

# Human rights impact assessment of mining and transportation of coal from Tavan Tolgoi





# **Human rights impact assessment of mining and transportation of coal from Tavan Tolgoi**

**2018**

## **About the report**

This report presents the findings of “Human rights impact assessment of mining and transportation from Tavan Tolgoi” that was carried out by Mongolian Institute for Innovative Policies (MifIP) and commissioned by the National Human Rights Commission of Mongolia (NHRCM).

This human rights impact assessment became possible thanks to the financial support from the project “Environmental governance for sustainable natural resource management”, jointly implemented by Swedish Environmental Protection Agency and United National Development Programme, and the support and participation of NHRCM and the Tsogttsetsii soum authorities.

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Ulaanbaatar

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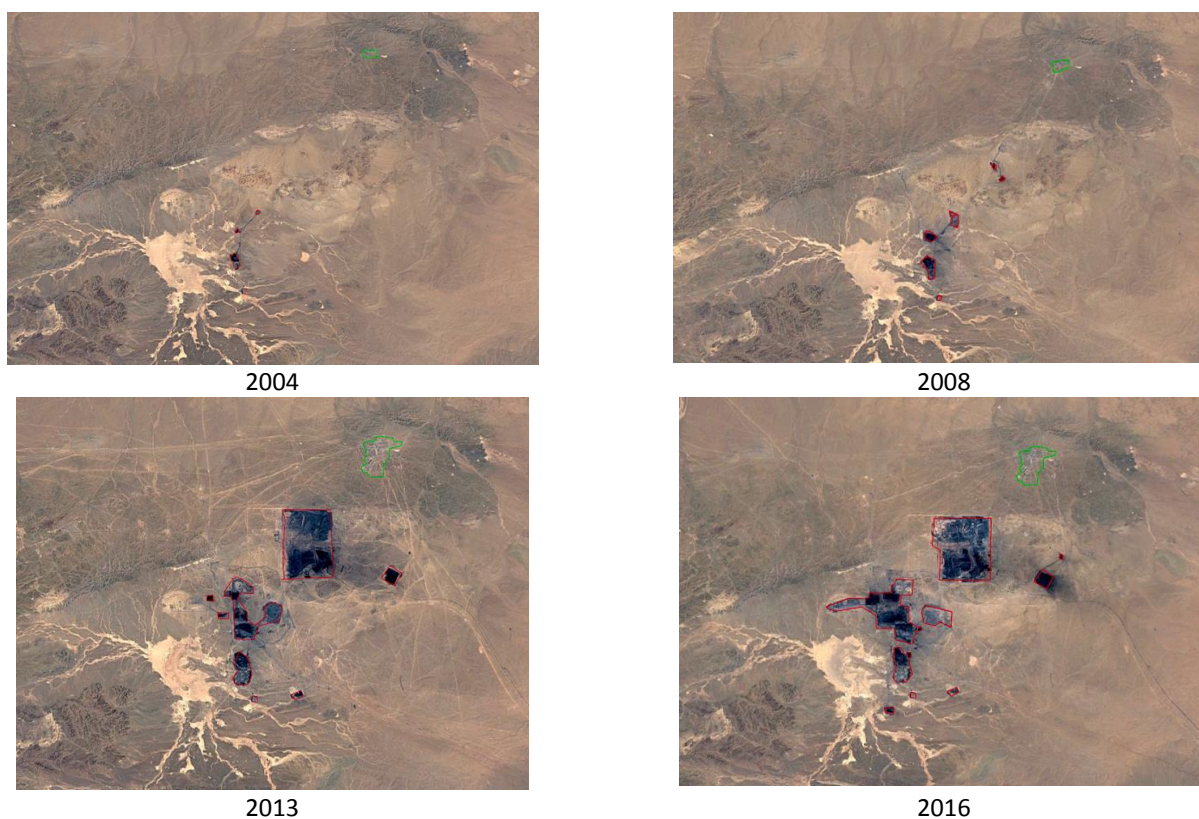
## 1. Introduction

Mining and transportation of coal from the Tavan Tolgoi coal deposit increased rapidly in the past decade. International and national organizations and researchers have warned of serious and broad environmental and social impacts. In 2012, the assessment implemented by NHRCM and UNDP concluded: “[...] Mining licenses cover 50% of the territory of Tsogttsetsii soum. Approximately 80% of the soum’s pastureland show different levels of degradation. There are three large mining operations and more than 50 truck companies transporting coal on unpaved roads. In this situation, it has become very difficult for residents and herders of Tsogttsetsii soum to carry out pasture-dependent livestock husbandry activities. The survey of soum residents shows that their human rights, including right to life, right to live and work in a healthy and safe environment, right to favourable conditions of work, right to possess and own land, right to freedom of movement and residence, right to health, right to participate in social life, and right to freedom of opinion and expression, are being violated by the impacts of mining activities”.<sup>1</sup>

**Figure 1. Footprints of mining activities at Tavan Tolgoi deposits**

**(Source: Google Earth)**

*(Mine sites are marked by red lines and Tsogttsetsii soum centre by green lines)*

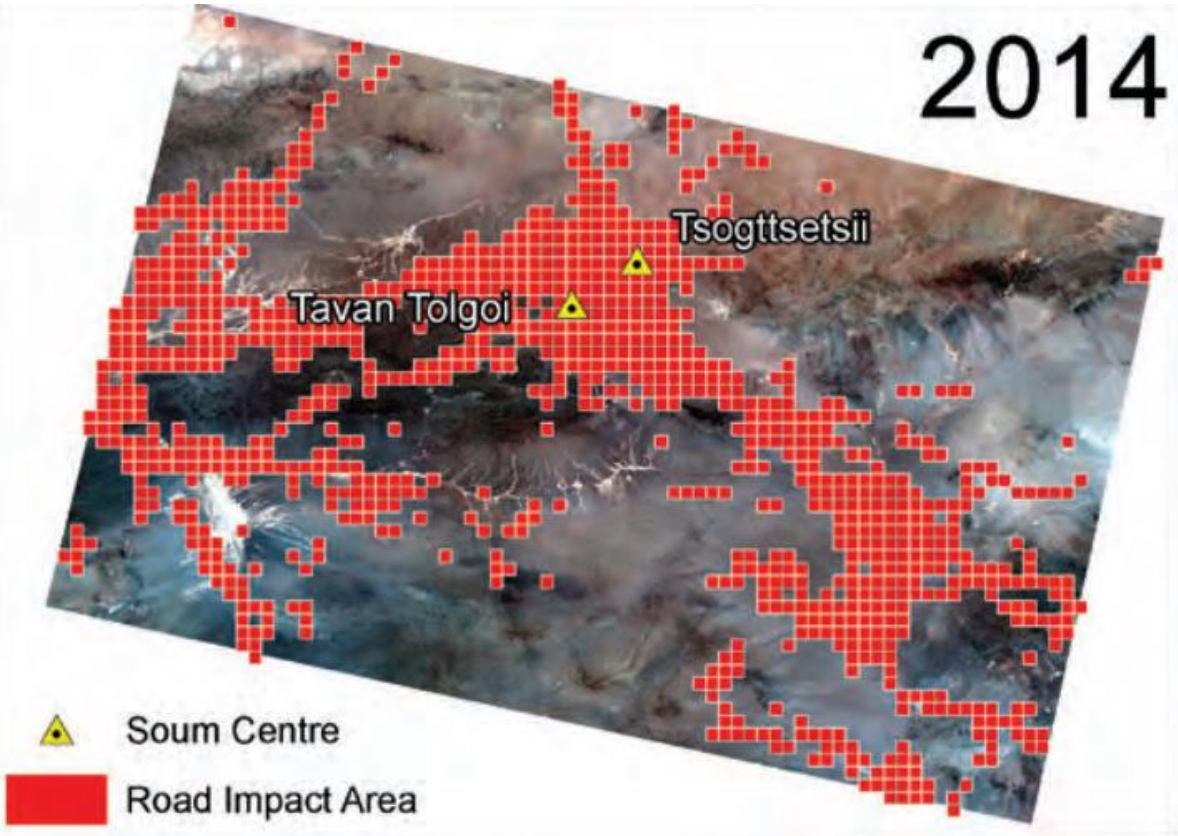


In 2015, a study conducted by a research team of Australian and Mongolian researchers warned of worsened pasture degradation, dust, and water scarcity, among other issues in the Tavan Tolgoi area,

<sup>1</sup> Нийгмийн бодлого, хөгжлийн судалгааны хүрээлэн. Монгол Улс дахь уул уурхайн үйл ажиллагаанаас хүний эрхэд үзүүлэх нөлөө: 2012 Судалгааны тайлан. ХЭҮК, НҮБХХ, 2012 он. 100-р хуудас.

and presented concrete recommendations to minimize the social and human rights impacts of mining and coal transportation activities.<sup>2</sup> The study highlighted that an increased number of permitted and informal dirt roads related to mining activities in Tavan Tolgoi caused extensive soil erosion and degradation in the surrounding areas of the Tsogttsetsii soum centre and along the road from Tavan Tolgoi mines to the Mongolia-China border.

**Figure 2. Extent of road areas in the period between 2003 and 2014 (Source: Sustainable Minerals Institute)**  
(Areas highlighted un red are road impact areas with 3 or more roads identified within in a 2 km grid)



Coal export from Tavan Tolgoi mines to China increased rapidly in 2009-2012; however, it began to decrease in 2013 due to depressed coal prices and demands in China. Coal prices began to surge in February 2016 and Mongolia’s coal export, most of which rests with Tavan Tolgoi, reached 25 million tons by the end of the year. The coal export continued to grow and reached 33 million tons in 2017.<sup>3</sup>

**Figure 3. Amount of coal exports from Mongolia /million tons/ (Source: MMHI)**

<sup>2</sup> Тогтвортой эрдэс баялгийн хүрээлэн. Хариуцлагатай уул уурхай Монголд: Хамтын зүтгэл. 2016 он  
<sup>3</sup> УУХҮЯ, АМГТГ. Эрдэс баялгийн салбарын статистик мэдээ. 2017 оны 9 сар.

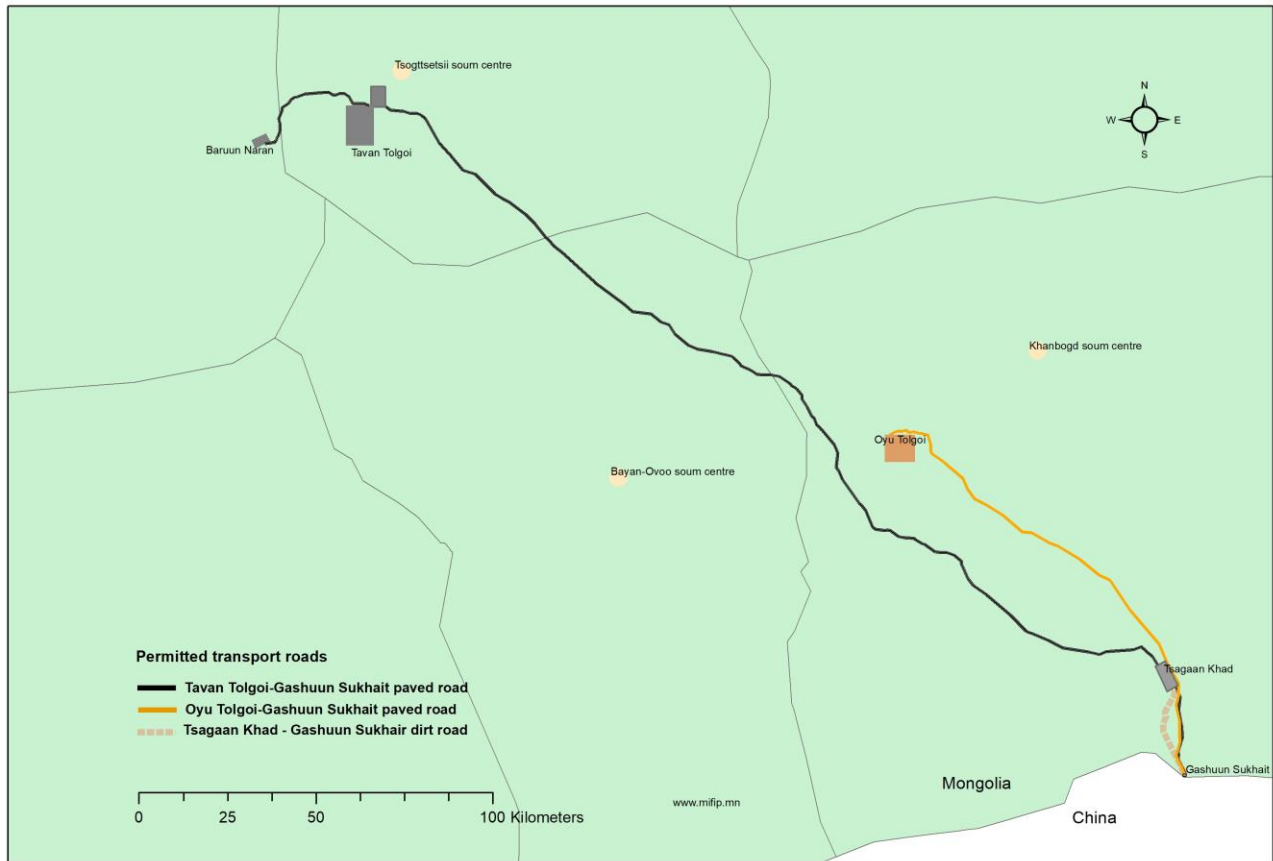


As the livelihood of many local people and earnings of business entities in Tsogttsetsii soum have become increasingly dependent on Tavan Tolgoi mines, they were hit hard by the recession of the coal industry in 2014-2015. The surging coal export from Tavan Tolgoi mines in the past three years has made significant contributions to the local economy. However, the soum authorities and residents witnessed the exacerbation of the problems of adequately managing environmental, social and human rights impacts, which were warned in the previous studies, and have approached the relevant national and international organizations to conduct adequate assessments and take appropriate measures.

The routes for coal export from Tavan Tolgoi to China is 240 km long and its impact goes 41 km wide in some areas.<sup>4</sup> There are the Tavan Tolgoi-Gashuunsukhait paved road, the track foundation of Tavan Tolgoi-Gashuunsukhait railway, unpaved roads previously used for coal transport, an unpaved road currently used for coal transport, and the paved road for exporting copper concentrates from the Oyu Tolgoi mine.

<sup>4</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ. Дэлхийн банкны санхүүжилтээр хэрэгжиж байгаа “Уул уурхайн дэд бүтцийн хөрөнгө оруулалтыг дэмжих” төсөл, Байгаль орчин, ногоон хөгжил, аялал жуулчлалын яам. 2015 он. 86-р хуудас.

**Figure 4. Permitted roads for coal transportation from Tavan Tolgoi mines to the Gashuun Sukhait border station**



The coal road to the Gashuunsukhait border station goes through the territory of three soums of Umnugobi aimag, namely Tsogttsetsii, Bayan-Ovoo, and Khanbogd. Furthermore, the adverse environmental and social impacts of coal loading and unloading activities and population influx in the Tsagaan Khad customs control zone located in the territory of Khairkhan bag of Khanbogd have become a chronic problem since 2010. The operation of the Tsagaan Khad customs control zone was suspended by the government in 2013 and 2017 due to the above-mentioned condition; however, it has made decisions to resume the operation in spite of major improvements.

As of March 2017, 4500 trucks of 71 business entities were involved in coal transportation on the Tavan Tolgoi-Gashuunsukhait road.<sup>5</sup> In June 2017, a 40-50km long queue of trucks emerged on this road, resulting in a range of problems such as sleeping many days in the cabins and coal transport on unpermitted dirt roads. Moreover, increased shipments of coal gave rise to more adverse environmental and social impacts on the vicinity of the Tsagaan Khad customs control zone.

<sup>5</sup> АТҮТ. Гашуунсухайт, Ганц модны чиглэлийн тээврийг “ХОНОГИЙН НЭГДСЭН ГРАФИК” -т оруулжээ. 2017 оны 3 сарын 28. <https://www.transdep.mn/cat.php?articles/642.html>



From July 2017, the truck border crossing radically declined, causing more wait times and a 130km-long queue. A number of factors caused this situation. The Chinese border station reduced the number of border control gates for coal trucks and tightened inspections. The number of coal transporting trucks rose to 6000. The so-called “Longest” route or transportation of coal directly from Tavan Tolgoi mines to Gashuunsukhait, had been opened. The overarching coordination of coal transporting activities was weak.

**Photo 1. A 130km-long queue on the coal road to Gashuun Sukhait (Source: Reuters, October 29, 2017)**



At the time, coal transportation on unpermitted dirt roads dramatically increased, causing degradation of pasture land in Javkhlant bagh of Khanbogd soum. In order to stop the coal trucks, local government authorities, civil servants, citizens, herders, and police officers organized joint patrolling. In consultation with local herders, the soum authorities received assistance from the Oyu Tolgoi company to blockade side roads and animal crossings.<sup>6</sup>



**Photo 2. Trucks traveling in off-road areas, Javkhlant bagh, Khanbogd soum September, 2017 (Source: U.Battogtokh)<sup>7</sup>**

<sup>6</sup> Орд.мн. Нүүрс тээврийн замыг хаалаа. 2017 оны 11 сарын 30. <http://www.ord.mn/index.php?newsid=13568>

<sup>7</sup> <https://www.facebook.com/uulii.battogtoh/videos/1957128767867209/>

On November 29, 2017, The Government of Mongolia issued “320<sup>th</sup> Resolution” to address worsening Tavan Tolgoi coalroad situation, which included the following key measures:

- To permit coal transportation by two routes, from the Tavan Tolgoi coal mines to the Tsagaan Khad customs control zone and from the Tsagaan Khad zone to the Gashuunsukhait station, until the crossing capacity of the border station increases;
- To coordinate coal loading and coal transportation activities in accordance with the number of vehicles crossing the border station;
- To permit coal transportation on a local dirt road from the Tsagaan Khad customs control zone to the Gashuunsukhait border station and take measures to minimise the environmental impacts of coal loading and unloading activities in the customs control zone.
- To allocate funds for purchasing and operating a modern X-Ray machine and control equipment at the Gashuunsukhait station, in accordance with relevant regulations;
- To require relevant state and local government authorities to undertake regular compliance activities regarding environmental obligations of business entities and organizations operating in the customs control zone.

In early 2018, the number of licensed coal trucks became 9000. Coal trucks on the roads to the Gashuunsukhait border station formed a 20km queue, which is the distance from the Tsagaan Khad zone to the border. A range social problems and human rights violations due to long queues at the loading and unloading areas of the mines and customs control zone and a prolonged period of time that drivers spent in on the road and in the queue. These issues were reported by some media outlets and raised by social media.

Given the circumstances, the National Human Rights Commission of Mongolia (NHRCM) initiated a project on conducting a human rights impact assessment of coal mining and transportation activities from Tavan Tolgoi mines. The project became possible thanks to support of the project “Environmental Governance for Enhancing Sustainable Natural Resources Management” implemented by Sweden Environmental Protection Agency and United Nations Development Programme (UNDP). The NHRCM developed the terms of reference of the assessment and selected the research team through an open tender.

## 2. What is Human Rights Impact Assessment (HRIA)?

On June 16, 2011, the United Nations Human Rights Council endorsed the Guiding Principles on Business and Human Rights (UNGPs), to operationalise the Protect, Respect and Remedy Framework.<sup>8</sup> UNGPs constitute a guiding framework for conducting HRIAs.

UNGPs are based on the following three principles:

- **First principle – To protect.** The state should protect against human rights abuses committed by third parties, including business, through appropriate policies, regulation and adjudication.
- **Second principle – To respect.** Business entities should act with due diligence to avoid infringing on the rights of others. This draws on “Do not harm” principle. Business entities should avoid adverse human rights impacts through risks assessments, impacts assessments and consistent compliance with laws and regulations. Business entities’ indirect involvement and association with activities causing human rights infringement is the breach of this principle.
- **Third principle – To redress.** Effective judicial and non-judicial grievance mechanisms should be accessible for people whose human rights were affected. By law, the state should be responsible for taking measures to protect the rights of those affected, compensate for damages, and hold the duty bearers accountable for failures through judicial and administrative mechanisms. Furthermore, the state should establish systems for providing citizens information and other assistance and require companies to have effective grievance handling mechanisms. Companies should have internal mechanisms for receiving complaints and requests and addressing them through dialogue and engagement.

HRIA is a process that identifies human rights impacts of policies, programs, projects and activities. The principal objective of HRIA is to avoid human rights infringement by identifying impacts and determining ways to avoid and minimise potential adverse effects.<sup>9</sup>

HRIA is based on the following pillars:

- Codified international human rights standards and norms
- Stakeholder participation and equal rights in assessment
- Transparency

HRIAs can be conducted before (ex ante), after (ex post), or during the implementation of a project or activity. Prior to implementation or “ex ante” assessments are part of the process of planning, developing, and getting approvals for project activities and identify potential impacts. Post-implementation or “ex post” assessments aim to identify real impacts occurred during and after the implementation of a project or activity and ways to remedy.

HRIAs can be internal and external. Internal impact assessments are conducted as part of internal monitoring and assessment of an organization, which means that HRIA is a component of its code of

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<sup>8</sup> UN Human Rights Council, “Guiding Principles on Business and Human Rights: Implementing the United Nations ‘Protect, Respect and Remedy’ Framework” 2011

<sup>9</sup> James Harrison. “Measuring Human Rights: Reflections on the Practice of Human Rights Impact Assessment and Lessons for the Future.” Warwick Law School Legal Studies Research Paper. 2010, Vol. 26.

conduct and management systems. Internal assessments can include both ex ante and ex post assessments. External assessments are conducted by independent organizations and experts.

### 3. The objectives and scope of Tavan Tolgoi's HRIA

The Terms of Reference for “Human Rights Impact Assessment of Coal Mining and Transportation from Tavan Tolgoi Mines”, developed by National Human Rights Commission of Mongolia, defined the following four main thematic areas:

- To identify impacts of mining activities on local citizens' rights such as rights to a healthy and safe environment and rights to work, assess the impacts, and develop recommendations for preventing and minimising adverse impacts;
- Assess the impacts of mining and transportation of coal on herders' rights to live and work in a healthy and safe environment;
- Assess the implementation of the rights of workers involved in coal transportation, including the right to live and work in healthy and safe environment;
- Assess the human rights and social impacts and risks posed by an influx of mobile (transient) populations in Tsogttsetsii soum.

Accordingly, the Implementer organization (MIFIP) identified direct and indirect human rights impacts of mining and coal transportation activities in this region, in conjunction with environmental (air pollution, dust, soil degradation, water resources and supply) and social (health, livelihood, culture, social relationships, public services).

