process through local websites. During the national and regional strategy formulation for the Strategic Environmental Assessment, public feedback is required to be taken within 30 days. Additionally, the authorized domestic assessment organization shall disseminate the contents of the EIA to the local community and regularly gather feedback from both the local administrations and the affected communities. Moreover, under the law, the project proponent shall report the implementation status of the environmental management plan to the local community, local authorities, affected parties and relevant administrative bodies (PoM, 2012).

In 2014, the PoM amended the Minerals Law based on long-term consultation with various stakeholders including miners, activists, local governments, government agencies, various professional organizations, and the general public. Most importantly, the draft of the amendment was debated at the Citizen Hall, a key venue to facilitate public deliberations on the revision of the law. According to the amendments made in 2014, the local employment quota was set to be more than 90 percent of the mining operation's total employment. In addition, the amendment also defined key mine closure requirements.

Another major source of public concern was the minimal local benefits of mining projects despite the negative environmental impacts of mining operations. Moreover, the collection of taxation and payment revenues for local benefit was discouraged under the Budget Law. In Mongolia, local governments receive revenue from 13 types of taxes and fees such as real estate tax, tax on vehicles and water usage fees. In order to boost the local benefit of mining projects, the Local Development Fund (LDF) was established in 2011 to promote local development with local citizen participation. The LDF is a fund used to redistribute a certain portion of mineral resource revenue accrued to soums with the purpose of supporting infrastructure and human development in local areas. According to the Budget Law, the LDF is financed from 5 percent of royalties, 30 percent of crude oil royalty payments and 5 percent of VAT. Additionally, according to 2018 amendments to the Law on the State Budget, starting from 2020, all revenue from mineral exploration license fees and half of the revenue from mineral extraction license fees will be transferred to the LDF. The funds are distributed to local governments based on the local development index, population, territory and tax incentives (PoM, 2011). Between 2013 and 2017, the LDF allocated MNT 655.0 billion to soums (ERI, 2020).

The local governor has an important role in facilitating company-community relations. The local governor has the authority to grant a range of permissions including the use of land and water under the Law on Land and the Law on Water. Moreover, according to the Minerals Law, the province governor has the right to

oppose mining operations in case of violations in addition to declaring certain areas of land for use for local special needs, prohibiting it from mining use. However, there have been numerous cases where local governors used their power to request donations or financial aid from mining companies. In order to overcome this issue, in 2012, some restrictions on the local governor's power were included in the Law on Conflicts of Interest. Particularly, under the Article 17 of this law, "a public official, or a state or local institution, is prohibited from requesting or accepting any form of donation or financial aid for public use from a natural or legal entity."

The most important legal amendment made towards promoting social licensing in the mining sector is the amendment of Article 6.2 of the Constitution of Mongolia adopted in November 2019. According to Article 6.2 of the Constitution:

- Land, except those given to Mongolian citizens for private possession, as well as the subsoil with its mineral wealth, forest, water resources and wildlife shall be the public property of the State
- In compliance with the country's long-term development policy, the State Natural Resource Exploitation Policy shall aim to ensure citizens' right to live in a healthy and safe environment and equitably distribute benefits from subsoil resources through the Sovereign Wealth Fund
- Mongolian citizens have the right to know about the environmental impact of the use of subsoil resources within the framework of their right to live in a healthy and safe environment
- Mongolia will create a legal environment that ensures that the majority of the benefits accrued from using deposits of strategic importance are allocated to the general public (PoM, 1992).

The Constitutional amendment reflected current social requirements of the mining sector. Moreover, the amendment is a significant legal measure taken towards the equitable distribution of the benefits from natural resources, increasing public awareness of the environmental impact and environmental responsibility of mining companies and cementing the importance the social licensing in Mongolian mining sector. Associated with the Constitutional amendment, relevant laws, regulations and long-term policies are expected to be amended in near term to be made consistent with the Constitution.

The GoM formulated the "Vision 2050" long-term policy document in May 2020. In this document, the GoM set a policy goal to promote responsible mining as well as increase the processing level of mineral resources. Under the promotion of the mining sector, a goal to create favorable economic conditions by connecting strategically important deposits to border ports via railway was also included (PoM, 2020). Currently, the GoM is planning to expand the mining sector in the long-term via large investments.

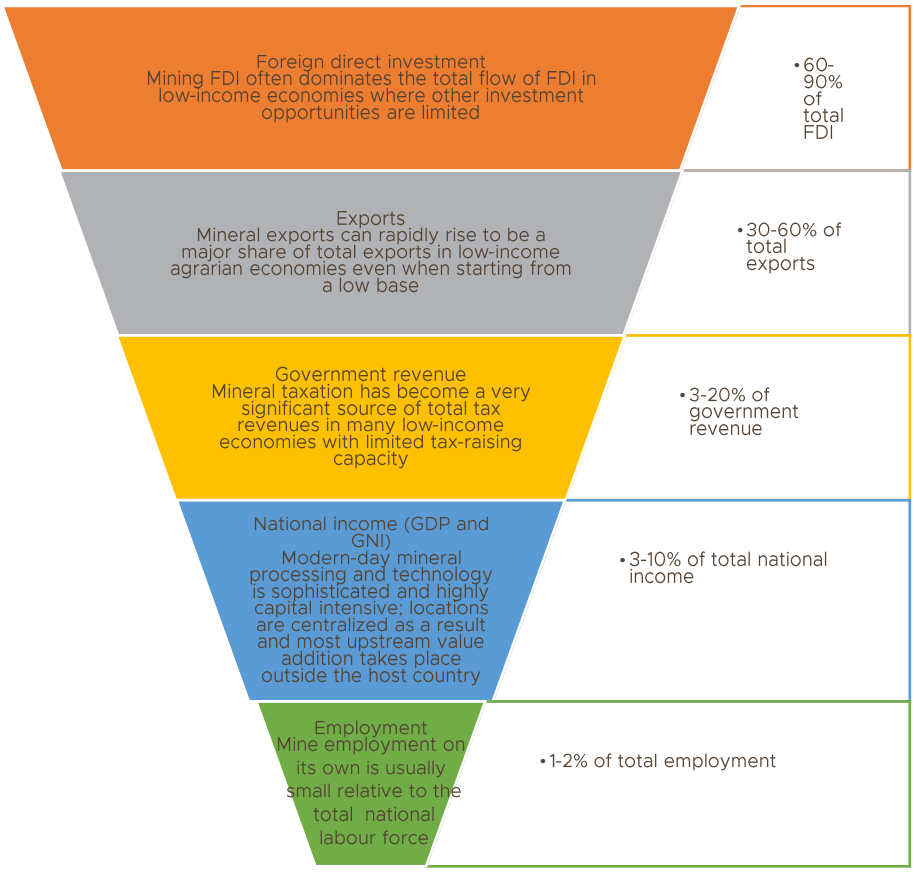
In addition to the long-term policy document mentioned above, the GoM also declared important social licensing goals in the State Policy on the Minerals Sector. In particular, the GoM included a goal to promote transparent LLAs between mining companies and the local governor inclusive of public participation. In addition, the policy document also included a goal to establish a Policy Council with the purpose of making recommendations and supporting the implementation of the State Policy

