ECONOMIC RESEARCH INSTITUTE

CONTRACTING IN MINING SECTOR

Draft Report

December 2018

ULAANBAATAR

CONTRACTING IN MINING SECTOR

Tuvshintugs B. (Ph. D)
Khashchuluun Ch. (Ph. D)
Manlaibaatar Z.
Unurjargal D.
Dulguun T.

(Draft Report)

Abstract

Most foreign direct investment into Mongolia are directed into the mining sector due to the investment attractiveness of natural resources. Projects in the mining sector has several impacts on the host country. First of all, due to the sheer size of large mining projects, the socio-economic impacts pertaining to social responsibility, management of displacement, issues of water and land usages and provisions of local employment opportunities are significant. Secondly, mining projects spillovers into other sectors such as energy, infrastructure and transportation which requires additional investments. Third, due to the complex nature of mining project financing and magnitude, the repercussions on the country's finances are sizable. Therefore, it is crucial for the host country to enter into a well-developed contract which considers all direct and indirect effects.

This study aims to study the legal and policy framework of Mongolia, specifically the Oyu Tolgoi investment agreement, in entering into agreements with mining companies and to compare this with international practices of mining investment agreements. Part of the review process is identifying the ways to increase the benefits received by the host country, which includes analysis of the fiscal benefits to the government such as royalties and taxes, equity arrangement, local procurement of goods and services, infrastructure, maximization of employment opportunities, community engagement, social and environmental issues such as land, stakeholder groups, and water. By analyzing the advantages and disadvantages of the current contracts in Mongolia, it will assist in identifying the clauses needed for subsequent agreements as well as the changes that need to be made in Mongolia's mining sector and institutional environment.

Key words: contracting, economic development, mining, natural resources, Mongolia

JEL classification: G32, O13, Q32, Q38

Table of Contents

I. Introduction 5

II. Ensuring a positive outcome on the host country: crucial issues and international practices 8

II.1. Fiscal benefits to government 8

II.1.1. Royalty 9

II.1.2. Taxes 10

II.2. Equity arrangements 12

II.3. Local procurement of goods and services 13

II.4. Infrastructure 15

II.5. Maximization of employment opportunities 17

II.6. Community engagement 18

II.7. Social and environmental issues 19

II.7.1. Land 19

II.7.2. Vulnerable groups 21

II.7.3. Water 22

III. Mongolia's case: looking through Mongolia's contracts and finding how those crucial points are addressed 24

III.1. General points of interest in Mongolia's case as a developing country 24

III.1.1. Mongolia's contracts with foreign enterprises for investment: an overview of pre-market transition experience and early transition years 1990-200 24

III.1.2. Modification of the 1993 Law on FDI and its implications for the contracts in mining 26

III.1.3. Contract spillovers from mining to finance 28

III.2. An assessment of Oyu Tolgoi agreement 30

III.2.1. Fiscal regime: tax stabilization 30

III.2.2. Equity and financing arrangements 33

III.2.3. Local purchasing of goods and services 33

III.2.4. Infrastructure 34

III.2.5. Labor relations 36

III.2.6. Community engagement 37

III.2.7 Social and environmental issues 38

IV. The CONNEX Initiative towards mining contracts negotiation assistance for developing countries 41

IV.1. History of CONNEX 41

IV.2. CONNEX Code of Conduct 43

IV.3. CONNEX Guiding Principles 43
IV.4. CONNEX Support Unit 44
IV.5. Application 45
V. Recommendations for the sample mining developing contract for Mongolia 47
V.1. General issues 47
V.2. Mongolia's case 47
References 50

I. Introduction

FDI plays a crucial role in the economic growth of resource-rich, developing countries, such as Mongolia. In Mongolia's case, most inflows of FDI are directed into the mining sector as investors find natural resources an attractive investment. FDI inflows into other sectors such as services, agriculture or textiles are generally governed by generic investment contracts without specific clauses and are subject to the Company Law. On the other hand, FDI inflows into the mining sector are governed by other legislations such as the Minerals Law, which can make the contracts more complex.

Projects in the mining sector may have several impacts on the host country. Most investment are into large mining projects due to economies of scale, which can have several effects. First of all, due to its sheer size, the socio-economic impact pertaining to social responsibility, management of displacement, issues of water and land usage and provisions of local employment opportunities are significant. Second, the mining projects are subject to spillovers into other sectors, which requires significant investment in energy, infrastructure, and transportation. As these types of investments are not incorporated in the Minerals Law, additional investment provisions are necessary in the contracts, thus increasing the cost substantially. Third, due to the complex nature of the mining project's financing and magnitude, the repercussions on the country's finances is sizable. If financed in an efficient manner, the investment may be more of a factor in increasing sovereign debt, especially during the early stages of the mine development, rather than an engine of economic growth. Therefore, it is crucial for the host country to enter into a well-developed contract which considers all of the effects mentioned. Within the contract, the issues related FDI should be addressed and managed. In Mongolia's case, a specific issue for the landlocked country is the management of geopolitical issues, which is usually not covered in contracts.

A profit or production sharing agreement governs how the investor and the host country are willing to share the value created from the mining projects. Generally, taxation and royalty payments are based on the national taxation legislation, which differs slightly from country to country. In some cases, the legislation is amended to accommodate the required returns of the investors and division of profits and royalties may be subject to negotiations.

As mining plays a central role in supporting and promoting sustainable development in a developing country, the negotiation stage is where the government should try to maximize the benefits received for utilization of its mineral resources. Mining contracts should be built upon and work in conjunction with the investment law environment of the host country created by the combination of domestic laws, investment treaties and investment contracts. Having a template for large investments or a model agreement, which calculates the optimal returns for the host country (and the investor) based on the features of the project, can be advantageous. As mining deposits can be diverse – ranging from natural gas to rare earth metals – developing a one-size-fits-all template may be difficult. Thus, the purpose of this report is to highlight a couple of features which can be applied to most large, mining projects and its contracts. In the case of Mongolia, generating a model contract for the four main exported mineral commodities – coal, copper, gold and iron ore – is important as these commodities account for a majority of the tax revenue from the mining sector[1].

It should be noted that every time Mongolia enters into a negotiation for a large investment, a parliament resolution is adopted, which creates a mandate for the agreement. Generally, the mandate and resolutions guides how the government set up a negotiation and describes the list of desired outcomes.

[1] Mongolia's Budget Law for 2017.

The mandate is mainly based on the Mineral Law; however, may include items not covered in the law and are subject to negotiation with the investor. According to the Mongolian Constitution, the government is required to comply with the mandate outlined in the adopted parliament resolution as Mongolia is a parliamentary republic. Although, the resolution may be amended to reflect the prevailing conditions at the time of the negotiations if the original set of outcomes are unrealistic and unsupported by analysis and/or government.

Currently, Mongolia has 35 publicly available contracts related to mineral resources. A majority of these are local level agreement (LLAs), a formal agreement between mineral resource companies and subnational or local level stakeholders affected by the projects. Under Article 42.1. of the Minerals Law of Mongolia, LLAs became mandatory in 2006. Of the 35 contracts, there are a couple of model agreements, such as the "Model Agreement on Protecting the Environment, Developing Infrastructure related to Mine Operation and Plan Construction, and Creating Jobs" and a production or profit sharing model agreement for crude oil. On the other hand, none of the contracts provide a guidance for negotiating, drafting and concluding a production or profit sharing agreement or investment agreement related to mineral commodities such as copper, iron ore, gold, coal and so on.

A guidance of how to negotiate and draft a contract may help promote and manage the inflow of investments into the country. Some of the challenges in writing a one-size-fits-all guidance are the several factors mentioned before such as the assortment of mining resources, size of deposits, constant changes in the country's rating, varying availability of financing, fluctuating costs of borrowing, negotiation of equity and royalties. All these factors make it difficult to pinpoint the best model contract, resulting in the creation of an investment agreement on a case-by-case basis. Nevertheless, the distillment of a set of the most basic and important features of a mining contract will assist in making the negotiation process clearer and more efficient.

Since 2006, Mongolia has designated 15 mineral deposits as strategically important, which means a deposit may have a potential impact on national security, economic and social development or is producing or has the potential to produce more than five percent of Mongolia's total GDP in a year. The State may own up to 34 percent of a mineral deposit of strategic importance, the specific of which is determined by an agreement where financing, management, and equity share is negotiated.

Currently, the only investment agreement the Government of Mongolia (GoM) has made is with Ivanhoe Mines and Rio Tinto for the Oyu Tolgoi Project in 2009. Besides the Oyu Tolgoi deposit, the copper deposit in Tsagaan Suvarga was designated as strategically important, the development rights of which belongs to the Mongolian company, MAK. The Parliament rejected a 34 percent equity stake, worth 350 million USD, in MAK's Tsagaan Suvarga copper project with the adoption of the Parliament resolution No. 54 on 1 July 2014. The rejection of ownership in the Tsagaan Suvarga deposit came after the government paid roughly twice the cost of equity for Rio Tinto's Oyu Tolgoi Project, in an attempt to avoid another complex negotiation of financing.

The aim of this research is to study the legal and policy framework of Mongolia in entering into agreements with mining companies and to compare this with international practices of mining investment agreements. In order to do that, international mining contracts needs to be reviewed and the ways to increase the benefits received by the host country need to be identified through analysis and utilization of the country's legal and institutional environment. However, it needs to be stated that if the domestic legal environment addresses them sufficiently, all issues such as tax payments, core operational obligations, environmental and social issues, economic development, dispute resolution, equity ownership, and force majeure would not necessarily end up in the contract. In general, there is a

tendency that in developing countries with weaker domestic legal and institutional environment, the investment agreements tend to be comprehensive to cover wider range of abovementioned issues[2].

Additionally, an assessment of the Oyu Tolgoi agreement will be made, as it is currently the only publicly available investment agreement for Mongolia. In international literature, the Oyu Tolgoi agreement is deemed as a "good" contract due to its transparency ("Mining Contracts," EITI). The Oyu Tolgoi project is one of the world's largest copper mines operated by one of the largest companies. The agreement considers a number of issues, making it a good starting point in constructing a model contract. By analyzing the advantages and disadvantages of the contract, it will assist in identifying the clauses needed for subsequent agreements as well as the changes needed to be made in Mongolia's mining sector and institutional environment.

[2] *Mining Contracts: How to Read and Understand Them*, Extractive Industry's Transparency Initiative, 2014 (page 15)

II. Ensuring a positive outcome on the host country: crucial issues and international practices

Major mining projects have a large impact on, not only the economy, but on society and the environment as well. Additionally, as their operations can last for several years and the aforementioned impacts have lasting consequences, the concept of sustainable development should be reflected in the project development planning and implementation. In other words, when the government and company start negotiations of a mining development project, both parties must establish the main objectives of the agreement such that the growth of national and local economies, the reduction of poverty, and the minimization of the project's negative effects on local communities and the environment are prioritized.

Both the government and company are interested in a fair distribution of the project's benefits and enter into the negotiation stage with their own calculations of possible benefits. In fact, a negotiation can be described as the process that decides how to divide the total calculated benefits. The project carries the benefits, but may also contain significant impacts on the host economy. These may include socio-economic impact both at macroeconomic and regional levels, large demand spillovers to other sectors and financial risks such as increasing sovereign debt.

Therefore, a "good" contract has to take into account all those complexities arising from a single mine project and provide the "fair" share of value from the mine development. In order to do that, it is necessary to know the reserve amount and the overall value of the mine. However, investor companies usually have an advantage on such information, and can therefore misuse it by informing lower resource values, reducing the government's share of the total benefits while increasing its own share. Therefore, the government must, first, be given all relevant information of geological and exploration findings, feasible operational methods and technologies of the mine. Second, to calculate the value of the mine, a financial model that considers numerous key variables, such as market price fluctuations, grade and quality of the commodity, costs of mining and processing, risk-free interest rate, lifespan of the mine, etc. must be developed. Unfortunately, governments, especially developing countries, usually lack the capacity and human resources for such technical modeling and calculations.

On top of the abovementioned financial benefits of the mining project, its direct and indirect economic, social and environmental impacts should also be considered in investment agreements. A major mining project will have significant impacts not only after the commencement of production, but also during its development stage. Those impacts include economic impacts such as the improvement of the technical and financial capacities of local companies through the purchase of fuel, goods and services, an improvement of the labor force through training and skill building, a transfer of advanced technology, and an opportunity to produce final products by processing mineral commodities. Other social and environmental impacts include health, education, inequality of local people, water security, pollution and environmental protection.

In the following sections, these crucial issues in mining contracts will be discussed in conjunction with international practices and standards. There are a number of publications by the United Nations and World Bank, which describe desirable outcomes for the host country's government, to be negotiated in the contract.

II.1. Fiscal benefits to government

For any government, benefits from a mining project is derived by tax revenues and royalties. Before discussing in detail these benefits, it is important to accentuate and clarify some issues.

First, although rates of taxes and royalty types are defined in the laws and regulations of the country, it is understandable that companies want to have a stable tax environment when putting forth large and long-term investments. Consequently, to reduce the risks faced by investors, investment agreements usually include stabilization clauses which fixes taxes at the current tax regime, or imposes special tax rates during the project's implementation.

Second, globally, there are countless mining projects competing with one another to attract investment, and as such, it is not a good decision on the government's part to try to gain more benefits from the project by insisting on very high taxes rates in the project agreement as this results in a zero sum game. Instead, it is more important to negotiate competitive but reasonable tax rates by considering practices in other countries while at the same time maximizing possible benefits. What exactly can be defined as "reasonable" tax regime, is, however, subject to changes in commodity prices, cost of financing and the project's unique features.

Third, commodity prices fluctuate constantly. Consequently, depending on the price cycle and features of the tax regime, the share of benefit to the government or the company can slightly increase or decrease from time to time. It is therefore important to keep in mind that the side that holds a more advantageous position in the agreement depends on the phase which the commodity price cycle is in during negotiations.

Fourth, it is important to consider the role of the mining sector in the economy – how the public and the government understand as well as their attitudes towards the mining sector.

II.1.1. Royalty

Minerals are primarily owned by the government when it's underground and are a non-renewable resource meaning that if the current generation exploits it, it will be unavailable for the following generations. This is why companies should pay additional payments to the national and/or local governments in exchange for mining these special resources. This payment is known as a royalty and there are several types.

The most common type of royalty is based on the extracted commodity value or sales value. For instance, if the price of gold is 1100 USD and the royalty rate is 5 percent, gold miners will pay the government 55 USD per ounce of gold extracted as the royalty payment. This payment is disconnected from the profitability of mining. As the price of gold increases, the payment will rise at the same rate automatically and vice versa. In addition to the royalty rate, it is important to know what price the royalty is based on. The most straightforward way is to use an international reference price for the value of a mineral. In practice, however, the value at the mining site or at the border is commonly used as the base for the royalty. Additionally, if the company sells its minerals after processing, the additional processing costs can be deducted from the royalty, or the royalty rate for the processed product is lower than the crude ore royalty rate. Although this type of royalty is easy to calculate, there are drawbacks. If the mining company sells its products to its affiliated companies at a lower price, the revenue received by the government will be less or constrained.

While other types of royalties are not as common, many countries still utilize different ways of calculating royalties. One of them is a royalty based on profit levels of the project. If profit increases, the royalty level will increase. If there is a loss, or no profit, the royalty is not due. As such, this is a more favorable type of royalty for companies, especially for those just starting new mining projects. There is also a royalty based on product volume in which companies pay a constant amount for each unit of production. For instance, a royalty rate for ore may be 5 USD per ton.