This assessment grouped impacted right-holders into local citizens, herders, and coal truck drivers and workers, and it focused on human rights impacts of activities of mining companies, their contractors, coal transportation companies, and relevant government agencies.

The assessment aimed at determining actions to prevent and minimise adverse human rights impacts, drawing on stakeholder engagement and consultative meetings, and developing collaborative solutions based on facts and evidence. Therefore, organizing multi-stakeholder consultative meetings and seeking fact-based joint solutions constituted an important component of the assessment.



**Photo 3. Multi-stakeholder meeting on preliminary findings of the assessment (Tsogttsetsii soum, June 2018)**

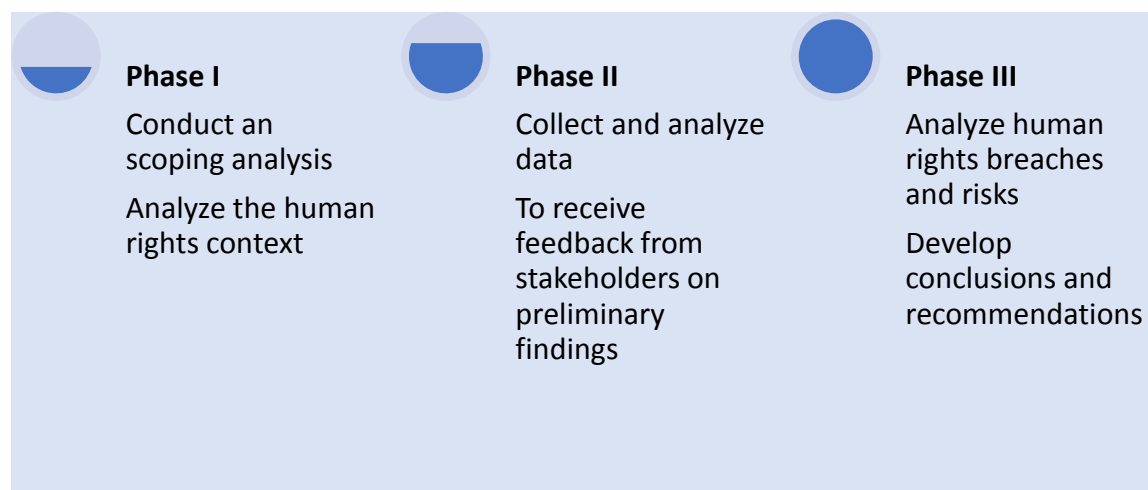
*(Governor of Tsogttsetsii soum O.Badarch and participants from local government, mining companies and the local community)*

## 4. Methodology of assessment

The implementation of the assessment involved the following steps:

1. Developing the framework of assessment and the plan of activities
2. Developing the plan of collaboration with NHRCM
3. Conducting the review of relevant legal documents, standards, and previous studies
4. Organizing fieldwork in Umnugobi aimag and collecting quantitative and qualitative data
5. Presenting thematic reports of the assessment to stakeholders and receiving their feedback
6. Completing the final report and presenting conclusions and recommendations

The assessment was conducted in the following three main phases:



The main activities undertaken in each phase are presented below.

### Phase I

- **Conduct an scoping analysis:** We examined key stakeholders, especially impact right-holders and duty bearers, the scale of impacts, and relevant policies and measures, based on review and analysis of previous research, data, and expert opinions on mining and coal transportation activities from Tavan Tolgoi mines and their environmental, social and human rights impacts.

Several previous studies focusing on Tavan Tolgoi served as important sources for defining the scope of human rights impacts and developing policy recommendations. Especially, the following assessment works were notable:

- “Human rights impacts of mining activities in Mongolia”, the research report prepared for NHRCM in 2012. <http://mn-nhrc.org/index.php?newsid=5292>
- A study on the impacts of mining in the Tavan Tolgoi region on local environment, communities, traditional livelihoods, and culture conducted by Sustainable Minerals Institute of the Queensland University in 2015. <https://www.csr.uq.edu.au/research/adra-home>
- First draft of “Cumulative impact assessment of Tavan Tolgoi mines” prepared in 2015 for the Mongolia mining infrastructure investment support project funded by the World Bank. <http://www.minis.mn/9.CIA%20report%20TT.pdf>

In addition, other studies, including a study on the implementation of children’s rights in the Tavan Tolgoi region (UNICEF, 2017) and a scoping study of resettlement of Tsagaan-Ovoo bagh (World Bank, 2015), offered important information.

- **Analyze the human rights context:** Human rights areas as a priority for assessment were identified based on the context analysis.

### Хүснэгт 1. Norms in international and national human rights standards and documents

(Red rows are human rights prioritized for this assessment )

	Human rights	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural Rights	The Constitution of Mongolia
1.	Right to life	Article 3	Article 6		Article 16.1
2.	Right to living in a healthy and safe environment				Article 16.2
3.	Right to liberty and personal security	Article 3	Article 9		Article 16.13
4.	Right to freedom from slavery, freedom from forced labour	Article 4	Article 8		Article 16.4
5.	Right to freedom from torture or cruel, degrading or inhuman treatment or punishment	Article 5	Article 7		Article 16.13
6.	Right to recognition as a person	Article 6	Article 16		Article 14
7.	Right to equality before the law	Article 7	Article 14, 26		Article 14
8.	Right to freedom from any propaganda for war and any advocacy of national, racial or religious hatred that constitutes incitement to discrimination, hostility or violence		Article 20		
9.	Right to an effective remedy	Article 8	Article 9		Article 16.12
10.	Right to a fair and independent trial	Article 10	Article 9, 14		Article 16.14
11.	Right to freedom from being guilty of any criminal offence on account of any act or omission which did not constitute a criminal offence, under national or international law, at the time when it was committed, and freedom from receiving a heavier penalty be imposed than the one that was applicable at the time when the criminal offence was committed.	Article 11	Article 15		
12.	Right to freedom from interference with privacy, family, home or reputation	Article 12	Article 17		Article 16.13
13.	Right to freedom of movement and choosing a place of residence	Article 13	Article 12		Article 16.18
14.	Right to asylum in other countries from persecution	Article 14			
15.	Right to a nationality	Article 15			Article 15

16.	Child's right to care and assistance	Article 25	Article 10, 24	Article 10	Article 16.11
17.	Right to marry and found a family	Article 16	Article 23	Article 10	Article 16.11
18.	Right to own property	Article 17			Article 16.3-р зүйл
19.	Right to freedom of thought, conscience and religion or belief	Article 18	Article 18		Article 16.15
20.	Right to freedom of information, opinion and expression	Article 19	Article 19		Article 16.16
21.	Right of freedom of peaceful assembly	Article 20	Article 21		Article 16.16
22.	Right to freedom of association	Article 20	Article 22		Article 16.10
23.	Right to participate in government and in free elections	Article 21	Article 25		Article 16.9
24.	Right to social welfare and social insurance	Article 22		Article 9	Article 16.5
25.	Right to work	Article 23		Article 6	Article 16.4
26.	Right to the enjoyment of just and favourable conditions of work	Article 23		Article 6 Article 7	
27.	Right to form and join trade unions and right to strike	Article 23	Article 22	Article 8	
28.	Right to an adequate standard of living	Article 25-р зүйл		Article 11	
29.	Right to health	Article 25			Article 16.2, 16.6
30.	Right to education	Article 26		Article 13	Article 16.7
31.	Right to take part in cultural life; to enjoy the benefits of scientific progress and its applications; and to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.	Article 27		Article 15	Article 16.8
32.	Right to self-determination			Article 1	
33.	Right to humane treatment in detention		Article 10		
34.	Right to freedom from imprisonment for inability to fulfil a contract		Article 11		
35.	Right of an alien to submit the reasons against his expulsion and to have his case reviewed by the competent authority or a person or persons especially designated by the competent authority.		Article 13		
36.	Right of ethnic, religious and linguistic minorities in community to enjoy their own culture, to profess and practise their own religion, or to use their own language.		Article 27		
37.	the right to submit a petition or a complaint	Article 8	Article 9		Article 16.12
38.	Right to water and sanitation	Resolution 64/292 of the United Nations General Assembly dated 28 July 2010			

## II шат

- **Collect and analyze data:** The assessment team collected data in Ulaanbaatar, Umnugobi aimag and Gants Mod Border Station in Bayannuur aimag, Inner Mongolia.

**Table 2. Data collection methods and sources**

Methods of data collection	Sources
Review of secondary sources	Corporate documents Assessments documents Research and statistical information Media reports and interviews Information of air quality and other monitoring activities



Interviews (50 people)	Local authorities, citizens, herders, coal truck drivers, government employees, company representatives and workers
Survey (500 people)	Citizens of Tsogttsetsii soum centre and Tsagaan-Ovoo bagh (350) Coal truck drivers (150)
Group interviews (8 times)	Women, residents of Tsagaan-Ovoo bagh, high school students, government employees, self-employed people, and truck drivers
Observation (March and June, 2018)	Tsogttsetsii soum centre and Tsagaan-Ovoo bagh, Tavan Tolgoi mines, the coal road, camps along the road, pasture land, Khanbogd soum centre and Javkhant bagh, Tsagaan Khad customs control zone, Gashuunsukhait border station, Gants Mod border station
Analysis of information in social media	Information related to human rights issues shared in a Facebook group of coal truck drivers, information shared by Gashuunsukhait road maintenance company and other relevant organizations

Additionally, we analyzed comments and feedback expressed at the multi-stakeholder consultative meetings.

### Phase III

- In each thematic areas, human rights violations and risks were identified based on detailed analysis and the order of priority was defined impact and urgency. These included the following steps:

Developing an explanatory note on each human right and drawing a conclusion on important influencing factors, impacts, and risks related to it;

Articles in international and national human rights documents	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural Rights	The Constitution of Mongolia
Affected human rights:				
<b>Brief explanatory note on a human right</b>				
<b>Conclusion on impacts and risks</b>				

The following criteria and scales from 1 to 3 were used to determine the order of priority of human rights in each thematic areas.

#### S – Severity of impacts (1-3)

- (3) Possible to cause severe harms to human life and health
- (2) Adversely affecting the basic conditions of livelihood and damages to properties
- (1) Other effects

#### E – Extent of impacts (1-3)

- (3) More than 50% of people who can possibly be affected

- (2) 10-50% of people who can possibly be affected
- (1) Up to 10% of people who can be possibly affected

R – Likelihood of remediation (1-3)

- (3) Very low: Remediation of human rights abuses depend on many factors, likelihood of disapproval of remediation efforts is high, and no or little possibility for compensation and restoration exist;
- (2) Medium: Remediation of human rights abuses depend on several factors, likelihood of approval of remediation efforts is good, and there are possibilities for compensation and restoration;
- (1) High: Remediation of human rights abuses depend on a few factors, likelihood of approval of remediation efforts is high, and a high possibility for compensation and restoration exist;

O – Likelihood of reoccurrence of rights abuses (1-3)

- (3) High likelihood of occurrence of human rights abuses
- (2) Medium likelihood of occurrence of human rights abuses
- (1) Low likelihood of occurrence of human rights abuses

Priority	Affected human rights	S	E	R	O
I					
II					
III					
IV					

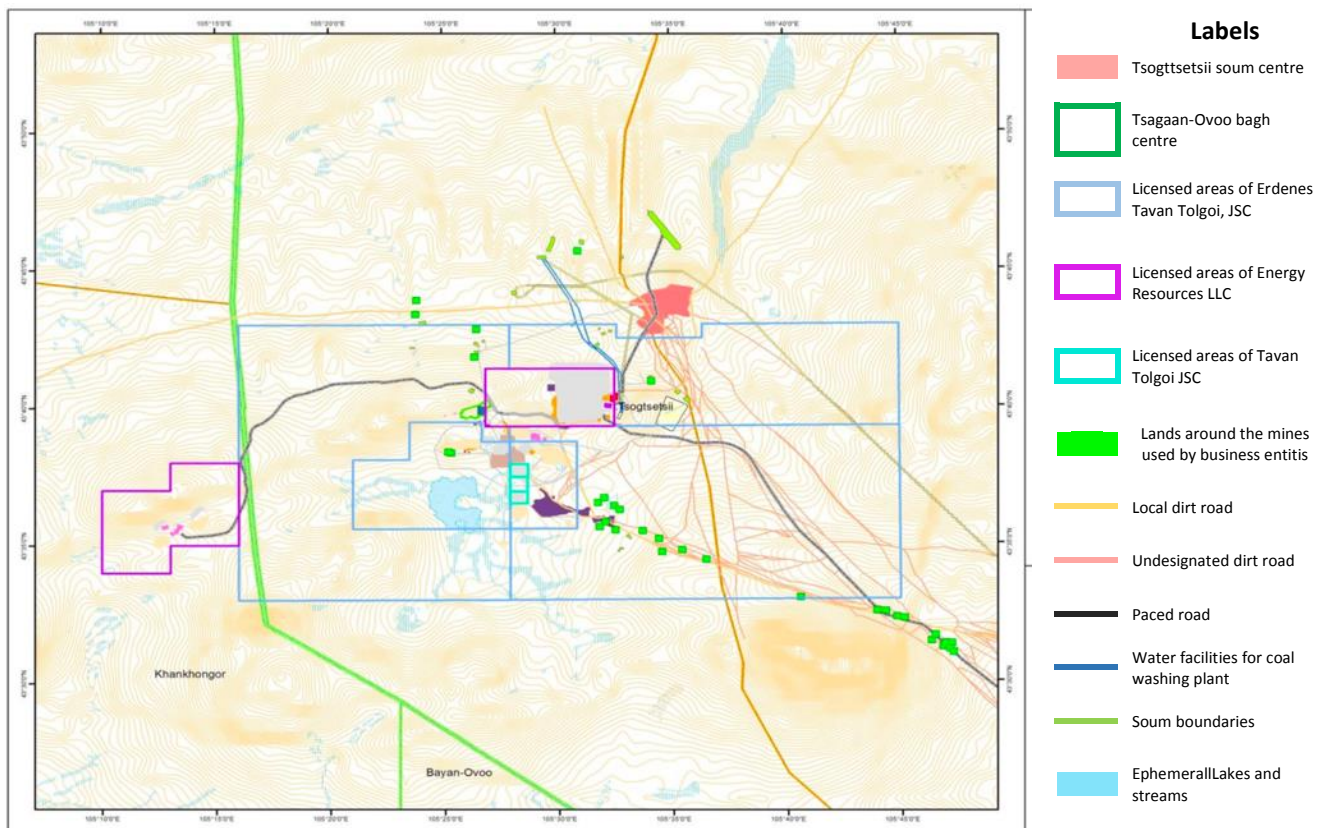
- The assessment team made conclusions and recommendations on each thematic issue and overall findings.

## 5. Human rights impact assessment of Tsogttsetsii soum residents

### Coal mining activities at Tavan Tolgoi mines

The Tavan Tolgoi group of mines is located in the territory of Tsogttsetsii soum of Umnugobi aimag (province), 540 km from Ulaanbaatar city, 240 km from the Mongolian-Chinese border, and 90 km from the aimag capital Dalanzadgad. As of today, the closest mine site to Tsogttsetsii soum is Ukhaa Khudag, which is located about 5 km from the soum centre.

**Figure 5. Mining leases and sites in the Tavan Tolgoi area (Source: Tavan Tolgoi Cumulative Impact Assessment)**



The Tavan Tolgoi deposit includes an estimated 7.4 billion tons of coal, out of which the main reserve is coking coal constituting 5.1 billion tons; and the rest is high quality of thermal coal constituting 1.9 billion tons. The total amount of coal exported to China in 2017 exceeded the past years' exports and reached 17 million tons. If market conditions are favourable, it is possible to mine and transport the coal from Tavan Tolgoi mine to China for the long term. However, depending on the world's political and economic situation, Chinese state policy and coal market change, there is a risk of delaying or stopping coal mining activities. Currently, three companies hold mining licenses to operate at the Tavan Tolgoi deposit, namely state-owned "Erdenes Tavan Tolgoi" JSC, local state-owned "Tavan Tolgoi" JSC and privately owned "Energy Resources" LLC.

The exploration of Tavan Tolgoi group mines started in 1953, and since 1966 the Tavan Tolgoi group mines were used to supply to the Gobi provinces and for household use. In 1994, Tavan Tolgoi group mines were privatized. They became “Tavan Tolgoi” JSC, majority owned by local government, and continued to supply coal for the domestic local market. In 2004, with economic growth of China and demand for coking coal, coking coal exports to China started up; and since then the coal export began.

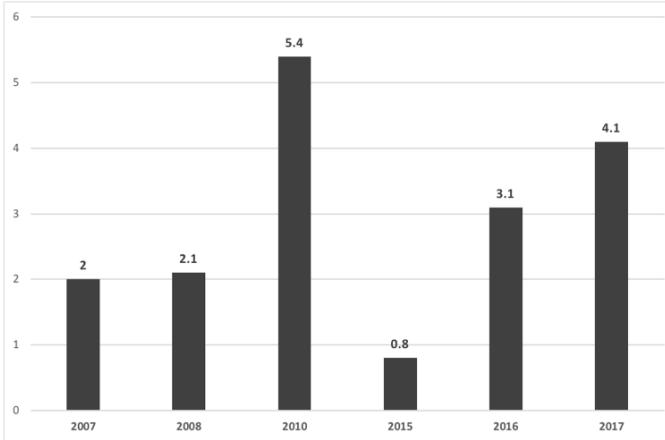
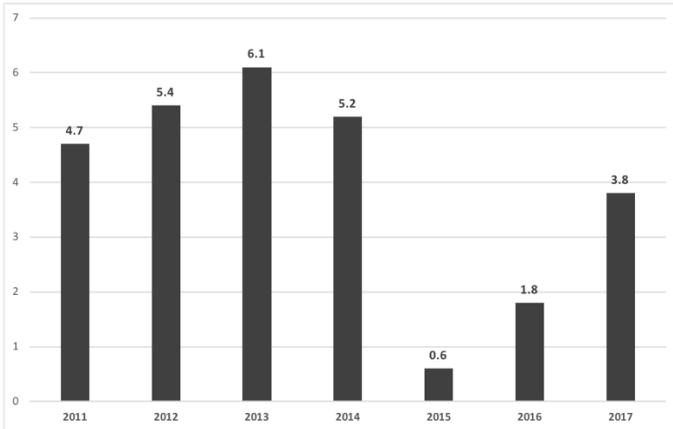


Figure 6. Coal sales of Tavan Tolgoi JSC /mil.tons/<sup>10</sup>

In 2005, fourteen domestic companies (MCS, Petrovis, Shunkhlai etc.) co-established “Energy Resources” LLC, and in 2006 the company officially launched construction of the Tavan Tolgoi group coal mines. In 2006, the Minerals Law of Mongolia was amended and according to this newly adopted Minerals Law, the Tavan Tolgoi deposit was listed on a list of strategically significant mineral deposits of Mongolia. Therefore, following the Minerals Law, the Government of Mongolia negotiated with Energy Resources LLC; the Government took back the rights over the Tavan Tolgoi deposit except for the Ukhaa Khudag mine (a mining area of this mine constitutes 4% of the total area of Tavan Tolgoi group mines). In 2009, “Energy Resources” LLC started coal export, in October 2010 the company was registered on the Hong Kong Stock Exchange and started selling its shares.

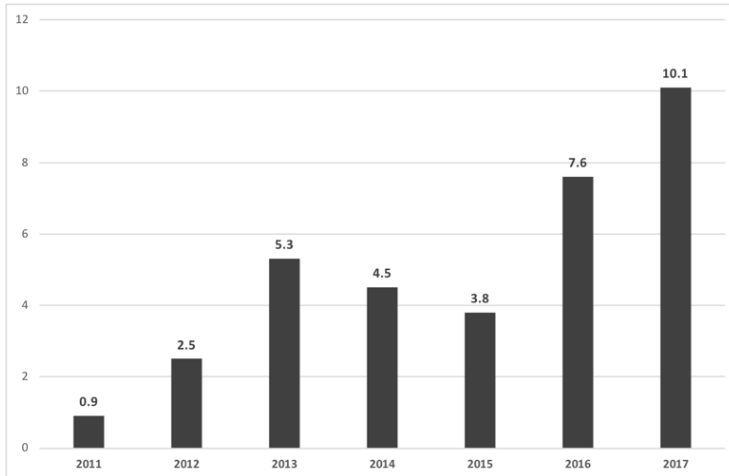
Figure 7. Coal sales of Energy Resources LLC /mil.tons/<sup>11</sup>



<sup>10</sup> Олборлох үйлдвэрлэлийн ил тод байдлын санаачилга. Цахим тайлан. 2018 он <https://e-reporting.eitimongolia.mn/reportList>

<sup>11</sup> Олборлох үйлдвэрлэлийн ил тод байдлын санаачилга. Цахим тайлан. 2018 он <https://e-reporting.eitimongolia.mn/reportList>

The Government of Mongolia established “Erdenes Tavan Tolgoi”, a public company, in order to start infrastructure development (energy power station, railroad, industrial road, water supply, border and customs facilities) in preparation of mining activities at the West and East Tsankh deposits and started coal export in 2011.



**Figure 8. Coal sales of Erdenes Tavan Tolgoi JSC /mil.tons/ <sup>12</sup>**

### The current situation in Tsogttsetsii soum

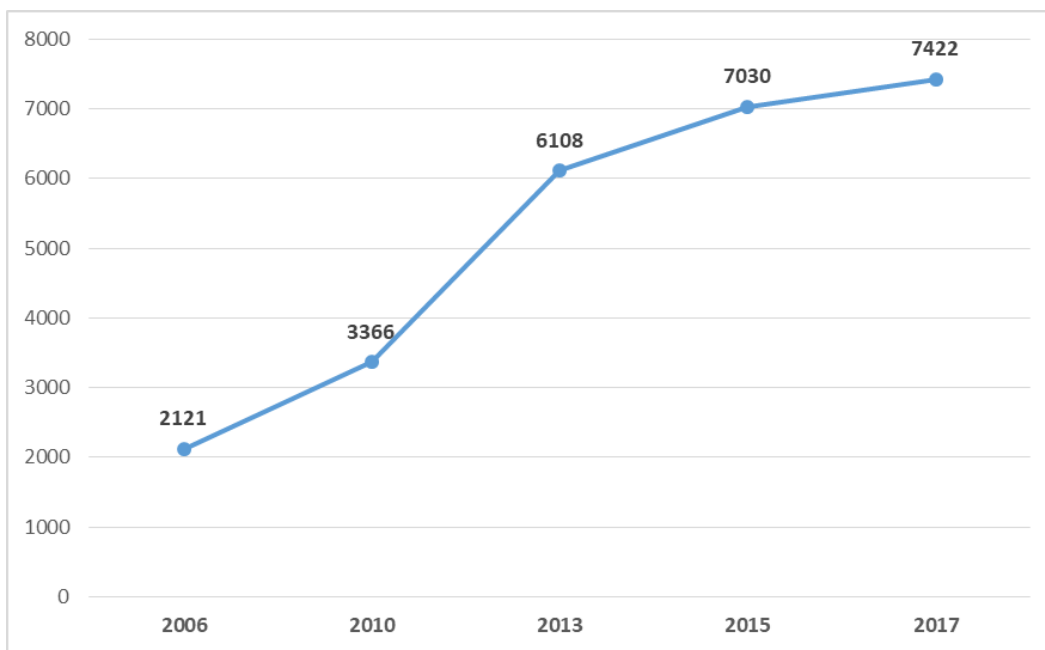
Tsogttsetsii soum of Umnugobi aimag has a territory of 7.2 thousand km<sup>2</sup>. It is located 540km from the capital city and 100km from the aimag centre. The soum is situated 1200-1791m above sea level, in a desert zone. In terms of the size of the soum territory, it is one of the smallest soums, 12<sup>th</sup> out of 15 soums in the aimag. In comparison to other soums such as Gurvantes (27.9 km<sup>2</sup>) and Khanbogd (15.2 km<sup>2</sup>) with giant mining projects, it is a small soum. However, it is the most populated soum (except for the aimag centre) with 1.03 people per square km.

