

# Mining Development Strategy

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## **Abstract**

Mongolia's development strategy for the mining sector is reflected on following three major pieces of legislations. Main development goals of the country is reflected in Sustainable Development Goals (SDGs) document that was adopted in 2016 by the Parliament of Mongolia, which sets out socio-economic policy targets for the country. The next major piece of legislation of the mining sector's development strategy is a policy document entitled "State Minerals Policy (SMP) 2014-2025", which was adopted in 2014 by the Parliament. This minerals policy document is a more detailed long term view of the sector's development in the country. The next level piece of legislation in the development strategy of the mining sector is the Government action plan for 2016-2020. In this document near term goals and programs are stipulated.

We assess firstly in terms of cognizance of the reality. In other words, the country has to have realistic expectations about the role of the mining sector in the economy. Moreover, strategic documents should clearly reflect these expectations. Too optimistic or too pessimistic view of the sector regularly leads to overestimation or underestimation of the mining sector's effect on the economy.

## **Keywords:**

Mining, development strategy, long-term development policy

Ulaanbaatar, Mongolia

2018

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## **Final Report**

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**ULAANBAATAR, 2018**

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## 1. EXECUTIVE SUMMARY

Mongolia's development strategy for the mining sector is reflected on following three major pieces of legislations.

Main development goals of the country is reflected in Sustainable Development Goals (SDGs) document that was adopted in 2016 by the Parliament of Mongolia, which sets out socio – economic policy targets for the country.

The next major piece of legislation of the mining sector's development strategy is a policy document entitled "State Minerals Policy (SMP) 2014 – 2025", which was adopted in 2014 by the Parliament. This minerals policy document is a more detailed long term view of the sector's development in the country.

The next level piece of legislation in the development strategy of the mining sector is the Government action plan for 2016 – 2020. In this document near term goals and programs are stipulated.

We assess firstly in terms of cognizance of the reality. In other words, the country has to have realistic expectations about the role of the mining sector in the economy. Moreover, strategic documents should clearly reflect these expectations. Too optimistic or too pessimistic view of the sector regularly leads to overestimation or underestimation of the mining sector's effect on the economy.

It is expected that major strategy and policy documents should be based on realistic assumptions about the reserves and prices of commodities. However, these documents does not directly reveal the country's estimations of resource reserves and assumptions on pricing. Specifically, these documents does not provide specific guidance on its resource wealth.

Supporting policy documents of major pieces of legislation does not reveal much about the estimation or assessment of the resource reserves. The official estimation of resource reserves is primarily described in the "Annual bulletin of mining and geology". Therefore, we can see that the consensus can be further improved by conveying estimations and potential scale of the mining sector and natural resource endowments more clearly and reflect it in policy documents.

The strategic and its follow up documents does not convey commodity price scenarios and therefore it is not clear from these documents what impact the sector will have on the economy in the long run.

Cognizance is also assessed in terms of how the country addresses its issue of heavy dependency on the mining sector. As of 2016, the mining sector accounted for approximately 20% of Mongolia's GDP

and 71% of gross industrial output. Moreover, it was also estimated that indirect contribution of the sector is approximately 10% of GDP.

Development strategy documents clearly acknowledge this dependency and promotes the diversification of the economy.

The Government of Mongolia is aiming to achieve diversification by conducting series of policies by reducing costs of production and formulating and implementing heavy industry development plan. In particular, the government is aiming to support the production sector through tax policies to enhance the non-mining export and through reduction of costs of downstream value added production by stabilization of and reduction of tariffs for water, heat and electricity, promotion of fair competition, creation of "loan of trust" for small and medium enterprises and adjusting fuel prices to the world market prices.

Although SDGs, SMP and the Government Action Plan specify goals for sectorial developments, it unfortunately does not specify how priorities are decided and what are the costs associated with programs that promotes development of non-mining sectors. In other words, there is a lack of clarity how prioritization of programs will be done and at what cost.

Secondly, since natural resources are exhaustive, the strategy should maintain the long-term view of the country in terms of developing and maintaining the mining sector in order for future generations of citizens can continually benefit from natural resources.

The national strategy documents such as "Sustainable development goals" and "State minerals sector policy" are clearly designed with the long term view.

"Sustainable development goals" envisions high growing economy with no poverty and drastic reduction in income inequality by 2030 among other long term goals. Goals in the mining sector are designed to promote comprehensive research in geology and geophysics and to create a favorable investment environment for explorations, conduct in-depth explorations of deposits, develop infrastructure with suitable power plant and water supply and transportation network and start developing large mining projects.

"State minerals policy" document specifically promotes policies whose positive effect should benefit all citizens. In fact, the very first principle of the minerals sector policy is directed at maintaining policies in the sector in the long run.

Long term impact of the sector on future generations is dependent not only on developing and benefiting from current known resource

deposits and projects, but also on how the country handles pace of exploration and mining licenses, state's fiscal terms with mining companies on projects, the management of revenue from the sector and the promotion of private sector.

The administration of the licensing process is regulated by the "Minerals Law" of Mongolia. This law is directed at regulating how the license will be processed and is not addressing the issue of pacing the licensing. In fact, there are no follow ups to the SMP document on pacing the licensing.

In order to benefit from the sector in the long run, it should also be assessed how the country benefits from the sector and how it will be benefiting in the future. Mongolia benefits from the mining sector by imposing royalties, taxes, tariffs on exports and dividends from the state ownership. Indeed, this is one of the highly discussed topics in the public.

"Minerals law" also identifies deposits that are deemed strategically important that can have significant impact on national security and on society and economy or deposits that can contribute more than 5 percent of GDP per year as strategically important. However, it is not entirely clear what criteria constitutes "strategically important deposit" and it needs to be clarified.

Experience with Oyu Tolgoi project indicates that policymakers declared that in the long term the country will be benefitting from the mining sector through its state owned mining companies. However, inefficiency and profitability of state owned enterprises are widely believed to be lagging those of private mining companies and regular turnover of management team at the state owned companies indicate that there is a strong incentive for politicians to yield influence in these companies.

Long term benefit also depends on how the country manages its mineral revenue. Mongolia made great strides in terms of regulating the revenue from the mining sector. In particular, "Fiscal stability law" was adopted in 2012 and went in full effect in 2013 and the law on "Future heritage fund" in 2016.

It should be noted that although rules for revenue management was set out in exemplary fashion, the Government found it hard to follow it through at the implementation level. In particular, major parameters such as budget deficit and debt level had to be amended every year to accommodate ever expanding government expenditure and debt level. This practice of revising major parameters of this law shows lack of commitment from the Government to the fiscal discipline.

In general, throughout this assessment we emphasized that there is a lack of detailed vision on how the government intends to implement and achieve these strategic visions and policy actions.

## **2. INTRODUCTION**

The main objective of this study is to assess the national strategy of the resource management. The Parliament of Mongolia adopted national strategic and policy documents in relation to the resource management such as "Sustainable Development Goals 2030", "State Minerals Policy 2025" and its follow up programs. Since these strategic documents cover wide range of issues such as planning, taxation, environmental management, financing, labor, education etc, our primary focus is to assess where are the gaps and overlaps in these strategic documents.

Mongolia's national strategy in managing its natural resources recognizes the need for the country not to be too reliant on the commodity export in the long term. Thus, it focuses on the issue of diversification and related policies regulating the minerals sector in sustainable manner.

Long term management of resources sector requires proper legal and institutional framework. Therefore, our assessment also focused on whether the current legal and institutional framework is adequately addressing the needs for long term management of the sector.