Countries around the world use many alternative ways of calculating royalties depending on their attitudes towards mining and the type of minerals. In Nevada and Arizona of the United States, there are no royalties for most minerals. In Saskatchewan, Canada, projects of precious and base metals are subject to a 10-year royalty holiday and after which the royalties are 5 percent of net profit. In Japan, the royalty rate is only 1 percent of product sales in order to support the local mining sector which accounts for a small portion of the economy.

In many resource rich countries like Chile and Peru, a royalty based on profit is used for attracting foreign direct investment. In Chile, the royalty rate is between 5 percent and 14 percent depending on the amount of profit, while it is between 1 percent and 6.28 percent in Peru[3]. In Laos, the royalty is based on gross revenue and ranges from 1 percent to 7 percent depending on the type of commodity. In Australia, to support the refinery industry, the royalty rate declines as processing level increases. For instance, in Western Australia, the royalty rates are 7.5 percent for crude ore sales, 5.0 percent for concentrate sales and 2.5 percent for metals.

In Mongolia, according to the Minerals Law, to increase the government's benefits along with the project's windfall revenue and to promote mining processing, the royalty rate increases as commodity prices increase or as the level of processing decreases. For instance, the base rate of copper is 5 percent and if the copper price at the London Metal Exchange exceeds 5000 USD per ton, the rate of royalty based on gross revenue will increase. If the price is between 5000 USD and 6000 USD, the additional rate of royalty will be 22 percent for crude ore, 11 percent for concentrate and 1 percent for the final product. If the price is between 6000 USD and 7000 USD, the additional rate of royalty will be 24 percent for crude ore, 12 percent for concentrate and 2 percent for the final product. The rate increases further as price goes up. If the price is greater than 9000 USD, the additional rate will be 30 percent for crude ore, 15 percent for concentrate and 5 percent for the final product.

However, the royalty rates can be negotiated and set in the investment agreement. When the Oyu Tolgoi Investment Agreement was signed in 2009, the royalty rate was set at 5 percent regardless of prices and processing level according to the Minerals Law at the time. The agreement stabilized the royalty rate, so legal changes and amendments made after the agreement to the calculation of the royalty rate mentioned above are not applicable under the agreement[4].

Contrarily, for example, in the agreement for the Qara-Zaghan gold mine in Afghanistan, the royalty rate is significantly higher in a case of gold. The agreement states that the mining company will pay 26 percent of gross revenue to the Ministry of Mining every month since the start of production and the reference price will be the price set at the London Metal Exchange the day the gold is sold[5].

II.1.2. Taxes

Another benefit from the mining project includes tax income from corporate income tax (CIT) and other mining specific taxes. Like other businesses, mining companies must also pay CIT. The CIT rate on mining projects have been declining worldwide in recent years, currently standing between 25 percent and 35 percent. In Chile, for instance, the highest rate of CIT is 18.5 percent, while it is 20 percent in Kazakhstan, and 25 percent in China and Indonesia. In Canada, the federal tax rate is 15 percent and

[3] Review of the Legal/Fiscal Framework of Resource Countries, Shuichi Miyatake, 2018
[4] Oyu Tolgoi Investment Agreement between the Government of Mongolia and Ivanhoe Mines Mongolia Inc LLC and Ivanhoe Mines LLC and Rio Tinto International Holdings Limited, 2009 (page 12)
[5] Qara Zaghan Gold Project Contract between Afghan Krystal Natural Resources Company and the Ministry of Mines of the Islamic Republic of Afghanistan, 2011 (page 9).

the state tax ranges from 10 percent to 16 percent. The CIT rate is 28 percent in South Africa, 30 percent in Australia, Peru, and Tanzania, 34 percent in Brazil, etc.[6]. However, some countries offer a CIT rate reduction for companies until they fully cover their investment costs to stimulate the mining sector, while some countries impose a higher tax rate on windfall profit.

The taxable income of mining companies is the total net income of the business less operating costs, royalties, import duties and prepaid costs, etc. To give an opportunity to recover its initial investment in the project, the depreciation cost is deducted incrementally over a number of years. The calculation methods utilized when defining the rate of depreciation, number of years of useful life of the asset and whether to reduce the tax burden on mining companies in the earlier years of the project depends on the government's objective.

In Australia, all businesses must use a constant rate of depreciation for all assets, but an accelerated depreciation method (150 percent) is used for special promoting purposes for oil exploration and mining rehabilitation activities[7]. In Canada, an accelerated depreciation method (100 percent) is used for equipment, machinery and buildings purchased before mine production or during major expansion.

Another important concern is the issue of loss carryforward. Mining projects usually have large losses in its initial years of production due to more investments and higher operating expenditure than income. Therefore, to give the mining company an opportunity to recover its current loss in the following years, tax laws allow the mining company to carry the current year's loss forward into the next year and deduct it from the next year's revenue. If the loss is substantial, the period of forwarding can span several years. In most countries, the longest period of loss forwarding is 5 to 7 years, sometimes going up to 10 years. In Indonesia, for instance, the period limit is 5 years, while it goes up to 10 years in Kazakhstan, Mexico and Russia[8]. In some cases, there is an unlimited period of carryforward until the loss is fully offset[9]. Generally, the loss carryforward period limit in Mongolia ranges from 4 to 8 years. In the case of the OT agreement, the project was given a period limit of 8 years due to its size.

A common provision in mining agreements is "ring fencing". It is a requirement that mining companies cannot combine the income and deduction of costs from one project with the income and costs of another project for income tax purposes. This limits the company's interests in starting exploration and mining ventures in other places with the profit from a previous project. However, it gives the government the opportunity to collect taxes earlier as losses are offset earlier and profit isn't channeled into new projects. Moreover, it also enables new companies the chance to enter into markets and start their own projects.

An important type of tax relevant to mining projects is withholding tax. Withholding tax is a tax on the following costs of a mining company: interest payments to creditors, dividends to owners, service payments to service providers and costs to subcontractors. More specifically, it is a tax on the income of those who received the payments. If withholding taxes are not imposed, a part of the mining revenue paid to service providers and subcontractors, especially in foreign countries, might not be taxed at all. However, withholding taxes are limited by double tax treaties. In the investment agreement, the government and the company may agree on stabilizing the taxes, lower the rate, or even receiving tax exemptions. The withholding tax rate is usually between 5 and 10 percent in most countries. For

[6] Corporate income taxes, mining royalties and other mining taxes, PwC, 2012
[7] *Guide to Depreciating Assets*, Australian Tax Office, 2014
[8] Corporate income taxes, mining royalties and other mining taxes, PwC, 2012
[9] *Mining Contracts: How to Read and Understand Them*, Extractive Industry's Transparency Initiative, 2014 (page 76)

instance, in an agreement between the government of Liberia and China Union Ltd, the withholding tax rate is 0 percent for dividends, 5 percent for interest payments and 5 percent for service payments[10].

In addition to the abovementioned taxes, taxes such as VAT, import duties, commodity export taxes, local taxes, land or license payments, and other fees are also paid by the mining company. The negotiation process between the two parties determine whether those taxes are stabilized at the current rate, negotiated to different rates, or special tax exemptions are provided either fully or partially.

Finally, another common type of tax in oil and gas extraction contracts are resource rent tax and production sharing agreements. In a production sharing agreement, a company is responsible for all mining costs and risks. The company is permitted to use the oil revenues in a given month to recover its investment and operating costs. The remaining money, dubbed "profit oil", is split between the government and the company as negotiated in the agreement. In contrast, resource rent tax is imposed on "economic profit" which far exceeds normal profit levels when resource prices soar. For tax agencies, it is easy to collect taxes under production sharing agreements while it is difficult to collect tax and to resolve disputes when resource rent taxes are used[11]. Mongolia uses the production sharing agreement for its oil and, generally, the agreement is viewed as unsuccessful.

II.2. Equity arrangements

Another long-term benefit the government can receive is from its ownership of a share in a project. In this case, the government has the opportunity to participate in the project's management, be represented on the board, and earn additional revenue via dividends. The public tends to expect more from ownership as they think that, in the case of shared ownership, the benefits from the project will notably increase while negative social and environmental impacts will be limited.

The practice of governments owning a share in mining projects have become more common, but the percentage of shares owned varies widely. In 1953, Liberia made an agreement on the LAMCO iron ore mine where in exchange for a 50 percent share in the project, the company does not pay any taxes. However, this agreement did not provide the government with the desired benefits and thus, is no longer practiced in Liberia. In the Democratic Republic of Congo, since 2002, it became legal for the government to own a 5 percent stake in any mining project, while in Kenya, since 2012, the requirement is a 35 percent stake in projects[12].

In the case of being a shareholder via free carry shares, the government is required to be responsible for a part of the investment costs proportional to its equity share. In most cases, the government does not have access to a readily available fund for the investment. In such cases, the shares along with its financing responsibility can be transferred to the Development Bank or the government can get a commercial loan from the company in exchange for future dividends.

However, equity ownership by the government leads to issues related to reaping the benefits from the project. In most cases, both sides have no right to sell their shares. In this case, the government cannot get capital gains by selling its shares. Most importantly, government participation in equity sharing usually leads to a disadvantageous situation for the government.

[10] Mineral Development Agreement between the Government of the Republic of Liberia, China-Union (Hong Kong) Mining Co., Ltd. and China-Union Investment (Liberia) Bong Mines Co.,Ltd, 2009
[11] Mineral royalties and other mining-specific taxes, Pletro Guj, 2012
[12] IISD Handbook on Mining Contract Negotiations for Developing countries, Howard Mann, 2015

Investors can use the government's share and future dividends as leverage against government actions. Especially in developing countries with an unstable policy environment, the investment risk of the majority shareholder company is reduced significantly by letting the government own a minority share ranging from 21 to 40 percent[13]. The government's measures on the environment, public health, wages, or social benefits can increase the project's costs and lower dividends received by the government. The government must then make a difficult choice between its revenue stream in the form of dividends and implementing vital measurements for the future sustainability of the economy. If, on the other hand, the government is not a shareholder in the project, making beneficial decisions for the overall society would be simpler and easier.

Even if the government were to become a shareholder, it has no real influence on board decisions that affect dividend payments due to its status as a minority shareholder. In terms of detailed project information and voting rights, the government will always be lacking compared to the majority shareholder company. If the investor decides not to distribute dividends this year, the board will invariably choose in favor of that decision. There is also a risk of reduced profits due to increasing costs caused by various measures such as the company taking loans with a higher interest rate from its affiliated companies, providing loans with a lower interest rate to its affiliated companies, or selling its product to them at a lower price. Even when commodity prices increase, the right to cease or lessen distribution belongs to the company. In reality, not receiving or postponing dividends means that the government invested into the other side and reduced its own benefits.

In general, an assessment of whether it is more beneficial for the government to take part in the ownership of the project should be based on a realistic cost-benefit analysis using a comprehensive financial model.

II.3. Local procurement of goods and services

Governments typically focus on taxes and dividends in mining contracts. However, local purchasing of goods and services by mining companies has a decisive impact on the economy and the sustainable development of the country. As mining company spend approximately 50 percent of its total spending on purchase of goods and services, a dynamic negotiation needs to be held between the host country and the investor[14]. In particular, as mining companies purchase local goods and services, the quality and capacity of goods and services of the local companies will be boosted, which promotes technical, marketing skills and competitiveness of businesses[15]. Additionally, the government tax income, employment and livelihood of citizens can improve. Reducing dependence on mining is an important aspect of developing countries who tend to be highly dependent on mining. Developing countries can use local purchasing to reduce dependence on mining by expanding domestic production and services and improving competitiveness.

Domestic companies need to become more skilled to supply the products and services needed by the mining companies. However, in order to do so, domestic companies need to increase employment skills and capacity as well as provide more opportunities and business mentoring.

[13] Minority Rules: Credible State Ownership and Investment Risk Around the World, Barclay James and Paul Vaaler, 2018, Organization Science
[14] IISD Handbook on Mining Contract Negotiations for Developing countries, Howard Mann, 2015
[15] Ibid.

When the government includes guidelines on the procurement of goods and services in an investment agreement, a number of things need to be addressed. Without the following considerations, the benefits from purchase of goods and services on the economy may be severely limited[16]:

- In most agreements, foreign mining companies tend to be exempt from import tax on equipment and goods needed for operation. And the price of local goods tends to be higher than imported goods as local producers use imported goods in their production, the price of which is channel down to the user. Higher prices significantly dampen local producers' competitiveness. Thus, the government should be mindful of ensuring the competitiveness of the domestic producers.
- As for local purchases, the government should ensure that the transactions are with actual local companies. If the company is foreign-owned, the benefit on the domestic economy will be minimal.
- During the negotiation of the agreement, size and value of mine and its resources is important; however, the government should also note the existing capacity and potential of domestic suppliers. The contract set forth should be based on realistic terms such that the capacity of the company will in fact fulfill the requirements of the investors.

In developing countries, goods and services provided by domestic producers need to be improved to meet the requirements set forth by the investors. In order to accomplish this, the government should assist local producers by providing training, financing and developing networks of organizations.

Examples of international agreements:

- In Liberia, when purchasing goods and services related to operation, the mining company and its major contractor have to provide Liberian citizens, foreign citizens who lives in Liberia and Liberian companies an advantage which will even the playing field for producing goods and services of the same quality, price, delivery conditions and quantity as that of imports. Furthermore, the company is responsible for reporting about procurement of goods and services that is purchased from domestic producers by the company and its major contractors within 60 days after the end of the financial year[17].
- In Guinea, the contract on purchase of goods and services such as transportation, insurance, construction and procurement contracts should provide advantages to local producers when domestic producers' price, quantity and quality of delivery are in line with foreign producers' price, quantity and quality of delivery. Additionally, the company must choose the mining contractor through a tender process[18].

[16] Ibid.

[17] Mineral Development Agreement between the Government of the Republic of Liberia, China-Union (Hong Kong) Mining Co., Ltd. and China-Union Investment (Liberia) Bong Mines Co., Ltd, 2009; Iron Ore Appraisal and Exploration Agreement for the Putu Range between the Republic of Liberia and Mano River Iron Ore Ltd, 2005; Mineral Development Agreement the Government of the Republic Liberia, Putu Iron Ore Mining, Inc, and Mano River Iron Ore Ltd, 2010; Mineral Devepment Agreement between the Government of Liberia and Western Cluster Limited, Sesa Goa Limited, Bloom Fountain Limited, Elenilto Minerals & Mining LLC, 2011; Amended Mineral Development Agreement between the Government of the Republic of Liberia and Mittal Steel Holding A.G and Mittal Steel Holdings Ltd, 2006; Exploration Agreement between the Government of the Republic of Liberia and African Aura Resources Limited, 2004

[18] Convention de Base Entre La Republique de Guinee et BSG Resources, 2009; Convention de Base Entre La Republique de Guinee at Alliance Mining Commodities, 2010; Convention de Base Entre La Republique de Guinee et Simfer SA La Societe Pour L'Exploitation des Gisements de fer de Simandou, 2002

- In Afghanistan, if the domestic producers' price, quality and terms of delivery are line with foreign producers', the mining company and its contractors should provide an advantage to the domestic producers[19].

II.4. Infrastructure

An important part of mining development is infrastructure. Mining operations require infrastructures such as water, electricity, information, communication and transport. Therefore, the cost of infrastructure accounts for around 40-80 percent of the cost of mining development[20].