Tsogttsetsii soum is divided into four administrative units (*bag*): Siirest, Bilgeh, Tsagaan-Ovoo, and Uguumur. The Tavan Tolgoi mining operations are in the territory of Tsagaan–Ovoo and Siirest *bags* covering an area of 2557.4 hectares of land. Moreover, 44.4km of paved road to transport coal and 55.9km railroad cross the soum territory.<sup>13</sup> As mentioned previously, many unpaved sand roads cross the territory of the soum.

As of December 2017, the population of Tsogttsetsii soum was 7,422, with a total of 2,441 households officially registered. With an expansion of mining activities, the number of soum residents increased sharply over the last five years. In addition, about 8,000-10,000 (transient) people, who are engaged in mining, transportation and other mining-related activities, work and live in the soum.

<sup>12</sup> Олборлох үйлдвэрлэлийн ил тод байдлын санаачилга. Цахим тайлан. 2018 он <https://e-reporting.eitimongolia.mn/reportList>, Эрдэнэс Тавантолгой. Нүүрс олборлолтын мэдээ. 2018. <http://erdenestt.mn/otbowi>

<sup>13</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ.



**Figure 9.**  
**Population**  
**growth of**  
**Tsogttsetsii**  
**soum**

Currently, 88 percent of the soum population or 6,506 people live in the soum centre, 12 percent or 916 people live outside of the soum centre, in the countryside.<sup>14</sup> The number of people living in Tsogttsetsii soum centre is the highest among all other soums of Umnugobi aimag. In Gurvantes, one of the soums of Umnugobi aimag with a relatively large population and mining activities, 57 percent of the population lives in soum centre. Similarly, in Khanbogd soum, 80 percent of the population is concentrated in soum centre. Overall, the average number of people living in soum centres constitutes 30 percent of the total population.

In total, 289 herder households live in Tsogttsetsii soum. The soum has 130 thousand livestock, out of which about 60 percent are goats, 30 percent are sheep, 6 percent horse, 2 percent camel, and 2 percent are cattle (cow). The number of livestock increased over the last years. In particular, the number of sheep and goats increased greatly. In 2013, it was counted 37 thousand goats, 21 thousand sheep, in 2017 the number of goats increased to 75 thousand and the number of sheep reached 42 thousand.

There are six state administrative institutions operating in the soum. The traditional economic sector is livestock, but, over the last ten years, the mining sector has expanded and large private companies such as “Tavan Tolgoi” shareholding company, “Energy resources” LLC, “Erdenes Tavan Tolgoi” shareholding company, commenced mining and transportation operations. As of 2014, 288 business entities, 1290 small business owners and entrepreneurs run their activities in the soum. The number of trade and services entities increase each year. In Tsogttsetsii, there are currently 5 pharmacies, 10 food production entities, 29 hotels, 36 grocery shops, 10 supermarkets, 5 food wholesale centres, and 37 fast food entities.<sup>15</sup>

<sup>14</sup> Өмнөговь аймгийн Статистикийн хэлтэс.

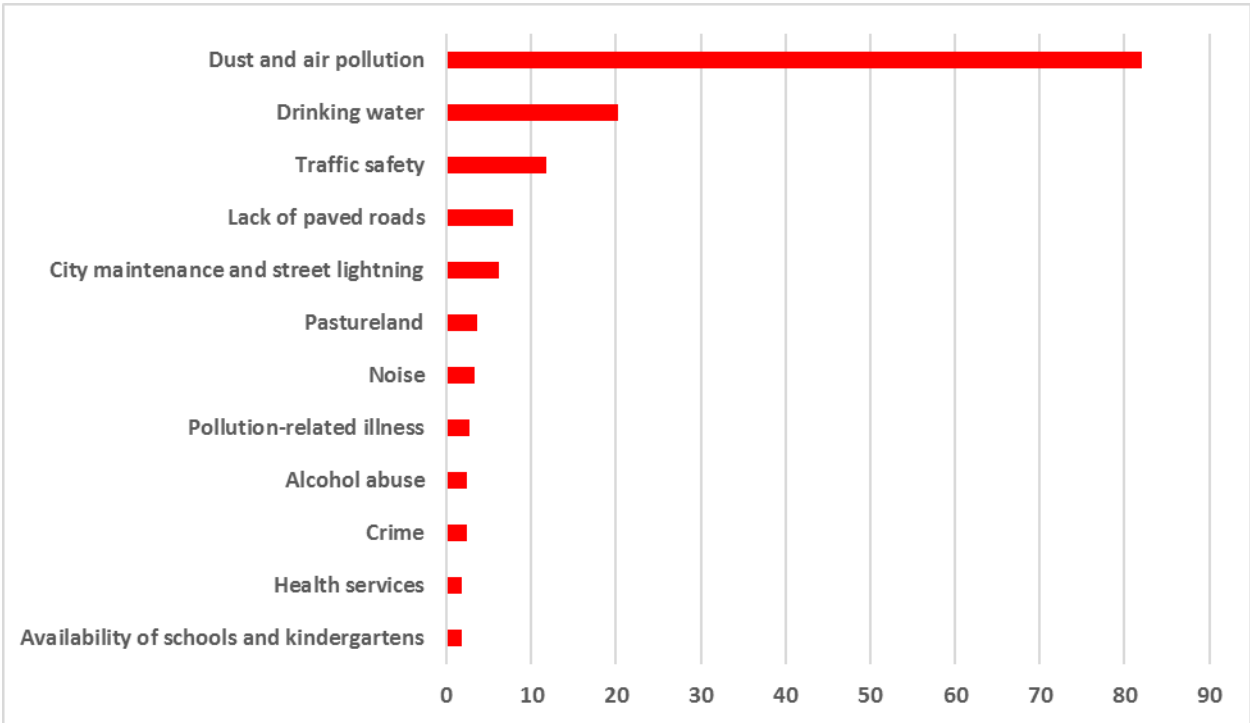
<sup>15</sup> Introduction of Tsogttsetsii Soum.

Problems

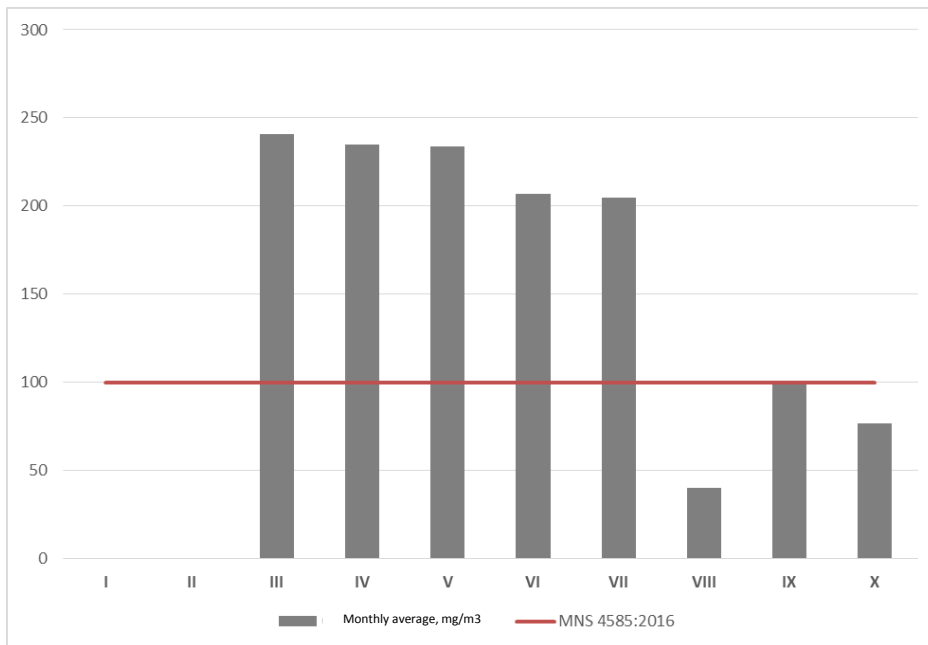
Dust and air pollution

According to a survey conducted among the residents of the soum centre (Uguumur bag) and Tsagaan – Ovoo bag, 80 percent of the respondents identified dust and air pollution as the most pressing issue.

Figure 10. Most important problems identified by the soum centre residents (According to the HRIA survey)



In 2015 it was agreed that Tsogttsetsii soum’s weather station specialist should measure the dust level of the soum centre area four to five times a month using DustTrak measurement equipment taking into account 24 hours of the day. However, lack of knowledge how to make a measurement, how to use the equipment, how to provide data documentation and save measured data, the replacement of weather observation specialist and time needed for a new person to learn how to use the equipment, presented new challenges. The following graph (below), which was developed by the weather specialist in 2017 using the dust measurement device shows the dust level in the soum area as a monthly average.



**Figure 11. Results of measurements of PM10 in air by the weather station specialist of Tsogttsetsii soum, 2017**

The results of dust measurement demonstrate that the dust level in Tsogttsetsii soum centre during spring and summer months exceeds the allowed level of dust by two and more times.

The Mongolian Law on Air, which was passed in 2012, regulate the air quality and air pollution issues. According to this law, business entities should conduct air quality measurements in and near mining areas and regularly monitor the air quality. In a case of changes of the air quality below proscribed levels, business operators must inform local authorities and the public, and take appropriate actions to reduce the air pollution.

The implementation of the Law on Air is being concentrated on air pollution reduction in Ulaanbaatar and aimag centres. However, issues related to air quality and pollution in mining impacted areas and monitoring of businesses' responsibilities are often overlooked. In the current Law on Air and other environmental laws, there is no specific regulation defining the roles and responsibilities of businesses for dust monitoring and reduction. As per the Environmental Law, Environmental Impact Assessment (EIA) law, businesses are obliged to monitor the quantity of common physical and chemical pollutants in the air. Business entities must follow guidelines specified in the comprehensive EIA report and monitor the number of air pollutants, outdoor and indoor, against the allowed quantity. The allowed quantity is defined in the newly approved "Air Quality, Technical General Requirements MNS 4585:2016" standard.



**Table 3. Permissible concentration of pollutants in ambient air (MNS 4585:2016)**

Parameter	Average duration of measurement	Unit of measurement	Permissible concentration
Sulphur dioxide (SO <sub>2</sub> )	20 minutes	µg/m <sup>3</sup>	450
	24 hours		50
	1 year		20
Carbon monoxide (CO)	20 minutes	µg/m <sup>3</sup>	60000
	1 hour		30000
	8 hours		10000
Nitrogen oxides (NO <sub>2</sub> )	20 minutes	µg/m <sup>3</sup>	200
	24 hours		50
	1 year		40
Ozone (O <sub>3</sub> )	8 hours	µg/m <sup>3</sup>	100
Total suspended particulate matter	20 minutes	µg/m <sup>3</sup>	500
	24 hours		150
	1 year		100
PM10 particulate matter	24 hours	µg/m <sup>3</sup>	100
	1 year		50
PM2.5 particulate matter	24 hours	µg/m <sup>3</sup>	50
	1 year		25
Lead (Pb)	24 hours	µg/m <sup>3</sup>	1
	1 year		0.25
Benzopyren	24 hours	µg/m <sup>3</sup>	0.001

As per the EIA and management plan, the three mines at the Tavantolgoi deposit do measure air quality and dust level. However, the content, scope, methodology, transparency of results of the measurement are not complete or adequate.

The environmental analysis report of Erdenes Tavan Tolgoi mentions that the company conducts on a monthly basis a dust monitoring using the Dusttrack DRX 8533 device at eight points on the mine site. The dust measurement device measures the total dust mass and size fraction – both coarse and fine particulate matter (PM); besides, the company measures sulphurous gas, carbon dioxide, and nitrogen dioxide every six months. According to the environmental analysis report, independent air quality monitoring should be carried out once a year. But because data of the air measurements are not transparent, it is difficult to review or verify these data. We found only a short report stating that the dust size fraction was defined by three indicators and the actual measurements have been taken only at two points in May 2018.

The locally-owned Tavantolgoi JSC conducts air quality measurements at the mine site outside and indoors two times a month and measures dust size fraction (both coarse and fine particulate matter), noise (dBA), wind speed, relative moisture and air temperature; and carries out independent monitoring two times a year. The measurements are taken at four locations on the mine site, and also at other two points outside of the mining site: the first point is Tsagaan-Ovoo bag centre, where the mining camp is located; and the second point is an interim zone which is located in the west from the camp in the middle between mining camp and the waste rock dumps. The results of the monitoring are used internally and are provided to authorities during inspections. We had the opportunity to see the measurement results and read the independent monitoring report during our meeting with the company.

**Photo 4. Portable air quality monitoring device DustTrak TSI 8530 used by Tavantolgoi JSC**



Conducting independent monitoring twice a year is not sufficient as the results cannot reflect the reality of air quality. Air quality depends on current weather conditions, dynamics of mining operations, road watering. Thus, the results of only two independent monitoring are not sufficient to reflect the reality of air quality. The same conclusion can be made for Erdenes Tavantolgoi, conducting independent monitoring only once a year is not adequate for assessing the air quality.

Energy Resources company conducted air quality measurement during January-October at the following points: Ukhaa Khudag mine site, Tsogttsetsii soum centre and water circulation basin. A DustTrak TSI 8530 device is used to measure the air quality at ten locations. The assessment team requested and received a copy of the dust monitoring report for 2013-2017. According to the monitoring report, Energy Resources only measures dust concentrations corresponding to PM 2.5 which is not adequate. It is not clear why Energy Resources company measures only concentration corresponding to PM 2.5, and does not measure other air quality indicators. Moreover, in 2013 the dust monitoring measurement was conducted during January-November. The November monitoring measurement at five of seven locations showed high levels of dust exceeding the allowed level. But starting in 2014, dust monitoring has been conducted only during January-October. Besides, dust concentration monitoring in January – March followed a different methodology with a reduced monitoring and measurement time. The main reason for the use of the different methodology was poorly explained as due to the mode of operation of the device and the cold weather conditions. It is possible that other companies used inconsistent methodologies for dust measurement citing the similar reasons such as technical difficulties of using dust measuring devices in winter for a long time.

Since 2014 Energy Resources has conducted a fine size dust measurement at the Ukhaa Khudag mine site and in the Tsogttsetsii soum centre at five locations. The report reflects that the measurement also included wind speed and direction. The report of 2014-2016 covers dust measurement conducted two

times in the soum centre (January 2015, January 2016 wind is from northwest), northeast of the soum centre one time (February 2015, wind is from northwest), southeast of the soum centre one time (January 2016, wind is from northwest); and the measurement results demonstrated that the amount of dust particles exceeds the allowed level by 0.01-0.03 kg/m<sup>3</sup>. In short, the report shows that during this time period dust particles in the air exceeded allowed levels in the soum centre only in a few instances. In terms of a wind direction measurement, there is no single measurement of wind coming from southwest where the mine site is located. In the 2017 report, according to dust measurement in the soum centre during January – April and October, the number of dust particles exceeded two-three times the allowed amount. The report explains that the exceeded amount of dust particles in the soum centre is a result of the soum’s dust itself, household smoke coming from chimneys and dust coming from the coal transport road. From this report it can be concluded, that it is a good intention and practice of Energy Resources company to do air monitoring measurement in the soum centre, however the actual air measurement is not full and complete; it avoids realistic measurement; and in fact, it aimed to protect the interests and rights of the company and the air monitoring data are used to protect the company’s reputation.

**Table 4. The current state of dust monitoring by the mining companies**

Companies	Dust monitoring points	Indicators of dust monitoring	Frequency of dust monitoring	Equipment used for dust monitoring	Whether the results of monitoring are disclosed to the local community
Energy Resources	12 points: Mine, soum centre, internal haulage road, areas between mines and the soum centre	PM2.5	Up to 24 hours at one point once in a month	1 portable Dust Trak TSI 8530	Yes (Only to authorities)
Erdenes Tavan Tolgoi	11 points: Mine and internal haulage roads	General composition of dust, PM2.5, PM10  The weight of dustfall in 1m <sup>2</sup>	For 30 minutes once in a week  Monthly	1 portable Dust Trak DRX 8533  Dustfall jar of a 22 cm diameter	No
Tavantolgoi	6 points Mine, mine village, areas between the mine and the soum centre	PM2.5, PM10	For 30 minutes twice in a month	1 portable Dust Trak TSI 8530	No

There are several serious gaps in the current dust monitoring in the three mine sites of the Tavantolgoi deposit. The first gap: dust monitoring methodology, indicators and the time period for measurement differ from Mongolian standards. For example, Energy Resources only measures dust particles corresponding to PM 2.5, avoiding the measure of coarse dust particles which are the main dust components from coal mining, thus ignoring the amount and distribution of coarse dust particles. In the case of Erdenes Tavantolgoi and Tavantolgoi, the dust monitoring time period is shorter compared to Mongolian standards, making it impossible to define 24-hours and annual average. These measurements thus cannot be used for scientific monitoring; furthermore it is not clear for what purpose these data will be used; basically the produced data are useless. Erdenes Tavantolgoi’s environmental management plan included dust monitoring, such as measuring total suspended particulates (TSP) matter and using dust

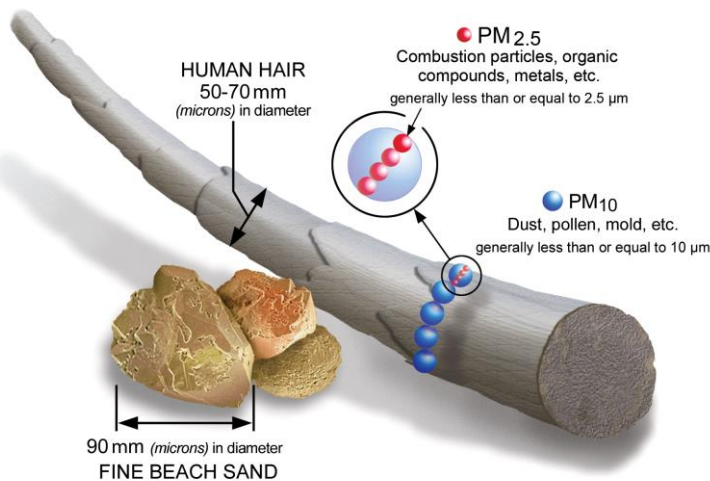
traps; however, results of dust level measurement are not transparent; or it is not even clear whether the company does dust monitoring at all.

In three mining sites at one deposit, three companies use different methodologies for dust monitoring; companies do not share monitoring information with each other; the results of monitoring are not transparent. Therefore, it can be concluded that efforts made by companies to measure the amount of dust, dust concentration and efforts to reduce impact of dust on environment, society and human health is very poor and insufficient. According to international good practices, the air quality monitoring is conducted every day and continuously; and in case of exceeding the allowed level of dust, the company immediately informs the employees and local community – becomes a common benchmark.<sup>16</sup>

Three mining companies operating at the Tavantolgoi deposit did not take their dust monitoring responsibility seriously. Dust is the main factor impacting the environment, society and employees' health. It is impossible to measure dust and monitor dust amount and concentration with only one DustTrak device (costs about 20-30 million tugrug) whereas the annual coal production is about 20 million tonnes, and the dust production by three mining operations is at least 1000 tonnes. The Gobi is a dry desert region, 7,000-10,000 people permanently living and working there. Lack of real dust monitoring data of this giant open-pit coal mine just 2-10 km from the settlement area, closes out an opportunity to properly identify health risks and to take appropriate actions to reduce health risks.

### Impacts of dust

Due to natural and human activity, dust is disposed into the air and also merges with other gas pollutants and forms dust particles.<sup>17</sup>



In bigger settlements, fine particles (PM2.5) are the major contributor of dust. The main sources of these fine particles are car exhaust and household heating and cooking, power stations, and operations of heavy machinery. Coarse particles (PM 10) are generated in large amounts during construction of buildings, mining operations, earth moving, agricultural activities, and soil erosion. Dust from coal mining mainly contains coarse particles, and is generated during removing overburden, making stockpile/dump, coal loading, blasting, and transporting coal by dirt road. In addition,

coarse particles can be found in tailings and also originate from traffic in mining sites.

<sup>16</sup> Австралийн Засгийн Газар. Уул уурхайн салбарт зориулсан тэргүүлэх туршлага, тогтвортой хөгжлийн хөтөлбөр. Агаарын бохирдол, дуу чимээ, чичиргээ. 2009.

<https://archive.industry.gov.au/resource/Programs/LPSD/Documents/AirborneContaminantsMongolian.pdf>

<sup>17</sup> Цаг уур орчны шинжилгээний газар. Агаарын чанарын хяналт шинжилгээний тойм. 2008 он.