In accordance with National Resource Governance Institute's benchmarking of the national mining development strategy, the country has to address following 4 issues in their national strategy:

- Cognizant of reality
- Considering the long – term approach
- Comprehensiveness – consideration of the full range of issues in the management of resource wealth
- Inclusiveness – development, implementation and oversight processes must be inclusive.

Firstly, the country has to be cognizant of the reality. In other words, the country has to have realistic expectations about the role of the mining sector in the economy. Moreover, strategic documents should clearly reflect these expectations. Too optimistic or too pessimistic view of the sector regularly leads to overestimation or underestimation of the mining sector's effect on the economy. This is especially relevant for Mongolia since the country is under developed and faces great needs to develop its infrastructure, which requires financial resources that potentially can be provided by the mining sector.

Misunderstanding or misestimating of the sector's role in the economy can lead to dramatic consequences on the government's budget and its highly important social and economic programs.

Mongolia's economy is heavily reliant on the mining sector. Therefore, the country has to understand that it should carry out policies that mitigates this heavy reliance and should try to diversify its economy. In fact, in various policy discussions, economic diversification has always been on the top of the agenda. Thus, it is well understood that it is critically important to assess realistically what resources the country possesses and how much of it can be used in the future.

Secondly, since natural resources are exhaustive, the strategy should maintain the long-term view of the country in terms of developing and maintaining the mining sector in order for future generations of citizens can continually benefit from natural resources. This means that Mongolia should follow a policy that would yield exploration and mining at certain pace so that the benefits from the sector can be spread over time. Another way to spread benefits from resources across time and generations is to conduct a sound revenue management. It is vitally important for the country to be properly managing the revenue from the sector and ensure that the country benefits within as well as across generations. The strategy document ideally should also clearly show pathway to achieve how and in what steps the country can benefit from the natural resources.

Thirdly, the strategy should take a comprehensive approach towards managing the resource wealth. Management of resources is not covered by a single policy or decision-making nor limited to a single sector. It is rather a chain of policies that should complement each other in order to achieve the goals set out in strategic documents. Therefore, a comprehensive approach is needed in strategizing and formulating policies. The strategy should cover not only policies in the extractive sectors, but should also cover important issues such as governance for planning, environmental management, taxation, state owned enterprises, finance, industrial policy, energy, infrastructure, labor and education among others.

Fourthly, the strategy document should be inclusive. In particular, the government should make sure that the strategy design and development, its implementation and oversight should be conducted by government bodies as well as by actors outside the executive branch.

In this report, we assess these issues in detail. Particularly, we will be reviewing and assessing major pieces of legislations along these issues as well as its implementation and oversight will also be assessed in

order to evaluate effectiveness of policies in the mining sector. The remaining two will be assessed in the follow up update of this report.

### **3. OVERVIEW OF STRATEGIC DOCUMENTS IN THE MINERALS SECTOR**

As we mentioned above, strategic documents aim to provide a shared vision for the country so that all stakeholders should benefit from the sector.

Mongolia's development strategy for the mining sector is reflected on following major pieces of legislations.

Development goals of the country is reflected in Sustainable Development Goals (SDGs) document that was adopted in 2016 by the Parliament of Mongolia. Socio-economic goals stated in this document are official policy targets for the country. Thus, mining development strategy should be directed at achieving these goals.

The SDGs document is a clear indication that the country views the mining sector as of major importance in the near term, which paves the way for country's long-term development. The following are the objectives and phases of the mining sector reflected in this document:

#### ***Objective 1. Support geological sector development.***

- *Phase I – (2016–2020): Strengthen the capacity to undertake all types of comprehensive research in geology, geochemistry and geophysics, update research methodologies, guidelines and procedures conjunct with internationally accepted methods, draw a full map of Mongolia with a 1:200,000 scale, and draw geological maps on 1:50,000 scale for 40 percent of the territory, with ore zones and banks with mineral resources for general exploration.*
- *Phase II – (2021–2025): Create a geological information data base, create a favorable environment for investment in the mineral exploration sector, and draw geological maps of 1:50,000 scale for 50 percent of the territory, with ore zones and banks with mineral resources for general exploration.*
- *Phase III – (2026–2030): Conduct in-depth explorations at all sites with mineral resource deposits, and draw geological map of 1:50,000 scale for 60 percent of the territory, with ore zones and banks, with mineral resources for general exploration.*

***Objective 2. Encourage transparent and accountable extractive industry, and improve the competitiveness of the mining sector.***

- ***Phase I – (2016–2020): Ensure stable investment environment for the mining sector, develop environment–friendly infrastructure and transportation network, and establish high–capacity power plant in Gobi region.***
- ***Phase II – (2021–2025): Implement projects on reliable water supply sources, and ensure full functionality of large mining projects.***
- ***Phase 3 – (2026–2030): Start development of large mining projects, and develop the infrastructure***

The next major piece of legislation of the mining sector's development strategy is a policy document entitled "State Minerals Policy (SMP) 2014–2025", which was adopted in 2014 by the Parliament. This minerals policy document is a more detailed long term view of the sector's development in the country.

The minerals policy document has 4 parts. First part is the general motivation of the document, the second part stipulates principles for policies in the minerals sector, the third part specifies policy guidelines and the final fourth part deals with minerals policy implementation stages and outcomes.

According to this document, the minerals policy strategy is to be implemented based on the following eight principles:

1. *No breach to parties' interests involved*
2. *Support for adoption of modern machinery, technology and innovation*
3. *Promotion for state organizations' and companies' transparency and responsibility*
4. *Promotion of good governance at companies*
5. *No discrimination in ownership type*
6. *Make available and transparent all levels of information on geological survey, mining and processing operations that are not prohibited by law*
7. *Improvement in safety and sanitary standards to the international levels and its implementation*
8. *Improvement in state regulations on registration, permit issuance and supervision and maintaining state's intervention in exploration and in mining operation at appropriate level*

These guiding principles in the minerals policy show us how the country is aiming to achieve its long-term goals within these parameters. In other words, policies and strategies in the mining sector will be in line with these principles in achieving goals set out in the SDGs and the Government action plan for 2016–2020.

In particular, SMP is aiming to achieve following goals:

1. *To implement geological research and exploration in accordance with the government policy and to increase national mineral reserves providing long-term sustainable development basis for the mining sector*
2. *To mine mineral reserves exhaustively and at appropriate level using technology with minimal environmental impact, processing level to be deepened in order to increase the production level as well as variety of products*
3. *Adoption of integrated standards in the mining and processing and to create safety and sanitary conditions in each step of the production which leads to lower production accidents*
4. *To be able to carry out long-term planning as a follow up to mining projects which brings the infrastructure development (road networks, power plants, cities and towns);*
5. *Creation of major industrial centers which will reduce over-concentration of population;*
6. *Human resources of the minerals and infrastructure sector will be trained and the number of professionally trained local workers and workplace will increase decreasing unemployment level;*
7. *The activities related to environmental protection, mine closure and rehabilitation and long-term monitoring shall be done in accordance with laws and international standards in orderly and responsible manner;*
8. *To restrict mining and processing operations near riverbed areas, out-flowing basins, forested areas, agricultural fields, fertile pastureland, Gobi oasis, lakes and ponds in order to achieve ecological balance and to produce healthy eco-food products which will provide an environment for citizens to use healthy nutrition and a safe living environment;*
9. *All activities in the minerals sector shall be undertaken in accordance with applicable laws and regulations and be transparent to the public and to create an environment whereby public opinion should be received and reflected in the*

*formulation of new laws and regulations and in the implementation of big projects*

10. *To create an environment whereby trading of mineral products are openly carried out at the minerals' market in compliance with international standards and accompanying improved business environment in the minerals sector will be established*

It should be noted that the mining development strategy cannot be assessed by a single dimension. Rather, it is a complex set of policies, which taken together will have a consistent impact on the economy and society as a whole. Specific to minerals sector, SMP encompasses policies along following directions:

1. Legal environment
2. Minerals sector management, organization and human resource management
3. Environmental protection and reclamation
4. Support for local development, protection of interests of indigenous people
5. Downstream processing sector
6. Mining operations sector
7. Geological sector

SMP set out detailed policies in each of these directions and corresponding follow up regulations, programs and policy documents were produced or needs to be produced. We will be assessing the strategy in conjunction with these policies.