on the Minerals Sector. The Policy Council is to be made up of representatives from government agencies, investors, professional associations and civil society organizations (PoM, 2014).

2. International cases of social license to operate

The relationship between mining and the economic and social development of host countries is complex and often contentious. Global mining companies are large and influential institutions whose investments have the potential to generate significant economic benefits for regional and national economies, but also to have disruptive economic, social and environmental impacts.

FIGURE 6. MINING CONTRIBUTIONS BREAKDOWN



Source: ICMM, "The role of mining in national economies"

Based on a series of case studies conducted by the International Council on Mining and Metals, an inverted pyramid was formed to illustrate the macroeconomic contributions made by the mining sector (ICMM, 2014). In low and middle-income countries, mining often makes up the majority of foreign direct investment. Countries are often able to attract mining investment even when FDI into other sectors appear unattractive. This partly reflects the low requirements of mining FDI, relative to other sectors, in terms of existing infrastructure, skilled labor or financial

services. However, at the same time, mining FDI is highly sensitive to changes in the institutional and economic environment.

Mined minerals represent a large share of exports in a number of countries. Mining export earnings are partly offset by foreign exchange outflows, including imports of specialized capital equipment, debt repayments and profit repatriations. Even after taking into considerations these outflows, the overall impacts from mining on exporting countries' balance of payments and foreign reserves are large and positive.

Perhaps one of the most controversial and debated parts of mining development is the payment of royalties and taxes to the government. The Extractive Industries Transparency Initiative (EITI) continues to work towards making reporting of mining revenues more transparent; however, as mining contribution to government revenues varies significantly across countries, there is yet to be a standardized database.

The incomes directly produced by mining is comprised of labor incomes (wages and salaries), interest and financing costs (payable to lenders) and profits (operational surplus before tax and depreciation charges). In addition to these direct contributions, mining generates indirect contributions through the value generated by providers of mining sector inputs (procurement of goods and services). Mining contributions to GDP is low due to a combination of features of modern mining (capital rather than labor intensive) and the economic structures of less-developed host countries (with limited industrial capabilities to supply the mining sector). On the other hand, there is growing evidence that the indirect contributions of mining to other sectors may be more significant.

As modern-day mining in almost all countries is highly capital intensive, the contribution of mining to direct job creation at the national level is often relatively small. There is evidence that mining can be successful in generating both indirect employment through the supply chain and induced employment as the salaries of direct employees and employees of supplying companies are re-spent within the wider economy. Considering the indirect and induced employment, the employment multiplier effects can often be significant.

Mining can be a significant catalyst for economic development. However, there are risks faced by mining companies. According to Ernest and Young's annual "Top 10 business risks and opportunities for mining and metals," obtaining a social license to operate remans the number 1 issue for miners for the upcoming year 2021, making it the top issue for the third year in a row (Mitchell, 2020). While the industry has been saying all the right things, their actions do not always reflect this, which is being noticed by stakeholders. Social license to operate has expanded beyond social and environmental issues. There is a more pressing necessity to align the communities' values with the outcomes of the mining projects. The failure to do this can impact the ability of the project to access capitals or even result in the loss of the license and could terminate the project indefinitely.

In the following subsections, we will look into successful and unsuccessful cases of gaining a social license to operate in various mining projects worldwide. In some cases, the mining project may have gained, lost and then regained its social license,

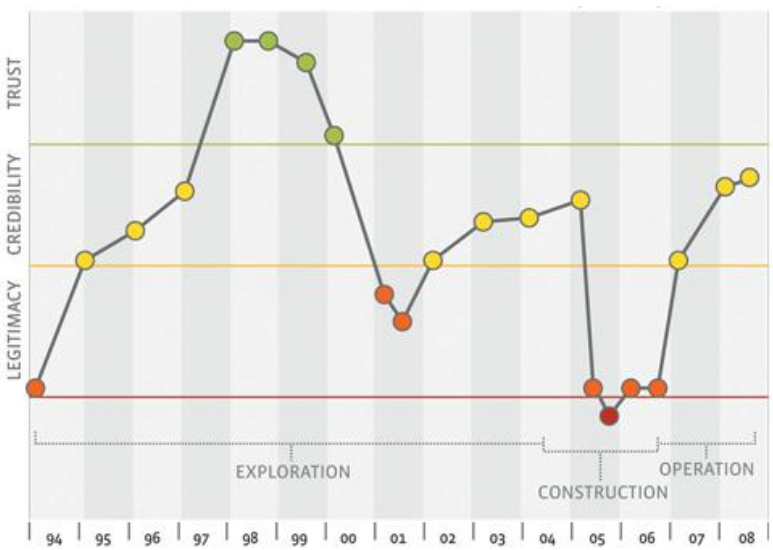
which is further indication that a social license is not tangible and is ever-changing with the attitudes and perceptions of the community. Despite the differences in each case, there are some key commonalities among the mining projects.