According to health research, dust generates irritation, contamination and allergy, penetrating into the human body through breathing, and infects larynx and nasal areas. Dust particles sized up to 5 micrograms penetrate into lungs, and dust particles sized more than 12 micrograms, filtered and remain in the nasal and larynx areas. These particles cause respiratory diseases.<sup>18</sup>

The biggest danger from breathing in dust is a lung infection by fine particles, a disease called pneumoconiosis. The longer you breathe in dust, the greater the chance that it will affect your health. The pneumoconiosis caused by coal dust is called anthracosis, by iron dust is called siderosis, depending on the type of dust, there are different names. The hardest form of the dust-caused disease is called silification. In mining, in the layers of soil exposed by coal mining, there is a large amount of silicic oxide.<sup>19</sup>

Among the population, the following groups have a high probability to be impacted negatively by open pit coal mining:

- Infants, babies and adolescents
- Pregnant women
- Seniors
- People with asthma, bronchitis, tuberculosis and other respiratory diseases
- People with cardiovascular diseases
- People with diabetes

Negative health impacts of dust are demonstrated by the following characteristics:

- A cough
- Heavy breathing, suffocation
- Asthma worsening
- Increased use of nasal spray and antibiotics
- Sneezing
- Red eyes
- Decrease of heart performance<sup>20</sup>

Local authorities and many citizens shared concerns over the increased dust level in the soum centre and its consequences such as increase of respiratory diseases, complications during child delivery; increased allergy, increase of cardiovascular disease, moreover, increased level of stress and anxiety among the population. A table below summarizes the common challenges faced and featured examples.

#### Common challenges due to dust

##### Diseases

- Respiratory diseases, allergy dramatically increased among children.

#### Some featured examples

*“When there is no wind, the air is full of dust, therefore, respiratory diseases continue and cannot be stopped. From November cough*

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<sup>18</sup> Coal Services. Protecting against airborne dust exposure in coal mines. 2016. [http://www.coalservices.com.au/wp-content/uploads/2016/12/NEW-CS-Dust-Booklet\\_Final-artwork.pdf](http://www.coalservices.com.au/wp-content/uploads/2016/12/NEW-CS-Dust-Booklet_Final-artwork.pdf)

<sup>19</sup> Монгол улсын Хөдөлмөрийн яам. Бичил уурхайн хөдөлмөрийн нөхцлийн сөрөг хүчин зүйлс, түүнээс урьдчилан сэргийлэх нь. 2015 он

<sup>20</sup> Агаар дахь бохирдуулах бодисын хүний эрүүл мэндэд үзүүлэх нөлөөлөл. <http://www.tsag-agaar.gov.mn/>

- Increased number of people who are diagnosed as allergic to dust after they moved to Tsogttsetsii soum
- In spring, many people, regardless of age, have dust allergies
- Chronic bronchitis and laryngeal disease dominant among employees of mining companies
- Increased pregnancy complications
- A sore throat, itchy around tongue and ear
- Increased illness among children walking to schools in the morning when dust is very high from coal transport road

#### Financial and material damages

- Health costs increased for individual and households
- Decreased market value of wool, cashmere, meat and other livestock product
- Household possessions, property fully covered by dust

#### Depression

- Anxiety over the health of babies to be born
- Cannot take babies out for fresh air, high risk
- Be more cautious because of the increase of tuberculosis incidence

*starts, we take medicine, but after a while, we cough again and again.”*

*“I had no allergy before, but I have allergy now since I came here. Recently I went to Ulaanbaatar for ten days to treat my allergy, I was diagnosed as allergic to dust. It increased my health costs”.*

*“During \pregnancy, it is common that most women have hypertonic,” said the doctor. Currently no impact, but eventually later it will have an impact.*

*“My close friends told me that in 2017, 2018 there were 4-5 cases of stillbirth.*

*“In the winter time, morning is very dark. Dogs attack, but we cannot see them because of the dust and smoke. Moreover, there are many cars too, you often see children walking in the middle of the dense dust.”*

*“Our policeman was diagnosed in hospital having an infection because of too much dust trapped in the nose.”*

*“In the last five years we had 18 tuberculosis cases. This is associated with dust. It is a respiratory disease. They got the disease, and carry it, and spread to others.*

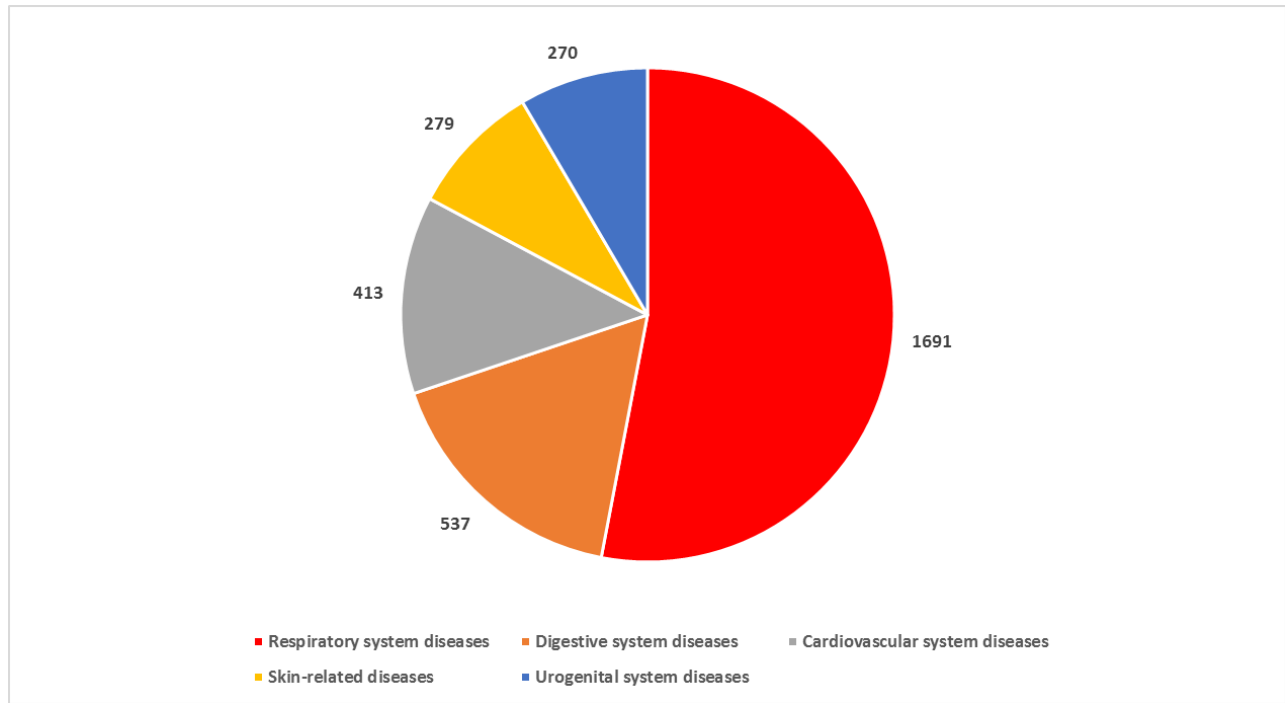
As mentioned in the accumulated impact assessment, Tsogttsetsii soum has the highest score of people with respiratory diseases for a population size of 10,000 people. In Tsogttsetsii soum, 49.3 percent of diseases are diagnosed with respiratory disease, and the share of respiratory disease out of total diseases increased every year, during 2006-2014, from 32.7 percent to 55.7 percent.<sup>21</sup> During 2006-2014, the respiratory diseases dominated in each season, especially, in the winter season, it occupied 41.7 percent out of total diseases, and in summer time it occupied 21.3 percent; pollution of the surrounding environment is regarded as the main reason of high share of respiratory diseases.<sup>22</sup>

As per records of the Tsogttsetsii soum hospital, in 2017 out of 3190 diseases recorded, 53 percent occupied respiratory diseases.

<sup>21</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ. Хуудас 82-83

<sup>22</sup> Мөн тэнд. Хуудас 84.

**Figure 12. Most common diseases among the population of Tsogttsetsii soum, 2017 он<sup>23</sup>**



*Тоосжилтын шалтгаан*

The Tavantolgoi deposit is located in close proximity of Tsogttsetsii soum centre, in a desert region with frequent winds; therefore, mining and coal transportation activities are the main causes of dust. Information provided by local stakeholders also pointed out these causes.

*“If the wind blows from the southwest, we see a black curtains of dust”  
Tsogttsetsii soum citizen*

Local communities believe that dust, generated by mining, soil peeling, dump, coal loading, blasting, traffic in the mining sites and transporting coal by earth road, is brought by the wind to near areas. Residents said when the wind is coming from southwesterly directions, i.e. from the mine site, the amount of dust in the soum centre increases dramatically. Also when mining stops for a temporary break, the dust is less. From that, it can be concluded that the main reason of dust is mining located near the soum.

**Photo 4. Dust generated from Tavan Tolgoi mines (A view from Tsagaan Ovoo bagh centre, March 2018)**

<sup>23</sup> Цогтцэций сумын Сум дундын эмнэлгийн үйл ажиллагааны мэдээлэл. 2018 оны 2 сарын 28.



The region has four seasons, 19-35 percent of the year is calm, no wind, and the rest of the year is windy; depending on the season of the year, the wind blows predominately from Northwest or Southwest.<sup>24</sup> From that point, it can be argued that a mine site located in the west south of the soum centre is a main cause of the dust.

Dust generated from open-pit mining and dust generated from coal transport differs from each other, in terms of size, distribution and its impact on air pollution. Fine size dust particles move longer distances than coarse dust particles. Dust particles sized less than 10 microns, depending on wind power, can be blown far. The dust distribution depends on wind power, dust particles size and moisture factors.<sup>25</sup>

**Table 5. Travelling distance and duration of particulate matter in air**

Types of particulate matter	Description	Duration in air	Travelling distance
Total suspended particulate matter (TSP)	Mass concentration of particulate matter (PM) in community air	From several minutes to several hours	From the point of origin to the proximal areas of wind direction
Particulate matter 10 (PM10)	Particulate matter 10 micrometers or less in diameter	Up to several days	Up to 100 km
Particulate matter 2.5 (PM2.5)	Particulate matter 2.5 micrometers or less in diameter	From several days to several weeks	Up to several hundreds and thousands kilometers

A research study, previously conducted, stated that during blasting at the Tavantolgoi despotu to release coal layers, dust and rocks have been blown up to 130-150 metres high. Rocks, coarse size dust particles, fall down within 100-130 metres, whereas fine size dust clouds moved by wind 7-8 km far away, dust clouds fall down in 20-30 minutes.<sup>26</sup>

The amount and distribution of dust, generated from movements of big transport vehicles inside the mining site, is different, depending on air moisture and road watering. The average humidity of the region is 60-70 percent in winter , and in summer when temperatures are high, the humidity drops to 30-50

<sup>24</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ. Хуудас 111

<sup>25</sup> Австралийн Засгийн Газар. Агаарын бохирдол, дуу чимээ, чичиргээ. 2009 он.

<sup>26</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ. Хуудас 111



percent.<sup>27</sup> Until today, there is no research study conducted in regards to causes of dust, dust distribution, its impact on environment and health based on complete field monitoring data. A dust section of accumulated impact assessment of Tavantolgoi mines has gaps and limitations as it was developed based on environmental impacts indicators and other secondary data sources, not on independent baseline survey.

*When 30 coal vehicles go to the west, after 2-3 minutes, a large amount of dust falls comes with the wind.*

Interviews with Tsogttsetsii soum citizens

A large amount of dust generated during coal transport from Erdenes Tavantolgoi mining site to Gashuun Sukhait road, by earth road.



**Photo 5. Dust from Erdenes Tavan Tolgoi's coal transportation road (March, 2018)**

Dust measurement is taken at two points by Energy Resources during January-April 2017, one point located in the west south of mining site, and the second in 400 metres from the Erdenes Tavan Tolgoi's coal transportation road, shows the number of fine dust particles exceeded the allowed standard by 0.008-0.153mg/m<sup>3</sup>.<sup>28</sup> Dust measurement taken in May 2018 by Erdenes Tavantolgoi outside of Marketing Building on the east, showed that the number of fine dust particles exceeded the allowed amount by 2.96 times, the number of coarse dust particles by 2.33 times and a total dust amount exceeded the allowed amount by 1.58 times.<sup>29</sup>

Research, conducted around the Oyu Tolgoi mining site, stated that dust distribution depends on wind strength, geographical location, road conditions and other factors; and in fact, mining dust can be moved

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<sup>27</sup> Тавантолгой ХК-ийн ХАББОЭА. Агаарын хяналт шинжилгээ. Танилцуулга. 2017

<sup>28</sup> Энержи Ресурс. Байгаль орчны менежментийн төлөвлөгөөний 2017 оны биелэлтийн тайлан.

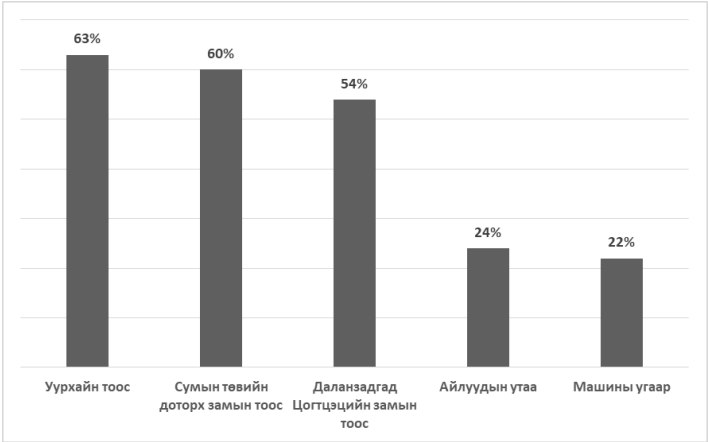
<sup>29</sup> Эрдэнэс Тавантолгой ХК-ийн Байгаль орчны менежментийн төлөвлөгөө: Орчны хяналт шинжилгээний хөтөлбөр. 2018

far from the mining site and the environmental pollution is high.<sup>30</sup> Therefore, a wrong understanding that dust is high only near the mining site, far from the mining site there is less dust, must be changed; a comprehensive dust monitoring needs to be conducted and includes dust monitoring points outside of the mining areas.

**Сумын дотоод замын тоос**

The second main cause of dust in the soum centre is dust from cars and traffic. There is a very small portion of roads that is paved, many cars and a lot of traffic cause dust. And stakeholders also accept this. Results of the research questionnaire prove this statement.

**Figure 16. Percent of local people who think the following sources are the main generators of dust.**



There are many cars that provide taxi services; and by driving fast on earth road, it generates even more dust. It was observed that local citizens do not slow down to prevent dust. Schools have taken effective measures: trees planted, fences erected, and designated car parking and patrol services.

Tsogttsetsii soum authority plans to implement several measures to reduce dust. These activities include increasing the green areas; building the paved road; introducing bus service and building bus stop stations.

<sup>30</sup> Troy Sternberg and Mona Edwards. Desert Dust and Health: A Central Asian Review and Steppe Case Study. Int. J. Environ. Res. Public Health 2017, 14, 1342



**Photo 6. Dust in the vicinity of Tsogttsetsii soum centre (Dust generated from soum centre's internal roads and dust from the mines blowing to the direction of the soum, March, 2018)**

There is a paved road from Dalanzadgad soum to Ulaanbaatar, which passes through Tsogt-Ovoo soum; but the road to Tsogttsetsii soum is not paved. Besides public transport to Tsogttsetsii soum, there are many infrastructure and petrol suppliers of Tavantolgoi and Oyu Tolgoi which use unpaved roads and contribute to soil erosion and dust generation. This 59.6 km long unpaved road to Tsogttsetsii soum, when comes close to soum centre in about 20 km, splits into many small unpaved roads, and the soil erosion and degradation is very high and generates dust. Local government and local communities emphasized that many vehicles, unpaved earth roads, degrade and erode the soil and generate a large amount of dust. This statement coincides with our field observations too.

### ***Air quality and dust monitoring information***

In the last decade when mining activities at the Tavantolgoi deposit intensified, there were numerous grievances and complaints from residents related to increased dust and respiratory diseases, damages to their living environment and people's property and possessions, but unfortunately there is still lack of information on air quality and dust monitoring and its impact on nature, the surrounding environment and human health.

Out of three mining companies, only Energy Resources publicized that their company does participatory dust monitoring, but it is not clear how citizens participate and monitor dust measurement. Moreover, the results of dust monitoring are shared only on request of local government officials, thus there is a little opportunity for local citizens to access this information.

*"We do not know what device or equipment companies use to measure dust and how they measure the dust. I heard many times that Energy Resources is going to undertake dust monitoring measurement"*

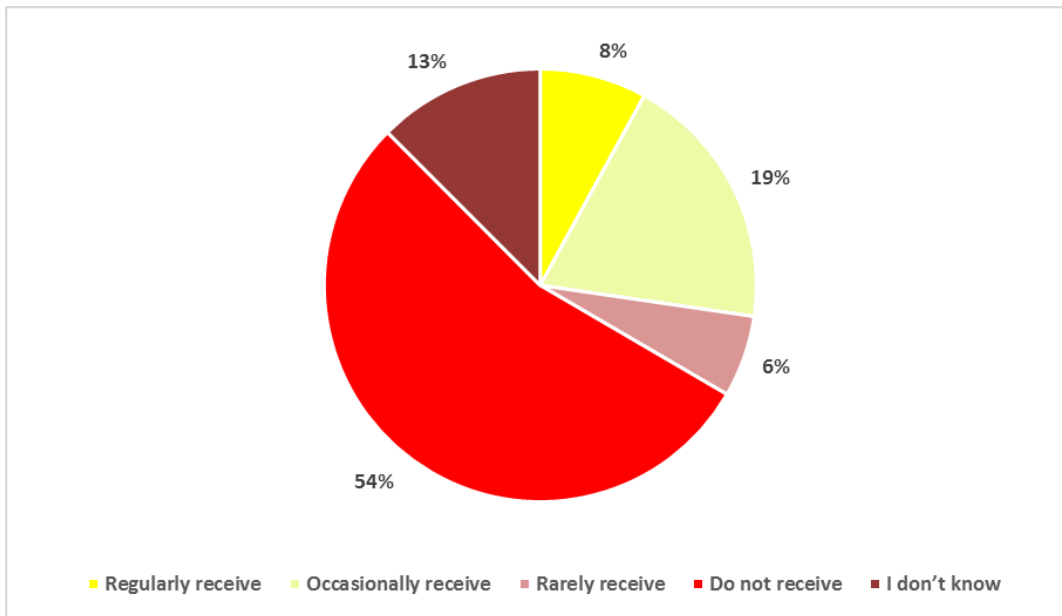
*and that representatives of local citizens participate in this monitoring activity. If the company truly measures the dust and water, what do these measurement devices or equipment look like, what are the results of these measurements? We have never been informed about the results. In the governor's action plan there is an activity to locate, to put the dust measurement equipment, but there is no equipment in the place, or is this device is so tiny, that we cannot see them?"*

Tsogttsetsii soum citizen

Local government should have air quality reports from companies and inform local citizens, compare their measurement results with their own measured results and increase access to air quality information. Currently, such information is missing.

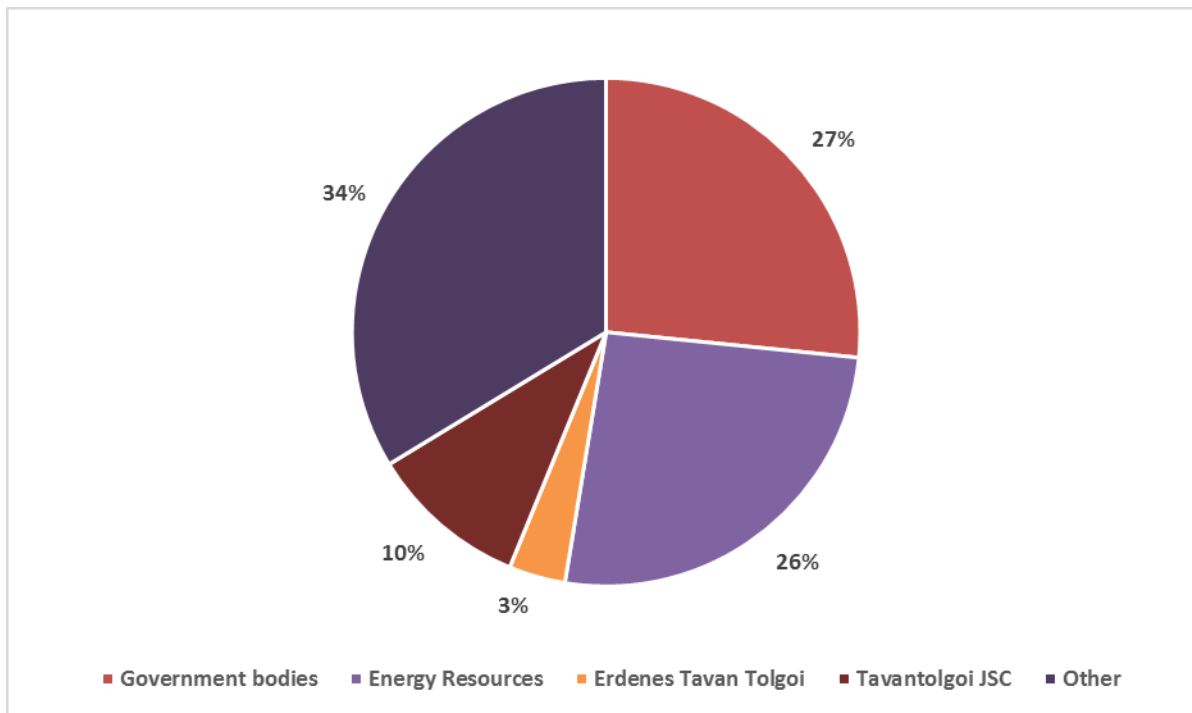
According to a survey conducted among soum citizens, over 70 percent of local citizens never received information on air quality and dust monitoring.

**Figure 13. Do you receive information about air quality and dust? (A survey of residents of Tsogttsetsii soum centre and Tsagaan-Ovoo bagh)**



Information related to dust is obtained from state administrative units, Energy Resources, and media sources. There is no or very little information obtained from the two state-owned mining companies.

**Figure 14. From what organizations did you receive information related to dust?**



*Measures to reduce dust*

During the last decade when mining activities at the Tavantolgoi deposit intensified, there were numerous grievances and complaints about increase of dust and respiratory diseases, damages to the living environment and people’s property and possessions, but unfortunately, relevant government agencies, local Government and mining companies haven’t taken any serious measures to address communities concerns.

Open pit coal mining produces a huge amount of solid waste and dust. According to a World Bank research report, on average, every 1,000 tonnes of coal produce 10 tonnes of rockpiles and 0.06-0.1 tonnes of dust.<sup>31</sup> According to international good practices in open pit coal mining, the main cause of dust has to be identified by taking measurements from all dust-generating sources, prioritize and then identify the best solution for the most dust-intensive sources. Most of the solutions are technological and financial.