Another crucial piece of legislation in the development strategy of the mining sector is the Government action plan for 2016 – 2020. Following actions are planned in relation to the mining sector or related infrastructure development.

***The Government aims at developing a sustainable economy based on diversified domestic production that strengthens the macroeconomic stability, and increasing the country's gross national income to regain the Upper Middle Income Country status.***

- 1.24. *Boost the operations of Erdenes Mongol LLC and the Oyu Tolgoi project and start exploitation of the Tavan Tolgoi and other deposits of strategic importance.*

***Measures to be taken in geology, mining and heavy industry sectors:***

***The Government will aim at creating a favorable investment environment for geology and mining, ensuring sustainable development of mining sector and enhancing the competitiveness of Mongolia on the international minerals market.***

2.59. *Support the sustainable development of mining sector by enhancing geological mapping, general exploration, geophysics, geochemistry, hydrogeology and geo-ecological studies.*

2.60. *Establish a National geology authority and a National geo-database in conformity with the international standards and simplify information delivery service.*

2.61. *Create a favorable legal environment to attract investment in geology and mining sectors and jointly implement mutually beneficial projects and programs.*

2.62. *Maintain an appropriate level of state involvement in the mining production, improve the cadaster registration system and make more efficient license issuing service.*

2.63. *Intensify research, exploration and exploitation in conventional and non-conventional oil industry and increase oil deposits.*

2.64. *Improve the legal basis for creating co-ops in artisanal mining sector for individuals as stipulated in the Article 3.1.2 of the "State Minerals Policy".*

2.65. *Formulate a long-term mining infrastructure development planning and improve coherence among sectors.*

2.66. *Set up a mining research unit and create a favorable investment environment in the minerals sector.*

2.67. *Create a legal environment to exploit secondary mineral resources and bring the process of mine rehabilitation and the closure up to the international standards.*

2.68. *Resolve required funding for the implementation of "Gold 2" program in cooperation with the Central Bank of Mongolia (Mongol Bank).*

2.69. *Increase gold production and create a legal environment to purchase extracted gold from artisanal miners.*

2.70. *Steadily increase oil extraction and construct an oil refinery.*

- 2.71. *Support the construction of copper concentrate smelter and refinery.*
- 2.72. *Create conditions to construct a metallurgical complex in Darkhan and Selenge region.*
- 2.73. *Render policy support to setting up a coal washing and deep processing plant and coal gas extracting plant.*
- 2.74. *Render policy support to setting up a plant for liquefied fuels and lubricants.*
- 2.75. *Develop a metal component and assembly factory.*

***Road and transportation:***

***The Government will further develop the road, transportation and logistical network that sustains economic growth, is consistent with social needs and demands, and provides safe and comfortable services.***

- 2.108. *Construct and complete the "Tavantolgoi–Gashuun sukhait", "Khuut–Bichigt" bound railroad line and put them into operation.*
- 2.109. *Construct and complete the Oyutolgoi bound branch line and the "Shivee khuren–Sekhe" border port bound line that deviate from "Tavantolgoi–Gashuun sukhait" railroad.*
- 2.110. *Commence the construction of the "Zuunbayan–Khangi" bound railroad line.*
- 2.112. *Start the construction of the "Erdenet–Ovoot" bound railway line.*

These policy actions are in line with the country's longer-term development strategy and designed to achieve or provide steps in achieving these goals in the medium term.

#### **4. ASSESSMENTS OF STRATEGY DOCUMENTS IN ACCORDANCE WITH NRGI BENCHMARKING**

The main purpose of the strategic documents is to ensure the possibility that all citizens of the country should be benefiting from the sector. In order to achieve the greatest possible benefit to citizens these documents should be inclusive and comprehensive. That is these documents should include interests of all stakeholders and should address all phases of resource management.

## 4.1. Cognizant of reality

Understandably, the country should be cognizant of the reality. In other words, the country should have realistic expectations about the mining sector and its role in the economy.

### 4.1.1. About resource endowments and commodity price scenarios

It is widely observed in resource rich countries that the population and policymakers are too optimistic in its assessment of the mining sector. This leads to inefficient mining policies and makes the country susceptible to "resource curse".

Therefore, the country should have realistic assumptions about the size and scale of the mining sector and its effect on the economy.

In particular, the country's strategy in the development of the mining sector has to be based on a sound understanding of the fundamentals of resource wealth. That is, the strategy should be based on a reliable and objective assessment of the country's resource endowments. Moreover, since Mongolia is a price taker in the world minerals' market and the sector is greatly dependent on prices of minerals, the strategy should also accommodate various scenarios of minerals' prices and its impact.

Thus, it is expected that major strategy and policy documents such as "Sustainable development goals", "State minerals policy" and Government action plan for 2016 – 2020, should be based on realistic assumptions about the reserves and prices of commodities.

However, it should be noted that these documents in itself does not directly reveal the country's estimations of resource reserves and assumptions on pricing. These documents indeed reveal that the authorities cognizant of the fact the country is endowed with rich natural resources, but does not provide specific guidance on its resource wealth. Therefore, we look at supporting documents of these policy papers for those assumptions.

Unfortunately, supporting documents of these major pieces of legislation does not reveal much about the estimation or assessment of the resource reserves. The official estimation of resource reserves is primarily described in the "Annual bulletin of mining and geology".

Following is the official estimation of reserves of major commodities. It should be noted that resources or reserves are classified differently in Mongolia. That is reserves are classified differently than JORC or

NI43 – 101 methods since Mongolia has its own regulations<sup>1</sup>. In brief, Mongolia has three types of resource reserves: Assessed mineral potential; Geological reserves; Economic (commercial) reserves. It is widely cited "geological reserves" as country's resource reserves.

Geological reserves are reserves that are determined by pre – feasibility studies of ore deposits and these deposits are not required to have its economic viability assessed. After economic viability of the ore deposit is assessed, reserves will be classified as "economic (commercial) reserves".

**TABLE 1. MINERAL DEPOSITS**

<b>Mineral type</b>	<b>Unit</b>	<b>Geological</b>	<b>Number of</b>
<b>Gold /hard rock/</b>	t	2,584.20	123
<b>Gold / placer/</b>	t	237.2	727
<b>Copper /without copper in polymetallic deposits</b>	mln t	68.6	65
<b>Coal</b>	mln t	41,214	313
<b>Iron</b>	mln t	1,888.80	101
<b>Zinc</b>	mln t	6.2	25
<b>Molybdenum</b>	mln t	1.5	38
<b>Fluorspar</b>	mln t	49.3	174
<b>Tungsten</b>	ths t	441.4	60
<b>Tin</b>	ths t	132.9	30
<b>Molybdenum</b>	mln t	1.5	38
<b>Fluorspar</b>	mln t	49.3	174
<b>Tungsten</b>	ths t	441.4	60
<b>Tin</b>	ths t	132.9	30
<b>Silver</b>	ths t	42.1	14
<b>Lead</b>	mln t	2.1	19
<b>Rare Earth Elements /RE<sub>2</sub>O<sub>3</sub>/</b>	mln t	2.4	10
<b>Uranium /oxide/</b>	ths t	185.1	12
<b>Phosphorite</b>	mln t	54.1	4
<b>Limestone</b>	mln t	2,205.40	95
<b>Crude oil</b>	mln t	332.6	

Source: (MPRAM, 2016), (MPRAM, 2017)

<sup>1</sup> "Annual bulletin of mining and geology Mongolia 2016", The Mineral Resources Authority of Mongolia

Therefore, we will be using "geological reserves" as resource reserves. In the "Annual bulletin of mining and geology", these reserves are shown below.