2.1. Bolivia – Minera San Cristobal

For centuries, Bolivia's mineral wealth has been exploited and extracted. Silver was the main product of the Bolivian mining sector from the 1540s until the 1800s when it was replaced by tin. In 1952, after a revolution, the country's three largest mining companies were nationalized to create Corporación Minera de Bolivia (COMIBOL), the Bolivian Mining Corporation. In recent years, Bolivia's mining sector has been deemed unstable by private companies. Additionally, President Evo Morales (2006-2019) has been strongly campaigning for nationalization since 2006 (McFarren, 2020). In May 2006, Morales nationalized 16 companies considered strategically important in the fields of metallurgy, electricity, water and hydrocarbons. This campaign even hurt multi-national mining companies with a strong presence in Bolivia such as Glencore, whose Colquiri tin mining project was nationalized in June 2012 with immediate effect.

Despite this instability and the potential threat of nationalization, a successful case of obtaining the social license to operate is observed at Minera San Cristobal, a lead, silver and zinc mine in Bolivia. The mine was initially developed by Apex Silver Mines, an American mining corporation (Our Company: Minera San Cristobal, 2020). In September 2006, Japan's Sumitomo Corporation acquired a 35 percent stake in the mine and then acquired all stakes in the mine in March 2009. Currently, the mine is exclusively managed and operated by the Sumitomo Corporation.

FIGURE 7. MSC'S SOCIAL LICENSE TO OPERATE 1994-2008



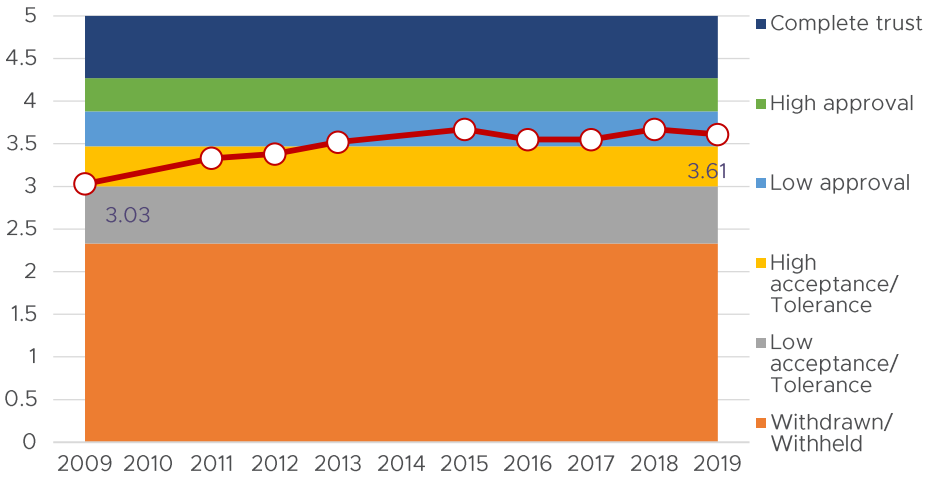
Source: Thomson and Boutilier, "Social License to Operate"

Between 1995, when the mineral deposit was initially discovered, and 2009, when the Sumitomo Corporation gained full ownership, there have been significant fluctuations in the community's perceptions of the mine and its operation – the mine's social license to operate was lost and regained multiple times. The project was initially favored due to the swift handling of resettlement of the communities during the exploration phase (Thomson & Boutilier, 2020). However, this credibility and trust built with the community soon began to unravel as the company became non-compliant with the terms of the resettlement agreements. Credibility was regained when the company realized that its relationship with the community needed to be strong in order for the project to proceed. In light of this, a number of programs of assistance were implemented. In mid-2004, as a new management took over, the trust was lost again. The new management was not aware of the prior social commitments which were made to the community and interactions between the two sides became increasing infrequent. As the discord escalated, there was a period of demonstrations and confrontation with the company. In late 2006, the company and its management recognized the problems and risks created by the damaged relationship with the local community and acted to resolve the situation. From 2006 to 2009, there was a rebound in the company's social licensing to operate as the management team began an accelerated program to comply with all prior commitments.

The sudden prosperity enjoyed by the communities around the mine produced a sense of unjust equality among neighboring communities further from the mine. Meanwhile, the communities closest to the mine were irked by the inequalities in advancement opportunities and access to health services. It was during this period that the deep-rooted cultural differences between the mining company and the community manifested in the occupation of the mine in 2011. The mine had to suspend operations for 12 days which cost them USD 24 million (Gama, 2019).

In 2009, Minera San Cristobal began to monitor its social license to operate using a quantitative methodology (Boutilier & Thomson, 2019). Intensive and independent studies are conducted every 12 to 15 months with the internal ability to track and monitor the values on a monthly and even weekly basis. The data collected during the measurement of the company's social license to operate provides an insight into the perception and opinions of stakeholders. This information is used to underpin community engagement and develop short- and medium-term objectives as well as contribute to strategic planning and risk management. As seen in the figure below, the mine's acceptance among the community steadily increased from high acceptance/tolerance to low approval.

FIGURE 8. MINERA SAN CRISTOBAL SOCIAL LICENSE TO OPERATE



Source: Minera San Cristobal Sustainability Report

In the case of Minera San Cristobal, stakeholders are identified, mapped, and analyzed in order to engage with them proactively, exchanging ideas so that the operations can respond to their needs and expectations. Within this scope, an open communication channel is established to understand the stakeholders' concerns, worries or complaints related to different aspects of the operation. The communication channels include phone, email and even in person meetings – interviews, follow-up of requests, permanent contracts, formal and informal conversations, and meetings – with people who require a closer and more individualized approach. Once the requests have been verified and validated, the flow of communication is tracked with the people submitting them within a reasonable timeframe (depending on the complexity of each case). Before each process is closed, the stakeholder is informed of the actions that were taken since these actions help the mine to improve their operations and process and to grow as a company.