Mining infrastructure bolsters economic activity and promotes development of the country. The infrastructure of a developing country is limited in quality and capacity. When a new mine is being built and infrastructure are being constructed, it provides beneficial opportunities for the country. Thus, if the government can manage the issues which arise and instead plan ahead, the economy can greatly benefit from these infrastructures. In establishing an investment agreement, the government needs to consider the following[21]:

- Identify what infrastructures are needed: roads, ports, railroads, energy, telecommunication and water management
- Who will be responsible for setting up the infrastructure?
- Who will pay for the infrastructure?
- Who will use the infrastructure?
- An environmental and social impact assessment must be completed

One of the most important consideration is the user of the mining infrastructure. There is little or no positive impact of infrastructure on domestic economy when the user of mining infrastructure is only the investor. However, the shared usage of infrastructure creates profitable conditions in an economy[22]. Therefore, the government needs to carefully make agreement. There are two types of shared usage of infrastructure[23]:

- Several mining companies use common infrastructure.
- Mining companies share the infrastructure with government and third parties.

If the government can make investment agreement precisely based on research, all types of shared usage is profitable in domestic economy.

In most cases, the investor prefers nonshared usage of infrastructure if they are the sole financier of the mining infrastructure. In that case, the shared usage of infrastructure has significant costs caused by overspill of capacity and cost of coordination. On the other hand, if the government and/or a third-party owns the infrastructure, the usage of infrastructure on mining company will be limited. As a result, the

[19] Qara Zaghan Gold Project Contract between Krystal Natural Resources Company and the Ministry of Mines of the Islamic Republic of Afghanistan, 2011
[20] *Mining Contracts: How to Read and Understand Them*, Extractive Industry's Transparency Initiative, 2014 (page 169)
[21] IISD Handbook on Mining Contract Negotiations for Developing countries, Howard Mann, 2015
[22] *Mining Contracts: How to Read and Understand Them*, Extractive Industry's Transparency Initiative, 2014 (page 170)
[23] Ibid.

efficiency of the mining project will limited. However, in this case, making agreement of shared usage is relatively easy[24].

In the investment agreement, extensive planning and research is needed to make decisions about shared use of infrastructure. For each mining projects, the required infrastructure is different. The necessary infrastructure depends on the size of the project, the type of commodity, demand for infrastructure, non-mining demand for infrastructure, and the regulatory capacity available to ensure open access to mining related infrastructure[25].

The standard agreement, in regards, to the use of government and third-party infrastructure is Liberia-Putu (2010)[26]. Within the agreement, the shared usage of every infrastructure is clearly outline. Some notable sections from the agreement were:

- In terms of electricity, the power plant built by investors supplies the necessary power to the mining project and if there is excess capacity in electricity, investors may supply electricity to third party users located within a 10 km radius.
- In terms of water supply, if the company uses the surrounding communities' water sources, the company is obliged to set up other sources of drinking water for the population affected.
- In terms of port and railway, those infrastructures should be in line with the government development plans. The infrastructures may be used by the government and third parties within a certain parameter of conditions. If additional capacity is required, the government and third parties have to finance the expansion of the infrastructure needed.

The most common examples of shared usage of mining infrastructure is observed in Australia. In Australia, there are two polar cases of shared usage of infrastructure. One case was in the Pilbara region of Western Australia and the other was in the Queensland state of Australia, which was coordinated by Aurizon, the largest Australian rail freight operator. The second case is an example of an efficient shared usage of mining infrastructure, unlike the first, which was challenging and costly.

The Pilbara region is resource-rich in iron ore and coal reserves. As such, there are a number of iron ore bulk mining companies who constructed their own rails and ports due to an inability to negotiate shared usage of mining infrastructure. The Pilbara case dragged on for many years at a great cost. In the 1960s, Rio Tinto and BHP Billiton both operated large mines and constructed their own respective rail and port infrastructure in Pilbara region. The mining contracts between Rio Tinto and BHP Billiton with the Government of Western Australia were concession agreements. These agreements contained limited and heavily conditional undertakings regarding the granting of third-party access to infrastructure. In the early 2000s, Chinese steel production grew sharply, increasing the demand of iron ore. As a result, in the Pilbara region, the development of additional new iron ore mines caused rail and road infrastructure challenges. As the requirements set forth by existing mining companies for utilization of their rail and port infrastructure by others were stringent, it caused increases in barriers to entry and competition. Therefore, new entrants constructed their own railway operations, which also tended to be costly. Within the region, the railway operations of BHP Billiton, Fortescue and Roy Hill ran parallel to one another until they all reached Port Hedland.

Queensland has an abundance of coal reserves and Aurizon LLC operates the Central Queensland Coal Network, CQCN, which is one of the world's largest coal rail networks linking more than 50 mines

[24] Ibid, 171-172.
[25] Ibid, 172.
[26] Mineral Development Agreement the Government of the Republic Liberia, Putu Iron Ore Mining, Inc, and Mano River Iron Ore Ltd, 2010

with three major ports at Bowen, Gladstone and Mackay. The CQCN rail network is controlled, managed, operated and maintained by Aurizon, the owner of all railroad and ports in Queensland. It provides a good example of how large-scale, multi-user, and multi-purpose logistic infrastructure used by bulk mining operations can be effectively and efficiently structured and regulated

II.5. Maximization of employment opportunities

In developing countries, the usage of mining to increase government income, intensify economic growth and sustainable development is important. Mining can also be used to increase employment as well as livelihood of citizens. In exchange for the use of natural resources, the investor and the government should collaborate in an effort to increase the number of people employed by the mining companies, as well as to contribute to the development of necessary professional skills and experiences which can have a positive impact on the income of the citizens.

Of total operational cost of average mining company, 16 percent is related to employment[27]. The government receives a number of benefits in the form of mining taxes, royalties, and dividends which in turn can have a positive influence on the economy. High rates of employment of locals in the mining company can increase the benefits received by the economy from the mining projects.

Mining requires the use of high technology equipment during operations as well as highly skilled laborers. The requirement of the mining company is significantly greater than the availability and capacity of skilled laborers in the host country. With development and acquisition of the necessary skillsets, the domestic labor market will experience an influx in skilled workers. The increase in the labor market's skills and productivity will positively contribute to their wages, which in turn translates to an improvement in the income and livelihood of the host country's citizens. For these reasons, the government should take the necessary measure to improve the citizens' knowledge of advanced technologies and professional skills desired in the mining sector.

Within the investment agreement, in reference to employment, the government should be mindful of the following aspects[28]:

- How big the mine will be in the future and during operations.
- For every operational position, how many and what types of roles are needs /unskilled, skilled, management, professional/
- Whether the country's capabilities of workers are in line with the requirement of investors
- What types of skills development can be done by the mining company and government?

Using these points as guides, the government should clearly define the level of employment of citizens in the company, the employment conditions and trainings that will be implemented and investment in the host country's education system in the investment agreement.

Examples of international agreements that clearly introduced the issue of employment:

- In Liberia, the company and any other contractor don't have to hire individuals who are not citizens of Liberia for unskilled labor positions. Furthermore, in financial, accounting, technical, administrative, supervisory, managerial and executive positions and other skilled positions, the citizens of the country must be worked. If the skill of workers is not enough to

[27] IISD Handbook on Mining Contract Negotiations for Developing countries, Howard Mann, 2015
[28] Ibid.

work these positions, the company should involve training that should become citizens to work in these position. In addition, in the first five years of operation, at least 30 percent of the management position and in the next 10 years, 70 percent of the management position have to be staffed by the domestic citizens. The company shall, until award of mining license, provide 100,000 – 200,000 USD of education funding to students who studying at mining engineering in foreign and local universities. After the grant of mining license, the company have to increase total annual contribution to 250,000 – 500,000 USD. Furthermore, the company shall contribute scientific research fund of 100,000 USD annually [29].

- In Guinea, the mining company have to compose 90-95 percent of total workforce from domestic workers within the five years since production of mining. The company don't have to hire individuals who are not the citizens of Guinea for unskilled labor positions. If the skill of citizens is enough to work in skilled position, the company have to hire these citizens for skilled position. Additionally, the company should organize training for workers who are citizens of Guinea to work skilled position[30].

II.6. Community engagement

Community engagement plays a crucial role in the long-term success of mining projects. The local community should be active in the negotiation process of the contract and have their inputs and interests be taken as seriously as those of the company and the government. A major part of a successful project and engagement with the community is ensuring that interests are clearly communicated before and during the negotiations. Poor community relations may promote distrust and averseness which may result in resistance or cause conflicts to arise.

There are numerous tools created by international organizations which set the standard and provide guidelines of engaging with and developing a lasting relationship with the community. The UN Special Representative on Business and Human Rights proposes an effective community engagement plan in its Principles for Responsible Contracts guidance. Part of the community engagement plan is consultation with communities who are directly or indirectly affected by the project. This involves doing an in-depth analysis to identify those individuals and determine how and to what extent they will be affected by the project. This may sometimes involve cooperating with the government, non-governmental organizations and community-based organizations who may represent the community.

Public reactions to the first gold mine operation, Glamis Gold's Marlin project, in Guatemala sparked a national debate on the development impact of the mining sector and the contribution of foreign

[29] Mineral Development Agreement between the Government of the Republic of Liberia, China-Union (Hong Kong) Mining Co., Ltd. and China-Union Investment (Liberia) Bong Mines Co.,Ltd, 2009; Iron Ore Appraisal and Exploration Agreement for the Putu Range between the Republic of Liberia and Mano River Iron Ore Ltd, 2005; Mineral Development Agreement the Government of the Republic Liberia, Putu Iron Ore Mining, Inc, and Mano River Iron Ore Ltd, 2010; Mineral Devepment Agreement between the Government of Liberia and Western Cluster Limited, Sesa Goa Limited, Bloom Fountain Limited, Elenilto Minerals & Mining LLC, 2011; Amended Mineral Development Agreement between the Government of the Republic of Liberia and Mittal Steel Holding A.G and Mittal Steel Holdings Ltd, 2006; Exploration Agreement between the Government of the Republic of Liberia and African Aura Resources Limited, 2004

[30] Convention de Base Entre La Republique de Guinee et BSG Resources, 2009; Convention de Base Entre La Republique de Guinee at Alliance Mining Commodities, 2010; Convention de Base Entre La Republique de Guinee et Simfer SA La Societe Pour L'Exploitation des Gisements de fer de Simandou, 2002

investors to the national and local economy[31]. In order to facilitate dialogue among key stakeholders and to manage public expectations, a commission was formed. The members of the commission included the government, Catholic Church representatives, an environmental NGO and university representatives.

During the engagement with the communities, it's generally recommended to engage with them in their communities as it provides more transparency and accountability. The method of relaying information will vary depending on the situations. For instance, when consultants from Adastra Minerals initiated public engagement in relation to the Kolwezi Tailings Project in the Democratic Republic of Congo, there were a number of obstacles[32]. Besides the local officials, most of the potentially affected community members did not speak the national language of French and literary rates were very low. Some of the ways in which they got around these challenges were by utilizing six local radio stations, which used both French and Swahili, and even local community presentations were delivered in both languages to overcome the language barrier. Special posters were also made to depict likely impacts and as mobile phones were widely used, text messages and direct calls provided a means of providing information.

Information about the project and its impacts should be disclosed while taking the appropriate measures to protect proprietary information. Effective engagement early in the negotiation process helps identify and understand any adverse human rights impacts which may rise from the project. Initial engagement should be inclusive and designed to facilitate the involvement of all relevant parties with special attention to gender differences and those who face greater risks of vulnerability and marginalization, such as women and indigenous people. Community engagement goes beyond just consulting with the communities and involving them in the negotiation process; but also, contributes to the long-term development of the community so that it may be sustainable beyond the closure of the project.

II.7. Social and environmental issues

Some issues arising from the extractive industries tend to cause both social and environmental impacts. However, as the list of issues is extensive and varies depending on the mining projects, we've focused on only a few key issues in this section. These include land, which includes issues of leasing, displacement of communities and compensation, vulnerable groups such as indigenous people and women, and issues related to water, such as pollution and supply.

II.7.1. Land

One of the greatest issues of the extractive industry, especially in developing countries, is the mining-induced displacement and resettlement (MIDR) which poses a major risk to societal sustainability[33]. The likelihood of MIDR increases as rich mineral deposits are found in areas with relatively low land acquisition costs that are being exploited with open-cast mining and are located in regions of high

[31] Case study excerpt from IFC's Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets (2007)
[32] Ibid.
[33] One of the commonly used models for organizing the risk patterns of MIDR is the Impoverishment Risk and Rehabilitation Model developed by Michael Cernea and his team at the World Bank. These risks include joblessness, homelessness, marginalization, food insecurity, loss of common lands and resources, increased health risks, social disarticulation, loss of civil and human rights and the disruption of formal educational activities and loss of access to basic public services.

population density with poor definitions of land tenure and politically weak and powerless populations, especially indigenous people. Numerous research studies on resettlement have shown that involuntary resettlement frequently results in the impoverishment of the affected households and communities.

The number of legislations regulating land access and resettlement have been increasing; however, most countries have limited capacity in dealing with issues such as compensation, expropriation and building standards. There are a wide range of good practice policies, standards and guidance by reputable institutions. Some of the commonly referenced or utilized standards and guidance documents related to land access and resettlement are:

- The International Finance Corporation's (IFC) Sustainability Framework which sets out 8 performance standards for assessment and management of environmental and social risks and impacts, labor and working conditions, resource efficiency and pollution prevention, community, health, safety, and security, land acquisition and involuntary resettlement, biodiversity conservation and sustainable management of living natural resources, indigenous people, and cultural heritage
- The European Bank for Reconstruction and Development's Environmental and Social policy which sets out 10 performance requirements for assessment and management of environmental and social impacts and issues, land acquisition, involuntary resettlement and economic displacement, indigenous peoples, cultural heritage, and information disclosure and stakeholder engagement
- The World Bank policy in relations to projects not in the private sector pertaining to involuntary resettlement are set out in the Operation Policy 4.12 and Bank Procedure 4.12

Performance Standard 5 of the IFC deals with land acquisition and involuntary resettlement and is widely accepted as one of the key international standards on the topic, especially in mining. It refers to the management of physical and economic displacement that leads to the loss of income sources or means of livelihood due to project-related land acquisitions. One of the main things that the Performance Standard encourages in the negotiation of settlements is to avoid the forcible removal of people. The ways in which to accomplish this is outline in several objectives and requirements.

Glencore implemented the IFC's Performance Standard 5 during the resettlement of three communities near its Calenturitas coal mine in Colombia[34]. While working in collaboration with two other local mines and external plans, they realized that three different planning processes were needed to address the concerns of each settlement. To ensure that concerns would be addressed, the affected communities were actively engaged in the planning process. This participative approach included a comprehensive census, socioeconomic surveys and asset inventories. Glencore continued to provide trainings in agricultural skills to enable the communities to support themselves following the resettlement, this was in response to the communities' request and open communication between the two parties.

The trainings Glencore provided the communities is a form of rehabilitation aimed at ensuring that the communities are better off than if it was just provided with compensation and relocation. However, rehabilitation or restoration only ensures that the rehabilitated society can continue as it was. On the other hand, sustainable development – the ultimate goal – involves not only relocating and rehabilitating the displacees but also assuring that they are better off than they were before and that they are the beneficiaries of the project which was responsible for their displacement in the first place.

[34] Case study excerpt from ICMM's Land Acquisition and Resettlement

II.7.2. Vulnerable groups

Of those affected by mining projects, certain groups[35] – indigenous peoples and women – tend to be more vulnerable than others. Most of these groups are reliant upon their surrounding environment and thus, alterations and displacement may expose them to various types of risks and severity.

For instance, displacement of indigenous people may cause loss of identify, culture, traditional lands, and natural resource-based livelihoods[36]. In certain countries, there are special legal, statutory and/or regulatory obligations for consulting indigenous people as well as international standards such as the IFC's Performance Standards. Performance Standard 7 seeks to ensure that business activities minimize negative impacts, foster respect for human rights, dignity and culture of indigenous populations, and promote development benefits in culturally appropriate ways. Consultation with indigenous people may include free, prior or informed consent, depending on the circumstances.