Each year, environmental management plans of mining companies include an increase of watering of roads on the mine site to reduce dust but unfortunately, companies do not include new activities such as introducing road maintenance technologies, road paving and do not take an integrated approach for dust reduction in all phases of dust generation during the whole cycle of mining operations – rockpiles waste, coal transportation, blasting – and do not allocate sufficient funds to deal with dust reduction. Each company implements its own activities such as planting trees and increasing green areas, however, it is not clear what the impact of these activities on dust reduction is.

According to the Extractive Industry Initiative e-Report, in 2017 the three mining companies spent about 20 billion tugrug for dust reduction activities. The “Air pollution fee” is based on “polluter pays” principle.

<sup>31</sup> Pollution Prevention and Abatement Handbook. 1998.

[https://www.ifc.org/wps/wcm/connect/79a98080488552b5ac5cfe6a6515bb18/coal\\_PPAH.pdf?MOD=AJPERES](https://www.ifc.org/wps/wcm/connect/79a98080488552b5ac5cfe6a6515bb18/coal_PPAH.pdf?MOD=AJPERES)

According to this principle, a party responsible for pollution is responsible for paying the damage done to the natural environment. This implies that the party paying the cost of damage needs to make a financial calculation. If the party takes actions to reduce pollution, the fees for pollution will be reduced and moreover, some incentives might be applied for less polluting actions. Pollution fees have to be used to fund activities to reduce, prevent pollution or to offset the damage.

As per the Air Pollution Payment Law, Mongolia started to collect air pollution fees since 2010, and the coal-mining sector became the main payer. According to the clause 7.1 of the law, the Government of Mongolia should estimate the fee within the rate of 1-2 tugrug for one kg of coal. The Government came with the lowest fee: one tugrug for one kg of coal, which means 1,000 tugrug of pollution fee for one ton of coal. During 2016-2017, Tavantolgoi group mines added 40 billion of revenue to government coffers. According to the approved budget of Erdenes Tavantolgoi, the company will mine ten million of coal and pay ten billion tugrugs as air pollution fee.<sup>32</sup>

Likewise, paragraph 7.3 of the law, provides a carbonic acid (carbon dioxide) fee for vehicles, and depending on the type the fee amount differs; for every big truck the fee is 7,500-9,500 tugrug per year.

Since 2011 the air pollution payment was added to the “Clear Air” fund. However, corruption became difficult to resolve and the “Clear Air” fund was liquidated in 2015. Since then, the air pollution fees are collected into the government general revenue and administered by the Ministry of Nature, Environment and Tourism; and by the Committee for Combatting Air Pollution. In 2018, Parliament approved amendments to the Air Law. As per the newly approved law on Air, the “Fund Against the Air Pollution” was established, and the air pollution payments should be made to this Fund starting January 1<sup>st</sup> 2019.

The absence of health risks to communities living near coal mining in the concepts of laws on “Air” and “Air Pollution”, also in the “Against Air Pollution” programs emerges as the main root cause of human rights violations. In fact, since 2010, any money from air pollution fees was provided to protect the health of 7,000 Tsogttsetsii soum residents and the same number of mobile pastoralists, who are both impacted directly or indirectly by coal mining operations, and to support implementation of local soum programs to combat the air pollution.

The Umnugobi aimag Governor’s plan of action for 2016-2020 includes activities to reduce mining dust and to support the realization of human rights of local citizens. A collaboration agreement, made and signed between Governor of Umnugobi aimag Mr. N. Naranbaatar and Mr. B. Gankhuyag Executive Director of Erdenes Tavantolgoi Company, has several articles on dust reduction. These are:

- To build a paved road during 2018-2020 from the mining site to Tsogttsetsii soum centre
- Erdenes Tavantolgoi will build an 8.2 km long paved road to Gashuunsukhait for coal transport
- Erdenes Tavantolgoi will plant trees in designated areas by soum and maintain planted trees within the “One Ton of Resources – One Tree” program.
- Erdenes Tavantolgoi will take appropriate actions regularly to prevent dust and pollution
- To inform citizens about the implementation of the collaboration agreement every six months.

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<sup>32</sup> Эрдэнэс Тавантолгой ХК. 2018 оны батлагдсан төсөв. <http://erdenestt.mn/ihpoex/ykzhxj/tg2/>

A number of measures have been planned and implemented to reduce coal dust from the Tsogttsetsii soum Governor's Office. These include:

- In 2017, 90 million tugrugs spent on increasing and improving green facilities; this work will continue in the future
- In 2018, 2.2 km road in soum centre will be paved; and will be financed by the aimag budget
- In co-operation with an auto-transportation centre, to build bus stations and introduce a public bus service
- Submitted a request to a member of Parliament L. Enkhbold for allocation of funds for the soum to combat dust
- Organized multi-stakeholder meetings and workshops with the main purpose address dust issues.

### Negative health and livelihoods impacts of Tsagaan-Ovoo bag centre citizens

#### *Causes of Impacts*

The Tsagaan-Ovoo bag centre of Tsogttsetsii soum originated in Tavantolgoi housing in the 1960s. By the Government Resolution No. 42 of December 05, 1994, Tavantolgoi mine was privatized, and Tavantolgoi, a shareholding company was established, as 51% local state property owned, and 49% privately owned.

As of 2013, one of the big companies of Mongolia, Ajnai Corporation, and its affiliated companies hold about 37% of Tavantolgoi Company's shares.<sup>33</sup> The head office of Tavantolgoi Company is located in the Tsagaan-Ovoo bag centre.

In 2006, the Government of Mongolia took back 96% of the licensed area of the Tavantolgoi group mines from Energy Resource LLC and as per Minerals Law, included the Tavantolgoi deposit in the list of strategically significant mineral deposits of Mongolia.

The Tsagaan-Ovoo village land, which was included in the previous exploration licensed area, remains in the licensed area of Erdenes Tavantolgoi.

In 2010, soil peeling work began in the East of Tsankh mine of the Tavantolgoi deposit (East Tsankh) and coal exports started up in 2011. Erdenes Tavantolgoi completed a Feasibility Study of West Tsankh in 2012.

Following this feasibility study, the West Tsankh mine stockpile was expanded to the Tsagaan-Ovoo bag centre. An environmental impact assessment of East Tsankh mine was completed by Ikh Ailchin LLC in 2011. In the EIA report, Tsagaan-Ovoo bag centre was indicated as an area that would be impacted as its location is within 5 km from the mines. Thus, to fully exploit the Tavantolgoi deposit, a relocation and re-settlement of Tsagaan-Ovoo citizens and the company's head office had to be in place. Relocating of Tsagaan-Ovoo bag centre, including re-settlement of households, and the Tavantolgoi head office, was clear from the very beginning for Erdenes Tavantolgoi Company. Unfortunately, until today, there has

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<sup>33</sup> Ажнай Корпорацийг үүсгэн байгуулагч, УИХ-ын гишүүн асан Д.Бат-Эрдэнэ 2012 оныг хүртэл Тавантолгой ХК-ийн ТУЗ-ын даргын албыг хашиж байв.

been no baseline studies conducted, nor development and implementation of action plans for resettlement.

Since 2011, Erdenes Tavantolgoi initiated the process of selecting an international consortium to mine West Tsankh but did not achieve results. Erdenes Tavantolgoi started soil peeling in West Tsankh in 2012 and coal production in February 2013.

Coal production increased in 2015, at West Tsankh and reached 3.8 million tonnes of coal. As a result, land use in the mining areas has increased, rockpiles, loading, transport and waste dumps have been expanded. In 2016, Baruun Tsankh mining operations were temporarily stopped and re-opened in February 2017 with increased production.

Since 2013, when the Baruun Tsankh mine started mining operations, tensions between rights of citizens and business entities in Tsagaan-Ovoo bag centre have increased. West Tsankh mine waste dumps were getting closer to the bag centre and the environmental and social impacts associated with the road for coal transportation increased.

According to Tavantolgoi's cumulative impact assessment report in 2015, "The regional health centre records concluded that residents' morbidity rates vary in bags, however, diseases among residents of Tsagaan-Ovoo bag in comparison with the other four bags of Tsogttsetsii soum accounted for 38.5 percent of all soum diseases; and in 2007 more than half of the total."<sup>34</sup>As mentioned in the preceding section, Tavantolgoi Company only measures dust at the Tsagaan-Ovoo bag centre. Many families moved to the Tsogttsetsii soum centre to prevent the health effects of dust, vibrations and noise. Residents living permanently in the bag centre live with anxieties and emotional stresses due to health impacts of coal mining.

#### *Scope of impact*

According to a survey conducted in 2014, 137 households live in the Tsagaan-Ovoo bag centre and most of them own their land.<sup>35</sup> As of 2018, information provided by the local government of Tsogttsetsii soum, the Tsagaan-Ovoo bag has over 200 households and over 2,300 people.

Due to the high dust contamination, poor quality and availability of water in bag centre, most of the bag citizens live in the soum centre and in the countryside. The bag administration building is located in the village. However, as the majority of the bag population lives in the soum centre, the bag governor and social worker work and live in soum centre.

As of March 2018, a West Tsankh coal stockpile is located only 1-1.5 km from the Tsagaan-Ovoo village, and coal loading and coal transport vehicle parking spaces are located about 0.6-1 km from the village. In addition to the dust, impacts from noise from blasting, vibration, vehicle noise, and gas emissions are high as well. There were more than 100 herder's households in the Tsagaan-Ovoo bag, but the number of herding families decreased over the last few years, now there are only over 30 herding families. The main reasons behind this decrease, as local people and local government explained, is an increased loss and

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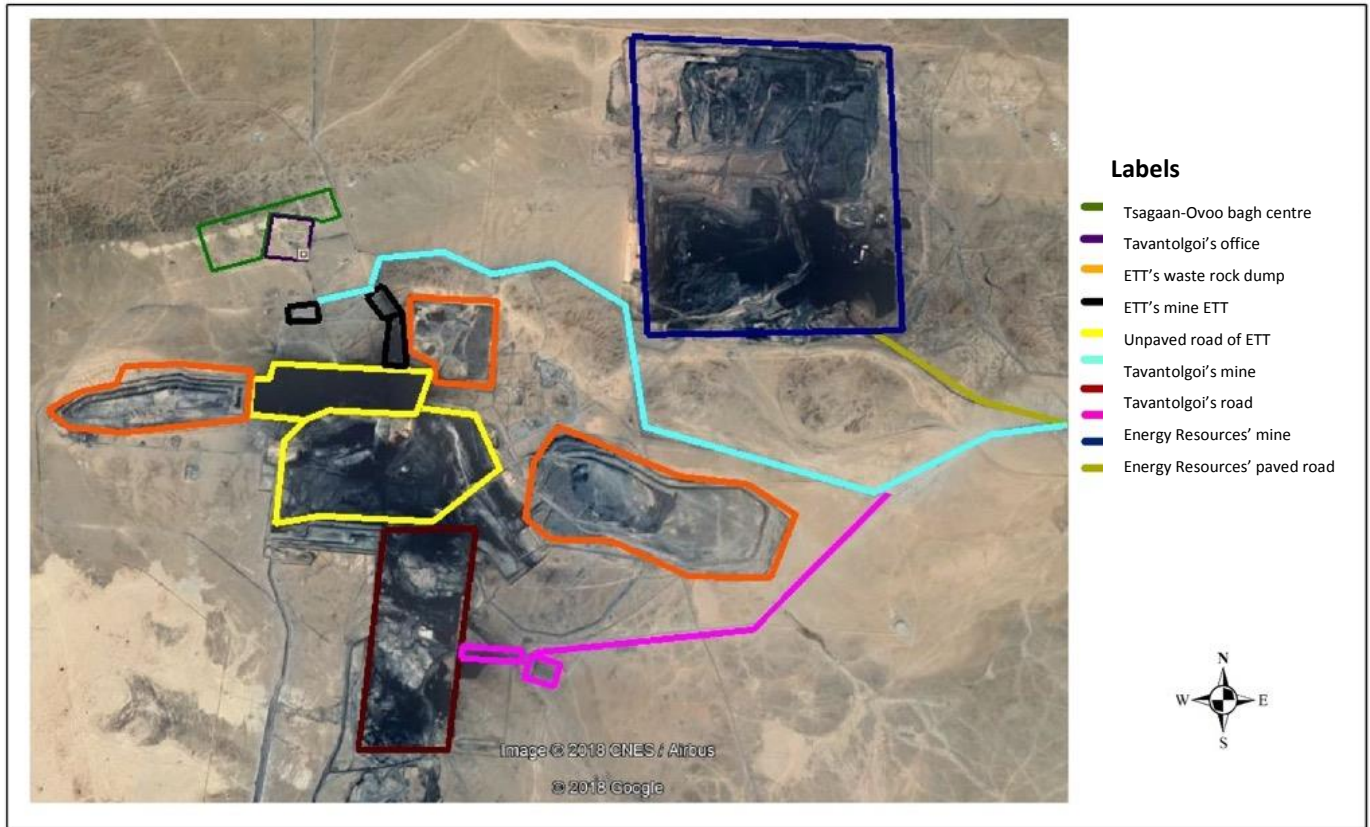
<sup>34</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ. Хуудас 82.

<sup>35</sup> Бодлогын судалгааны хүрээлэн. Хуудас 39.



degradation of pasture, and herders are moving away from the mining area. Local communities and government officials also mentioned many changes that are happening due to mining, infrastructure development and increased transportation such as new jobs and a tendency to leave herding or to hire other people to herd livestock.

**Figure 15. Overview of Tsagaan-Ovoo bagh and coal transportation**



Soum authorities and residents also mentioned increased dust in Tsagaan-Ovoo bag centre, water scarcity, lack of pasture land; and therefore it results in an increase of respiratory diseases, childbirth complications, allergy, cardiovascular diseases; besides it causes emotional and material damages.

Below are some of the most common complaints and some featured cases.

### Issues and challenges in relation to dust

#### Diseases

- Increased respiratory, cardiovascular diseases and increased allergies
- Increased birth complications of pregnant women

### Examples from interviews

*"My husband worked at Tavantolgoi. He died recently, less than 21 days ago. He had pneumonia, both lungs were affected. But the final conclusion of the hospital of his death was a heart attack. His health suddenly deteriorated while he was working, an ambulance came and got him to the hospital, he died."*

*"This is the second time in the last 5 years that a person died from a heart attack in Tsagaan-Ovoo. It was impossible to save his life. His body was exposed to heavy elements, which got into the lungs."*

- Increased skin pollution

#### Financial and material damages

- Personal, households health costs increased.
- All items inside the homes covered by dust, property maintenance and cleaning times increased.
- Livestock lungs and internal organs got affected (polluted)

#### Depression

- Concerns over the health of babies increase stress.
- Lung diseases, silicification heart attacks, and bronchitis are rising rapidly, and these are high concerns
- Fear of the poisoning effect of fine particles of mining white dust to the children's health.

#### **Common challenges related to access and quality of water**

- We collect drinking water from Tsogtsetsii soum centre
- The high cost of drinking water generates additional costs.
- Water quality is poor
- There is a high risk of costs for good drilling as well legal as duties.

#### **Pasture land access and quality**

- All pasture land of local households are in the mining area and fenced now

*"Within one year, from March 1, 2017, to March 1 2018, eight pregnant women had stillbirths. This is due to lack of oxygen. The blood poisoning is high, thus the immune system is weakened. Because of a lack of oxygen, blood cannot reach the placenta, therefore it results in stillbirth."*

*"My sister's daughter has three children. She had a hard time to give birth. The first child had brain pressure, and some complications; one eye has poor vision. My niece had to go to and stay in the aimag centre to give birth to her other two children, as there is too much dust and lack of oxygen associated with dust."*

*"In the Gobi, wind is mostly from the south. In Tsagaan-Ovoo when the wind comes it is like crowded black coal pours over us."*

*"We lived in Tavantolgoi village, because we have a small child, we moved away from this dusty place to the soum centre"*

*"In Tavantolgoi we lived in a ger. Coal dust, very fine dust particles come through ger window and barn, and cover everything. Everything turns black."*

*"If the wind blows from the south, it is like living in a sandstorm. You just clean up your kitchen, and in a few minutes, again everything covered by black dust."*

*"When you collect ramson, a clove of wild garlic, your hands turn all in black, you have to wash your hands before eating them."*

#### **Examples from interviews**

*"We do not have the right to drill a well in the village, most of the wells already run out of water, Erdenes Tavantolgoi has a well inside their area, Tavantolgoi mines buy water from them for their employees."*

*"ETT is willing to give water for 3,000 MNT per tonne, which is 20-30 times more, not 96 MNT per tonne. "*

*"Water is transported to Tsagaan-Ovoo, 1 litre of water cost 3 MNT, whereas in soum centre 1 litre of water is 1 MNT."*

*"Water from Energy Resources' well is fine, water from other wells has a lot of salines, after two days the boiler is full of saline."*

*"When I got my pay, I stay in soum centre and buy "Bolor" drinking water, I cannot afford to buy bottled water."*

*"The bag centre locates in the mine area, so it is very hard to drill well and get water."*

*"West Tsankh used to be our pasture land."*

- Mining dust negatively impacted pasture land and quality of plants

*“Ulaan lake used to be our summer camp. In the winter children skated there. Now Ulaan lake became a waste rock dump.”*

*“Livestock killed by falling into the deep trenches that are created by mining.”*

*“When we slaughter our animals, the color of feces is black, brown, or yellow, not green as it used to be.”*

### **Other impacts of mining**

- Noise impact of mining and transportation activities

Examples from interviews

*“The noise, sounds from all these vehicles, never let us rest, day and night.”*

emissions from coal transport vehicles

*“Now coal transport vehicles pass within 500 meters from the village, waiting, as the vehicles are always running, petrol smell is widespread.”*

- Vibration caused by mining blasting

*“During the blasting, everything vibrates, there is no warning about the date, or time when blasting will be conducted.”*

## **Resettlement policies and measures**

In 2014, an evaluation of resettlement of households living in the mining impact zone of East Tsankh mining, funded by with World Bank, was conducted; the evaluation report developed a plan to improve resettlement of households.<sup>36</sup> The evaluation pointed to the fact that the Tsagaan Ovoo bag area has been identified as a Tavantolgoi mine waste dump area in the feasibility study of 2015 and recommended either to change the waste dump allocation or, if it is not possible, to re-allocate the bag centre.<sup>37</sup>

The cumulative impact assessment of the Tavan Tolgoi mine, which was conducted in 2015 and funded by the World Bank, identified three main reasons why the Tsagaan-Ovoo bag centre has to be relocated. These are:

- The Tavantolgoi mining area extends to the Tsagaan-Ovoo bag, in particular, the rockpiles of West Tsankh mine, getting closer to the bag centre, are about 1.5 km away, and coal production will continue for the next 30 years, which means rockpiles will be everywhere around.
- There is a huge amount of dust around the Tavantolgoi coal mine and presence of sulfur dioxide in the air, which is highest in the region, has a negative impact on the health of Tsagaan-Ovoo bag residents and further poses serious health risks.
- Groundwater water located in the vicinity of the mine is decreasing due to increased water demand in the Tavantolgoi region by the mining industry; and there is a high risk for Tsagaan-Ovoo residents to have a shortage of water in the future, as even now residents experience

<sup>36</sup> Бодлогын судалгааны хүрээлэн. 2014

<sup>37</sup> Хүүдас 39.

some lack of water. This groundwater used to be a drinking water source of the Tsagaan-Ovoo residents.<sup>38</sup>

The Citizens Khural of Tsagaan-Ovoo bag discussed the resettlement issues in recent years and submitted their complaints to Erdenes Tavantolgoi and relevant government officials, soum and aimag governors. The chair of the Citizens Representative Khural of Umnugobi aimag issued a resolution to set up a working group consisting of members of Citizens representative khural and soum governors; the working group had two meetings.

In the first meeting, a decision was made by the working group to move the Tsagaan-Ovoo bag centre urgently/immediately. The new resettlement area for the bag residents was identified, but as informed by soum authority, the soum have approved budget only for the electricity transmission; and no funds for other infrastructure development for new settlement area.

In February 2018, Umnugobi aimag Citizens' Representatives Khural met with Erdenes Tavantolgoi representatives to discuss resettlement of the Tsagaan-Ovoo bag and further opportunities. Erdenes Tavantolgoi Company did not take actions towards re-location of the bag centre as they are waiting for a decision by the Government of Mongolia on bag re-allocation.

In May 2018, a Cooperation Agreement was formalized between Umnugobi aimag and Erdenes Tavantolgoi; article 4.7.2 of the Cooperation Agreement states that "The license holder, based on official authority's decision, will be responsible for certain land and property evaluations of Tsagaan-Ovoo bag residents, Tsogttsetsii soum, made by the professional organization".

Tsagaan-Ovoo bag citizens had no opportunity to receive information about a detailed environmental impact assessment report, the West Tsankh mine technical feasibility study, and environmental rehabilitation and closure plan that contain important information for citizens. No meetings were held or organized by the company to inform local citizens. On the other hand, the aimag and soum authorities did not take measures to follow up with mining companies to get these reports and documents and make them available for local citizens.

It is imperative that Tsagaan-Ovoo bag centre has to be relocated immediately, that environmental monitoring and analysis be conducted by an independent organization, and that a health impact assessment be carried out as initial steps to be taken immediately. Furthermore, local citizens and civil society organizations expressed opinions to take actions to assess the damage made to citizen's property and possessions, health and take measures to bring a court's decision to compensate the damages made.

Considering that all mines contribute to social impact, it is not the sole responsibility of West Tsankh Mine to address the resettlement issue. The Tsagaan-Ovoo Bag is the closest village to the mines and faces a serious impact. Therefore, it is necessary and important to engage stakeholders and collaborate in planning and organizing resettlement.

The main responsible parties for resettlement are Erdenes Tavantolgoi company and Tsogttsetsii soum; but as many company's employees live in Tsagaan-Ovoo village, Erdenes Tavantolgoi is expected to play

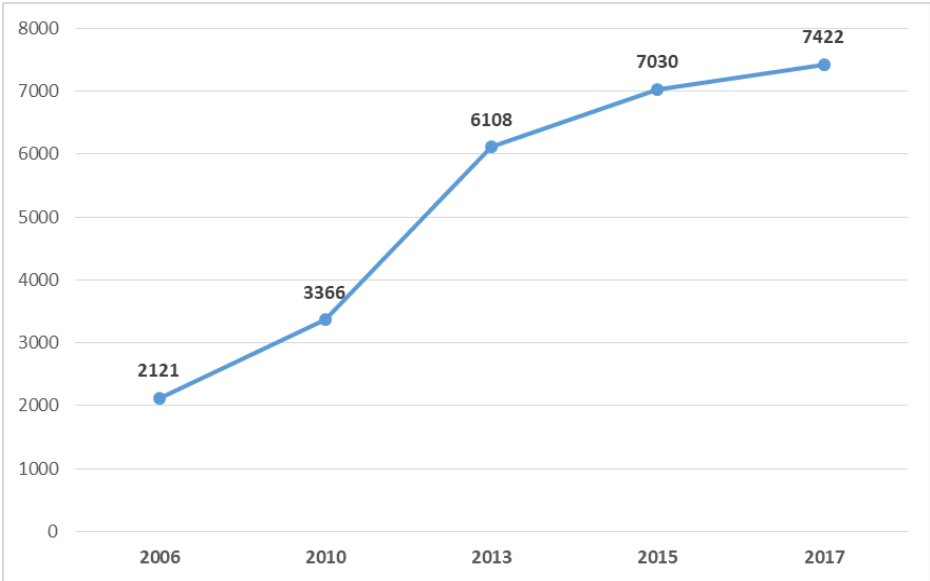
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<sup>38</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ.

a very important role in a development of a long term resettlement plan, it needs to develop a health protection plan of their employees and their families, develop strategies to create conditions for stable and sustainable livelihoods.