Minera San Cristobal was one of the first mining companies to transform the concept of a social license to operate from a metaphor to a concrete management tool through the application of standardized metrics to arrive at a true understanding of the variables and dynamics of community perceptions. Based on this method, the company is able to sustain a good relationship with the community and thereby, maintain its social license to operate.

This case highlights that with constant monitoring of the community's perception, a social license to operate can be preserved. However, a key aspect of the monitoring is also engaging with the community and communicating on any potential issues or conflicts and then resolving it in a timely manner. These resolutions should be integrated into the company's objectives and goals in order to ensure the same conflicts do not arise again.

2.2. Peru – Tintaya copper mine

Peru has an abundance of mineral resources such as copper, gold, silver and lithium, mainly found in the mountains. As the world's second largest producer of copper and silver, Peru's mining sector plays an essential part in the country's economic development. The Peruvian mining sector is well regulated and has relatively straightforward mining laws. The government grants four different kinds of concessions for various mining activities (U.S International Trade Administration, 2020). Mining companies must pay the ongoing fees for these concessions, and submit environmental impact studies for any exploration or development activity. Water rights and surface land rights must be obtained separately, and companies are obligated by law to consult with local indigenous people about any development projects near their communities. To reach most of the mineral deposits, ground transportation and electric power infrastructure must be built through the Andean mountains and the Amazon jungle. In addition to being very costly, these new infrastructures can also be problematic as the country is very environmentally sensitive and the government is hyper sensitive about protecting it. As a result, the number of mining conflicts has been steadily increasing from 2006 to 2019 with Peru recording one of the highest numbers of mining conflicts in Latin America (Observatory of Mining Conflicts in Latin America, 2020).

The Tintaya copper mine is located in Peru's Espinar province and has long been a source of disharmony between the local Quechua-speaking community members and mine operators (Armstrong, Baillie, Fourie, & Rondon, 2014). The communal holdings of an indigenous farming community eventually led to the establishment of a state-owned enterprise in 1985. In 1994, as part of Peru's structural adjustment program, the mine was privatized and sold to Magma Copper who was then acquired by Australia-based BHP Billiton in 1996. BHP Billiton expanded the mine by obtaining additional land from Tintaya Marquiri and four adjacent communities.

Some community members claimed that they were forced into land purchases that were conducted in ways that were unethical and illegal (Cesar, 2019). The community members also began to complain about the mine's perceived environmental impacts. The company's senior executive thought they were upholding their obligations through their community relationship policy by complying with the Peruvian government and by paying taxes. The executive believed the company was managing everything well. In November 2000, Peruvian NGOs sent a report to Oxfam Community Aid Abroad, Oxfam International's Australian member. The mining ombudsman responded by writing a letter to the company in Australia that outlined the communities' grievances and demanded a response. The company's reply came in the form of a letter that denied many of the communities' claims.

The company then contacted a representative of the Oxfam Australia Mining Ombudsman and requested a meeting. At the meeting, the representative reported on the findings of her field investigation and proposed a dialogue process to address the grievances, to which the company agreed.

Prior to the meeting, the community's mistrust of the mine's local management was deeply ingrained. The appointed delegation after the meeting was led by a person

who had power within the company to make good on the company's promises, easing the communities' minds. Over time, and through repeated interactions at commission and plenary meetings, mutual understanding and respect between community leaders and company officials slowly grew. Technical studies were required in each commission to determine whether the company had failed on certain issues and if so, recommendations to be followed were made.

On 21 December 2004, a framework agreement between the company and the affected five communities was signed. The first central aspect of the agreement included provisions for the company to contribute three percent of its profits to community development every year. The company also created the Tintaya Foundation, jointly administered by the company and the communities, to fund several community initiatives, including irrigation, technical skills training and other agricultural improvement projects. The agreement marked the first time a mining company operating in Peru agreed to directly transfer part of its profits to the local community. Second, the company and many organizations from the local community would form an environmental committee to identify and mitigate any environmental impact from the mining operation. The company agreed that it would not carry out any activity on a community's land without the community's previous consent. This was also the first time the concept of "previous consent," where approval of the local community was required by a mining company was introduced in Peru. However, although, BHP Billiton gained a social license to operate through its community programs and foundations, the mining company's other operational aspects caused outrage among the community.

BHP Billiton faced violent protests over access to water, revenue shares and other issues, which led to the suspension or closure of mining operations (Sydney Morning Herald, 2005). Xstrata bought Tintaya from BHP Billiton in 2006 and in 2013, Xstrata and Glencore merged. Since the merger, the Tintaya copper mine has been undergoing gradual closure. Although the mine is in the processing of closure, there have been complaints from the communities surrounding the mine. According to Environmental Justice Atlas, a case alleging that Glencore's Tintaya copper mine has negatively impacted local communities and the environment was filed (Temper, Bene, & Martinez-Alier, 2015). The case alleges that these mining operations are linked to violent repressive actions by local authorities.

This case highlights that although a mining company may regain its social license to operate through community engagement and programs, the environmental impacts of the mining operation can set this back. Additionally, long-lasting discord can permeate relations to an extent that a social license to operate can never be fully attained.

3. Mongolian cases of social licensing to operate

In Mongolia's case, social licensing has become more and more relevant to the mining sector in the last two decades. Before 1990, due to socialism, social licensing was not a salient issue and from the 1990s to the mid-2000s, Mongolia's mining sector was relatively stagnant. Since then, several foreign-invested mining companies have been established and the first notions of responsible mining, including the social responsibility of mining, have been formed.