Rio Tinto's Argyle diamond mine in Western Australia is located in an area of major spiritual significance for traditional landowners of the region[37]. In 2001, it was realized that a more formal relationship was needed between Rio Tinto and the wide set of indigenous communities, which eventually lead to the signing of the Argyle Diamond Mine Participation Agreement in 2004. To achieve open communication, the members of the communities were taken on site tours, including the underground mine. To assist in this, a number of visual aids were used to explain the impacts of the mining and translators were used to ensure that everyone could participate in the negotiation. In return, the traditional owners provided the company with information about their customs and even performed ceremonies to ensure that the mining operation would be conducted safely and free from interruption from ancestral sprits[38].

One of the ways to encourage gender equality in mining is making sure that women are heard during community consultations. However, in most instances, the only way in which the opinions of the women in the community are heard are through women-only sessions. Thus, unless a company takes special measures to include women in the conversation, they are usually left on the sidelines.

Most resettlement projects with livelihood restoration, with cash compensation, employment and farming opportunities are mainly targeted at men. Forced displacement also raises the risks women face, especially women who are landless and are instead dependent on other people's land, as it can drive them further towards impoverishment and destitution. Additional negative impacts on women include increases in domestic violence as well as loss of social status within the community where they once held recognized roles. This further weakens their authority and rights. These negative impacts can have long-term consequences in addition to the fact that their children can experience significant disruptions of education, which in turn can cause the children to join the labor force at an early age.

In 2012, the Chilean government issued a national standard on "Gender equality and reconciliation of professional, family and personal life," which was adopted by Codelco to guide its approach to

[35] Also includes low-income families, artisanal miners, children, disabled and the elderly. However, for the sake of brevity, we chose to focus on just indigenous people and women.
[36] Article 10 of the United National Declaration on the Rights of Indigenous Peoples (UNDRIP) states that: "Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return"
[37] Case study excerpt from ICCM's Indigenous Peoples and Mining and Rio Tinto's Argyle Diamond Mine Sustainable Development Report 2017
[38] The Manthe ceremony is regularly conducted on the employees, contractors and visitors to welcome them and to ensure they are safe while on the Argyle site.

promoting gender equality and an inclusive workplace[39]. Before the national standard, Codelco was the first large-scale mining company to adhere to the national equality program of Chile's National Department of Women in 2007. In 2011, the company began pilot programs to promote women's participation in mining. Codelco's commitment to promoting gender equality has steadily increased female representation in its workforce over the past few years.

At Codelco's Gabriela Mistral mine, 20 percent of the workforce is women and around 23 percent are women in Codelco's subsidiaries and affiliates. Their 2017 objectives were to address the gender pay gap and to increase female participation in the workforce to 9.6 percent across the board and to 12 percent in leadership roles. By 2025, Codelco aims to have 11 percent female participation in its overall workforce, 11 percent in operative roles, 20 percent in leadership roles and 33 percent in its subsidiaries and affiliates.[40]

Chile and Codelco are not the only ones who have taken measure to promote women in the workforce, other countries such as the Democratic Republic of Congo and other international mining corporations have similar initiatives. A commonalty in most implementations of women's programs is that there is also a national standard or initiative taken by the government on which the companies built upon to create successful and meaningful programs and projects beneficial to everyone.

II.7.3. Water

In rural areas, local communities are highly dependent on the local environment for their livelihood, whether it is farming, fishing, forestry, use of local energy sources (wood or other biomass) or harvesting food and water[41]. The environment provides ecosystem services like soil protection, water filtration, CO2 removal, support of biodiversity and etc. One of the recurring issues in mining is the use of water and the risks of pollution.

Some of the actions taken by numerous companies include minimizing water losses during processing while maximizing water recycling, reducing evaporative losses in hot and dry areas, reducing water usage across mining operations in areas of water stress[42], and investing in the treatment of contaminated water supplies and more.

BHP Billiton's Olympic Dam in South Australia is the world's fourth largest remaining copper and gold resource and the largest uranium resource and also contains quantities of silver. All the water used at the Olympic Dam is sourced from the Great Artesian Basin (GAB)[43]. BHP Billiton operates a water savings project to reduce the volume of water used at the Olympic Dam site and the project was developed to reduce the consumption of GAB water by optimizing water recovery and recycling and by substituting poor-quality local groundwater in some areas. Teams at BHP Billiton, Olympic Dam, and the Australian government continues to identify opportunities to minimize water use in order to contribute to the sustainability of the GAB and future generations.

---

[39] ICMM's promoting gender diversity in Chile

[40] Refer to Codelco's official website for more measures and actions taken by the company to promote gender equality.

[41] In 2010, the United Nations recognized access to safe, clean water and safe and hygienic sanitation as a basic human right.

[42] Water stress occurs when the demand for water exceeds the available amount during a certain n period or when poor quality restricts its use.

[43] Case study excerpt from ICCM's Water Management in Mining

Another example of a company identifying opportunities in preserving water resources is Rio Tinto's Argyle Diamond mine mentioned previously. Water is a sensitive issue at the Argyle mine as there is a limited supply in addition to the potential adverse impacts of the operations on local groundwater[44].. In 2005, the mine used more than 3,500 megaliters from Lake Argyle to run its operations. In order to fulfill its target of reducing its operational usage to zero, the water is captured and recycled back throughout the processing plant. Even the water seepage from tailings is recycled to use in the process and dewatering of the underground mine and from the surface pit operation provides additional water that is collected and stored in the two dams for drinking and operational use. In 2017, water consumption from Lake Argyle was 447 megaliters, almost a 90 percent decrease within 12 years[45].

[44] Case study excerpt from ICMM's Water Management in Mining and Rio Tinto's Argyle Diamond Mine Sustainable Development Report 2017

[45] In 2009, water consumption was 300 megaliters and since then has been below 500 megaliters every year.

III. Mongolia's case: looking through Mongolia's contracts and finding how those crucial points are addressed

III.1. General points of interest in Mongolia's case as a developing country

The inflow of foreign direct investment into Mongolia and its mining sector are dependent upon the legal and institutional environment. The investment and intuitional environments are generally determined by its path dependence, in other words, past decisions determine the trajectory of strategic planning and current decision-making. In order to understand Mongolia's history of foreign investment, a review of its industrialization polices are needed.

III.1.1. Mongolia's contracts with foreign enterprises for investment: an overview of pre-market transition experience and early transition years 1990-200

Mongolia began to enter an intensive development stage between 1940 and 1950. At that time, the main sector was animal husbandry; which put a lot of pressure on the new emerging sectors such as industries, telecommunications, energy, transport, trade and urban development, infrastructure and public utilities. Since 1948, social and economic development has followed the set-out plans. The first 5-year plan was introduced in 1948, the following plan was a 3-year mid-term plans from 1957 to 1960. The subsequent six plans after 1960 were 5-year plans until 1990 (1961-1965, 1966-1970, 1971-1975, 1976-1980, 1981-1985, 1986-1990). In order to develop a national development policy strategy, the central government worked in collaboration with research institutes to develop appropriate economic strategies and made necessary changes to organizations and institutions. Each strategy had a specific objective it aimed to fulfill. For instance, the first plan included objectives such as shifting the economy from purely animal husbandry based to a mixture of agricultural and industrial sector. Some of the other plans were[46]:

- Intensively develop the industrial sector (1960)
- Establish the city of Darkhan (1961)
- Improve productivity, industrialize the agricultural sector, provide energy to rural areas, establish a new city of Choibalsan (1966)
- Develop carpet and leather industry, lay the foundations for biotechnology, establish meat and food industry (1971)
- Improve the quality of products of all sectors, develop the mining and heavy industry (1976)
- Develop milk industry, establish and develop modern agricultural farms, establish new export sector, develop cashmere industry (1986)

However, the Mongolian economy faced a number of challenges related to investment and financing due to the small population size and the fact that the wealth of most people consisted of livestock. Thus, until 1962, the main sources of investment were from the two neighboring countries of the Soviet Union and the People's Republic of China. Mongolia became a member of the Council for Mutual Economic Assistance (CMEA) in 1962, this allowed for the other CMEA members to invest, provide loans, establish joint ventures with Mongolia. This is how the initial joint ventures and partnerships were established. The largest joint venture projects established were the Erdenet Mining Corporation between the Soviet Union and Mongolia, Mongolrostsvetmet LLC, and the Ulaanbaatar railroad. In the case of

[46] Mongolia: A centrally planned Economy in transition, ADB, 1992

the other projects, it was mainly financed and supported through loans and ownerships remained 100 percent Mongolian.

These joint ventures were some of the first "mega projects" between different economies, cooperation and investments were made according to the agreements and the implementations were governed by international treaties. These projects' management were not determined by exact ownership in the company like it is in present time, but rather, consisted of a council where the head was alternated and the two parties worked in collaboration. The Erdenet and Mongolrostsvetmet projects' legal frameworks was renewed in 1990 while the Ulaanbaatar railway project still adheres to its 1946 agreement.

In order to coordinate these major projects, special decisions and resolutions were issued by the government and for the initial agreements of these projects, intergovernmental cooperation was crucial.

Attempts to bring in foreign capital for development were intensified after the collapse of the CMEA by the beginning of 1990. CMEA and its member countries, mainly the USSR, funded majority of big infrastructure and industrial projects in Mongolia and contributed in various ways; however, after the dissolution of CMEA, Mongolia found itself without major investment sources. A new Foreign Investment Law (FI law) of Mongolia was approved in 1993. It created legislative basis for the foreign investment and specified which government agencies should manage and promote FDI. This law led to the creation of the Foreign Investment Agency or FIFTA, which under a different name (Investment Mongolia Agency in 2016) exists today. Nowadays, it is a part of the National Development Agency and deals with foreign investment and concession treaties.

Compared to FDI, the most financing to Mongolia came through not commercial investment but through multilateral agreements. The vitally important financing for infrastructure projects was founded since 1990 by the ADB, EBRD, World Bank, Japan and other donors; however, this financing, while crucial for saving the country's economy, was not aimed at the industry and didn't bring in much foreign investment. Based on the experience of the previous mining (copper) mega project in Erdenet, the mining was thought of as a possible main source of FDI; however, the general market outlook, lack of infrastructure resulted in lack of FDI projects in mining. The main source for FDI in 1990s turned to be a garments sector.

Table 1. FDI inflow by sector from 1994 to 2005, million USD

	Total	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005***
Mining and exploration	**571.8**	1.0	8.3	4.2	17.6	19.4	25.1	18.1	59.9	37.1	158.3	106.8	116.1
Trade, services	**221.3**	1.0	0.9	1.4	7.3	3.6	5.2	5.5	5.9	89.5	6.3	38.8	53.9
Light industry	**86.8**	2.8	2.0	12.0	1.5	4.8	19.2	26.5	4.9	2.9	4.4	2.7	1.8

Source: FIFTA, Government of Mongolia, 2006

In 1990s, the first major wave of private FDI into Mongolia was in the garment sector, not in the mining and it was led by SME investors. The existing FDI law, without the stability agreement clause, was used simultaneously with the existing and previously trained Mongolian labor forced and industrial base to export garments to large US retail chains. The largest investor, by far, was China; followed by Hong Kong and Taiwan. Exports of sewed goods increased rapidly in the following periods: from 1993 to 1999 they grew by 1800 percent, while exports of knitted goods grew almost tenfold between 1993 and 199. Textile in 2002 made up as much as 27.7 percent of total export in 2002, before the expiration

of the MFA47 (Fibre Agreement) in 2004. Orders were received from large US retailers such as Wal-Mart, QVC shopping, J.C. Penney and Target and included a number of brands like Ann Taylor, Sears, Liz Claiborne Inc, Express LLC, Pacific Trail Inc, Lollytogs LTD, etc.

The textile industry emerged as a third largest recipient of FDI in the country, after mining and trade/services; for some time foreign investment in light industry exceeded those of mining in 2000, reaching 26 million USD compared to 18 million USD in mining. By the end of 2000, "the number of FDI in sewing sector amounted to the total of 49 entities. There are China's 20, Korea's South – 15, Hong Kong's – 4, Taiwan's – 3, German's – 2, USA – 1, Great Britain's – 1, Kazakhstan's – 1". By 2004, the number of foreign companies increased and in total "about 100 business entities are operating in the textile industry, 38.3 percent or 36 of which are established with 100 percent foreign direct investment, 46.8 percent or 44 are joint companies and 14.9 percent or 14 are domestically owned companies". These garment companies employed as much labor as the whole textile and clothing industry before the transition to market economy started. By the end of the MFA agreement in 2004 in Mongolia, "the textile industry alone employs more than 20 thousand workers, which is about 17.5 percent of the total employment in industrial sector and produces 5 percent of industrial goods, and 10 percent of exports goods". The expiration of MFA agreement in 2004 and China's entry into WTO, however, dealt a heavy blow to the development of the export-oriented garment industry in Mongolia. The US market quota system was abolished, and Mongolia no longer enjoyed a guaranteed export niche, which has been overtaken by cheaper producers. As a result, a large number of foreign investors began to leave the country and shift production to other more competitive countries. This led to closure of many plants and mass dismissals of workers. Total output of the industry in the first 10 months of 2005 fell by 26 percent.

III.1.2. Modification of the 1993 Law on FDI and its implications for the contracts in mining

The 1993 FDI legislation contained an important feature: it established the possibilities to solve and discuss investment contracts not only in Mongolian, but also in foreign courts. Article 25 stated that "disputes between foreign investors and Mongolian investors as well as between foreign investors and Mongolian legal or natural persons on the matters relating to foreign investment and the operations of the business entities with foreign investment and a branch of a foreign legal entity, shall be resolved in the Courts of Mongolia unless provided otherwise by international treaties to which Mongolia is a party or by any contract between the parties to the dispute. /This paragraph was amended by the Law of January 3, 2002/".

This article will later be crucial for establishing big projects, which are legally protected not only in Mongolian, but also foreign courts specified by an investor. As usually, due to geographical proximity and the prevalence of commercial code, London, Hong Kong and Singapore as selected as foreign courts; however, the investor can by law specify any other court as well.

In 2002 the FDI law included an added article on **investment agreement**. In the added article of 2002, the "Investment agreement" is described as "an agreement and/or a contract on concession, product sharing, marketing, management, financial leasing and franchise investment concluded by foreign investors for implementation of concrete project without having to establish a legal entity". Further, it was noted that a foreign investor should "follow commitments stated in the Agreement and Statute of

[47] National Statistical Office, Mongolia

the business entity with foreign investment, branch of a foreign legal entity and in **Investment agreement**; (this subparagraph was re-edited by the Law of January 3, 2002)". This clause opened doors to the equity sharing projects such as the Oyu Tolgoi as well its management contract.

Stability agreement concept was introduced first in the Minerals Law adapted in 1997. It contained a clause that if the project in first 5 years results in at least 2 million USD investment, the investor is eligible to apply for stability agreement with the Ministry of Finance. For 2 million USD investment the tax regime stability duration would be 10 years, for investment exceeding 20 million dollars it would be 15 years. As most mining contracts, perhaps except the exploration, would exceed 20 million USD threshold, it was a welcome addition for promoting investment in the mining sector.