**Хүн амын өсөлт ба нийгмийн үйлчилгээний чанар, хүртээмж**

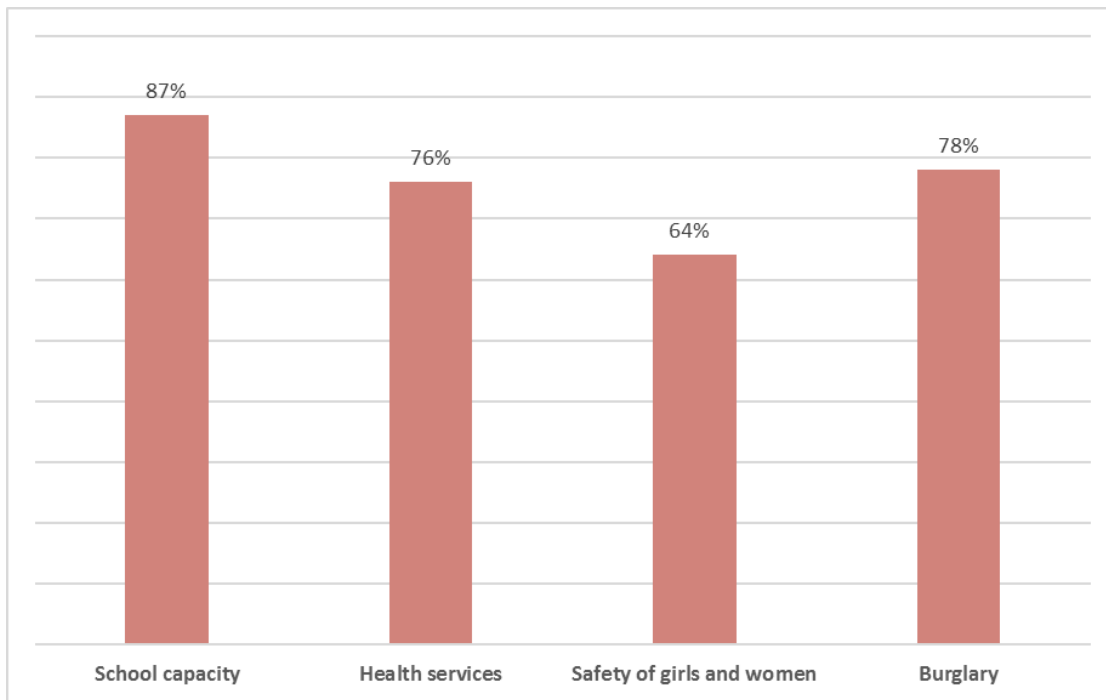
Tsogttsetsii soum had a population of 2,121 in 2006 when Tavantolgoi group mines started operations. The population reached 3,366 in 2010, and continuously increased to 7,422 in 2017. The number of registered population in Tsogttsetsii soum increased rapidly since 2011. Since 2011, the number of unregistered migrants, including workers, individuals, subcontractors, employees of mining suppliers and infrastructure projects, has also been increasing rapidly. According to the Tsogttsetsii soum authorities, approximately 9,000 transient residents reside in the soum.<sup>39</sup>



**Figure 16. Population growth of Tsogttsetsii soum**

According to the Tsogttsetsii soum citizens' survey, most of the population considered that the population growth increased a burden to social service providers, thus access and quality of the social services decreased. 41% of the respondents agreed that "burglary" was very high (if answers "very high, "high" and "medium" added, it is 78 the percent of all respondents") and the majority of citizens are concerned about the safety of girls and women.

<sup>39</sup> Өмнөговь аймгийн Эрүүл мэндийн газар. Өмнөговь аймгийн эрүүл мэндийн статистикийн мэдээлэл-2017. Албан хэрэгцээнд зориулав. 2018 он. Хуудас 22.



**Figure 17.**  
Local citizens' opinion about social impacts of Tsogttsetsii soum's population growth

In Tsogttsetsii soum, the following issues were identified as a result of population growth based on the analysis of the responses to the questionnaire and other research data. These include:

1. Health care, health services access and quality

The budget of Tsogttsetsii's inter-soum hospital is approved based on a number of officially registered people in the soum, 7,400 people. However, the cost of health services for transient people is not reflected in the annual budget, therefore it negatively affects the quality and accessibility of health services.

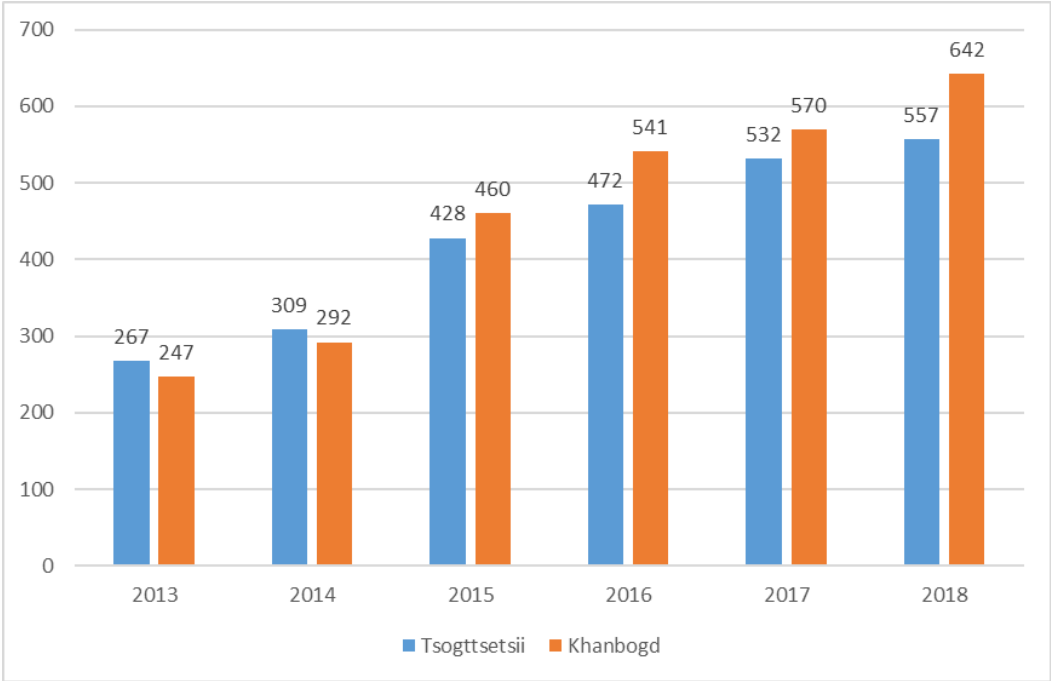
*Due to the number of the transient population accessing health services in the soum, the workload of doctors and nurses increased and therefore we cannot reach everyone who needs us. If we want to hire extra staff, we do not have the budget. The workload of one physician and nurse is high. There is a risk of making mistakes due to workload.*

Interview with health services officer, Tsogttsetsii soum

Due to increased population concentration, the status of Tsogttsetsii and Khanbogd soum hospitals have been defined as "Inter-Soum Hospital" in 2012, and increased the number of staff, doctors and budget respectively. The new inter-soum hospital in Tsogttsetsii soum was constructed with a state investment of 5.2 billion MNT and was completed in April 2016. It has 5 departments and 50 beds. The hospital has 9 doctors, 10 nurses and 27 other medical and technical staff.<sup>40</sup>

<sup>40</sup> Өмнөговь аймгийн Эрүүл мэндийн газар. Өмнөговь аймгийн эрүүл мэндийн статистикийн мэдээлэл-2017. Албан хэрэгцээнд зориулав. 2018 он.

Since 2013, the state budget allocation for the inter-soum hospital in Tsogttsetsii soum steadily increased. The budget for 2018 of Tsogttsetsii soum was 40-50 per cent higher than most of Umnugobi aimag soums compared to 2013. However, the budget increase by fifty per cent is still low, considering the high number of transient people accessing services. The soum is highly impacted by mega mining projects and in comparison to Khanbogd soum, which has a similar population. In other words, the state budget for Khanbogd health services in 2018 compared to the 2013 budget, increased by up 160 per cent, whereas in the Tsogttsetsii soum the budget increased by 108 percent. The distinctive features of Tsogttsetsii soum in comparison to Khanbogd soum is its proximity to the Tavantolgoi deposit, and many other small business entities and organizations operating near Tsogttsetsii soum centre. According to the soum governor's office, there are over 30 fast food ger-canteens, 30 tyre repairs, and shops operating with no sanitation facilities near Tavantolgoi. There are over 80 camps of coal transport companies along 25 km long road from Tavantolgoi mine village to the Gashuunsukhait road. In addition, more than 7,000 drivers and employees are employed by more than 120 business entities in coal transportat. According to the Law on Health, inter-soum hospitals obliged to provide health services to these transient workers, very often, thus the workload of the hospital increases, and negatively affects the quality of health services and access to health care.



**Figure 18.** Funding for “Inter-Soum Hospitals” of Khanbogd and Tsogttsetsii soums /million tugruqs/

Medical staff emphasized the importance of the issues they face and that need to be resolved. Due to a lack of funding the workload of doctors and nurses has increased , they have to provide health services in remote location far from the soum centre, preventive check-ups are dropped, and even though hospital staff work overtime wait times have increased. The repeated night shifts due to a shortage of doctors and nurses result in fatigue and an increased risk of mistakes to be made by hospital staff.

Soums with a similar population, like Khanbogd and Gurvantes soums, conducted preventive check-up of the population in 2017 and reached 6,900 and 3,111 persons, respectively, whereas Tsogttsetsii soum

hospital reached only 2,523 persons.<sup>41</sup> The Tsogttsetsii soum hospital has conducted an average of 15,000 visits per year in 2016 and 2017. Before 2010, when the population growth rate was average, Tsogttsetsii soum hospital conducted 5,000 visits on average per year as any other soums with a similar number of populations.

*There is a lot of workload and one person is doing a job of two. We work night shifts too. Mining companies employees usually come in the evening to see doctors. It's just like an outpatient check until 23.00 pm. Even we work overtime; there is no budget to pay overtime.*

Interview with a doctor in Tsogttsetsii soum

As of 2016-2017, the number of diseases among population recorded in Tsogttsetsii soum hospital is about 4,000, which is twice as high as Khanbogd soum, 1.5 times higher than Gurvantes soum and 15-20 times higher than other soums.<sup>42</sup> This number itself proves the high workload for hospital staff. There is a large number of cases of respiratory disease and sexually transmitted diseases. Due to the high workload, diseases often spread among the transient population, and provision of urgent medical care related to accidents due to alcoholism and injuries is required. The number of inpatients in the Tsogttsetsii soum hospital was 1,200 in 2016-2017 per year, which is 2-3 times higher than Khanbogd (600) and Gurvantes (400) respectively.

The influx of people, especially young people, to Tsogttsetsii soum to work for a mining company, or seeking jobs or other economic opportunities, greatly contributed to population growth in the soum. By 2017, the share of young people aged 25-35 years is 48 percent. In this connection, there is a high pregnancy and birth rate. As of 2017, 203 mothers gave birth, out of which 159 women gave birth in Tsogttsetsii soum hospital. In Khanbogd and Gurvantes soums, which have a similar population, 115 women gave birth in Khanbogd soum hospital and 101 women gave birth in Gurvantes soum hospital, whereas in other soums the average number of births is about 30-40.<sup>43</sup> Only one midwife works in Tsogttsetsii soum hospital instead of four. Thus, the midwife works 2-3 days on full shifts, often facing a problem of high workload and a lack of sleep. One nurse works at night and this nurse takes responsibility for childbirth and other divisions. Pregnant women get a checkup that takes about 40 minutes to 1 hour. Longer appointments are not available because of the inadequate number of doctors, and overcrowded hospitals, so pregnant women are often frustrated.

The incidence of sexually transmitted diseases is very high among young, transient populations, due to the fact, that they travel for many days. Soum doctors emphasize that there is an increase of syphilis among pregnant women, which poses a high risk to the life of the unborn baby or results in stillbirth. Soum hospitals do not have a car to go out and organize training among drivers and have no funds to organize advocacy activities and educate young people how to prevent sexually transmitted diseases.

The proportion of young people in Tsogttsetsii soum is high and there are many miners living with families in the soum centre. The share of children aged between 0-5 is 8.2 percent, and it is 1-3 percent higher

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<sup>41</sup> Өмнөговь аймгийн Эрүүл мэндийн газар. Өмнөговь аймгийн эрүүл мэндийн статистикийн мэдээлэл-2017. Албан хэрэгцээнд зориулав. 2018 он. Хуудас 14.

<sup>42</sup> Мөн тэнд.

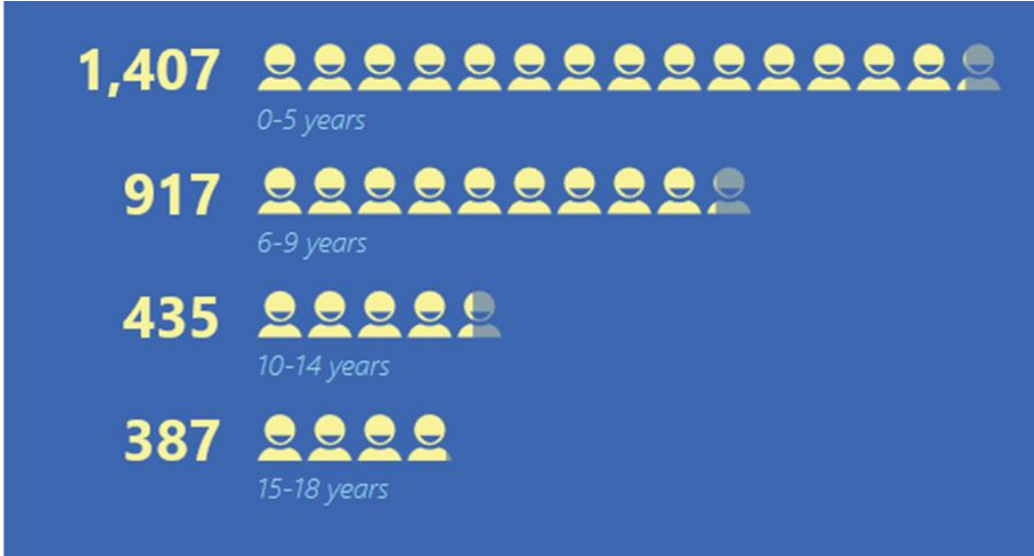
<sup>43</sup> Мөн тэнд. Хуудас 6.



than in other soums. Soum doctors, staff and citizens are warning that respiratory diseases are high among children, and the living environment is harsh for children, not favourable to raise children due to dust and air pollution.

2. Access to education

42 percent of the population of Tsogttsetsii soum is under 18 years of age, increasing the demand for education services. As of 2017, there are 3,416 children aged 0-18, out of which 1,407 or 45 percent are 0-5 years old and the remaining 55 percent are school-age children.<sup>44</sup>



**Figure 19. Children aged 0-18 in Tsogttsetsii soum in 2017**

Until 2013, a 12-year secondary school, named after Tuvden Bor, was operating in Tsogttsetsii soum. The school has a capacity of 440 children. As a result of the increase of the soum population in 2010, the school had to work in three shifts to accommodate children. In 2013, Energy Resources LLC and the Umnugobi Aimag Governor's Office jointly launched the 6th School and "Dream" complex in Tsogttsetsii soum. The complex consists of a secondary school with capacity for 640 children, a kindergarten with capacity for 114 children, and dormitory with capacity for 100 children. Energy Resources has implemented a five-year program to support the new school, including the introduction of a new educational management system, the introduction and implementation of advanced language and mathematical programs, inviting teachers from "Orchlon" school, which is one of the best schools in the country. During 2013-2014, the new 6th school had 740 children, when Tavantolgoi mine started operations. When coal exports dropped, especially when Energy Resources had operations closed during 2015-2016, the number of children in the school dropped to 640.<sup>45</sup>

Currently, a total of 1,800 children study in two schools in Tsogttsetsii soums, although the capacity of both schools combined is limited to 1,080 children. About 800 children study in the 6th school and the remaining 1,000 study at the T Bor Secondary School. Meetings with local residents and students show

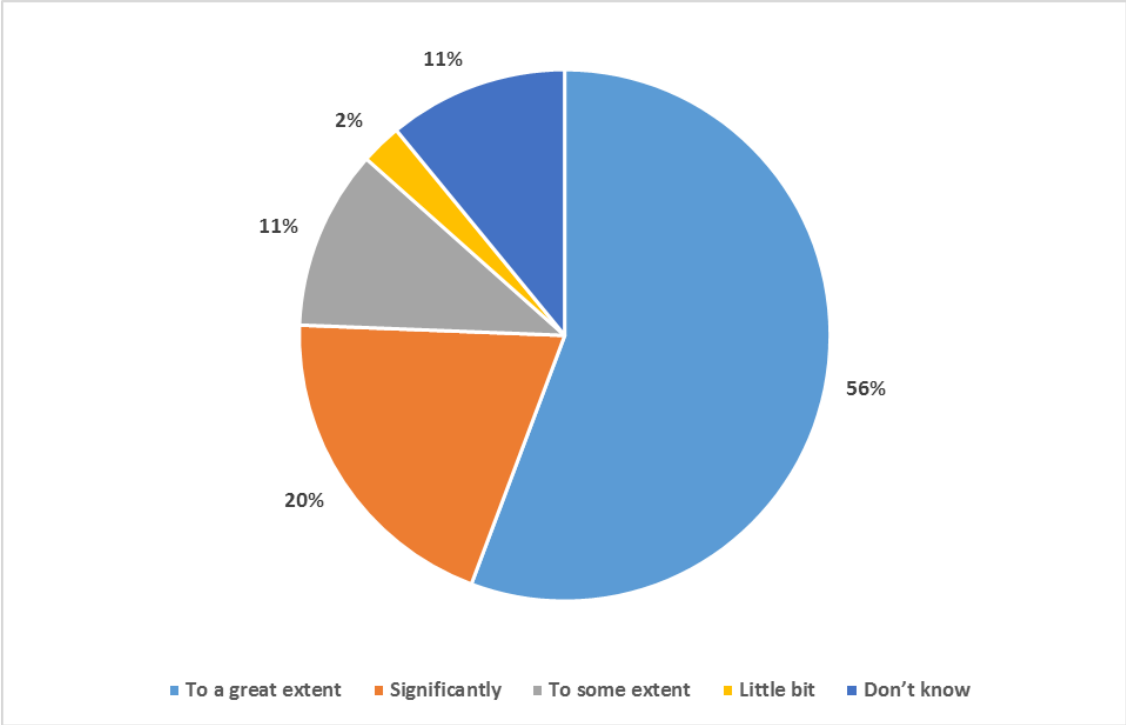
<sup>44</sup> Өмнөговь аймгийн Статистикийн хэлтэс. Өмнөговь аймгийн 2017 оны 12 сарын нийгэм эдийн засгийн танилцуулга. 2018 он.

<sup>45</sup> НҮБ-ын Хүүхдийн Сан. Уул уурхайгаас үүдсэн шилжилт хөдөлгөөн, хүүхдэд үзүүлэх нөлөөлөл: Судалгааны үр дүн ба зөвлөмжүүд. 2017 он. Хуудас 25.

that School # 6 does not allow the number of students to exceed 30 per class, provides a favourable and safe environment for children to study and for leisure time, and children can stay at school until 6.00 pm. There is a common understanding, that the majority of the students in School 6<sup>th</sup> school are children of employees and migrant workers of Energy Resources Company.

At T Bor Secondary School the student number surpassed capacity; it has five times more students than School 6. Although in 2013, the population was 6,108 people, and when the new School 6 opened, it reduced the school load. But the population was increasing; in 2017 it reached 7,422 people. The school again had to run in three shifts. It is not possible for students to spend their free time in schools. In the soum centre, there is no other place for kids to spend their free time, so children play basketball in the streets, or computer games, billiard etc.

**Figure 20. Whether the population growth caused the squeeze on schools (The survey of local residents)**



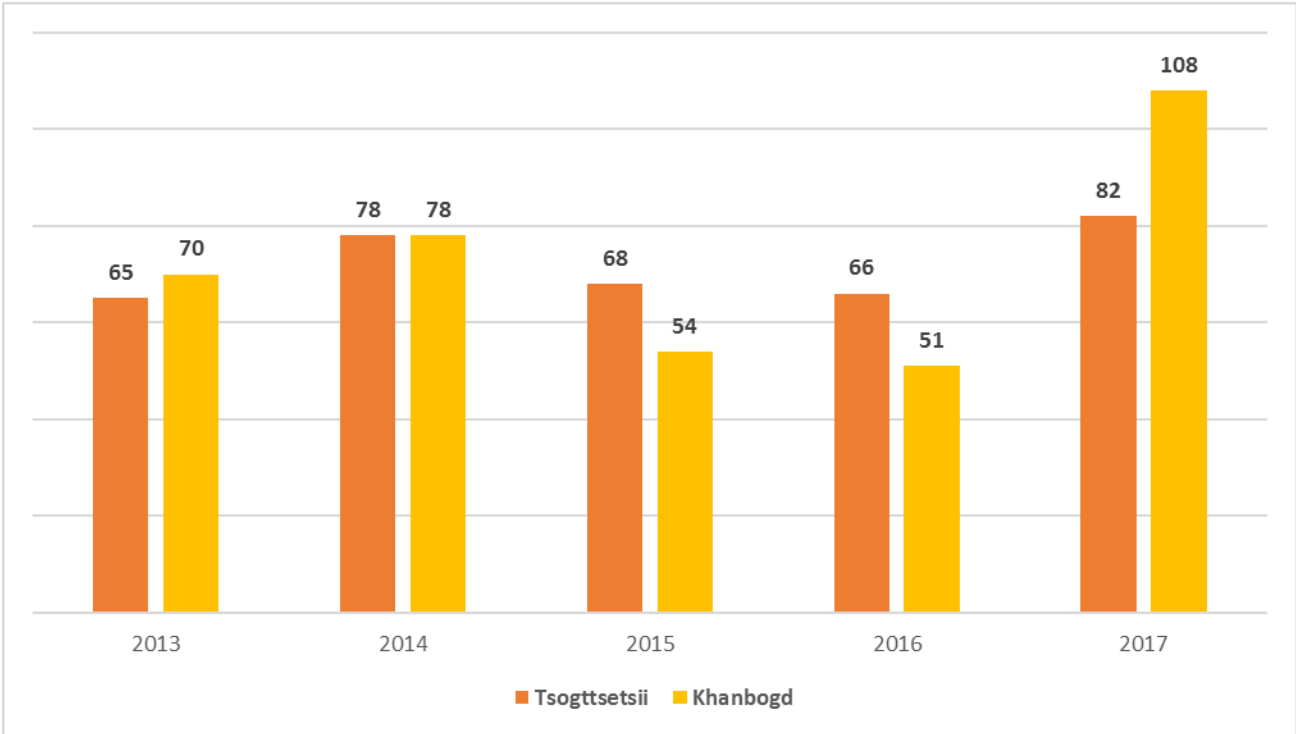
As mentioned in the previous section, the number of births and young children has increased dramatically in Tsogttsetsii soum's population. As of 2017, there are about 1009 children aged 3-6, and about 800 children are enrolled in kindergartens with 550 children capacity. At present, over 200 children cannot attend kindergarten.