The majority of state-owned mining companies in Mongolia were established before 1990. Since 1990, while a few state-owned mines have been established, the majority of newly established mines are privately owned and foreign invested. In the case of state-owned mining companies, information transparency is poor and their social responsibility activities are political in nature. For instance, Erdenes Mongol LLC, a state-owned holding company, is also involved on an ad hoc basis in projects such as the research sub-center at the Ministry of Foreign Affairs, which aims to assist in implementing the Mongolia-Russia-China Economic Corridor Program and the Mongolia National Branding Council aimed at promoting the Mongolian economy globally. Erdenes Mongol LLC also provided MNT 1.6 billion (USD 680 thousand) to finance the Mongolia National Branding Council in 2017 (Andrew Bauer, 2019). Overall, state-owned mining companies established before 1990 don't face any public opposition and state-owned mining companies established after 1990 face relatively lower public opposition compared to privately owned and foreign invested mining companies.

In contrast, the issues related to social licensing are most common in privately owned and foreign invested mines. For privately owned and foreign invested mining companies, there have been several instances where mining developments have been delayed, interrupted or even shut down due to opposition from local communities. On the other hand, there have been several instances where privately owned and foreign invested mining companies obtained social licenses to operate successfully. In this section, we will focus on the social licensing of privately owned and foreign invested mines. We include 3 cases as examples of good practices and 2 cases as examples of poor practices of social licensing in Mongolia. Examples of good practices include Oyu Tolgoi LLC, Energy Resource LLC and Erdene Resource Management Corporation while examples of poor practices are Aspire Mining Ltd and Centerra Gold LLC. In Oyu Tolgoi LLC's case, while there was some public opposition related to the use of water at the mine, it is overall considered a good case of social licensing in Mongolia.

3.1. Aspire Mining Ltd

One example of mining projects which have faced strict community protest in Mongolia is Aspire Mining Ltd's Ovoot project, located in Tsetserleg soum, Khuvsgul province. Through its subsidiary company Khurgatai Khairkhan LLC, Aspire Mining Ltd has been conducting explorations since 2008 and acquired the 30-year MV-017098 mining license in August 2012 though no mining has begun yet.

Since the project began in 2008, Aspire Mining Ltd has been continuously trying to gain a social license through various activities. In particular, they aimed to promote advancement in education, health, environmental sustainability and economic development. As mentioned in its 2019 annual report, Aspire Mining Ltd has invested approximately MNT 660 million into the local community through a student scholarship program, training programs where local residents receive a license to operate heavy machinery, the construction of a new hospital in Tsetserleg soum, and other programs. The company cooperated with local non-government organizations and community groups and signed a "Memorandum of Understanding" with 10 groups to run joint projects for target social groups. However, the company has been unable to establish a favorable relationship with the local community. The company began the OEDP Definitive Feasibility Study (DFS) in March 2019. The DFS has been delayed while the company negotiates a community agreement and permitting approvals.

When the project begins production, the company planned to transport coal 500 km between Ovoot and Erdenet. After reaching Erdenet, the coal will be exported by railway to China, Russia and other countries. As there is no infrastructure to transport coal between Ovoot and Erdenet, Aspire Mining Ltd conducted a feasibility study to look into the possibility of constructing a railway. However, the construction of a railway was delayed for several reasons and ultimately, the company decided to construct a 560 km paved road between Ovoot and Erdenet instead. In a 2019 interview with Asia mining magazine, Z. Gan-Ochir, CEO of Aspire Mining Ltd, highlighted 3 main reasons why the construction of the railway stalled. The first reason was that the planned route for the railway overlapped in part with the Bulnai Mountain National Park. The second reason related to government policy as the construction of the railway was linked to the Mongolia-Russia-China Economic Corridor Program. While railway construction was initially supported, construction work ultimately became uncertain due to agreements between the countries mentioned above. Third, the local community and authorities requested the construction of a paved road instead (Asian mining magazine, 2019). Moreover, the Government of Mongolia was also uncertain about the project and ratified conflicting policy documents. For instance, in the "Sustainable Development Vision 2030," the construction of the Erdenet-Ovoot railway was planned for construction between 2016 and 2025. Following this, while the Government Action Plan 2016-2020 detailed the construction of the railway, it was not mentioned at all in the Government Action Plan 2020-2024.

There is also a lack of consensus on the project at the local level. For instance, in an interview with the Mongolia Mining Journal on June 13, 2019, L. Ganbold, the Governor of Khuvsgul province, detailed the implementation of the "No Mining Khuvsgul" program in which no additional exploration or mining licenses are to be issued and mentioned plans to revoke existing licenses (Mongolian Mining Journal, 2019). Moreover, on January 16, 2018, the Governor of Khuvsgul province suspended Aspire Mining Ltd's exploration drilling activities (Khuvsgul province governor's office, 2018). Despite these actions, the construction of the Erdenet-Ovoot railway and the establishment of international railway transport through Northern Mongolia were included in Khuvsgul province's Development Program 2016-2030 (Khuvsgul province governor's office, 2016).

In June 2017, a local NGO called "No Mining Khuvsgul" filed a lawsuit with the Ulaanbaatar Administrative Court on the conditions that Aspire Mining Ltd's mining license for the Ovoot project and the Erdenet-Ovoot railway project were in violation of the law. In particular, the 2 projects did not conduct general or detailed environmental assessments as required by law (Montsame, 2017).

These findings highlight the lack of consensus by stakeholders on the Ovoot project at both the national and local levels. This, in turn, points to Aspire Mining Ltd's lack of social licensing.

3.2. Centerra Gold LLC

Centerra Gold LLC has been operating at the Gatsuurt mine located in Mandal soum in Selenge province since 1997. Following exploration efforts, in 2005, Centerra Gold LLC conducted a feasibility study and began constructing necessary infrastructure as well as making other investments into the project. However, despite these efforts, they have not been able to begin mining production as the company has not reached a clear agreement or consensus with both the local community and the central government.