As we mentioned above these reserves should not be treated as economic reserves, nevertheless, these numbers show that the country possesses rich mineral endowments.

Not only the country is endowed with rich mineral resources, its economy is increasingly becoming dependent on the minerals sector. There is a little debate whether the country is dependent on the mineral sector. A report titled "Study on Economic and Fiscal Policies in Resource – Rich Countries"<sup>2</sup> emphasizes the fact that Mongolia's fiscal dependency is not as prominent as other comparable resource rich countries, but it is above the threshold indicated in "Fiscal Frameworks for Resource – rich Developing Countries"<sup>3</sup>.

The following table shows the production of minerals in the country and its forecast by the Mineral resources and petroleum authority (MRPA).

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<sup>2</sup> "Study on Economic and Fiscal Policies in Resource – Rich Countries", JICA, KRI International Corporation and Mitsui Mineral Development Engineering Co. Ltd, 2016

<sup>3</sup> "Fiscal Frameworks for Resource – rich Developing Countries", IMF Staff Discussion Note, IMF, 2012

TABLE 2. MINERAL PRODUCTION AND FORECASTS

	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Gold</b>	t	6.0	8.9	11.5	14.6	18.4	15.1	16.5	24.8	9.2
<b>Copper concentrate</b>	th s t	517.9	803	1,080.4	1,334.7	1,445.1	1,328.3	1,067.1	1,223.1	1,258.2
<b>Coal /bituminous and lignite/</b>	mln t	28.6	29.2	24.9	24.1	35.5	31.2	37.1	41.2	44.2
<b>Iron ore and concentrate</b>	mln t	6.9	5.0	6.3	4.3	4.9	11	11	11	11
<b>Zinc ore and concentrate</b>	th s t	119.1	104.1	93.2	89.6	100.2	94	90	90	90
<b>Molybdenum concentrate</b>	th s t	3.9	3.7	4.1	5.2	5.2	4.5	4.5	4.5	4.5
<b>Fluorspar ore and concentrate</b>	th s t	641.6	238.1	374.9	230.8	201.8	200	250	240	250
<b>Tungshten*</b>	t	130.0	530.0	1,080	680	1460	298	330	280	240
<b>Tin*</b>	t	118	103.53	93.1	89.6	126	85	85	85	85
<b>Silver /concentrate/</b>	th s t						39	29.2	37.7	37

Source: (NSO, 2017), (MPRAM, 2017)

The table shows that the production of the minerals sector is expected to expand in the future and thus increasing in prominence in terms of its role in the economy.

**TABLE 3. 2013 MINERAL RESERVES AND PERCENTAGE OF WORLD RESERVE BY COUNTRY**

Mineral type	Unit	World resource		World resource	China		Russia	
		Quantity	% of world		Quantity	% of world	Quantity	% of world
<b>Copper 99%</b>	mln t	51.8 <sup>4</sup>		690	30	4	30	4
<b>Coal</b>	bln	27	3	892	115	12.8	157	17.6
<b>Gold</b>	t	200	0.4	55,000	1,900	3.5	5,000	9.1
<b>Iron ore</b>	mln t	600	1	87,000	7,200	8.3	14,000	16.1
<b>Fluorspar</b>	mln t	38	9	240	24	10	6	2.5
<b>Zinc</b>	mln t	0.3	0.13	230	43	18.7	45	19.6
<b>Molybdenum</b>	ths t	160	1	11,000	4,300	39.1	250	2.3
<b>Tungsten</b>	ths t	70	2.1	3,300	1,900	57.6	250	7.6
<b>Crude oil</b>	bln barrel	0.6	0.04	1,688	18	1.1	93	5.5

Source: Final Report (Power Open Pit, 2015) and "Data collection survey on copper industry sector in Mongolia", JICA, Mitsubishi Materials Techno Corp. and Sumiko Resources Exploration and Development Co.Ltd (2014)

Noticeably, we can identify following points:

- As of 2015, Mongolia's Uranium resource was ranked in tenth place in the world and held 2% of world uranium resource (WNA, 2016).
- As of 2016, Mongolia's fluorspar reserves is ranked third place in the world and held 8.5% of world reserves (USGS, 2017).
- As of 2017, Mongolia holds 1% of world molybdenum reserves (USGS, 2017).
- As of 2013, Mongolia holds 0.4% of world rare earth elements resource (MPRAM, 2013).

We can also look at per capita resource wealth Mongolia is endowed with. The following table shows per capita geological reserves.

Since there is no clear indication of these kinds of assessments were used in documents, it is not clear whether the public has a deep understanding about the natural resource reserves as well as whether major pieces of development strategy documents such as "Sustainable

<sup>4</sup> Using data from "Annual bulletin of mining and geology Mongolia 2016", The Mineral Resources Authority of Mongolia

development goals" and "State minerals policy" are based on clear understanding about the endowment.

**TABLE 4. RESOURCE WEALTH PER CAPITA**

	Unit	Geological Reserves (A+B+C)**	Per Capita (ton)***
<b>Coal</b>	bln t	41.2	13,209.9
<b>Limestone</b>	bln t	2.2	706.9
<b>Iron</b>	bln t	1.9	605.4
<b>Copper /without copper in polymetallic deposits</b>	mln t	68.6	22.0
<b>Phosphorite</b>	mln t	54.1	17.3
<b>Fluorspar</b>	mln t	49.3	15.8
<b>Zinc</b>	mln t	6.2	1.99
<b>Rare Earth Elements /RE2O2/</b>	mln t	2.4	0.75
<b>Lead</b>	mln t	2.1	0.66
<b>Molybdenum</b>	mln t	1.5	0.49
<b>Tungsten</b>	ths t	441.4	0.14
<b>Uranium /oxide/</b>	ths t	185.1	0.059
<b>Tin</b>	ths t	132.9	0.043
<b>Silver</b>	ths t	42.1	0.014
<b>Gold /hard rock/</b>	ths t	2.6	0.0008
<b>Gold /placer/</b>	t	237.2	0.0001

Source: MRPAM \*\*Geological reserves as of September 2017

\*\*\*Mongolia's 2016 population was 3,119,935.

Therefore, we can see that the consensus can be further improved by conveying estimations and potential scale of the mining sector and natural resource endowments more clearly and reflect it in policy documents.

In particular, there is a gap that needs to be addressed in terms of estimation of the country's resource wealth and how to make it consistent with the development strategy documents. Understandably, strategic documents reflect conceptual issues and thus lack clarity and details. However, estimation of the resource wealth will benefit the population and policymakers, investors and other stakeholders in terms of forming expectations about the sector and its role in the economy and society.

#### **4.1.2. Addressing resource dependency**

Dominant mining sector does not necessarily translate into a sustainable economic growth and development. In other words, there

are risks involved in terms of "resource curse" and "Dutch decease". Since these topics are examined diligently in the past such as in Fisher et al. (2012), we will not be focusing on them in this assessment.