Moreover, in 2002 the Stability agreement Article 20 was added to the Foreign Investment Law too, which described the **stability agreement** with an investor in all sectors, not just mining. The "Article 20. Conclusion of a Stability Agreement" states that "an investor willing to conclude a Stability Agreement shall submit its application and draft a Stability Agreement to the State central administrative body in charge of taxation policy issues" which indirectly points to the essence of stability agreement concerning mainly taxes. This clause will be later crucial for the Stability agreement with Rio Tinto on the OT project. In 2008 the clause was amended to raise the threshold to 20 million USD investment to stabilize the legal environment. Further, for the 20 million USD investment the stability agreement duration was 10 years and for investment equal or exceeding 50 million USD the agreement duration was stipulated to be 15 years. It can be speculated that the "stability" clause was influenced by the previous stability clause in the Minerals Law, rather expanding the concept to all sectors, not just mining. Larger investment definitely are related with the risk issue of taxation changes, which may negatively affect the project, therefore the necessary clauses were added in 2002.

The Foreign Investment Law of Mongolia, adopted in 1993, was replaced in 2013 by a broader Investment Law. The new Investment Law contained the previous stability clauses, concentrating in four tax areas and expanded its eligibility to the domestic companies as well, also thus supporting the mining investment also replacing USD investment with MNT equivalents of 10 and 50 billion MNT. The stability agreement had to be signed with economy, finance and taxation authorities.

The 2002 amendments and additions to the FI law were very important for starting large investment projects – one can see that that by 2002 the law already contained all major parts necessary to bring large investment projects in the country such as:

- The investment agency in charge,
- The definition of the investment agreement,
- The concept of stability agreement and the agency in charge,
- Possibilities for equity participation and the possibility to protect investment in foreign courts.

These parts are important for the any contract in mining.

While the FI law didn't result in the very active growth of FI in 1990s, it laid the groundwork for the successful large projects in later decades and it contained all major features necessary to describe in the contract relevant to all sectors. However, it was a specific sector and its law, which further shaped the investment contracts in Mongolia as we see in the current form. But it was not FI law which promoted most foreign investments - it was the Minerals Law.

The Minerals Law of Mongolia adopted in 1997, as well the 2013 Investment Law, which replaced the Foreign Investment Law 1993, ultimately resulted in huge increase in FDI in Mongolia after 1990s to create main new projects of the national economy which currently define the Mongolian economy. It

invited foreign explorations company to Mongolia, one of which, called Ivanhoe Mines, resulted in 12 billion USD Oyu Tolgoi project.

The 1997 Minerals Law introduced a number of potential contract negotiation issues, such as refunding of costs incurred to agricultural or cultural value property during mining exploitation and incurring costs related to replacement of cultural value artefacts. It also stipulated that an investor may hold public hearings if deemed necessary by the investor. The 33rd clause of the law also called for creation of local investment council with regional authorities concerning increase in regional employment, infrastructure development and environment protection. Later, these articles would be included or reflected in the large mining contract, especially in the case of OT.

The 1997 included a clause on the environmental impact assessment and the environmental protection plan to be developed by the investor. However, in general, the law did not include many articles that would result in a necessity of a broad strategic type contract. Rather, it viewed mining in a way, similar to garments and other sectors, which didn't need any special investment agreement and were coordinated by the umbrella Foreign Investment Law.

III.1.3. Contract spillovers from mining to finance

The 1997 Minerals Law was replaced by 2006 Minerals Law, which had very important implications for the contracting in mining. First, the new Minerals Law of 2006 included a clause 4.1.12 on the **strategic** mining deposits, broadly defining them as being very significant or which output exceed ort may exceed 5 percent of GDP in the given year. This clause gave the need for special treatment and, therefore, special contracting only for the large projects.

Furthermore, Article 5.4 on **strategic** deposits discovered with state exploration stated that the government may own up to 50 percent of equity on such deposits if the deposit is to be developed by a private entity and that the rights are to be defined by the a deposit usage contract. Further, the Article 5.4 states that once a state share is defined in the contract, it can be substituted by royalties.

The next Article 5.5 states the in the strategic deposits discovered by a private exploration, the equity's state ownership may be up to 34 percent, similarly, the precise share is to be defined by the contract. Also, similarly, the share may be substituted by royalties.

The clauses 5.4 and 5.5 therefore were a major step ahead for regulating and signing the contract on the deposit utilization.

The Minerals Law gave the Government right to find and decide on financing issues regarding the state equity share by the Article 9.6. Potentially, it resulted in an issue, where the investor and government may together raise the necessary financing, which will result in an additional contract issue, with its own ways of negotiation and dispute resolution, because the financial issues are not directly related to the main mining activities and, therefore, are viewed as a credit/loan or equity investment relations, each regulated by either a Law on Banks in Mongolia or a Company Law. This article had also major implications resulting in the broadening of the impact of a mining contract, spilling outside to the finance, credit and sovereign borrowing issues. If a government would need to borrow finances necessary for the equity share of a major project, which would cost by definition more than 0.5 billion USD dollars, the equity financing for GOM would itself result in an increase of sovereign debt, which is regulated by either Law on Government Debt Management (2014) or the Budget Law. By definition, the sovereign debt issue will also be related to the general macroeconomic situation, debt ratings and the possibility to raise additional funding not for mining but also for general development or financing needs.

The large equity share, however advantageous it may seem for the Government, may result in an increase of sovereign borrowing, which will increase sovereign debt. That may lead to lower ratings and potentially borrowing cost increase for all future debt. This may cripple the financial sovereign ability to mobilize funds necessary for general economic development by raising sovereign bond interest rate on international markets.

The Minerals Law's new clauses 5.4 and 5.5 therefore directly lead to the necessity to regulate the financing issues in addition to the general mining issues if the government chooses to have its ownership of equity, not rather exercising its royalties rights.

In 2014, the Mineral's Law has an additional clause on possible compensation issues in a case the government may decide to revoke the special rights for mining granted earlier. This procedure will include by the law the negotiation with the investor regarding the compensation by the newly added Article 9.1.13.

The investment treaty, however, is no longer contained in the Mineral's Law and all its related articles are governed by the Investment Law adopted in 2013. The possibility to have a Stability agreement is still there, however.

Local regional cooperation is now required by the Article 42.1 to proceed based on the contract with local authorities. The local cooperation agreement contract involves following issues:

- Environmental protection
- Mine usage
- Mine related infrastructure development
- Emloyment increase issue

Article 43.1 requires now to have more Mongolian workforce for both the miner and its suppliers.

Article 47 specifies royalties on each kind of minerals. In Articles 47.1-47.3 the investor and government may negotiate how the ownership may be substituted by royalties, which however, may not exceed 5 percent for the strategic deposit.

Based on the aforementioned issues, it could be the investment contract in mining in current Mongolian legislation is a broad document which may involve at least 10 major items (especially in a case of a large deposit):

- Equity ownership share
- Equity financing issues such as the interest rate, repayment schedule, other loan/credit/equity management issues,
- Management contract
- Royalty issue if royalties are used for substitution for equity,
- Labor force and its structure,
- Regional cooperation,
- Environmental protection,
- Mine usage issues,
- Mine related infrastructure development,
- Employment increase issue,
- 4 major taxation stability duration and others.

It is clear that with the rise of world commodity prices in mid-2000s the Mineral's Law was amended to reflect the new realities and have more benefits from mining. However, it turned out later that the law was not able to fully capture the national needs for a large project management and omitted a

number of crucial issues, which later became clear when a real large mega project contract was concluded with Rio Tinto.

It can be viewed not as a weakness of the Mining law but rather an issue of overall management of a large project, not necessarily a mining one. But in Mongolia, there is a high probability that any large project will be based on mining. Therefore, it is an issue that has to be somehow settled from a legal point of view.

III.2. An assessment of Oyu Tolgoi agreement

As noted in the introduction, the OT agreement is the largest and only publicly available investment agreement in Mongolia. This section will explain how the issues from international contracts and agreements identified and analyzed in the second section are reflect in the OT agreement. The international agreements and standards will serve as a benchmark in the comprehensive overview of the OT agreement.

Oyu Tolgoi is the largest untapped copper-gold mine located in the southern Gobi region 80 km from the border to China. Total metal reserve of the mine is 10.9 million tons of copper, 10.6 million ounces of gold and 74.8 million ounces of silver (Ore Win, 2016). Out of the total reserve, about 20 percent is in the open pit mine and remaining 80 percent in underground. Production in the open pit mine started in 2013. In total, 3.1 million tons of copper concentrate has been exported and its revenue reached to 11.3 trillion MNT between 2013 and 2017 (EITI Mongolia, 2018). Investment in the underground mine started in 2015 and it is expected to commence its production in 2021.

The exploration license in the mine area was given to BHP company in 1996. Then Ivanhoe Mines company the license from BHP in 2002 and since then till 2010, it spent $924 million on exploration and feasibility study. In that period, Ivanhoe Mines and the government had continued a negotiation of the mine investment. Finally, the investment agreement was signed in October 2009.

According to the contract, the government of Mongolia is a shareholder owning 34 percent of equity of the Oyu Tolgoi LLC, a registered company in Mongolia, and the remaining shares are owned by Turquoise Hill Resources, a company registered in Canada. Since 2012, 50.8 percent of Turquoise Hill Resources' share has been owned by Rio Tinto, one of the world largest mining companies.

III.2.1. Fiscal regime: tax stabilization

In the investment agreement between Government of Mongolia and the Investor, the following taxes were stabilized as they were in the tax codes and the mineral code at the time of signing the agreement:

- Corporate income tax. If annual taxable income is up to 3 billion MNT, the tax rate will be 10 percent and when it is above 3 billion MNT, the investor shall be taxed 300 million MNT plus 25 percent of taxable income exceeding 3 billion MNT. If there is a loss, it will be carried forward following 8 years. For all assets with useful live more than one year, asset depreciation shall be calculated by straight line method and deducted from taxable income in accordance with the Law of Corporate Income Tax[48].

[48] Investment Agreement (2009), 2.5, 2.12 - 2.14.

- Royalty. The rate of royalty is 5 percent of gross revenue and the royalty will be deducted from taxable income[49].
- VAT. Imported, manufactured or sold goods, performed works and rendered services shall be taxed at the rate of 10 percent. It will be deducted from the taxable income[50].
- Customs duties. Imported goods shall be taxed at the rate of 5 percent of their value[51].
- Withholding tax. The following income of non-resident taxpayer earned in Mongolia shall be taxed when transferred to the non-resident taxpayer from the investor at the rate of 20 percent: loan interest and payment for issuing a guarantee, income from royalty, income from interest on financial leases, payments for administrative expenses or management services fee, rent payments, lease payments income from use of tangible and non-tangible assets[52].
- Other taxes. Income from dividends, royalties, interest shall be taxed at the rate of 10 percent, income from disposal of an immovable property shall be taxed at the rate of 2 percent, income from sale of rights shall be taxed at the rate of 30 percent[53].

Since the contract was signed or between 2010 and 2017, Oyu Tolgoi project paid $1,869 million for state and local taxes. The following table shows paid taxes informed in annual reports of Rio Tinto, a majority shareholder of the project. Before 2013, VAT and customs duties used to contribute more due to intensive investment of the first phase of the mine development while after that CIT and royalty contribute more due to starting production of the open pit mine.

Table 2. Taxes paid by Oyu Tolgoi, million USD

Year	CIT	Royalty	Other tax, payment	Total national	Local fees and taxes	Employer payroll taxes	Other payments	Total local	Total
2010	0	0	95	95	0	0	0	0	**95**
2011	0	0	366	366	0	6	10	16	**382**
2012	0	0	244	244	0	18	4	22	**266**
2013	0	4	175	179	0	20	21	41	**220**
2014	16	46	95	157	0	16	12	28	**185**
2015	66	111	74	251	9	13	5	27	**278**
2016	67	39	43	149	9	14	43	66	**215**
2017	0	54	76	130	8	16	74	98	**228**
Total	**149**	**254**	**1168**	**1571**	**26**	**103**	**169**	**298**	**1869**

Source: Rio Tinto Annual Reports

As discussed in section 2.1 of this report, the amount of royalty payment fluctuated due to commodity price changes. For instance, in 2014 and 2015 when copper price was relatively high (~$6000 per ton), royalty payment increased, but in 2016 when price was lower than $5000, royalty decreased sharply. In 2017 when price was recovered, royalty increased back.

[49] Ibid, 3.13
[50] Ibid, 2.18
[51] Ibid, 2.19
[52] Ibid, 2.8-2.9
[53] Ibid, 2.7

The tax rates stabilized in the investment agreement are basically in the range of the rates in other investment agreements and the rates in tax codes in resource rich countries. Most importantly, those tax rates were stabilized at the rate in tax codes which were effective at that time.

However, the issue of double tax treaties to which Mongolia is a party has been questionable. In the the agreement, it was agreed that loan interest and payment for issuing guarantee, income from interest on financial leases, management service payments, rent payments which are earned by a non-resident taxpayer in Mongolia shall be taxed at the rate of 20 percent when transferred to the non-resident taxpayer. However, according to Article 2.2 of the General Taxation Law, if a tax rate in the double tax treaty in which Mongolia has entered is different from the rate in the investment agreement (2009), the rate in the double tax treaties will be applied. In consequence, the agreed tax rates could be lowered and government revenue from the project could decrease. In fact, the government of Mongolia lost a lot of revenue from the withholding tax due to its double tax treaty with Netherland, according to an article posted in website of Ministry of Finance[54]. When the project makes profit, Oyu Tolgoi LLC will transfer dividend to its affiliate, Oyu Tolgoi Netherland B.V. registered company at Netherland. The government of Mongolia will tax on the transfer at the rate of 20 percent. However, according to the double tax agreement, the government of Mongolia will receive 0 tax from the dividend transfer. And the rate of tax on the transfer of loan interest payment also has to be reduced from 20 percent to 10 percent due to the treaty. The government took loan from the investor to finance the 34 percent share of investment for mine development. Thus, the government will receive only half of the expected withholding tax on interest payment transfer of the loan due the treaty. In consequence, as estimated in a SOMO report, the government lost 232 million USD withholding tax revenue between 2011 and 2015[55].

Provision related to the management service payment[56] is another questionable issue. As stated in the agreement, the payment shall be paid quarterly. The rate of payment shall be 3 percent of total cost including both investment and operation costs until starting production, since then it shall be 6 percent of the total cost. However, in the underground mine development and financing plan, the management service payment for underground mine development was separated[57]. As stated in the plan, the rate of the payment shall be 3 percent of investment cost of underground mine and, since production of underground mine starting, the rate shall be 6 percent of total cost. Although this change reduces the project total cost in some extent, the provision of management service payment is inherently a wrong incentive for managers to increase their earnings by increasing project cost. Therefore, the provision that management service payment shall be 6 percent of total cost including sustaining capital cost could lead to future disputes[58].

[54] Rationale, comment and explanation on canceling double tax treaties, Ministry of Finance, 2012 http://www.iltod.gov.mn/?p=2712

[55] Kiezebrink, V., Ahlers, R., & Dugersuren, S. (2018). *Mining taxes: the case of Oyu Tolgoi and profitable tax avoidance by Rio Tinto in Mongolia.* Amsterdam: SOMO and OT Watch.

[56] Investment Agreement (2009) 2.9; 2.25; and Amended and Restated Shareholders' Agreement (2011) 7.4.

[57] Oyu Tolgoi Underground Mine Development and Financing Plan (2015) 4.8

[58] Shafaie, A. (2015, July 30). *Rio Tinto, Mongolia, and the Art of Negotiating Amidst Price Volatility.* Retrieved from resource governance: www.resourcegovernance.org/blog/rio-tinto-mongolia-and-art-negotiating-amidst-price-volatility

III.2.2. Equity and financing arrangements

Oyu Tolgoi is so large project that it needs 11 billion USD for Development Phase 1 and 2, and around 800 million USD for annual operation. And several agreements among shareholders were made to arrange the project funding.