The Gatsuurt mine is located close to Noyon Mountain National Park, a landmark of both historical and natural significance. As many locals worship the mountain and its surrounding nature, there have been numerous local protests against Centerra Gold LLC's operations. Moreover, with the ratification of the "Law on the Prohibition of Mining Operations in the Headwaters of Rivers, Protected Zone of Water Reservoirs and Protested Areas" in 2009, mining operations at the Gatsuurt mine were prohibited.

However, in January 2015, the Gatsuurt mine was designated as a mineral deposit of strategic importance by the PoM, allowing for legal mining in the area (Mongolian Mining Journal, 2015). Conversely, as a mineral deposit of strategic importance, the level of Mongolian state ownership must be determined. On February 4, 2016, the PoM approved the level of Mongolian state ownership in the Gatsuurt mine at 34 percent (Legalinfo, 2016). Following this decision, operation of the Gatsuurt mine could officially commence.

Opposing these decisions, the "Rescue Noyon Mountain" NGO has been working to get the 4 mining licenses held by Centerra Gold LLC revoked. The organization filed for a lawsuit with the Ulaanbaatar Administrative Court in 2016 with the dispute continuing for almost 4 years. Finally, in December 9, 2019, the Supreme Court of Mongolia ruled to revoke the 4 mining licenses held by Centerra Gold LLC (Supreme court of Mongolia, 2019).

3.3. Energy Resources LLC

Mining in Mongolia has grown rapidly over the last decade and has had a significant positive impact on the economy. However, animal husbandry is still an important sector in Mongolia. One of the most important issues facing herders in the Gobi region is water quality and supply. The intensification of mining, livestock and industrial activities has reduced limited local water resources. As a result, local

communities may be at high risk of water shortages. Given Mongolia's water supply challenges, mineral exploration and mining companies are under pressure from the government and local stakeholders to develop sustainable water management strategies (Jocelyn Fraser et al, 2019). To address issues related to water quality and quantity in south Gobi, the International Finance Corporation, an investor of Oyu Tolgoi, negotiated with mining companies operating in the region, and in February 2016, eight companies signed the Voluntary Code of Practice (VCP). The VCP is intended to increase public understanding of responsible mining operations, and improve the transparency, safety, environment protection and community development policies across the mining sector. One of the companies that signed the VCP is Energy Resources LLC.

One example of a company with good social licensing is Energy Resources LLC, one of Mongolia's largest companies with national investment. The company was established in 2005 and has been operating in the Ukhaa Khudag area of the Tavan Tolgoi mine since 2009. When the company started operations, they built an industrial complex with technical and social infrastructure such as a coal concentrator, an 18-megawatt power plant, a water supply system, an apartment complex, and a school and a kindergarten complex (Energy Resources, 2020).

Energy Resources LLC has focused on the implementation of corporate social responsibility (CSR) in a realistic and correct manner and has developed its CSR policy in accordance with the International Voluntary CSR Standard ISO:26000. Since its establishment in 2005, Energy Resources LLC has made a significant contribution to the sustainable development of the country and the region by implementing its social responsibility by working closely with stakeholders. The main goal of Energy Resources LLC's local investment is supporting the long-term and sustainable development the region. The company aims to develop relations with the local community, listen to the views of local people, and work with them at all stages of the mining process. In doing so, they have been implementing regular projects and programs that are most needed in the local area. The projects and programs are identified based on community feedback and baseline surveys. Since 2009, they implemented programs and projects to improve local health and education services, support small and medium-sized businesses, develop infrastructure and protect local cultural heritage.

In addition, the company has focused on providing information to the local community. In particular, since 2009, they have been organizing open days and discussions among the local community. The company works with local community volunteer councils in Tsogttsetsii, Bayan-Ovoo and Khanbogd soums to develop an open relationship with the local community and reflect their views when making decisions. In particular, the local community voluntarily monitors and participates in environmental monitoring and rehabilitation. The company openly receives citizens' complaints and suggestions while making sure to respond and resolve them within 30 days. They publish social responsibility reports annually and provide information to the local community.

In addition to implementing projects and programs, the company pays special attention to the environment and its rehabilitation. In particularly, they have introduced the international standard ISO 14001:2004 "Environmental management system" in their environmental and rehabilitation activities. They have been

implementing specialized management plans in the areas of waste, water, dust, soil erosion, and rehabilitation (Energy Resources, 2019). Furthermore, the company is experimentally growing trees, shrubs, native and perennial plants for future mine rehabilitation. In order to reduce desertification, a 20-hectare forest strip has been established in Tsogttsetsii soum.

The company also pays special attention to the usage of water in the mine and built a dewatering plant for the waste from the coal concentration plant. As a result, 95 percent of water used at the mine is reused. Furthermore, they collect floodwater in summer and autumn and reuse it in mining activity (Energy Resources, 2019).

These activities and projects have had a significant impact on the company's relationship with the local community.

3.4. Erdene Resource Management Corporation (ERMC)

The Bayan-Khundii gold project can be considered as a good case of social licensing in Mongolia. The deposit is located in Bayankhongor province, within the Khundii Gold District, approximately 16 km south of the Altan Nar deposit. In August of 2019, ERMC secured a mining license for the Bayan Khundii mine from the Mineral Resource and Petroleum Authority of Mongolia. The mining license is valid for an initial term of 30 years and can be extend to 70 years by request (Bayan-Khundii project, 2019). According to ERMC, the Bayan-Khundii gold project will begin operations in early 2022.

ERMC is a member of the International Finance Corporation's VCP for sustainable water management in the Gobi region. ERMC has also worked with local herders, elected officials and other stakeholders to reduce competition for the scarce resource of water. ERMC has a local level cooperation agreement with Bayankhongor province, Shinejinst and Bayan-Undur soums where the Bayan Khundii gold mine is located. Established on April 30, 2017, the ERMC provided USD 2500 to Shinejinst soum to improve its potable water supply under the local level cooperation agreement (Jocelyn Fraser et al, 2019). Drinking water was transported to Shinejinst soum 270 km from the province center. Therefore, in 2017, when ERMC commissioned hydrogeological work to source a water supply for the potential mine at Bayan Khundii, the company offered to expand the area for the hydrogeological investigation to include the soum. This led to the discovery of a potable water source 3 km from the soum centre. After that, Shinejinst soum built a deep drilling well, funded by ERMC, and no longer had to transport potable water from far away.