However, we emphasize that if a country does not address its weaknesses in institutions dealing with governance of policy making and its implementations, dependency on the mining sector leads to slower economic growth and inequality. This phenomenon is known as a "Resource curse". Moreover, even if the country builds good institutions, economic growth led by the mining sector may not allow the economy to diversify away from the mining sector, which is known as a "Dutch disease" effect. Therefore, the country's strategy should formulate a realistic approach towards dealing with risks that resource dependency poses.

**TABLE 5. GDP BY DIVISION, USD MILLION\***

Division	2015	2016	
<b>Total</b>	9,435	9,755	
<b>Agriculture, forestry and fishing</b>	1,260	13.4%	1,140
<b>Information and communication</b>	202	2.1%	207
<b>Financial and insurance activities</b>	505	5.4%	508
<b>Real estate activities</b>	646	6.9%	658
<b>Professional, scientific and technical activities</b>	207	2.2%	185
<b>Administrative and support service activities</b>	89	0.9%	88
<b>Public administration and defense; compulsory social insurance</b>	432	4.6%	456
<b>Education services</b>	413	4.4%	425
<b>Activities of households as employers</b>	193	2.0%	192
<b>Arts, entertainment and recreation</b>	43	0.5%	44
<b>Other service activities</b>	77	0.8%	72
<b>Mining and quarrying</b>	<b>1,612</b>	<b>17.1%</b>	<b>1,960</b>
<b>Taxes less subsidies on products</b>	768	8.1%	810
<b>Processing industries</b>	721	7.6%	707
<b>Electricity, gas, steam supply; water supply; sewerage, waste management and remediation activities</b>	155	1.6%	188
<b>Water supply; sewerage, waste management and remediation activities</b>	42	0.4%	43
<b>Construction</b>	399	4.2%	386
<b>Wholesale and retail trade; repair of motor vehicles and motorcycles</b>	1,088	11.5%	1,091
<b>Transportation and storage</b>	493	5.2%	496
<b>Accommodation and food service activities</b>	88	0.9%	99
			1.0%

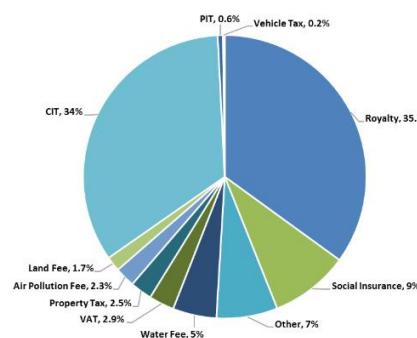
*Source: National statistical office*

The country's dependency on a sector can be measured in different ways. The following table shows in 2016, the mining sector accounted for approximately 20% of Mongolia's GDP and 71% of gross industrial output. Around 23% of total investment is in mining and quarrying.

Mining is an important sector for the government budget too. The Mongolian government realized over 2 billion USD in revenue in 2016 and during the first nine months of 2017, total revenue and grants increased to 2,238 million USD. In 2015, the Future Heritage Fund (FHF) was established with the intent of collecting a portion of mineral revenue for future generations' use and the law was passed in February 2016. FHF was launched in 2017, along with the stabilization fund, which set up to insulate the domestic economy from large influxes of revenue.

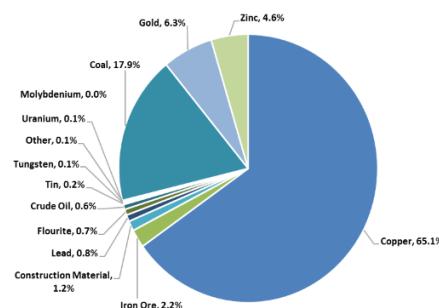
In 2016, the mining sector contributed around 14% to the Mongolian general government revenue. Businesses licensed for mineral extraction paid around 260 million USD in tax to national and local governments. The figures below break down the taxes paid by tax type and by mineral. Copper, coal, and gold producers paid around 170, 47, and 16 million USD in taxes, respectively. Of taxes, 35.1%, around 91 million USD, was paid as royalties.

**FIGURE 1. 2016 MINING SECTOR TAXES PAID BY TYPE**



Source: MRPAM

**FIGURE 2. 2016 MINING SECTOR TAXES PAID BY MINERALS**



Source: MRPAM

Another way to look at the country's dependency on the mining sector is the share of the sector in the total exports. Around 70% of Mongolian exports are mineral products with around 80% of all commodities exported to China.

Moreover, using Computable general equilibrium (CGE) modelling ERI calculated<sup>5</sup> that direct and indirect contribution of the mining sector was projected to be 27.6% of GDP in 2015. In other words, in 2015 direct contribution of the mining and quarrying sector was 17.1% and mining related contribution of other sectors was 10.5% of GDP after making sure the problem of double counting is addressed.

From these indicators we can see that the country is highly dependent on the mining sector. Development strategy documents clearly acknowledge this dependency and promotes the diversification of the economy. In particular, SDGs are aiming to achieve:

*By 2030, Mongolia aspires to be amongst leading middle-income countries based on per capita income. It hopes to be a multi-sector stable economy, and a society dominated by middle and upper-middle income classes, which would preserve ecological balance, and have stable and democratic governance.*

The strategy does specifically aim to develop the economy that is less reliant on one particular sector, but rather promotes a diversified economy. Although SDGs specifies goals for sectorial developments, it unfortunately does not specify how priorities are decided and what are the costs associated with programs that promotes development of non-mining sectors.

In other words, there is a lack of clarity how prioritization of programs will be done and at what cost in order to achieve these goals. It is understood that follow up policy documents will provide us with clearer picture on these issues, but there is a lack of these follow up documents showing pathway to achieve these goals.

In the "State minerals policy" paper, the government's policy is described as follows:

*State minerals policy will be directed at increased reliance on private sector, development of transparent, responsible mining sector and creation of a balanced and multi-pronged economic structure in the near and medium term, which serves well to the fundamental national interests.*

Thus, the SMP promotes the diversified economic structure. It should be noted that since this policy paper is directed at the development of mining sector specifically, policies and strategies achieving diversification are not specified.

<sup>5</sup> "Assessment of the role of the mining sector in the economy", Economic Research Institute, 2017

However, the policy document specifically articulates policies that promote production of value added products and shifts away from only extraction and mining. In fact, section 3.3 of the SMP document formulates policies directed at the processing sector.

**TABLE 6. EXPORTS BY COMMODITY GROUP IN 2016, USD THOUSANDS AND % OF TOTAL EXPORTS**

Commodity Group		
<b>Total</b>	4,916,335	
<b>Wood &amp; wooden articles</b>	429	0.0%
<b>Cellulose, paper, cardboard &amp; articles thereof</b>	56	0.0%
<b>Textiles &amp; textile articles</b>	300,224	6.1%
<b>Footwear, headwear, umbrellas, feather and artificial flowers</b>	2,034	0.0%
<b>Articles of stone, plaster, cement, asbestos, glass and glassware</b>	206	0.0%
<b>Natural or cultured stones, precious metal, jewelry</b>	761,511	15.5%
<b>Base metals &amp; articles thereof</b>	86,178	1.8%
<b>Machinery, equipment, electric appliances, recorders, TV, sets and spare parts</b>	71,421	1.5%
<b>Auto, air &amp; water transport vehicles and their spare parts</b>	69,981	1.4%
<b>Optical, photographic, cinematic-graphic, measuring control, medical, surgical and musical instruments, watches</b>	1,107	0.0%
<b>Live animals, animals' origin products</b>	29,242	0.6%
<b>Various industrial goods</b>	2,670	0.1%
<b>Other</b>	32	0.0%
<b>Vegetable origin products</b>	55,108	1.1%
<b>Animal &amp; vegetable fat &amp; oil</b>	701	0.0%
<b>Food products</b>	11,920	0.2%
<b>Mineral products</b>	<b>3,484,055</b>	<b>70.9%</b>
<b>Chemical &amp; chemical industry products</b>	1,631	0.0%
<b>Plastics, rubber, &amp; articles thereof</b>	7,619	0.2%
<b>Raw &amp; processed hides, skins, fur and articles thereof</b>	30,210	0.6%

*Source: National statistical office*

Following subsections of the document envisions how the Government will promote deeper processing in the sector and move away from sole extraction.