3. Crime and social order

*Incidence of crime*

The incidence of crime and offences has increased in Tsogttsetsii soum due to the growth of population, especially the transient population. According to soum police data, the transient population had the highest offender rate. The crime rates increased by 60 percent in the first quarter of 2018 compared to the same period of last year. Soum police believe that the main contributor to the increase is the growth of transient population. In total, 228 crimes were registered in 2017 in Tsogttsetsii, Khanbogd and Gurvantes soums of Umnugobi aimag, where most of mining and transportation activities are concentrated, accounting for 49 percent of total crimes committed in Umnugobi aimag. 18 percent of the aimag's total crime was registered in Tsogttsetsii soum.<sup>46</sup> In Khanbogd soum, the coal transportation road passes its territory and the Tsagaan Khad Customs Inspection Zone is located in the Khairkhan Bag of Khanbogd soum. These factors mainly explain the high rate of crime incidents. In Tsogttsetsii soum, a total of 66 crimes were registered in 2016 and 82 in 2017, which shows an increase in the crime rate by 24 percent. In Khanbogd soum, 51 crimes were registered in 2016, and 108 in 2017. These data prove that mining and coal transportation activities of Tavantolgoi mines contributed to increase in crime incidents (Figure 21).<sup>47</sup> In Tsogttsetsii soum, crimes against human health and immunity tops the list of crimes. The second in the list is theft and the third is road rule crimes.

**Figure 21. Crimes recorded by police in Tsogttsetsii and Khanbogd soums**



*Road traffic safety*

Increased traffic in the soum centre poses a safety risk to citizens and children. Due to the dust cloud in the centre of the soum visibility is very low. In addition, trucks erode and degrade the soil. There are

<sup>46</sup> Өмнөговь аймгийн Статистикийн хэлтэс. Өмнөговь аймгийн 2017 оны 12 сарын нийгэм эдийн засгийн танилцуулга. 2018 он.

<sup>47</sup> Өмнөговь аймгийн Статистикийн хэлтэс. Жилийн эцсийн нэгтгэл тайлангууд. 2015-2018.

frequent traffic violations such as speeding. Local residents pointed to a lack of traffic signs in the soum centre and lack of preventive measures taken by local traffic police and poor coordination.

To improve traffic safety in two school environments, schools require children to wear phosphorescent vests, teaching children traffic rules, putting fences and blocks around the school. But more improvements are needed for road traffic safety in the soum centre.

The Crime Prevention Council of the soum urges local communities, children and other stakeholders to improve traffic safety by taking measures such as identifying high risk areas and placing cameras, big, visible traffic signs, increased citizens participation in preventive actions and monitoring of road traffic safety actions.

### *Gender-based violence*

In the interviews with high school students, students said that there is a potential risk for girls as many people transit through Tsogtsetsii soum centre. In the evenings, there is a number of drunk strangers. There were cases where a woman or girl walking on their own were approached and scared. Family members were really worried in these cases and concerns over the owner and family members' safety have increased.

Due to many work days, working conditions and workload, people transporting coal, are inclined to depression and alcohol abuse during their vacation time, increasing the risk for family violence.

*"It is a pity that excessive alcohol drinking is common among labour force-age people with high salary. Many people with alcohol poisoning come here. There are people who usually work for 14 days and seven days they stay in hospitals for alcohol treatment".*

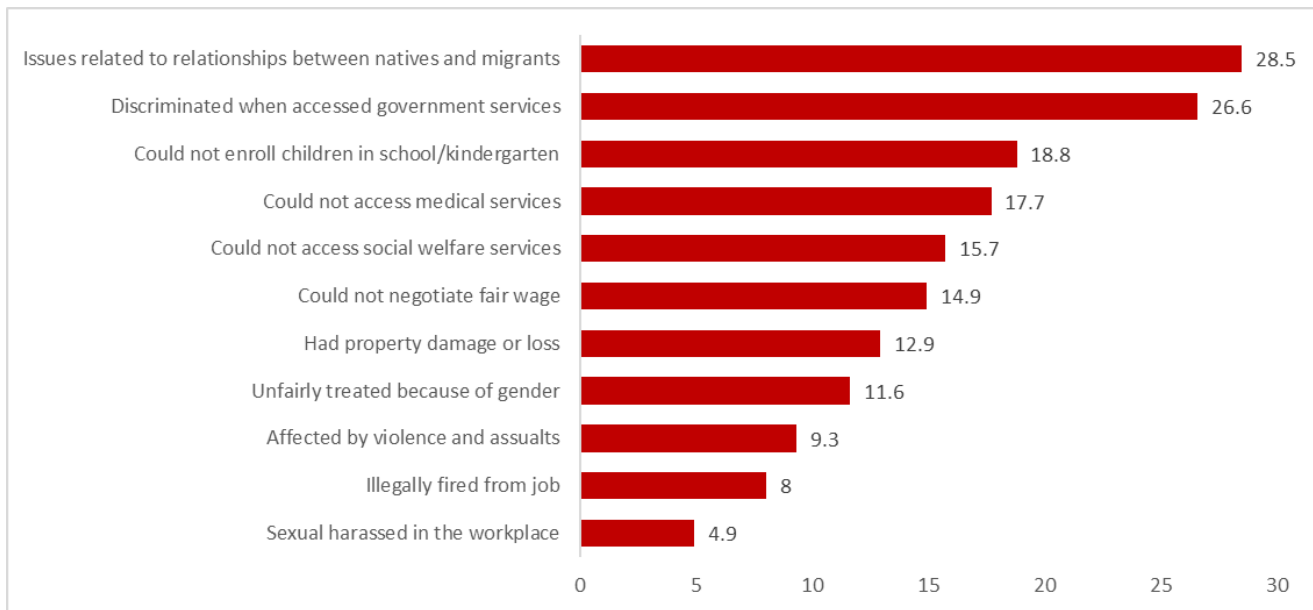
Interview with Tsogtsetsii soum doctor.

The soum authority implements certain activities to combat family violence. Firstly, meet with people who need assistance, provide counseling to family members together with soum doctor psychologist. A survey among drivers indicated that there is a high demand for psychological services. Secondly, a joint team to combat gender-based violence in families was set up and relevant training was organized in two schools and three kindergartens including parents.

### *Social discrimination*

In 2006, the population of Tsogtsetsii soum was 2,121 people, in 2010 it reached 3,000, and today the population is about 7,500 people. This rapid increase of population is attributable to Tavantolgoi deposit mine development, and many people migrated to Tsogtsetsii soum. Due to the mechanical increase of population, there is a tendency among the soum population to discriminate and treat people differently based on whether they are local natives or newcomers. Interviews with soum centre residents conclude that because of discrimination of local versus migrant, there are real cases of conflict and negative impacts, in particular, for opportunities to work in Governors' office, or to get social services. The survey result among soum centre residents also proves this conclusion.

## **Figure 22. Whether the following problems happened in the last year (% of all respondents)**



In general, Energy Resources company employees live together with a family in the so-called “Tsetsii District”, a residential complex with a school and kindergarten. The mining camp “Gallery” has its infrastructure and facilities, and has unique features that differ from other parts of the soum centre; and it creates a kind of a distinct settlement inside of the soum centre which is the main cause of relationship conflict and different treatment of locals versus migrants. This type of relationship is visible through social media, interviews and observations.

There is an attitude of discrimination for people who work for mining companies and migrated to Tsogtsetsii soum; they are seen and treated in a way as *“people who will go back when the minerals finish”* and, in particular, discrimination is there in election for public service or participation in soum political life. On the other hand, migrant workers, who came here for the opportunity to work for the mining companies, felt discriminated against in obtaining public and social services and found it very difficult to get information, express their opinion and make complaints.

There are economic, social and cultural differences between locals and migrant workers, and in order to prevent potential conflict between locals and migrants, who came here since 2010, there is a need to have a policy that supports people to unite and share common values and to see the soum as their common land. As such a policy does not exist yet, even in the schools, the relationship is divided among school students as children of locals and children of migrants. Moreover, communities become reluctant to participate in public works, such as street cleaning or tree planting, the low participation shows that there is weak solidarity in social relations.

With an increased population, waste produced by households and business entities increases. Although the old waste dump filled up and closed, and a new waste point was created, people still dump their waste into the closed, old waste point and this creates environmental pollution. In the past, the soum energy sector was responsible for tackling the solid waste management issue. But Tsogttsetsii soum Governor O. Badarch changed this arrangement and in 2018 established a separate landscaping company with about 20 employees to take responsibility of the soum solid waste management issues.

Along the coal transportation road there are many fast food and car services points, which are not well organized and planned, and these generate a huge amount of waste and pollute the surrounding environment. The soum governor issued a decree and inspections were organized in these places. According to the authority's inspection, on the 25 km of Gashuun Sukhait road, in over 80 places there were camps of business entities, trade, food and services points. Only four business entities had the legal right to land use, and the remaining had no licences to operate, to build small houses and run business activities. As most of the services providers had no official permission, there was no land use planning, no hygiene and sanitation requirements, no inspections and thus, waste was everywhere, and many stray dogs as well.



**Photo 6. Unplanned and uncoordinated trade and service point located about 6km from Tavan Tolgoi mines**

In two locations, 4 and 6km from the beginning of the Gashuun Sukhait road, there is a concentration of many gers which were put there with no planning and it looks messy and unorganized. The truck drivers use these points as a temporary stop to get some rest, to shop, to eat food and to repair some truck parts. However, there is no parking for the vehicles, no supply of electricity and water, no washrooms; basically, there are no basic conditions to enable manufacturing or other business activities, and for people to live in a healthy and safe environment. In this environment, where many big, heavy vehicles come in and out, creating many dirt tracks, soil erosion and destruction is very high. Pastureland degradation and dust are the main heavy issues facing the herders living nearby.

Dust generated in this place can be blown by wind, with a direction to the north, and bring the dust to Tsogttsetsii soum centre. Besides, the soil is polluted in these places as people spill petrol or oil while servicing trucks or cars.

The soum governor's office initiated and made efforts to bring these 30 small businesses (hot water baths, fast food, repair services) into one place that would have sanitation facilities, a parking space and create a better, safer environment. However, the governor's office received a response from only 20 business entities out of 120. This initiative requires about three billion tugrug worth of investment, unfortunately, coal transportation companies did not make efforts to collaborate on this matter. In 2018 the local Governor's office granted land permission to two business entities, who made a proposal to

establish a transport logistics centre. Currently, the construction scheme/plan has been finalized, and the business entities are responsible for finding investments for building the transportation logistics centre.

## Affected rights, impacts and risks

	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural Rights	The Constitution of Mongolia
Affected human rights:				
<b>Brief explanatory note on a human right</b>				
<b>Conclusion on impacts and risks</b>				

Summary of main factors that influence activities

### Violated rights: Right to life

<b>Articles in international and national human rights documents</b>	The Universal Declaration of Human Rights Article 3	International Covenant on civil and Political rights Article 6	International Covenant on Economic, Social and Cultural rights	The Constitution of Mongolia Article 16.1
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#### A brief note on this right

It means the government should take appropriate measures to safeguard life by making laws to protect you and, in some circumstances, by taking steps to protect you if your life is at risk. Realization of Right to Life is a healthy and safe environment, and the Government has a duty to protect its citizen against environmental pollution and ecological imbalance.

#### Conclusion on impacts and risks

Impact: Local citizens of Tsagaan-Ovoo bag complained that a local bag resident died because of mining dust which seriously affected the health of the person.

### Affected right: Right to live in a healthy and safe environment

<b>Articles of national and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	The Constitution of Mongolia Article 16.2
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#### A brief note on this right



Right to live in a healthy and safe environment means people are entitled to be free in their daily life from harmful impacts, and have the opportunity be apart from such harms.

Environmental pollution refers to air, water, soil such as organic pollution but also include non-organic pollution from human activities such as noise disturbance, waste, light waste.

**Conclusion on impacts and risks**

Impact: In Tsogttsetsii soum centre area with an increased dust level, respiratory diseases, birth complications, allergy, cardiovascular diseases increase along with the increase of psychological and material damages. With a population of 10,000 people, Tsogttsetsii soum has the highest number of people with respiratory diseases. In particular, in Tsagaan-Ovoo bag, people with respiratory disease constituted 38.5 percent of the total diseases, whereas in 2013 this percentage has increased to more than 50 percent. Population growth in Tsogttsetsii soum, in particular, an increase of mobile population, resulted in an increase in crime and public offences.

Waste, generated from many unorganized and unplanned fast food gers, repair services along the coal transportation road, pollutes the surrounding environment, and has a negative impact on health and safety of transportation workers and local communities.

**Violated right: right to health**

<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	Constitution of Mongolia
	Article 25			Article 16.2, 16.6

**Brief commentary to this right**

The right to health means everyone has an access to health care, facilities and equipment, and medical treatment on time, has a right to health-related education and information, and to participate in a decision related to health.

**Conclusion on impacts and risks.**

The population of Tsogttsetsii soum is about 7,400 people, and the soum hospital’s budget is estimated based on the number of residents. Soum hospital provides health services also to migrant workers, but these health costs are not reflected in the soum hospital budget, thus negatively impact the quality and access of soum health services.

Respiratory diseases increase among the population with an increased amount of dust. Although there are many complaints on deteriorating living environment, and damages occurring on possessions, there is a lack of information on monitoring of air quality and dust; impacts of dust on environment and health. Some information is confusing, thus violating the right to health.

**Violated right: Right to drinking water and sanitation**

**Clauses of National and international human rights documents**

United Nations General Assembly Resolution 64/292 July 28, 2010

**Brief commentary on this right**

Right water and sanitation mean that everybody has a right to safe, sufficient and continuous water for personal and family needs.

**Conclusion on impacts and risks**

Citizens of Tsagaan-Ovoo bag lack water, they collect water from the soum centre, or buy water for a high price, to dig a well involves high legal and economic risks. Further, there is a high risk of water shortage.

**Violated right: Right to education**

**Clauses of National and international human rights documents**

The Universal Declaration of Human Rights

Article 26

International Covenant on civil and political rights

International covenant on economic, social and cultural rights

Article 13

Constitution of Mongolia

Article 26

**Brief commentary on this right**

The content of the right to education is about securing a free access to primary education for everyone, access to vocational, technical and higher education; it also includes a notion of the provision of informal educational services by individuals, or private entities.

**Conclusion on impacts and risks**

In 2013 the soum population was 6,108, schools were overcrowded, and a new school was built and changed the situation. But since the population has been increased and in 2017 it reached 7,422 people, but no more schools built, so again now the school named after a hero T. Bor is again overcrowded and operates in three shifts as in 2013. Associated with the population growth there is

a sharp increase in a number of birth and in a number of small children. As of 2017, children aged 3-6 are 1,009, and about 800 children attend kindergarten (there are 3 kindergartens, with a total capacity of 550 children), the rest (over 200 children) cannot attend the kindergarten due to capacity issue.

**Violated right: Right to own property (alone as well as in association with others)**

<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	Constitution of Mongolia  Article 16.3
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**Brief commentary on this right**

Every person shall have the right to fairly obtain, possess and own movable and immovable property, and to give such property as an inheritance. Illegal seizure and expropriation of private property are prohibited. In the event the state and its authorized agency have a need to expropriate or seize private property for public use, the state shall provide appropriate compensation.

**Conclusions on impacts and risks.**

Erdenes Tavantolgoi LLC did not carry out a baseline survey to inform, develop and implement an action plan for resettlement today, and therefore as of today, it remains the main cause of financial and material damages of citizens.

With increased mobile population, theft is increasing, and citizens have property damages.

**Violated right: Right to freedom of movement and residence**

<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	Constitution of Mongolia  Article 16.3
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**Brief commentary on this right**

This right refers to a broader content that everyone has a right to freedom of movement and residence temporary or permanently within the borders of its own home country and other countries, right to leave any country, including own, has the right to migrate, right to work, right to study and right to return to home country.

**Conclusion on impacts and risks**

The absence of baseline study and resettlement implementation action plans, constraints residents of Tsagaan Ovoo bag to make choices and plan for resettlement.

**Violated right: Right to obtain a remedy through requests and complaints**

<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	The Constitution of Mongolia
				Article 16.12 article

**Brief commentary on this right**

Any person has a right to submit a petition or a complaint to State bodies and officials to eliminate damages, to address conflict or to stop human rights violations. The State bodies and officials shall be obliged to respond to the petitions or complaints of citizens in conformity with law.

**Conclusion on impact and risk**

Citizens of Tsogttsetsii soum, Tsagaan–Ovoo bag and local authorities approached Parliament of Mongolia, the national Government, Erdenes Tavantolgoi company in regards to air, soil pollution and household resettlements, but there is no clear how the complaint is discussed and proceeded further, and what decision is made. Moreover, feedback mechanism is not working, e.g. local community submitted complaints in relation to dust and its negative impact to health, however, state authorities, who are accountable for addressing Human Rights issues, left these issues unresolved; and the grievance and compliance system of Erdenes Tavantolgoi company is not functional or do not exist to address community complaints.

**Violated right: Everyone has the right to freedom of opinion and expression, and receive information.**

<b>National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	The constitution of Mongolia
	Article 19	Article 19		Article 16.16

**Brief commentary on this right**

This right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.

### Conclusion on impacts and risks

A survey taken from the soum residents demonstrates that more than 70 percent of soum centre residents do not receive any kind of information on air quality and dust monitoring.

Citizens have no opportunity to receive information about three mines, mine feasibility study, a comprehensive environmental impact assessment report, environmental rehabilitation and closure plan that are important for citizens to know and get information. The soum authority did not take measures to follow up with mining companies to get these reports and documents and make them available for local citizens.

### Scales of impactson human rights and the order of priority

Priority	Affected human rights	S	E	R	O
I	Right to living in a healthy and safe environment	3	3	2	3
	Right to health	2	3	2	3
	Right to life	3	1	3	2
	Right to freedom of information, opinion and expression	1	3	2	3
II	Right to education	1	3	2	3
	Right to water and sanitation	2	1	3	2
	Right to an effective remedy	2	1	2	2
III	Right to own property	2	1	2	2
IV	Right to freedom of movement and choosing a place of residence	1	1	2	2

The following criteria and scales from 1 to 3 were used to determine the order of priority areas

- S – Severity of impacts (1-3)
- E – Extent of impacts (1-3)
- R - Likelihood of remediation (1-3)
- O - Likelihood of reoccurrence of rights abuses (1-3)

## Recommendations

### *Reducing dust*

- Implement a comprehensive program to reduce dust: measure the amount of dust and identify main sources of dust; identify best options to reduce dust of main dust sources.
- Erdenes Tavantolgoi Company to urgently build a road from its mining site to Tsogttsetsii soum centre in 2019.
- Erdenes Tavantolgoi company to urgently finish 8.2 km long a paved road building works for coal transport to the Gashuunsukhait road
- To develop a comprehensive program for road dust reduction, implement this program by engaging local Government, the relevant private sector and local community and to enlarge paved roadways in soum centre to reduce dust generation from the earth-roads.
- To receive certain funds from “Combating Air Pollution Fund” and implement dust reduction activities in Tsogttsetsii soum
- To implement Dalanzadgad-Tsogttsetsii 59 long paved road building by engaging Erdenes Tavan Tolgoi, Tavantolgoi, Energy Resources and Oyu Tolgoi companies.

### *To improve dust and air quality monitoring*

- To improve air quality and dust monitoring methodology, resources, frequency and transparency near three mining sites of the Tavantolgoi deposit
- To introduce and set up an international benchmark for regular and continuous air quality and dust monitoring in three mine sites of the Tavantolgoi deposit

- To strengthen the capacity of Tsogttsetsii soum weather and climate observation specialist to use the Dust Track device, measure dust using the specified methodology, how to make documentation, follow a procedure to save the collected data, and communicate the results of the dust measurement.
- To carry out air quality and dust research of Tsogttsetsii soum centre by an independent research entity
- Introduce a regulation where up to fifty percent of the air pollution will be used to fund activities that protect the local environment and public health by amending the Law on Payment of Fees for Use of Natural Resources and the Law in Air Pollution.
- Funds from “Combating Air Pollution Fund” to be allocated for air quality research study of Tsogttsetsii soum and to do dust monitoring activities regularly.
- To clearly define roles and responsibilities of the business entities in regards to dust monitoring and reduction, and to develop relevant regulation and standards in the Law in Air and relevant environmental laws.
- To reflect and include in the concept of the “Air” and “Air pollution fee” laws and also in the Combating Air Pollution program about air pollution near coal mining and health risks associated with air pollution by coal mining.

*To protect sustainable livelihoods and health of citizens of Tsagaan-Ovoo bag*

- Immediately take action to move Tsagaan-Ovoo bag centre, and to engage citizens in this matter.
- Although the main responsible parties for moving bag centre are Erdenes Tavantolgoi and Tsagaan-Ovoo bag Governor’s office, Erdenes Tavantolgoi should be playing a leadership role by having a long term planning towards its employees and their families living in the bag centre to protect their health and create sustainable livelihoods opportunities.
- As initial steps, carry out environmental monitoring and health impact assessment by an independent entity
- To take measures to evaluate property and health damages of local citizens and to ensure that citizens compensated by court decision.