According to the agreement, the state owns 34 percent of Oyu Tolgoi LLC for the initial 30 years of the agreement, and the state may increase its share up to 50 percent after the extension of 20 years. This arrangement is a reflection of the Minerals Law (2006) which gave the state a right up to 34 percent of strategically important deposit discovered by a private fund, and Parliament Resolution #27 dated 6 February 2007 which lists Oyu Tolgoi as one of 15 strategically important deposits. The state participation arrangement was also approved by the Parliament Resolution #40 during the negotiation of the agreement in December 2008.

However, the government was provided a loan to invest its 34 percent share of the mine by the investor. This equity and financing arrangements have major impacts on the benefit to government and are the most controversial issues of the agreement which makes the financial calculation more complicated[59].

As per agreement, if the prices of gold and copper remain low for longer period, the government even may not receive any dividend before project closing. The reason is that only after the principal and interest of the loan for its contribution in funding period are fully withheld from project profit by the investor, dividend will be distributed to the government. According the Amended and Restated Shareholders' Agreement, the annual interest rate of the government loan shall be calculated at the rate of 9.9 percent + US CPI for loan before January 31, 2011. After that, the annual rate of interest shall be 6.5 percent plus LIBOR.

This was partially related to a declining trend of interest rate international markets at that period. On the other hand, the interest rate agreed in the agreement was still higher than the interest rate of Rio Tinto's average corporate level cost of borrowing[60]. In the end of 2009 when the agreement was signed, Rio Tinto's total net debt was 18,861 million USD, finance cost was 1,058 million USD and finance cost to debt ratio was 5.6 percent. Around that time, the annual interest rate of Rio Tinto's long-term bonds was ranging from 5.75 percent to 7.25 percent[61]. In the end of 2011, its debt was 8,451 million USD, finance cost was 735 million USD and the finance cost to debt ratio was 8.7 percent. Around that time, the annual interest rate of corporate's long-term bonds was ranging from 3.5 percent to 7.25[62]. The higher interest rate bearing by the government of Mongolia is could be related to the additional payment for the insurance of political risks (by Multilateral Investment Guarantee Agency of the World Bank) and other risks that were not covered by the guarantee.

III.2.3. Local purchasing of goods and services

The Oyu Tolgoi Investment Agreement does not contain detailed provisions on purchasing goods and services from local sources. However, the agreement includes two articles that are implicitly aimed at boosting the local purchase of goods and services. Instead the agreement includes measures to support

[59] Investment Agreement (2009) 1.6; Amended and Restated Shareholders' Agreement (2011) 10; 11; 12; 13.
[60] Open Oil (2016). *Oyu Tolgoi Financial Model: Narrative Report.* Open Oil.
[61] Rio Tinto. Annual Report 2009.
[62] Rio Tinto. Annual Report 2011.

numerous types of programs that are aimed at assisting local enterprises that supply goods and provide services to the Oyu Tolgoi project[63].

The investor has the duty to pay the relevant taxes as defined by Mongolian law on both the domestic and imported goods it purchases. As a result, imported products no longer have a price advantage over domestic goods and there is a positive impact on domestic purchases.

Despite the fact that the local purchases of goods and services were not explicitly mentioned in the Oyu Tolgoi Investment Agreement, company reports show that 80-85 percent of total purchases[64] were bought from domestic suppliers, included national suppliers that owned Mongolian citizens and foreign suppliers that registered in Mongolia. For instance, in 2017, 83 percent of all purchased services and goods were supplied domestically such as 69% from national suppliers and 14% from foreign suppliers, registered in Mongolia and pay taxes . In 2017, while fuel and construction work were fully supplied by domestic suppliers, 80, 90 and 42 percent of transportation, production supplies, and production equipment purchases respectively were supplied domestically[65].

Table 3. Domestic procurement of 2017, share of total spending and million USD

	National supplier		**Foreign supplier[66]**	
	spend %	spend m$	spend %	spend m$
Construction	100%	9	0%	0
Fuel and Lubricants	100%	52.5	0%	0
Fixed Plants & Equipment	17%	10.8	24%	15.3
Logistics	79%	13.14	1%	0.2
Mobile Equipment	56%	41.7	37%	27.5
Repairs and Consumables	74%	56.7	17%	12.9
Production Consumables	87%	31.1	3%	1.1
Services	76%	120.9	7%	11.7
TOTAL	**69%**	**335.9**	**14%**	**68.6**

III.2.4. Infrastructure

While the subject of infrastructure was reflected in a relatively flexible manner in the Oyu Tolgoi Investment Agreement, many of the issues surrounding infrastructure were incorporated in an unclear and broad manner in the agreement. According to the agreement, the investor is expected to utilize its own capital in order to construct any necessary infrastructure that is not readily available. The investor also has the option to co-use the infrastructure with the either the public, the government, or any third party for a fee so long as it does not negatively impact the activities of the project. The investor also has the duty to work and confer with the government when making decisions involving roads, railways, and power infrastructure projects so that any decisions will be in line with the government's long term

[63] Investment Agreement (2009), 2.23, 4.12
[64] Procurement of underground mining is not included.
[65] http://ot.mn/procurement/procurement-in-numbers/
[66] Organization, registered in Mongolia and pays taxes.

development plans. Additionally, the investor has the obligation to obtain any necessary licenses and pay any relevant taxes when implementing infrastructure projects. If, on the other hand, the investor chooses to utilize domestically available infrastructure, in accordance with the principle of non-discrimination, the investor is expected to pay market prices for any goods or services it receives. Compared to international model contracts, the Oyu Tolgoi Investment Agreement does not detail specific obligations concerning co-using infrastructure, simply mentioning it as a possible alternative. As the shared use of infrastructure is not clearly defined, the possibilities to reap the benefits of better infrastructure are limited[67].

The investor may provide the public, government and third parties access to certain infrastructure and services such as roads, power, water/heating systems, water drawing facilities, and etc. as long as it does not interfere with the operations of the project. Ownership and/or governance of these infrastructures and services may also be transferred to the local communities and authorities by agreement. For roads constructed between the project and Gashuun Sukhait border, the government will be responsible for the timely maintenance of the road and for charging and collecting road user fees from all users except the investors, its affiliates and respective contractors and subcontractors[68].

In terms of implementation, while the water supply network and construction of the airport have been realized, issues surrounding roads, electrical power and railways have yet to reach a resolution. This is due in part to Mongolia's political instability as well as weaknesses in policy continuity.

The Oyu Tolgoi project utilizes water from aquifers, and in order to shift away from using groundwater, a water purification plant was constructed. In 2017, this plant purified 86.2 percent of all water used for the project which was then re-used for further production. While the water purification plant is used exclusively by Oyu Tolgoi, in order to supply drinking water to the local population, the investors established a clean water complex in Khanbogd soum. This complex has the capacity to supply clean water to 13,000 people[69].

According to the agreement, the investor can use both domestic and foreign sources of electrical power within 4 years of beginning production. However, after 4 years, the investor has the obligation to use domestic sources of energy to power production. As a result, in 2012, a 96km 220kw electricity transmission line from Oyu Tolgoi to the Chinese border was constructed and has been the main power provider[70]. Ownership of this transmission line was then transferred to the Mongolian government along with related maintenance responsibilities. As a result, residents of the Southern region of Mongolia have the opportunity to be connected to a stable electricity provider.

The GoM and Oyu Tolgoi investors signed the "Southern Region Power Sector Cooperation Agreement" in 2014. According to this agreement, the GoM would establish the Tavan Tolgoi power plant which would then be used as a domestic power source by Oyu Tolgoi. Had the Tavan Tolgoi power plant been constructed according to plan, Oyu Tolgoi would have fully shifted to a domestic power source by 2017. However, as the agreement was not implemented, Oyu Tolgoi has yet to find a domestic power provider.

[67] Investment Agreement (2009), chapter 7
[68] Investment Agreement (2009), chapter 7
[69] Turquoise Hill Resources LTD. (2018). *"Made by Mongolia, annual report 2017*"
[70] http://ot.mn/news-20151019-en/

III.2.5. Labor relations

In comparison to international model contracts, the Oyu Tolgoi Investment Agreement contains relatively detailed articles on maximizing employment opportunities. In particular, the agreement highlights the responsibilities of the government to train and build the capacity of the Mongolian employees who are to work on the project. While some articles of the agreement are well written and detailed, other articles may be seen as somewhat lacking when it comes to measuring outcomes.

Significant articles/provisions of the agreement compared to international model contracts:

- The investor must ensure that at least 90 percent of the project's workforce is comprised of Mongolian citizens. The investing company is also encouraged to work together with its partners to ensure that at least 60 percent of its partner construction company and 75 percent of its partner mining company's workforce is Mongolian. Relative to international contracts, an advantage of the Oyu Tolgoi Investment Agreement is the fact that the agreement included provisions on employment for partner companies in addition to the investor company. However, the agreement is unclear about how to evaluate the efforts of the investor company to encourage employment requirements among its partner companies.
- If the share of foreign workers is above the prescribed threshold of 10 percent, for every position, the investor company is obligated to pay a fine equivalent to 10 times the minimum wage every month. Additionally, the investor must also pay a monthly fee amounting to 2 times the minimum wage for each foreign employee. This fee is added to the Employment Support Fund which is then used to train and increase the working capacity of Mongolian citizens. This article acts as a strong incentive to look towards the domestic market for employment prospects.
- The investor is also required to do everything in its power to ensure that after 5 years of production, at least 50 percent of the engineers and technical workers employed are Mongolian. This share then increases to 70 percent within 10 years of beginning production. However, this provision has the disadvantage of disregarding other job positions such as finance, governance, quality control as well as other management level positions. Additionally, no concrete method to measure and evaluate the efforts of the investor in fulfilling employment requirements is reflected in the agreement.
- Within 90 days of the agreement coming into effect, the investor must provide and introduce a detailed 5-year training strategy and plan for its Mongolian employees to the Government of Mongolia. While many international contracts include general articles on training the domestic workforce, the Oyu Tolgoi Investment Agreement has the benefit of requiring a detailed plan and training the workforce according to the outlined plan.
- Over a span of 6 years, the investor must provide 120 scholarships to university students pursuing mining engineering and technical studies. They must also provide scholarships to 30 Mongolian students studying at universities abroad. Relative to international contracts, in which investors usually have to provide scholarships during the entirety of the project's lifespan, a timeline of 6 years is short in comparison.

For implementation of the Oyu Tolgoi Investment Agreement, as of the second quarter of 2018, the project employed approximately 15,000 employees of which 93 percent are Mongolian citizens. In accordance with the agreement, Oyu Tolgoi has also provided both domestic and international scholarships from 2010-2015. From 2016 onwards, the company has decided out of its own volition to continue the scholarship program. Since beginning in 2010, the company has provided scholarships to 260 university students.

III.2.6. Community engagement

The Oyu Tolgoi Investment Agreement includes a whole chapter on regional development. In the chapter, the "Southern Gobi Regional Development Council" was created. The members of this Council consist of representatives of the investor, government, local governance organizations, private sector entities, civil society organizations and donor and international financial institutions with activities directed towards the Southern Gobi region. The Council is aimed at assisting the government in the preparation, financing, organizing and implementation of local and regional development strategy, plans and budgets, such as:

- Support to local and regional development and encouraging transparent and responsible governance
- Coordination of in-migration influx
- Resolving matters of urban planning and development, including power, roads, water supply, heating and sewerage
- Organization of formal and non-formal education, including English language and vocational training
- Focus on human health care, construction of diagnostic centers, cultural facilities, sport facilities, improvement of veterinary services
- Support to capacity building for local governments and civil society

In addition to these, Oyu Tolgoi must continue to prepare, conduct, implement, update on an appropriate basis, and make public socio-economic baseline studies, socio-economic impact assessments, socio-economic risk analyses, as well as multi-year communities plans, community relations management systems, polices, procedures and guidelines, and mine closure plans. These all must be produced with community participation and input and follow international best practice.

Another section of Chapter 4 of the investment agreement says that a community cooperation agreement must be made with local administrative organizations in accordance with Article 42 of the Minerals Law and that the agreement may include the establishment of local development and participation funds, local participation committees and local environmental monitoring committees.

Under the Mongolian Minerals Law, resource developers are required to establish agreements with the local government; however, it does not specify the format or content of such agreements. Thus, prior to Oyu Tolgoi, community cooperation agreements did not have much details or format, but rather focused on limited transactional exchanges. The Oyu Tolgoi-Umnugobi Community Cooperation Agreement (CCA) which was finalized in early 2015 provided a more explicitly set out detailed rules and obligations of all parties.

Within the CCA, Oyu Tolgoi provides 5 million USD per year to the Development Support Fund for community-proposed projects and programs. For these specific "thematic" areas where partner communities want Oyu Tolgoi to pay special attention to, working groups are created. These working groups are comprised of Oyu Tolgoi and partner community representatives with a special interest in topics such as:

- Water management;
- Environmental management;
- Animal husbandry and pastureland;
- History, culture and tourism;
- Basic social services;
- Local business and procurement; and

- Infrastructure and capital projects.

All of these working groups report to an overarching relationship committee. This committee ratifies any recommendations and presents them to Oyu Tolgoi. This allowed for the participation of community-based people and herders in the implementation of the agreement. Also, all parties agreed that the CCA and all its documents, reports and activities should be completely transparent and publicly available, a new development for Mongolia.

Oyu Tolgoi's community engagement with the Umnugobi aimag and the Southern Gobi area communities is very well established with clear lines of communications and guidance. There are councils and funds specifically created to facilitate the dialogue between the mining company and the affected people.

III.2.7 Social and environmental issues

Within the investment agreement, there are no mentions of a formal or special program designed specifically for women. However, input from women allowed Rio Tinto to gather a more detailed picture of the impacts of the project on the local communities. A Community Advisory Group was established to open communication channels between Rio Tinto and the community; only men were elected as members of the group. Then, Rio Tinto began a formal program of consultation to gather feedback from the women in the community. The engagement of the community's women greatly expanded the dialogue to address topics not discussed by the men. While the men talked more about the spiritual significant areas and the grass, the women voiced concerns about vegetation, seasonal migrations and shelters in greater detail than the men. With the information gathered from both men and women, the community mapping was significantly improved.

Rio Tinto, the parent company of the Ivanhoe Mines company, is deeply invested in the Oyu Tolgoi project. Rio Tinto is committed to increasing the representation of women in mining and strives to support initiatives to promote gender equality similar to Codelco. These philosophies are passed down into Oyu Tolgoi to impact the composition of women in the workforce; despite the fact that are no programs specifically targeting at promoting gender equality implemented at Oyu Tolgoi.

In Oyu Tolgoi's 2017 fourth quarter production report it was mentioned that the workforce – including contractors and employees – stood at over 94 percent Mongolian and 24 percent female, including the underground development workforce.

In the Oyu Tolgoi Investment Agreement, chapter five and six discusses land affairs and environment. Under the agreements, the use of land for the Oyu Tolgoi projects shall be obtained through relevant permits in accordance with the laws and regulations on land. The government may take land that is in the possession of the investor if the land is for special needs or public purposes which cannot be reasonably satisfied by land not in the contract area. However, in exchange, the government must cooperate with the investor to minimize the impact on the Oyu Tolgoi project and to provide compensation based on the laws and regulations of Mongolia, international laws and principles, and international treaties.