- *Conduct policies to promote improvement in the level of processing and produce value added products*

- *To promote projects such as building coal processing, coke and chemical factory, power plant near coal mine, to get liquid fuel form brown coal and oil shale*
- *To promote processing factories through tax, and financial policies and increase the processing level of minerals*

More detailed goals and strategies in achieving the diversification is indicated in the Government action plan for 2016 – 2020. The action plan specifies as follows:

*The Government aims at developing a sustainable economy based on diversified domestic production that strengthens the macroeconomic stability, and increasing the country's gross national income to regain the Upper Middle Income Country status. (Part II)*

Specifically, the Government of Mongolia is aiming to achieve these goals by conducting series of policies by reducing costs of production and formulating and implementing heavy industry development plan. In particular, the government is aiming to support the production sector through tax policies to enhance the non – mining export and through reduction of costs of downstream value added production by stabilization of and reduction of tariffs for water, heat and electricity, promotion of fair competition, creation of "loan of trust" for small and medium enterprises and adjusting fuel prices to the world market prices.

Moreover, the Government action plan for 2016 – 2020, also stipulated in its first section on overcoming economic difficulties to diversify the structure of the economy and reduce the vulnerability from commodity price fluctuations in mid – term.

Still, detailed programs that promotes economic diversification and development of non – mining sectors are not fully developed yet or are in the process of being developed. Moreover, prioritization of specific plans and detailed feasibility studies, impact assessments are not fully developed yet, which makes it difficult to get a clear picture in what steps the goals set out in the action plan will be achieved. For example, the Government action plan stipulates that the Government will develop and implement a program promoting non – mining exports. However, to this day the program is not fully developed and approved. This makes it difficult to formulate follow up programs, not to mention the implementation of policies.

Generally, policy analysis in the country has been and remained to be one of the issues that needs to be addressed. Because of this lack of analytical background to the policy decisions, the Parliament approved

the "Law on legislation", which requires policy proposals to have a professional assessments attached on benefits and costs of policy actions. It remains to be seen how this requirement is implemented in practice.

#### **4.2. Considering the long-term approach**

##### **4.2.1. Do national strategy documents for the extractive industry provide a long-term vision that considers the impact of resource extraction on future generation?**

As we mentioned above, national strategy documents such as "Sustainable development goals" and "State minerals sector policy" are clearly designed with the long term view.

"Sustainable development goals" envisions high growing economy with no poverty and drastic reduction in income inequality by 2030 among other long term goals. Moreover, goals in the mining sector are designed to promote comprehensive research in geology and geophysics and draw geological map on 1:50,000 scale of 40% of the entire territory by 2020 and 60 percent by 2030. The SDGs also stipulate that the goal is to create a favorable investment environment for explorations, conduct in-depth explorations of deposits, develop infrastructure with suitable power plant and water supply and transportation network and start developing large mining projects. From these goals we can see that the country's strategy is to further develop and expand the mining sector so that not only future generations will be benefiting from the sector but also the sector will provide an opportunity for the country to diversify its economy.

"State minerals policy" document specifically promotes policies whose positive effect should benefit all citizens. In fact, the very first principle of the minerals sector policy is directed at maintaining policies in the sector in the long run. In particular, it states that "in order to sustainably maintain minerals sector policies in the long run, decisions with regards to legal and tax environment should be based on research and analysis and these should not harm interests of stakeholders". Moreover, the policy paper stipulates that:

*To mine mineral reserves completely and at appropriate level and to increase the diversity and volume of value-added final products by promoting processing level and using environmentally-friendly technology;*

In other words, the Government's policy is to make sure the country benefits from the sector in the long run and avoids exhausting its reserves prematurely.

**4.2.2. Does the strategy present a pathway to achieve this vision? Is there evidence that this is followed by government and other actors? (Areas of particular importance include the pace of licensing, fiscal terms; local impacts; state owned enterprises; revenue management; private sector enabling environment)**

Long term impact of the sector on future generations is dependent not only on developing and benefiting from current known resource deposits and projects, but also on how the country handles pace of exploration and mining licenses, state's fiscal terms with mining companies on projects, the management of revenue from the sector and the promotion of private sector.

**4.2.2.1. Licensing (from SMP)**

Licensing is partly reflected in the "State minerals policy". In particular, the policy is to align licensed areas with cadastral area units. In particular,

- *Licensed mining areas to be aligned with principles of cadastral area units in accordance with international benchmarks*
- *To create a legal environment for usage of additional mineral deposits that are impactful at national and local levels in integrated manner (Find out what legislations and regulations were adopted and its implementation. Also, look at whether assessments were made)*
- *To optimally plan the production and processing quantity in conjunction with the country's economic and industrialization development and domestic and foreign market outlook*

The administration of the licensing process is regulated by the "Minerals Law "of Mongolia. This law is directed at regulating how the license will be processed and is not addressing the issue of pacing the licensing. In fact, there are no follow ups to the SMP document on pacing the licensing.

However, the Government is in the process of evaluating various policies on exploration and mining licensing and opening up new areas for more explorations. It should be noted that there are various laws that limit the expansion of new areas for explorations, such as

- Law on prohibition of mineral exploration and mining activities in areas in the headwaters of rivers, protected water reservoir zones and forested areas
- Environmental protection law of Mongolia
- Law of Mongolia on land
- Law of Mongolia on environmental impact assessment

- Law of Mongolia on subsoil
- Minerals law of Mongolia

Moreover, in 2009, the President of Mongolia issued decree suspending the issuance of exploration licenses for new areas. This suspension was lifted in 2014 since the exploration areas started lagging the mining areas and the country needed to address the slowing economy by attracting investment in the mining sector.

According to the "Annual bulletin of mining and geology 2016", 8.9% of total areas are licensed for exploration and mining as of 2015 and almost 60%<sup>6</sup> of total areas are restricted by the abovementioned laws and can't be opened for exploration. Thus, it makes around 30% of total areas that can potentially be opened for exploration licenses. In other words, there is a gap for a policy document that should address the pacing for exploration licensing.

Ministry of Mining conducted a study on "Optimal extraction model" in 2015. This is an attempt at figuring out how the country can pace its licensing for exploration and mining. Unfortunately, there is no follow up policy documents to this study.

#### 4.2.2.2. *Fiscal terms*

Mongolia benefits from the mining sector by imposing royalties, taxes, tariffs on exports and dividends from the state ownership. Indeed, this is one of the highly discussed topics in the public.

Historically, Mongolia set a precedent in terms of how the country negotiates taxes, royalties and state ownership policies during the Oyu Tolgoi negotiation. In general, "Minerals law" imposes royalty of 5 percent for mining products other than coal and 2.5 percent for coal. The law was amended in 2014 to impose royalty of 2.5 percent on gold if submitted to the Bank of Mongolia or to banks permitted by the Bank of Mongolia. All other taxes and tariffs are similar to other industries.

"Minerals law" also identifies deposits that are deemed strategically important that can have significant impact on national security and on society and economy or deposits that can contribute more than 5 percent of GDP per year as strategically important. In these "strategically important deposits" the Government can have ownership of up to 50 percent in the deposit and if the deposit was discovered with private financing then up to 34 percent. Moreover, for these deposits, royalties are negotiable along with provisions on environmental protection, infrastructure development, social

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<sup>6</sup> Source will be shown here

responsibility, tax stabilization, workforce training and local workforce participation and other issues.