ERMC is listed on a foreign stock exchange and became the first company to list its shares on the Mongolian Stock Exchange (MSE). As part of the cross listing, ERMC worked with local government officials from the two soums closest to the Bayan Khundii project. ERMC then gave a portion of the shares listed on the MSE to more than 5,000 people in Shinejinst and Bayan-Undur soums. As a result, local people will be able to benefit financially from the project in the future.

ERMC has focused on equal access to natural resources for local people and has organized a number of activities to contribute to community development. One of them is the company's scholarship program, which was launched in 2012. The

program provided funding for 43 high school graduates to pursue higher education. Scholarship recipients are not required to work for ERMC after graduation. Students also do not need to study mining. This will allow graduates to return to work in their soums. Scholarship recipients include soum doctors, bankers, and local government officials.

3.5. Oyu Tolgoi LLC

Oyu Tolgoi LLC is a Mongolian company owned by Erdenes Oyu Tolgoi LLC on behalf of the Government of Mongolia (34 percent) and Canadian Turquoise Hill Resources (66 percent). Rio Tinto has a 50.8 percent interest in Turquoise Hill Resources. Rio Tinto also manages Oyu Tolgoi on behalf of the partnership. As of the second quarter of 2020, 94 percent of Oyu Tolgoi's workforce is Mongolian (Oyu Tolgoi, 2020).

In 2018, Rio Tinto established a new office separate from Oyu Tolgoi LLC in Mongolia. Rio Tinto's Exploration (RTX) team and the Mongolia Delivery Centre (MDC), the local branch of Rio Tinto's Information Systems and Technology (IS&T) team operate in the new office. The MDC team helps service all of Rio Tinto's global operations. Currently, around 100 Mongolian workers are employed in the new office with the majority working as programmers and engineers.

Oyu Tolgoi LLC is committed to strengthening sustainable, neighborly relationships with local communities based on mutual respect, active partnerships, and long-term agreements to gain and maintain their social license to operate. The company is implementing its social responsibility in accordance with the participatory environmental monitoring program, cultural heritage management program, local business and economic development program, health program, herder livelihood support program, cooperation agreement, and community newsletter. The programs are implemented through the Gobi Oyu DSF. Oyu Tolgoi LLC is a member of the International Finance Corporation's VCP for sustainable water management in the Gobi region.

Oyu Tolgoi LLC signed a Cooperation Agreement with its partnering communities in Khanbogd soum in Umnugovi province. Signed on April 22, 2015, this agreement was made in accordance with the Minerals Law of Mongolia and the international standards of Rio Tinto corporations. The main approaches for the implementation of projects and programs for the sustainable development of local communities were then created and within the framework of this cooperation, the Gobi Oyu DSF was established. Oyu Tolgoi LLC makes a USD 5 million or equivalent MNT financial contribution to the Gobi Oyu DSF per annum in accordance with the clause 8.3 of the Cooperation Agreement. The organization aims to ensure the implementation of the Cooperation Agreement made with Umnugovi province and Khanbogd, Manlai, Bayan-Ovoo and Dalanzadgad soums of Umnugovi province. In accordance with the agreement, parties formed the Relationship Committee in charge of supporting and overseeing mutual understanding and cooperation. The Relationship Committee consists of 13 members; 4 representatives from Oyu Tolgoi LLC and 9 representatives from local communities.

In 2018, the Gobi Oyu DSF approved a 3-year financing strategy guideline in addition to making amendments to its funding rules and regulations. Starting from the second quarter of 2018, new projects were selected in accordance with the fund's new strategy guideline. As of 2019, the Gobi Oyu DSF has invested MNT 46.1 billion in Umnugovi province and financed 180 projects and programs. The fund receives proposals from citizens and organizations to implement projects and programs in Umnugovi province in the areas of social infrastructure, environment, water management, national history and culture, traditional animal husbandry, and social basic services. Based on these proposals, priority projects and programs are selected and funded (Gobi Oyu Development Support Fund, 2019).

TABLE 1. INVESTMENT MADE BY DSF, 2015-2019

№	Thematic areas of Cooperation Agreement	Number of projects	Budget MNT (billion)	Budget USD (million)
1	**Social infrastructure**	33	30.5	13.3
2	**Social basic service**	83	6	2.5
3	**Environment**	11	2.9	1.2
4	**National history, culture and tourism**	21	1.6	0.70
5	**Water management**	10	1.1	0.41
6	**Traditional animal husbandry**	11	2.1	0.88
7	**Business development**	11	1.9	0.76
	Total	**180**	**46.1**	**19.7**

Source: Gobi Oyu DSF report-2019

In addition to large-scale social infrastructure projects such as kindergartens, schools, soum hospitals, gyms, and soum heating boilers, the projects mentioned above are aimed at empowering citizens, acquiring knowledge and skills, and improving the quality and access to education and health care services. Many development programs are also aimed at protecting the environment and supporting agriculture and industry.

In accordance with Funding Guidelines to achieve the objectives of the Cooperation Agreement, Gobi Oyu DSF allocates 5 percent of its total annual funding to the Future Generation Fund. This Future Generation Fund is designed to be a revolving fund and allocates its funds in three main categories: Gobi Oyu – Business Opportunity micro-business loans, savings for future use and Gobi Oyu Student Scholarships.

As of 2019, the Gobi Oyu DSF has cooperated with more than 300 organizations and invested MNT 54.1 billion. Through the fund, more than 480,000 people have benefited from the Oyu Tolgoi project and 394 new jobs have been created (Gobi Oyu Development Support Fund, 2019).