In Article 10 of Chapter 4, it states that the investor must consult with local administrative organizations to provide appropriate compensation for resettlement to the herder families located on the contract area who are directly impacted by the Oyu Tolgoi project. Prior to the privatization of land, the soum would track which herder families used which areas for pasture by season and authorized those families to use those areas. The Oyu Tolgoi contract area is 10 km x 10 km, which overlays traditional pasture and water sources of a group of 11 herder families who were involuntary resettled in 2004. One aspect of

the relocation and site selection that is often overlooked is that the herders, prior to 2004, were using the best sites that region had to offer so any alternative site would be inferior, which adversely affects their livelihood.

According to a 2011 Oyu Tolgoi site visit report by USAID, several herder families have moved back to their original sites as their livestock either went back to their original pasture on their own or herder took them back because of better pastures, housing and water conditions. And out of the families that were initially resettled, four or five have continued herding while the remaining have stopped.

For two families out of the eleven, the resettlement consisted of a summer camp with a wooden fence, costs of resettlement, a scholarship for one family member and a job with the Oyu Tolgoi company for one family. However, this account differs from the resettlement information provided by the EBRD which stated that "at the time of resettlement, all households were provided with either deep or shallow replacement wells and in some instances, more wells were built later based on herders' requests when those new wells failed to function adequately or did not meet demand."

In the USAID report, it was also noted that there was a consensus from the beginning of a lack of information on the project, understanding of the herders' land ownership laws and knowledge of their own rights. Supposedly, there were instances where government officials told herder families to not complain or speak out against the project and that they were asking for too much or families signed the resettlement contracts without adequate knowledge or was provided misinformation by local government officials, and etc.

In October 2012, a complaint was filed by the nomadic herders who reside and conduct livelihood activities in Khanbogd Soum, with support from Oyu Tolgoi Watch, a national NGO, and Gobi Soil, a local Khanbogd-based NGO. The complaint pertained to the Oyu Tolgoi project's use of land and water, which they claim disrupts their nomadic way of life and put their indigenous culture[71] and livelihoods in jeopardy. The herders also stated that they have not been appropriately compensated or relocated, raising questions about the project's due diligence.

In February 2013, another complaint was filed by local nomadic herders and community members. The main topic of the complaint was the Undai River diversion component of the project. The herders contended that the river diversion jeopardizes their traditional lifestyle and was worried that the diversion would lead to several water systems drying up, deteriorate pastureland yields, diminish water supply to forests and have a cultural impact on what they viewed as a sacred river.

The herders and the company agreed to work with CAO's Dispute Resolution[72] to try to resolve the issues raised in the complaint using a collaborative approach. The local herders elected a team to represent them in a single CAO dispute resolution process for both CAO Oyu Tolgoi complaints. After several joint meetings, the parties reached comprehensive agreements on the issues raised in the complaints and developed detailed action plans for implementation. These agreements were formalized and signed in May 2017, which concluded the dispute resolution process and the CAO continues to assist in monitoring implementation of the agreements.

Another particular issue the herders are adamant about is the sustainable use of water in an arid area. Within the investment agreement, there are numerous clauses on the maintenance and usage of water

[71] The herders self-identify as indigenous people; however, they are not considered indigenous people or ethnic minorities by Oyu Tolgoi.
[72] IFC's Office of the Compliance Advisor/Ombudsman (CAO)

in Chapter 6 under environment. Article 10 indicates that the company will take the necessary measures to eliminate adverse material impact on air, water, soil, animals, plants and subsoil.

If Oyu Tolgoi chooses to access and use self-discovered water resources, it has the right as long as it's within the approved volume and is in line with its Water Approval. Excess water resources may be available for other economic entities or for household purposes, herder families and agricultural activities of the local soum communities. Oyu Tolgoi must also pay fees to the state budget for surface and underground water removed and consumed for the purpose of mine development and mining of minerals at the rate specified in the Law on Fees for Use of Water and Mineral Water.

Oyu Tolgoi will also support the government in establishing safe drinking water for the local soum center directly impacted by the Oyu Tolgoi project as identified in the EIA report. Support will also be provided for the upgrade or treatment of these water resources for household purposes and agricultural activities of the local soum communities, or provide infrastructure for water transportation for local household use only.

The contract with Oyu Tolgoi on water utilization is for a term of 30 years according to the Water Law as the Oyu Tolgoi Deposit is classified as a mineral deposit of strategic importance, and may be extended by 20 years each time. The obligations which must be followed in regards to water utilization:

- Abide all conditions and requirements set forth in Article 24 of the Water Law, the contract on water utilization and the EIA Reports and compliance (which will be audited once every 5 years by an independent, competent, professional firm)
- Not reduce from the current level the quality and quantity of the existing potable and livestock water supplies used by existing users at the date of agreement within the water resource areas defined in the EIA reports

The company shall apply modern technology and procedures to minimize the volume of water used by the Oyu Tolgoi project, maximizing the efficiency of water usage, and recycle used water where it is reasonably practicable to do so. During the second quarter of 2018, the average water recycling rate was 88 percent. However, the annual water use of Oyu Tolgoi will likely increase as the project ramps up and underground productions commence. According to a 2014 ADB report, Oyu Tolgoi's projected annual water use is estimated to be 9.5 million cubic meters in 2015 and will be 25.5 million cubic meters in 2025.

In accordance with the Law on Environmental Impact Assessment, a detailed environmental impact assessment report must be prepared. Each year an environmental protection plan must be implemented as well as an environmental monitoring and analysis program every 3 years.

IV. The CONNEX Initiative towards mining contracts negotiation assistance for developing countries

Contract negotiations in the extractive sector is viewed as an important way to assist developing countries achieve their respective sustainable development goals by developed countries. Equipping developing countries with better negotiation tools during the preparation, negotiation, implementation and monitoring phases of large-scale investment contracts is crucial in effectively utilizing natural resources. Natural resources can be a major development contributor for many developing countries and production of raw materials accounts for more than 20% of GDP in more than 20 developing countries[73]. However, in order to benefit from those resources, the host country and its government must undergo complex commercial contract negotiations with multinational corporations. These large investment agreements can have significant fiscal, economic, environmental and social impacts similar to the ones the OT agreement has had on the Mongolian economy. A well-conceived contract can generate significant revenues, promote development and protect the interests of the host country; however, many low-income countries lack the capacity to successfully conduct such complex contract negotiations for investments, especially in the extractive industry.

IV.1. History of CONNEX

In 1999, the Research Branch of the UNCTAD's Investment Division proposed to create an investment contract aid facility (ICAF) that would help developing countries negotiate better contracts for large-scale projects involving foreign investors. A series of workshops were held over the years comprised of private sector participant, legal experts, representatives of the least developed countries and so on to develop the idea on "Contract negotiation support for developing host countries." These workshops were organized by various organizations such as the Center for the Study of Financial Innovation, Columbia University's Program on International Investment (CPII later renamed Columbia Center on Sustainable Investment or CCSI) and the Humboldt-Viadrina School of Governance. The last workshop was held in Monrovia, Liberia in July 2013, which lead to the Monrovia Declaration. The three approaches cited in the declaration to improve existing negotiation support were:

- An information-sharing and coordination mechanism;
- A contract negotiation support center;
- A rapid response advisory unit.

The first approach lead to the implementation of the Negotiation Support Portal established by the CCSI, which "aims to address the information-sharing and coordination gap by improving the accessibility and visibility of useful tools & resources and technical support available to assist governments in the investment process."

Then at the 39th Group of Eight (G8) Summit at Lough Erne, Ireland in 2013, the leaders of the G8 countries recognized the need for expanded assistance for negotiating complex contracts to improve the development outcomes of natural resource contracts. Thus, at the next meeting, the Brussel Group of Seven (G7) Summit in 2014, the Strengthening Assistance for Complex Contract Negotiations (CONNEX) initiative was introduced "to provide developing country partners with extended and concrete expertise for negotiating complex commercial contracts, focusing initially on the extractives

[73] CONNEX Support Unit documentation

sector"[74]. The aim of the CONNEX initiative was to improve negotiation capacities of developing countries by providing additional non-legal (fiscal, economic, social), industry-specific expertise (geological, mining, environmental) and other multi-disciplinary expertise.

This initiative was later reaffirmed during the 2015 G7 Summit in Elmau, Germany. The summit encouraged pilot projects to be undertaken under the banner of the CONNEX initiative in collaboration with support providers, such as the African Legal Support Facility, and a Code of Conduct for support providers was also endorsed. Additionally, the G7 identified the following three pillars that constituted the CONNEX Initiative:

- Information integration and accessibility
    - Setting up and maintaining an online resource portal that brings together relevant tools and resources as well as details on those who can provide expert support when negotiating large-scale investment contracts
- Independence and quality of advice
    - Strengthening advisory support provided to low-income country governments in their negotiation of complex commercial contracts
    - Ensure support is more comprehensive and more responsive to government's needs in order to ultimately contribute to fairer, more sustainable investment deals as drivers of development
    - Applying the CONNEX Code of Conduct as a core element for improving the advice provided to developing countries
    - Sharing of knowledge among existing support Providers
- Capacity building among stakeholders
    - Improving the delivery of capacity building methodologies ensure that low-income countries become better able to negotiate and monitor complex commercial contracts

At the 2016 G7 Summit in Ise-Shima, Japan, the G7 reaffirmed its commitment to continue and intensity its efforts under the CONNEX Initiative. It was also recognized that assistance for contract negotiations should be carried out in parallel with the long-term capacity building and improvements to transparency, which led to the endorsement of the CONNEX Guiding Principles towards Sustainable Development.

During this period between 2015 and 2017, the Negotiation Support Forum (NSF), with support from the German government, was established in collaboration with the Development Centre of the Organisation for Economic Co-operation and Development (OECD), which aims to improve the knowledge sharing and peer learning among support providers, partner countries and investors. The NSF was created within the framework of the OECD Policy Dialogue on Natural Resource-based Development (PD-NR).

Then in September 2016, during the G7 CONNEX Initiative International Conference on Capacity Building and Transparency held in Tokyo, the German Chancellor's Personal Representative for Africa, Günter Nooke, announced the establishment of the CONNEX Support Unity by Germany. The Support Unit was launched in January 2017 with the main purpose to assist requesting developing countries and economies in transition anywhere in the world in negotiating large-scale complex investment contracts, guided only by the interests of the requesting governments.

[74] G7 Summit Communiqué, 5 June 2014

IV.2. CONNEX Code of Conduct

The Code of Conduct, endorsed during the 2015 G7 Summit in Elmau, defines the values held by the G7 CONNEX Initiative and "outlines the duties and guiding principles for all Advisors providing multidisciplinary advice to governments on negotiating contracts under its heading. It provides procedural rules as well as guidelines for the substantive quality of the advice."[75]

The Code has the following goals:

- Serve to reassure Clients[76] that the advice will be confidential and free of political influence and conflicts of interest;
- Help ensure that Advisors[77] act in accordance with transparent conduct requirements and principles;
- Safeguard the independence and provide firm ground for the advisors' mandate in a politically and legally sensitive environment;
- Protect the reputation of all parties involved, including the G7.

The Code of Conduct ensures that the substance of the advice provided under the G7 CONNEX Initiative reflects international best practices. The advice provided is aligned with internationally accepted principles, such as the UN Principles for Responsible Contracts.

The advisors should not impose their solutions but rather assist the client in evaluating the available options so they may be able to make an informed decision which takes into consideration the clients' interests, priorities, and strategies. In the assistance, the advisor should provide his or her professional opinion on issues under consideration based on their own and available information and analysis. The Code of Conduct is signed by all advisors, which ensures independence, high quality advice, full integrity and confidentiality.

IV.3. CONNEX Guiding Principles

During the G7 summit in Ise-Shima the CONNEX Guiding Principles towards Sustainable Development was endorsed. The Guiding Principles were designed to facilitate the mobilization of domestic resources in developing countries, contributing in this manner to the achievement of the Sustainable Development Goals (SDGs). The CONNEX Guiding Principles recognized the specific role of the NSF in fostering knowledge-sharing and peer-learning among support providers, partner countries and investors.

The guiding principles are:

1. The G7 will implement the CONNEX Initiative to contribute to the on-going global efforts towards the achievement of the Sustainable Development Goals contained in the 2030 Agenda for Sustainable Development

[75] Code of Conduct of the G7 CONNEX Initiative
[76] Client: the government that has requested advisory services for contract negotiations
[77] Advisor: a person or firm or other organization that provides advice to Clients on negotiating large-scale investment contracts. Advisors are contracted or procured by a Support Provider (any unit, forum, technical assistance provider or facility providing contract negotiation support, either by contracting Advisors on request by the Client or by providing the necessary means for the Client to contract Advisors) for the benefit of the Client.

2. The CONNEX Initiative will be implemented in the spirit of mutual trust among stakeholders, and on the basis of collaboration between G7 members and developing country partners, building upon the ownership of the latter
3. The G7 will align their assistance under the CONNEX Initiative with their long-term assistance for capacity building in developing countries, covering all the phases of projects in the extractives sector
4. The G7 will align their assistance under the CONNEX Initiative with their long-term assistance to developing country partners in improving governance and transparency in the extractive industries
5. The G7 will implement the CONNEX Initiative in a manner complementary with the efforts made by relevant stakeholders in the areas pertaining to the extractive industries and sustainable development

Fairly negotiating resource contracts which are implemented professionally in fiscal and administrative terms can greatly contribute to the host countries' utilization of its resources. This enables developing countries to tap into the enormous development opportunities that extractive resources have to offer.

IV.4. CONNEX Support Unit

The CONNEX Support Unit was established by the German Federal Ministry for Economic Cooperation and Development. Currently, it's being managed by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in Berlin. The Support Unit acts as the implementation body of the CONNEX Initiative. The purpose of the unit is to utilize domestic resources to promote sustainable economic development by providing independent advisors to developing and transitions economies to assist in the (re)negotiation of large-scale complex investment contracts, focusing initially on the extractive sector, that maximize benefits for host countries while recognizing the interests of international investors in commercially viable projects.

Some general features of the Support Unit:

- There is no regional focus; developing and transition economies from any geographic region can request support and assistance
- Support can be requested for ongoing (re)negotiations of large extractive contracts as well as during the pre-negotiation phase when a government is preparing for upcoming (re)negotiations
- Assistance is provided for complex large-scale investment contract negotiations, initially in the extractive sector
- Designed to complement assistance offered by other initiatives and cooperates with a range of organization such as ISLP and ALSF; past and current collaborations include organizations such as the OECS, the IGF, the NEPAD Agency and others
- Experts provided include lawyers, financial and industry experts, business strategy specialists, economists, environmental specialists, community development specialists, geologists, mining engineers, and any other discipline needed in the context of specific project negotiations
- There is a number of in-house experts as well as subcontract experts who are available on demand; however, support provided is flexible with additional partners being contracted in case the contemporary pool of experts does not reflect the expertise and knowledge needed by the requesting government
- The scope, shape, and content of support are tailored to the needs of the cases at hand; support can vary from issue-specific short-term assistance to long-term negotiation support

- All support offered by the CONNEX Support Unit is free of charge and non-fee based
- The Support Unit attempts to minimize the time between receiving requests for support and fielding negotiating support as much as possible
- Some of the practical constraints is that the Support Unit gets active when a strong commitment by the host government is given

The types of negotiation support provided the CONNEX Support Unit are:

- Pre-negotiation stage
- Contract negotiation stage
- Advancing Knowledge-Sharing and Management
    - Delivering training/capacity building: the Support Unit believes that having advisors work with officials in the preparation for, and negotiation of, individual contracts is an effective way of building the capacity of local officials that will be need for future negotiations and training officials to minor and enforce contracts they negotiate
    - Advancing knowledge management and sharing: CONNEX is actively involved in relevant dialogue platforms, such as the OECD, the IGF, the NEPAD Agency and others to improve knowledge sharing and peer learning on negotiation support among support providers, partner countries, investors and civil society

IV.5. Application

Negotiations go through four major phases, which are: the investment environment, pre-negotiation phase, negotiations and contract implementation. During some of these phases, assistance from the CONNEX Support Unit may be recommended for the host countries if they are developing or transition economies.