In other words, policymakers declared that in the long term the country will be benefitting from the mining sector through its state owned mining companies. Indeed, one of the largest contributors to the state budget is the state owned mining company Erdenet JSC and a state owned coking coal company Erdenes Tavan Tolgoi is the largest exporter of coking coal and is operating the largest coking coal deposit in the country.

In terms of implementation, there are ongoing contract negotiations on several strategically important deposits. The study titled "IGF Mining policy framework assessment: Mongolia" warned that there is a gap in terms of clearly determining what criteria constitutes "strategically important deposit" and it needs to be clarified.

Moreover, it is widely argued that the performance of state owned mining companies needs to be further improved. In particular, governance of state owned enterprises needs to be improved significantly as Erdenes Mongol, which is the parent company of Erdenes Tavan Tolgoi and other state owned mining companies, does not publicly provide its annual financial report making it difficult to assess its performance and compare it against similar private companies. (Dorjdari 2017) Inefficiency and profitability of state owned enterprises are widely believed to be lagging those of private mining companies and regular turnover of management team at the state owned companies indicate that there is a strong incentive for politicians to yield influence in these companies.

#### 4.2.2.3. *Revenue management*

Mongolia made great strides in terms of regulating the revenue from the mining sector. In particular, "Fiscal stability law" was adopted in 2012 and went in full effect in 2013. According to this law, excess revenue from the mining sector will be accumulated into a "Stabilization fund" and the Government can finance its expenditure from this fund when commodity prices are depressed. There are four restrictions which were designed to accumulate proceeds from the mining sector into the "Stabilization fund". Namely, the law imposes ceilings on government expenditure growth, budget deficit, total government debt and formulates commodity prices to be used for budgeting. These restrictions and formulations are designed to accumulate funds when commodity prices are high and allows access to it when commodity prices are low.

It should be noted that although rules for revenue management was set out in exemplary fashion, the Government found it hard to follow

it through at the implementation level. In particular, major parameters such as budget deficit and debt level had to be amended every year to accommodate ever expanding government expenditure and debt level. This practice of revising major parameters of this law shows lack of commitment from the Government to the fiscal discipline.

One of the issues that still needs to be addressed is the issue of revenue assurance. In other words, whether the government is able to make sure the country benefits from the mining sector as planned. For example, although the largest mining project Oyu Tolgoi greatly benefits the country, the project suffered from multiple cost overruns which raised politically charged discussions on the benefits of the project.

Furthermore, as was mentioned above, the Parliament of Mongolia adopted a law titled "Future heritage fund" in 2016, which sets up Mongolia's version of sovereign wealth fund. This law provides the country with the possibility of accruing wealth from the mining sector for the benefit of future generations. Since this law is relatively new, for 2018 approximately 40 million USD will be transferred to the fund. It should be noted that the source of this fund is as same as that of the stabilization fund, but only after funds are transferred to the stabilization fund, 65% of the remaining funds will be transferred to this wealth fund. It means that although legal environment for accumulating proceeds from the mining sector are in place, failure to adhere to stabilization parameters will also hamper efforts to accumulate the wealth fund.

#### 4.2.2.4. *Promotion of private sector*

State minerals policy greatly emphasizes policies encouraging private sector participation in the mining sector. Namely, the State minerals policy envisions a private sector based mining sector development and states its objective as

*The objective of the "State Minerals Policy" is to establish stable investment environment, to improve quality of mineral exploration, mining and processing by encouraging use of environment friendly and advanced techniques, technologies and innovations, to produce value-added final products and strengthening competitiveness of the country in the international market.*

Thus, the government's strategy in the mining sector is to promote the private sector by providing it with better infrastructure in terms of better investment environment and exploration data while encouraging more downstream processing and adoption of environmentally friendly equipment, technologies and innovations.

As we mentioned above, mining sector's contribution to the economy is not only restricted by the direct contribution, but also by the indirect contribution through sectors such as energy, transportation and services. These indirect contributions by the mining sector are largely provided by the private sector, except for electricity providers.

Another crucial area of interest for policymakers is promotion of the downstream processing of mining products. Although it is understandable that the Government's strategy is to promote private sector participation in the downstream processing and attract foreign investment, it is not explicitly written in strategic and policy documents and it is not clear how the government will promote private sector participation. Moreover, there is a lack of detailed vision on how the government intends to create a favorable investment environment backed up by a follow up programs to achieve these strategic visions and policy actions.

#### **4.2.3. Do government communications set reasonable expectations about the long-term nature of the gains and costs of extraction?**

In terms of calculating the long term gains and losses form the mining extraction, the strategy documents such as Sustainable development goals, State minerals policy and related programs and regulations does not reflect nor clearly convey such information.

In particular, there are no clear indications on whether gains and losses were assessed in the background documents of these policy and strategy documents.

It is becoming increasingly evident that economic impact assessments of changes in the laws and regulations needs to be conducted and conveyed to public. However, this situation is expected to be addressed in near future with the adoption of what is called law on laws. In particular, article 9.5 of this law articulates that in producing the draft law opinions from professional and research organizations, analysts, citizens should be taken into account.

#### **4.3 Comprehensiveness and Inclusiveness – consideration of the full range of issues in the management of resource wealth and development, implementation and oversight processes must be inclusive.**

##### **4.3.1. Governance of planning; environmental management; taxation; SOEs; finance; monetary issues; industrial policy; energy; infrastructure; labor and education – this chain is as strong as its weakest link**

**Does government ensure participation in the resource strategy development, implementation and oversight by:**

All government bodies

Actors outside the executive branch

Resource wealth management is not constrained only to the mining sector. Since the decision with regards to the resources are diverse, there are many players in the decision making chain and its implementation. Decisions will have to be taken at various stages of resource exploration, mining and management of its proceeds. In particular, the chain of decision making processes involves governance of planning, environmental management, taxation, state owned enterprises, finance and revenue management, industrial policy, energy, infrastructure, labor and education.

Along this chain of decisions many policy making bodies conduct policies that should be consistent with the strategic and policy documents and its follow up programs and regulations. This means that this chain of decision making can be vulnerable at its weakest link and is suspect to break downs in communication, coordination and implementation.

It should be noted that the Minerals Law clearly stipulates which government bodies responsible for decision making, implementation and oversight. In particular, the law specifies which government bodies are responsible for planning, implementation and supervision on each of the steps.

At each step we identify key players and their responsibilities as follows:

**Governance of planning:** Parliament of Mongolia is the highest decision making body in terms of designing and adopting the strategy and policy on resource governance and Ministry of Mining is responsible for devising follow up programs and regulations.

**Environmental management:** Within the strategy and policy documents approved by the Parliament and respective laws on environment protection, the Ministry of Environment is responsible for devising follow up regulations and programs on the environment protection.

**Taxation:** Ministry of Mining and Ministry of Finance is responsible for collecting taxes and royalties and ensuring revenue assurance.

**State owned enterprises:** A government agency responsible for state owned enterprises is in charge of appointing the management and overseeing the performance of these companies. Also, as we mentioned

above Erdenes Mongol is a state owned mining company which is the parent company of the state owned mining companies.

**Finance and monetary issues:** In accordance with the Minerals Law, the Parliament is responsible for the decision on Government ownership, taxes and royalties for strategically important mines and the Ministry of Finance is responsible for managing proceeds from the resource sector.