Although Oyu Tolgoi LLC has implemented many projects and programs, there have been some issues regarding its social licensing to operate. For instance, the local community protested the use of water in the Oyu Tolgoi mine. This issue was detailed in a study titled "The Social License to Operate: Ambiguities and the Neutralization of Harm in Mongolia" by Marieke Evelien Meesters et al. In particular,

Oyu Tolgoi diverted the Undai river, one of the most important rivers in the Gobi Desert, between 2012 and 2013 by use of a dam, diversion channel, flow pipe, and re-provisioned the spring in order to divert both surface and subsurface water flow southward. The installation of underground pipelines transfered the original Bor Ovoo spring to New Bor Ovoo spring. The original spring was destroyed due to river diversion and was one of the most important springs for herders living in Khanbogd soum. The new spring is located on the border of the fence that encloses the mining area. Before the river diversion, Oyu Tolgoi LLC organized meetings with local community during which the local community, especially herders, expressed their resistance. However, Oyu Tolgoi LLC explained that the river diversion would not have any adverse effects and went through with its plan anyways. After the river was diverted, the International Financial Corporation's Independent Expert Panel researched the effects of the river diversion and found it to be a cause of harm as well as the source of numerous local herder complaints. The report showed that as a result of the river diversion, significantly less water was available for herders in addition to signs of pastureland degradation (Meesters & Behagel, 2017). Oyu Tolgoi LLC denied the results of this study and claimed the results were caused by global warming and overgrazing. Overall, while herders, local authorities and provincial authorities resisted the river diversion, major beneficiaries of Oyu Tolgoi LLC such as the company, shareholders, and some citizens of Khanbogd soum supported the river diversion. In general, this lack of consensus among major stakeholders including the local community, local authorities, the central government and the company point to a lack of social licensing with regards to the river diversion.

4. Conclusion and Recommendation

Although obtaining a social license to operate is a relatively new concept, the premise of community engagement and approval has always existed in some form. Unlike legal and regulatory licenses, a social license to operate is not tangible. Additionally, even if a social license is granted at one point in time, it does not mean that the license will remain valid indefinitely as the conditions under which the social license was granted may change due to the ever-changing political, economic and social climate. Based on the practices observed in other mining dependent countries, the way to maintain a social license to operate is to continuously assess the community's attitudes towards the mining project and other influencing factors. Then based on this assessment, a mining company's strategic plans and objectives should include actions to address the community's grievances. In addressing the complaints or issues, there needs to be transparency and an open channel of communication.

Due to the former socialist regime of the country, obtaining a social license to operate is an especially new notion in Mongolia. Moreover, Mongolia experienced massive environmental problems due to lax environmental requirements and weak enforcement of existing laws and regulations. The detrimental social and environmental impacts generated community grievance against mining operations. Pushed by local community demand, the GoM is making efforts to ensure social licensing addressing relevant issues with necessary amendments to laws and regulations. Moreover, the GoM has set several goals in the "Vision 2050" long term development policy strategy and State Policy on the Minerals Sector promoting

public participation. Currently, however, the implementation of policy goals and implementation steps are not clear.

Although many mining companies operate in Mongolia, only a few implement measures aimed at obtaining a social license to operate. Oyu Tolgoi LLC and Energy Resource LLC provide transparent information on mining operations to the public, reflect the views of local community in the company's decision making, receive complaints directly and respond them quickly. Furthermore, these companies developed social responsibility plans and are implementing projects and programs based on local community demand. They also pay particular attention to the environmental rehabilitation. Meanwhile, ERMC became the first company to list its shares on the MSE and a portion of its shares to more than 5000 local residents. On the other hand, companies that have failed to obtain social licensing to operate are experiencing public opposition. This is mainly caused by insufficient efforts to provide enough information about their operations to local communities.

It is essential to strengthen the understanding of social licensing to stakeholders, improve transparency and strengthen the enforcement of laws in the mining sector to achieve long-term policy goals. Based on the research findings, the research team has developed following recommendations:

- In order to avoid the risk of public opposition, the decision to grant mineral licenses should be based on social acceptance research. Conducting a social acceptance survey from mining affected communities including herders, farmers and local businesses is an efficient tool to assess the perception of the general public on ongoing and upcoming mining projects. The government should conduct social acceptance surveys regularly in partnership with independent research institutes.
- Monitor the attitudes of the local community to before, after and in various phases of the mining project in addition to macroeconomic situations.
- The GoM should formulate and adopt stricter regulations focused on mine closure. Local communities must then be able to monitor and ensure the implementation of these regulations.
- It is essential to provide mining affected communities with transparent and accurate information regarding feasibility studies including the economic, environmental, and social impacts of mining operations as well as the environmental and social responsibilities of the mining company. The GoM has already initiated and operationalized transparent information platforms such as the EITI, iltodgeree.mn, Environmental Information Center website (www.eic.mn). However, the information provided through the platforms are not sufficient and not well publicized. Thus, the quality of information and the accessibility of the aforementioned platforms should be improved.
- Increasing public participation in decisions and decision-making processes is crucial to improving social licensing in mining sector. As the GoM has already set a goal to establish a Policy Council including representatives from government agencies, investors, professional associations and civil society organizations, the GoM should implement the steps necessary to achieve this goal.

- It is important to provide transparency and a follow through of complaints and issues raised by local communities. Within this scope, mining companies should implement an action plan for addressing these grievances, be it through specialized actions or short-, medium-, and long-term strategic plans.
- During the desk review, the research team found that small and middle scale companies do not provide transparent information to the general public. Thus, information transparency requirements should be incorporated into relevant laws and regulations to ensure effective communication between mining companies and the general public.
- Mining companies should learn from the good practices of Oyu Tolgoi LLC, Energy Resource LLC and ERMC. In order to promote good social licensing practices, the Ministry of Mining and Heavy Industry should provide an opportunity for mining companies to share their experiences as well as provide guidelines for social licensing and communication with local communities.

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