In the first phase, three steps are required to be taken before utilizing the assistance provided by CONNEX. First, host countries need to review their investment clime, which includes government policies, strategies, legal and regulatory framework for attracting foreign direct investment (FDI) and ensuring that these investments are sustainable and beneficial to the country. Second, legislative and regulatory framework reforms may be undertaken to improve the investment climate for investors, promote transparency and government accountability, facilitate better contract negotiations and make it easier to implement and regulate contracts. Third, countries should pay attention to fostering sector-specific research and and developing technical knowledge for such negotiations to minimize the asymmetry of information between the host government and the investor in complex contract negotiations. This is crucial as the host government needs to have a well-informed understanding of the resource and its value as well as the infrastructures needed by the investor to assess the scope of shared-use and/or third-party access.

In the second phase, pre-negotiations may include the following steps: identify the project, conduct pre-feasibility studies or economic impact studies as well as environmental and social impact studies, announcement of tender before entering negotiations, the third phase.

Thus, the purpose of the CONNEX Support Unit is to assist countries with the second and third phases of pre-negotiation and negotiation in order to negotiate reliable contracts that are commercially viable and contribute to the sustainable development of the country. As such, the Support Unit provides regional and international experts with extensive knowledge and practical experiences to requesting government. These experts include professionals in the legal field, as well as other disciplines such as

geology, economics, environmental engineering and finance to bridge all the possible gaps in knowledge and capacity in partner countries. Experts are selected in consultation with the requesting government, in line with the specific demands of the negotiation and government.

Geographically, the CONNEX support measure is focused on Africa, but the initiative has also been provided in Mongolia and Central Asia. Currently, the measures have been implemented in more than eight countries with continued growing interest from others. Despite the current focus being on Africa, the CONNEX support is not limited to just those listed regions, any requesting government from any regions may be provided assistance.

There are a variety of international organizations which work in collaboration with the CONNEX such as the OECD, the IGF, the NEPAD Agency (Africa) and others. Other organizations which work with CONNEX to provide vital assistance to developing countries are EITI, JICA and other international and national organizations. For instance, JICA has hosted a number of CONNEX activities such as conferences as the 2016 G7 Summit was under the Japanese presidency, where the initiative was reaffirmed. Other related work covered by various international organizations are the World Bank Institute, African agencies such as the NEPAD, academic units such as the CCSI at Columbia University. Thus, it is crucial that Mongolia learns from CONNEX and creates an academic unit and actively participates in the work for promoting national capacity building for large negotiations.

V. Recommendations for the sample mining developing contract for Mongolia

V.1. General issues

The issue of successfully contracting large projects is well covered in some recent studies[78]. IFIs and other organizations have tried to help developing countries build contracts which are most beneficial for them and have published guidebooks and other materials which may be of use to negotiators. Given that developing countries often lack adequate legal and other resources to estimate and conclude such contracts, it is important that the developing countries utilize international best practices for such contracts.

The international experience of such large projects calls for a number of specific items to be included in the contract as a prerequisite for a successful mega project.

First, the issue of area of the project and the size. Mega project is defined as a project of 0.5-1 billion USD, which requires substantial sectoral coordination (or spills to different sectors), requires 3-5 years of construction and involves 30-50 years of exploitation. It may also have a number of stakeholders with varying and sometimes conflicting interests. These kind of projects used to be led by international IFIs such as the World Bank in 1950-2000, which led to successful management and implementation of a number of big projects in developing countries. However, due to fiscal limitations, rise of public private partnership and a shift in thinking towards Washington consensus makes such huge public projects rare nowadays. In that case, Mongolia's mining sector and Oyu Tolgoi project is a good example of the new approach, where the investors are private and the project itself is essentially a public-private partnership with a fixed equity participation.

A mega project involves large number of stakeholders including those from the local regional economy. It is essentially also an ecosystem of main project drivers and suppliers.

As such, the ecosystem may benefit the local economy well, but the process should be coordinated and have solid foundations. A possible approach is to have an Integrated Project Delivery (IPD) draft contract, in which all stakeholders, including local suppliers, develop an integrated form of agreement (IFOA) before the project commences to agree on major project features. Early project stakeholders' participation in the planning stages is welcomed and sides may also make non-binding promises not necessarily included in the final contract.

V.2. Mongolia's case

In Mongolia's case, it is very clear that the country was less prepared to face the issue of contracting large strategic mines. In a 2004 study by the World Bank, "Mongolia's Mining Sector: Managing the Future," recommended options for government actions to improve the mining industry's management and investment climate. However, the recommendations did not provide insight into how to conclude an investment or stability agreement with investors nor how to address the aforementioned issues arising due to contract of large projects.

[78] Institutional Challenges and Solutions for Global Megaprojects by Raymond E. Levitt and W. Richard Scott

Consequently, until 2006 there was little necessity to deal with the issue of equity financing of large megaprojects because there was no such megaproject. However, the National Comprehensive Development Strategy, ratified in 2008, called for usage of large mining deposits as engines of economic growth and it was developed in parallel with the 2007 Parliament resolution on designating 15 large mining deposits as strategic mines. Therefore, by 2008, there was an actual contract (with Rio Tinto) to sign and to lead the first contemporary national megaproject in mining to development. So, in a way, the National Comprehensive Development Strategy[79] 2008 was successful in launching OT's agreement as a first-mover in leading economic development.

As was described in the NCDS, a large mining project also drove large investment in infrastructure - roads, energy, water usage, housing, urban development and transportation. This is in particular true for Mongolia, because in its development strategies beginning from the 2008's National Comprehensive Development Strategy, the country designates large mining deposits as an engine of economic growth and hubs for local regional development, including infrastructure and urban development. Oyu Tolgoi and later Tavan Tolgoi did actually contribute significantly to local infrastructure development.

The infrastructure projects accompanying the main mine become independent projects though they are linked to the main driver mining project. These investments are not mining projects and therefore, may be a subject to less favorable treatment and mounting costs which ultimately can make the main project itself uncompetitive. This leads to confusion regarding such big projects' ecosystem building. In some cases, large projects which were designed to accompany the major mine, such as Tavan Tolgoi power plant project, stalled because of uncertainty regarding the major mine project.

The large number of appearing infrastructure projects, connected to the main Oyu Tolgoi and Tavan Tolgoi projects, led to the necessity to develop better legal infrastructure regarding big projects in general, not necessarily only mining projects. Thus, by 2010 Mongolia had to approve a new law on Concessions (or Public Private Partnership) and by 2013 to approve Investment Law (regarding mainly heavy industry taxation). Furthermore, by 2011 Mongolia approved the Development Bank law to finance development of large projects and to raise necessary financing. By 2011, to manage the increasing revenue flow to the budget from mining, the country adopted Fiscal Stability Law and created its first stabilization fund. By 2015, a unified law managing national sovereign borrowing was also developed. To coordinate the various megaproject, by 2015 Mongolia adopted the law on Development Planning. By 2016, the financing from Development Bank and also concession projects are included in the unified national budget allowing for better management of sovereign resources. Therefore, one can conclude that contracting a first megaproject spurred related development of large infrastructure projects and led to further development of the necessary legal infrastructure and new laws on PPP and foreign borrowing.

The sheer size of legal changes and necessity to reflect various new requirements in contracts is now shown by an increasing complexity of investment agreements. The more complex projects become more and more wide covering a large number of issues, getting closer to the international practices. As the country is planning to undertake new big projects, the complexity of investment agreements may require to pursue a slightly different way. In order to undertake large complex projects Mongolia may need some case of umbrella project law, which will allow to have unified business and taxation treatment to various parts of a single megaproject. In Mongolia's case there may be a need to look at the mega

[79] Developed by the Government of Mongolia in 2006-2008, the National Comprehensive Development Strategy for Millennium Development Goals was ratified by the Parliament in 2008. Its first stage was 2008-2015 in accordance with the UN's Millennium Development Goals which were planned for 2000-2015 period. The NCDS was replaced in 2015 by the Long-Term Sustainable Development Policy 2030, ratified by the Parliament in 2015.

projects and its surrounding projects as a whole and apply the favorable treatment to the whole group, rather than taking each one independently, which itself will fall under jurisdiction of completely different laws such as Concession Law or Investment law and in each case, require additional bureaucratic procedures, prolonging the main project's completion time and increasing costs.

This unified approach, however, will require substantial changes in existing laws. Meanwhile, under the current legal regime, Mongolia still got large deposits of mineral resources to develop. The 2007 Parliament resolution designated 15 large projects as of strategic importance, and prepared a list of 40 projects as reserves. So far, only one, Oyu Tolgoi project has been contracted, while Tsagaan Suvarga has avoided contracting and Tavan Tolgoi coking coal project contract draft was not reviewed by the Parliament and rejected at the draft contract analysis stage. From that point of view, this is also the only one agreement which was successfully ratified by both the government and investors and has special value, making it a template for future other contracts.

Mongolia's Oyu Tolgoi agreement has essentially become a template for large megaproject. The Oyu Tolgoi project despite all its shortcoming created a blooming supplier ecosystem and significantly so far contributed to local and macroeconomic development. Based on the Oyu Tolgoi agreement, the country may get close to put into the contract best international practices, yet also define legal obligations to develop the local suppliers, jobs and have umbrella approach to infrastructure projects. Based on these issues, one can say that a mining contract with well specified major issues mentioned above plus regulating well the financing issues in an equity borrowing case, and well managing local cooperation and suppliers may be a most beneficial for both sides.

References

Afghanistan. (2011). Qara Zaghan Gold Project Contract between Krystal Natural Resources Company and the Ministry of Mines of the Islamic Republic of Afghanistan.

Asian Development Bank. (2014). Demand in the Desert: Mongolia's Water-Energy-Mining Nexus. Manila: Asian Development Bank.

Downing, T. E. (2002). Avoiding New Poverty: Mining-Induced Displacement and Resettlement. International Institute for Environment and Development.

EITI. (2014). Mining Contracts: How to read and understand them.

Everingham, J.-A., Kemp, D., Ali, S., Cornish, G., Langton, M., & Harvey, B. (2016). Why agreements matter. Melbourne: Rio Tinto.

Guinea. (2009). Convention de Base Entre La Republique de Guinee et BSG Resources.

Guinea. (2010). Convention de Base Entre La Republique de Guinee at Alliance Mining Commodities.

Guinee. (2002). Convention de Base Entre La Republique de Guinee et Simfer SA La Societe Pour L'Exploitation des Gisements de fer de Simandou.

IISD. (2015). Handbook on Mining Contract Negotiations for Developing Countries.

International Council on Mining & Metals. (2013). Good Practice Guide: Indigenous Peoples and Mining Second Edition. London: International Council on Mining & Metals.

International Council on Mining & Metals. (n.d.). Promoting gender diversity in CHile. London: International Council on Mining & Metals.

International Council on Mining and Metals. (2012). Water management in mining: a selection of case studies. London: International Council on Mining and Metals.

International Council on Mining and Metals. (n.d.). Land acquisition and resettlement: Lessons learned. London: International Council on Mining and Metals.

International Finance Corporation. (2012). IFC's Guidance Notes: Performance Standards on Environmental and Social Sustainability. London: International Finance Corporation.

International Finance Corporation. (2012). Performance Standards on Environmental and Social Sustainability. London: International Finance Corporation.

International Finance Corporation. (2007). Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets. Washington, DC: International Finance Corporation.

Johnston, L. (2011). Mongolia - Oyu Tolgoi Copper/Gold/Silver Mine Project Trip Report. Washington: USAID.

Kiezebrink, V., Ahlers, R., & Dugersuren, S. (2018). Mining taxes: the case of Oyu Tolgoi and profitable tax avoidance by Rio Tinto in Mongolia. Amsterdam: SOMO and OT Watch.

Liberia. (2004). Exploration Agreement between the Government of the Republic of Liberia and African Aura Resources Limited.

Liberia. (2005). Iron Ore Appraisal and Exploration Agreement for the Putu Range between the Republic of Liberia and Mano River Iron Ore Ltd.

Liberia. (2006). Amended Mineral Development Agreement between the Government of the Republic of Liberia and Mittal Steel Holding A.G and Mittal Steel Holdings Ltd.

Liberia. (2009). Mineral Development Agreement between the Government of the Republic of Liberia, China- Union Mining Co.

Liberia. (2010). Mineral Development Agreement the Government of the Republic Liberia, Putu Iron Ore Mining, Inc, and Mano River Iron Ore Ltd.

Liberia. (2011). Mineral Devepment Agreement between the Government of Liberia and Western Cluster Limited, Sesa Goa Limited, Bloom Fountain Limited, Elenilto Minerals & Mining LLC.

Mann, H. (2015). IISD Handbook on Mining Contract Negotiations for Developing Countries Volume 1. Manitoba: International Institute for Sustainable Development.

McGrath, F., Martsynkevych, V., Hoffman, D., Richter, R., Dugersuren, S., & Yaylymova, A. (2011). Spirited away - Mongolia's mining boom and the people that development left behind. CEE Bankwatch Network, urgewald, Bank Information Center, Oyu Tolgoi Watch.

Ministry of Finance. (2012, 05 31). Давхар татварын гэрээ хэлцлүүдийг цуцлах санал, үндэслэл, тайлбар [Translation: Opinion and explanation for termination of double taxation agreements]. Retrieved from iltod.gov.mn: http://www.iltod.gov.mn/?p=2712

Office of the Compliance Advisor Ombudsman. (2013). CAO Assessment Report: Complaint Regarding Oyu Tolgoi Project. Office of the Compliance Advisor Ombudsman.

Open Oil. (2016). Oyu Tolgoi Financial Model: Narrative Report. Open Oil.

Oyu Tolgoi. (2018). Q2 Production Report for 2018. Ulaanbaatar.

Ozkhan, U. R., & Beckton, C. (2012). The Pathway ForwardL Creating Gender Inclusive Leadership in Mining and Resources. Centre for Women and Politics and Public Leadership.

Rio Tinto. (2009). Annual Report. Rio Tinto.

Rio Tinto. (2011). Annual Report. Rio Tinto.

Scott, J. (2014). Encyclopedia of Gender and Mining:Key Initiatives, Best Practices and Actors. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Shafaie, A. (2015, July 30). Rio Tinto, Mongolia, and the Art of Negotiating Amidst Price Volatility. Retrieved from resource governance: www.resourcegovernance.org/blog/rio-tinto-mongolia-and-art-negotiating-amidst-price-volatility

Turquose Hill Resources LTD. (2018). Made by Mongolia, annual report 2017.

Turquose Hill Resources LTD. (2018). MD&A and Financial statement 2017.

Turquose Hill Resources LTD. (2018). Second quarter report.

United Nations Human Rights. (2015). Principles for Responsible Contracts. New York and Geneva: United Nations.

van Dyke, A., & Dallmann, S. (2013). Mining for talent: A Study of Women on Board in the Mining Industry. London: PricewaterhouseCoopers LLP.

Vivoda, V., Owen, J., & Kemp, D. (2017). Comparative analysis of legal and regulatory frameworks for resettlment in the global mining industry. Brisbane: Centre for Social Responsibility in Mining, University of Queensland.

Weber, F., & Watson, O. (2015). Human Rights and the Extractive Industry. London: Principles for Responsible Investment Initiative.