**Industrial policy:** As we mentioned above, Mongolian government's strategy is to diversify the economy as well as to develop the downstream processing of mining product. Currently, the Ministry of Mining and Heavy industry is responsible for devising and implementing the industrial policy in the country.

**Energy and Infrastructure:** Policies in energy and infrastructure such as transportation are devised by the Ministry of Energy and Ministry of Roads and Transportation and implemented by these ministries.

**Labor and education –** Ministry of Education is responsible for devising policies for retraining labor for the mining sector and carrying it out through its TVET programs. It should be noted that with the intensity of the need for mining sector workers mining companies themselves and international organizations such as Millennium Challenge Corporation and Asian Development Bank played crucial role in retraining workers.

As we can see, the management of mining resources encompasses decision making from diverse policy making bodies. It should be noted that the Parliament of Mongolia is the highest strategy and policy making authority responsible for overseeing the implementation and efficiency of these strategies and policies. Moreover, the Government of Mongolia is the crucial authority at the implementation and oversight stages. NRGIs strongly recommends that this chain of decision making should be strong and operational at every link and

Unfortunately, there has not been any assessment on the decision making, implementation and oversight of this chain. This is a highly important issue for further analysis with great policy implications.

#### **4.3.2. Does the resource strategy consider all of the links involved in harnessing extractive resources for development? Are there any notable gaps?**

As we can see all the links along this chain of decision making are covered with corresponding decision making body and at the strategic and policy making level there seems to be no obvious or notable gaps. However, in accordance with "IGF Mining policy framework assessment: Mongolia" the country's assessment scored as low in the

implementation of Environmental Management and Post – Mining Transition, whereas it scored medium in implementation on Legal and Policy Environment, Financial Benefit Optimization, Socio – Economic Benefit Optimization and Artisanal and Small Scale Mining.

It should be pointed out that this analysis is restricted to these six major issues in the mining policy, which does not cover all the links we discussed.

#### **4.3.3. Does the resource strategy identify priority areas in the chain for strengthening?**

As we mentioned above strategic papers prioritize the extractives sector, but detailed follow up policy papers does not prioritize areas in the policy decision making chain. This is not because policymakers are not aware of gaps and omissions in their decision making, but rather this chain analysis is a new concept and because it is new there has not been a proper assessment carried out along this chain of decision making.

Therefore, it is highly advisable to assess each link of this decision making process and identify weak links in this chain. This concept of identifying weakest link in the decision making chain is an attractive tool for policymakers and analysts for assessment and hence should be explored more comprehensively.

#### **4.3.4. Does policymaking happen in a joined up way or does decision-making in different parts of the chain take place in isolation?**

**Does the final strategy demonstrably take into account the inputs of these diverse actors?**

**Does the government recognize and enable strong oversight of the strategy? Does the strategy include oversight roles for actors within the executive and beyond?**

The Minerals Law clearly lays out which ministries and agencies are responsible for corresponding decisions and how accountability works within this structure. It means that in accordance with this law decision are being taken in coordinated manner.

However, NRG提出 that the coordination of governance and decision making should go beyond and suggests that there should be an overarching decision making process that would cover all links in the decision making process to ensure that weak links are addressed.

Strategic and policy documents that are being assessed in this report are not clear how governance of decision making across diverse issues of managing resources sector should be coordinated.

## 5. CONCLUSION

In this report we used National Resource Governance Institute's benchmarking of the national mining development strategy, which assesses the documents along the four lines. In particular the documents should 1. be cognizant of reality, 2. consider the long term approach, 3. be comprehensive and 4. be inclusive.

In this report, we evaluated major pieces of legislations along these issues as well its implementation and oversight. In particular, we concentrate on the first two issues. The remaining two will be assessed in the follow up update of this report.

In particular, we evaluate following major strategy documents. The most overarching and long term development strategy document is the Sustainable development goals, was adopted in 2016 by the Parliament of Mongolia. This document sets up the country's major developmental goals up to 2030. The next sector specific strategic document is "State Minerals Policy (SMP) 2014 – 2025", which was adopted in 2014 by the Parliament. The SMP details major principles and policies in the development policies of the sector in the long run. In the medium term we evaluated the Government action plan for 2016 – 2020.

NRGI advises that these strategic documents should be cognizant of the reality. That is these documents should set realistic expectations about the role of the mining sector. We noted that these documents in itself does not directly reveal the country's estimations of resource reserves and assumptions on pricing. These documents indeed reveal that the authorities cognizant of the fact the country is endowed with rich natural resources, but does not provide specific guidance on its resource wealth. Furthermore, we look at supporting documents of these policy papers for those assumptions. We emphasized that "Annual bulletin of mining and geology" is the major document that conveys information about reserves and production of the sector. It should be noted that Mongolia is indeed a country richly endowed with natural resources, but we also noted since there is a lack of supporting documents to the major pieces of development strategy documents, it makes it difficult to have a clear understanding about the endowment. Moreover, we also noted that there is a gap that needs to be addressed in terms of estimation of the country's resource wealth and how to make it consistent with the development strategy documents. Estimation of the resource wealth will benefit the population and policymakers, investors and other stakeholders in terms of forming expectations about the sector and its role in the economy and society.

Based on clear understanding about the resource endowment, the country should address its dependency on the sector. We emphasized

that all strategic documents promote the diversified economic structure. The diversification policies will be maintained by promoting downstream processing of the mining products as well as by promoting development of non-mining sectors. Specifically, the Government of Mongolia is aiming to achieve these goals by conducting a series of policies by reducing costs of production and formulating and implementing heavy industry development plan. However, we noted that officially ratified detailed programs that promotes economic diversification and development of non-mining sectors are not fully developed yet or are in the process of being developed. Moreover, prioritization of specific plans and detailed feasibility studies, impact assessments are not fully developed yet, which makes it difficult to get a clear picture in what steps the goals will be achieved. Because of lack of analytical background to the policy decisions, the Parliament approved the "Law on legislation", which requires policy proposals to have a professional assessments attached on benefits and costs of policy actions. It remains to be seen how this requirement is implemented in practice.

National development strategy documents should be devised with the long term view. We noted that documents such as "Sustainable development goals" and "State minerals sector policy" are clearly designed with the long term view. We noted that the long term impact of the sector on future generations is dependent not only on developing and benefiting from the current known resource deposits and projects, but also on how the country handles pace of exploration and mining licenses, state's fiscal terms with mining companies on projects, the management of revenue from the sector and the promotion of private sector. Currently, the Government is in the process of evaluating various policies on exploration and mining licensing and opening up new areas for more explorations. It should be noted that although there are various laws that limit the expansion of exploration areas, but the policy is not clear what governs these opening of new areas. In terms of fiscal Mongolia benefits from the mining sector by imposing royalties, taxes, tariffs on exports and dividends from the state ownership. Indeed, this is one of the highly discussed topics in the public. We noted that policymakers declared that the country will be benefitting from the mining sector through its state owned mining companies, but there is a gap in terms of clearly determining what criteria constitutes "strategically important deposit" that basically determines government's policy towards how the country will benefit from the sector.

We noticed that "Fiscal stability law" which was adopted in 2012 and went in full effect in 2013 is an exemplary regulation in terms of

managing revenues from the mining sector. However, we also noted that there is a lack of discipline in terms of maintaining and implementing the law, which can be seen from numerous amendments to the law since the law was adopted. Moreover, the government's strategy in the mining sector is to promote the private sector by providing it with better infrastructure in terms of better investment environment and exploration data while encouraging more downstream processing and adoption of environmentally friendly equipment, technologies and innovations.

In general, throughout this assessment we emphasized that there is a lack of detailed vision on how the government intends to implement and achieve these strategic visions and policy actions.

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