*Solving the challenges related to the population growth of Tsogttsetsii soum*

- Enhance the inter-soum hospital status
- Update the population registration, conduct population baseline study
- Implement health program targeting youth and young families
- Increase human resources of a maternity hospital and gynecology service

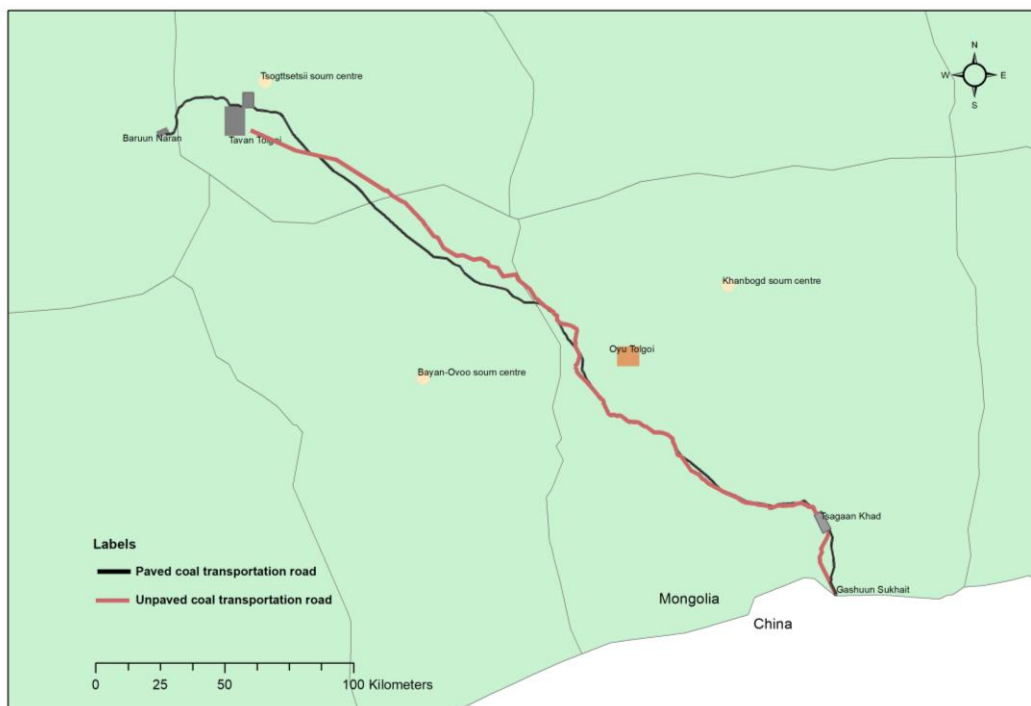
- Build a new school and kindergarten complex facilities
- Improve road safety in the soum: develop a road safety program, improve monitoring of roads by transport police, increase participation of the private sector and citizens.
- Improve signs, put cameras, identify points with high risks, improve the overall environment by increasing citizen's participation and implement a set of activities to prevent accidents.
- Organize a joint inspection of the fast food service providers along the coal transportation road, and assist citizens and small business owners to work in the centralized centre and provide logistical support.



### 3. Impact assessment of the rights of participants in coal transport activities

#### Coal transportation

Coal export to China was started in 2004 and it had been transported through dirt road until 2011. The coal export from Ukhaa Khudag mining site started since 2009 and the number of trucks to transport the coal through both dirt road and improved-dirt-road increased significantly. In 2010, “Energy Resources” LLC started investing to construct 240 km long paved road from UHG mining site to the Gashuunsukhait port for coal transportation and it was completed in 2011. Although the newly paved road was launched by Energy Resources, other coal transport entities were continuing their transportation through the dirt road. The reason was that the payment for using the paved road was high and most of the coal transport entities remained using the improved-dirt-road that was previously used.



**Figure 23. Paved and unpaved coal transportation road (2012)**

A significant number of people lost their lives due to traffic accidents as a result of the increased amount of dust and deep grooves that created by coal transportation through the dirt road. In Umnugobi aimag, 310 traffic accidents had been registered, 26 people lost their life, and 44 people severely and lightly injured between 2010-2012 October.<sup>48</sup>

The dirt road has been suspended by the General Agency for Specialized Inspection and the Auto Transportation Authority. According to the resolution #299 of the Government of Mongolia “Some measures to promote coal export” passed in 2013, “Erdenes Mongol” LLC bought the paved-road. Initially, “Gobi Road” LLC was responsible for the utilization, transportation regime, maintenance and other related operational factors of the paved road, and these obligations have been transferred to the “Gashuunsukhait Auto Road” LLC, a subsidiary of Erdenes Mongol LLC.

<sup>48</sup> Information from the traffic police of Umnugobi aimag’s police department 2012

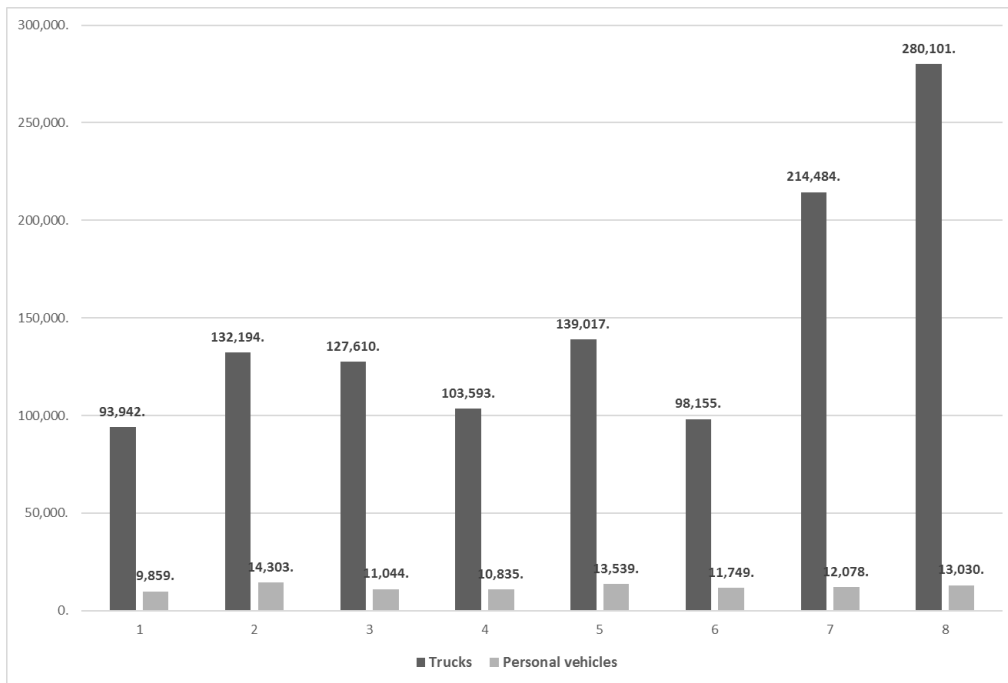
The utilization fee of the coal transportation through the paved road needed to be decreased in order to achieve following factors including protection of the environment of Umnugobi aimag, ensuring health and safety of the local residents and truck drivers, and to meet the Mongolian standard of transportation. Yet Erdenes Mongol LLC and Gashuunsukhait Auto Road LLC negotiated with other coal transport entities, and the utilization fee has been dropped to 1.5 \$ per ton coal in 2014, which was 4.2 \$ in 2013 and it decreased to 1.25 \$ in 2015. As a result, a practice that was related to transportation of coal through the dirt road to save cost stopped. However, it has not been fully stopped to transport the coal through the dirt road due to purposes of cutting into queue when there is a long line and the drivers who have documentation problems to avoid from the inspection.



**Photo 7. Trucks cutting the queue (Source: Facebook group of Tsagaan Khad's drivers, April 4, 2018)**

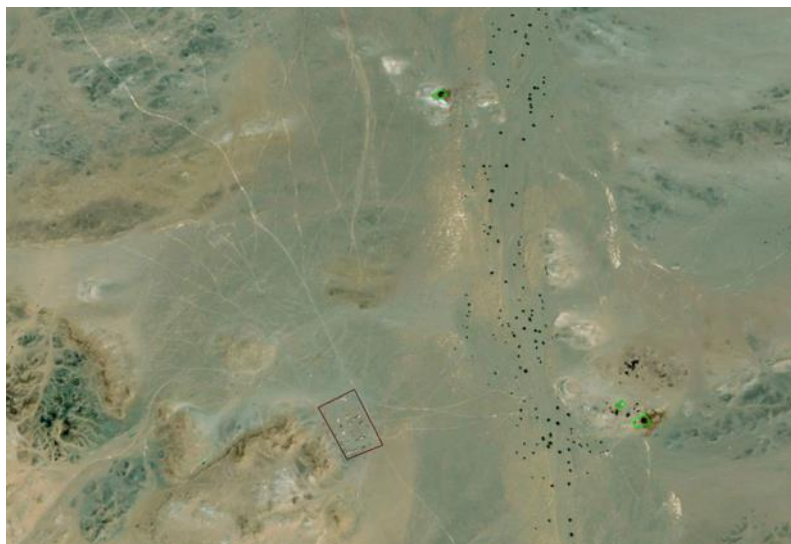
Gashuunsukhait port which is located at the border of Mongolia and China was initially established in 1992. It exists within the Mongolian state protected area of Gobi region, and where local people from Umnugobi and Dundgobi aimags do border trades. Moreover, it is considered the mainstream of Mongolian mineral export such as the copper concentrate from Oyu Tolgoi and coal from Tavantolgoi. According to the resolution # 108 of the Government of Mongolia passed in 2003 and the decree #61 of the head of State specialized inspection agency (2003), the port has been operating as the border specialized inspection unit of the provincial specialized inspection agency, with 34 employees due to organizational structural changes in 2003 and 2005.

Between 2010 and 2015, an annual average number of 115 000 trucks used to cross the border. However, the number of trucks increased significantly to 214 000 in 2016 and 280 000 in 2017 thus increasing the port load drastically.



**Figure 24. Number of vehicles crossed Gashuunsukhait border station**

Ever since Gashuunsukhait port was established in 1992, a small town with a few numbers of houses and yurts has been created within an area of Tsagaan Khad, that is located 23 km from the port which belongs to Khanbogd soum’s territory of Umnugobi aimag. Since 2006, the companies which transport the coal from Tavantolgoi mine site started exporting the coal after the custom clearance is done at the customs zone in Tsagaan Khad.<sup>49</sup> As of 2010, there were about 30 herder families had been living around Tsagaan Khad area.<sup>50</sup>



**Figure 25. Tsagaan Khad, 2004 (Source: Google Earth)**

- Settlement
- Herder household

<sup>49</sup> Regular session of the government. 24 June 2013. <http://vip76.mn/content/18129>

<sup>50</sup> Cumulative impact assessment of Tavantolgoi coal zone. A project which is funded by the World Bank “Supporting the infrastructure of Mining”, the Ministry of Environment and Green Development and Tourism. 2015. Page 177.

**Figure 26. Service shops and customs control sites in the south of Tsagaan Khad, 2016 (Source: Apple Maps)**



As the coal export is increased by Tavantolgoi LLC, the number of coal transportation that passes through the customs zone of Tsagaan Khad increased significantly. It has been causing negative impacts on the surrounding environment, soil, air quality and pasture land. Moreover, the number of people who run many types of services such as grocery stores, restaurants, household service facilities, and other land utilization activities increased considerably.

Impact assessment of the environmental, social and human health of the coal transferring stations at Tsagaan Khad has never been carried out and it had been continued. The situation in the region became worse when Energy Resources LLC and Erdenes Tavantolgoi LLC's coal export started in 2010. According to the air quality measurement of Tsagaan Khad area in 2012, an average content of coarse particles was 45 times while fine particle was 34-35 times higher than the standardized tolerable amount that indicated in the "Air quality, the technical general requirement" MNS 4585:2007.<sup>51</sup>

According to the resolution #225 of the government of Mongolia in June 2013, a decision was made to build a new customs zone based on Tavantolgoi coal mine site and the customs zone at Tsagaan Khad was stopped. Furthermore, the ministry of environment and green development announced that customs

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<sup>51</sup> An official note from of General Agency for Specialized Inspection 2012, 4/2056.

area of monitoring has been initiated to carry out the environmental assessment and to define the cost related to rehabilitation due to the operation of Tsagaan Khad customs zone.<sup>52</sup>

The companies and individuals who own the coal transferring stations at Tsagaan Khad area protested the government’s decision and delivered their request to relevant organizations. The request indicated that the national companies which operate at Tsagaan Khad area invested 2-5 billion MNT respectively in order to establish their customs zones. The concern was that it would be a significant loss for over 100 national companies that operate in the area if their operations are stopped and liquidated. Furthermore, about 10 000 individuals who work and live in the area would lose their employment and income. Also, they noted that it would impact negatively the government program “to increase the employment”, and they expressed that they are willing to cooperate closely with the national and local governments to achieve “Improvement of unloading the coal at Tsagaan Khad, utilizing environmentally friendly and advanced technology, protecting the environment, making Tsagaan Khad as a modern port city”.<sup>53</sup>

According to 2015, people who live and work around Tsagaan Khad area used to utilize the transported water, was not connected to electricity and hospital and state services were not available. Even though there were about 30-40 grocery shops, restaurants and household service facilities, they never followed the health standards and the taxes were not paid.<sup>54</sup> When the amount of coal export increased in early 2016, the number human traffic had increased again.



**Photo 8. Settlement and service shops area in Tsagaan Khad (March, 2018)**

The resolution #320 of the government was launched due to the long line which resulted from the coal transportation trucks to cross the border via Gashuunsukhait since July 2017. Based on this resolution, a

<sup>52</sup> Mongolian National Public website. People from Tsagaan Khad expressed their protest. 12 August 2013. <http://www.mnb.mn/i/4131>

<sup>53</sup> Ibid.

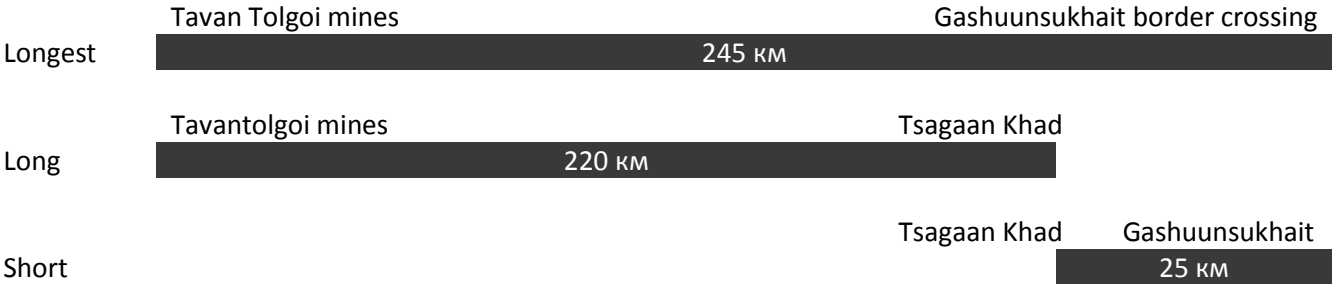
<sup>54</sup> Cumulative impact assessment of Tavantolgoi coal zone. 2015. 173

decision to organize the long line until the Gashuunsukhait – Gantsmod port’s handling capacity increases, temporary solution was that the that coal transportation from Tavantolgoi coal deposit to Tsagaan Khad port inspection zone, from Tsagaan Khad inspection zone to Gashuunsukhait port were established, moreover the transportation from Tsagaan Khad port customs inspection zone to Gashuunsukhait, the trucks were to use the local quality dirt road.

Even though the decision helped to reduce an over 100 km continued long line while it also increased the number of trucks and moving in people around Tsagaan Khad area. In particular, the lines of coal transportation process such as the line of unloading coal which transported from Tavantolgoi deposit to Tsagaan Khad coal transferring stations, the line to get loaded, the line of the coal transportation trucks from Tsagaan Khad to merge onto a road that leads to Gashuunsukhait and the line on 23 km long road to Gashuunsukhait border crossing point increased significantly. Furthermore, a thousand of truck drivers faced to line up in an extreme dusty environment for days.

In August 2018, the government restored the coal transportation from Tavantolgoi customs zone to Gashuunsukhait port. Therefore, the coal transportation has been carried out normally from Tavantolgoi deposit to Gashuunsukhait port via the routes known as “Longest”, “Long” and “Short”.

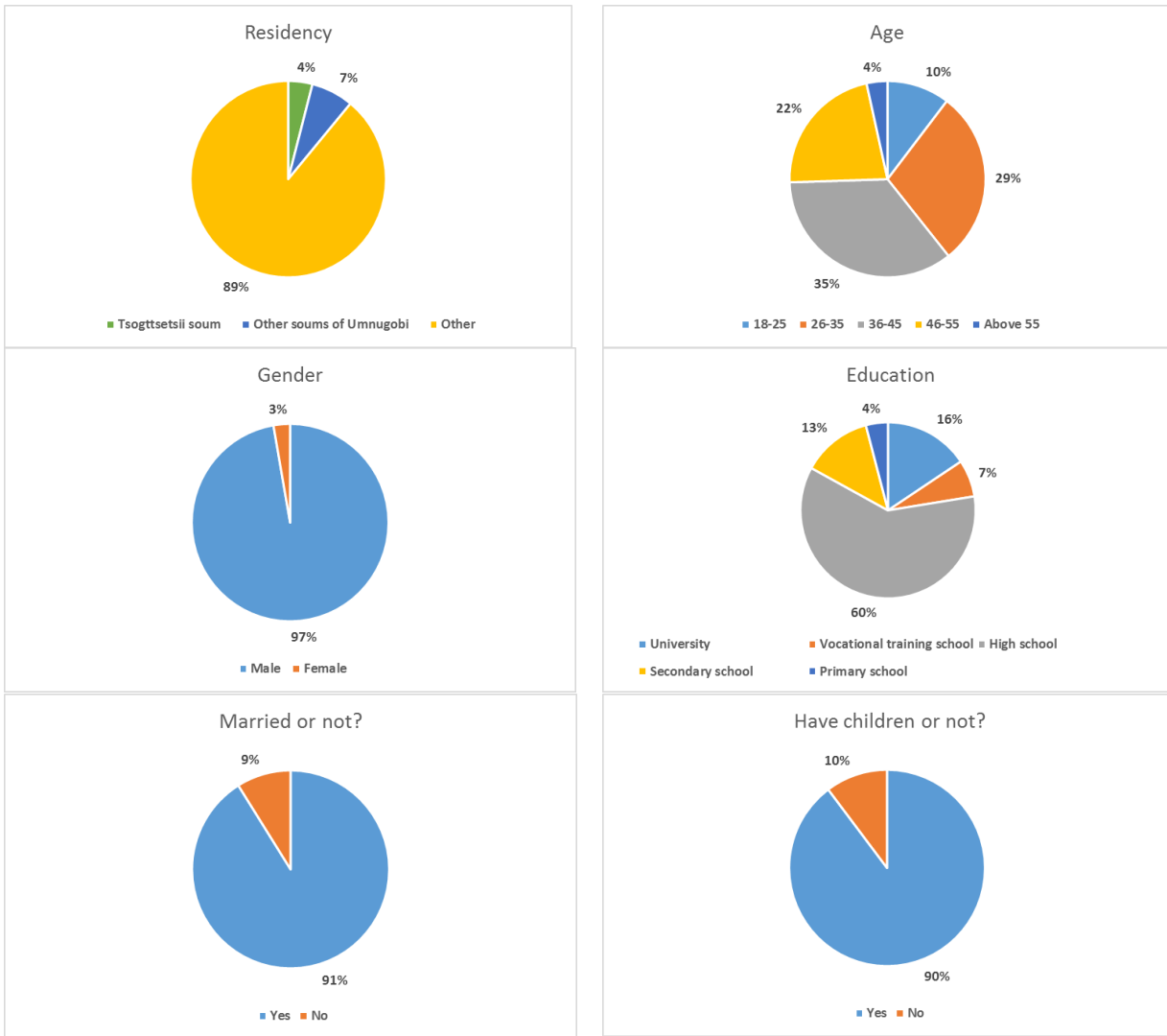
**Дүрслэл 27. Тавантолгойн уурхайгаас Гашуунсүхэйт боомт хүртэлх нүүрс тээвэрлэх маршрут**



**The issues that coal transport drivers encountering**

With respect to this assessment, research team conducted a survey from the truck drivers using the random sampling research method. In March 2018, the survey was taken from the drivers who were at the parking station which is located 6 km from Tavantolgoi mine, along the coal road and those who were lining up around Tsagaan Khad area. Information about the participants is shown below. This can be considered to represent the general demography of the drivers.

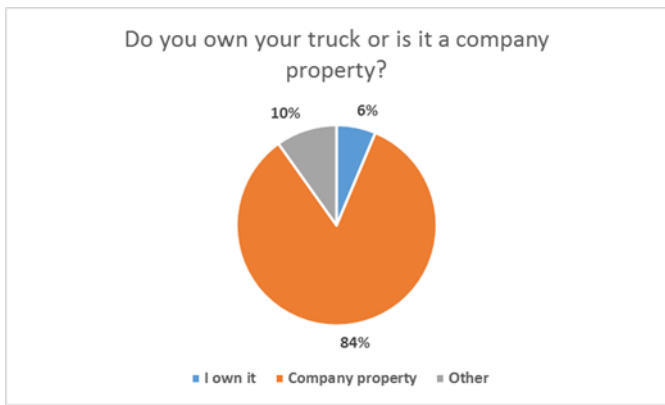
**Figure 28. Information on participants of coal truck drivers’ survey**



The survey findings and other information sources indicate that the drivers belong to many different categories depending on their employers. Including:

- The drivers who belong to Energy Resources that responsible for its transportation
- The drivers who belong to the nationally invested companies that have the license to carry out transportation
- The drivers who belong to the companies that invested by Chinese individuals and companies, and the companies that are registered under Mongolian citizens' name
- A small number of drivers who participate in the coal transportation with privately owned trucks that registered in Mongolia.

**Figure 28. Ownership of coal trucks and transportation companies (Survey results, March, 2018)**



## 1. Working condition

According to the interviews with the drivers, there are significant differences in their salaries, working conditions and whether they are offered to have social and health insurance depending on which companies they work for. There are very few numbers of companies that offer social and health insurance, and the comprehensive insurance coverage that relates to utilizing the trucks, and the ones that makes a labor contract with every driver to follow the related legislations and regulations such as labor and health and so on. In fact, Energy Resources and other few companies which have the license of transportation belong to this category. Energy Resources LLC has about 600 truck drivers.

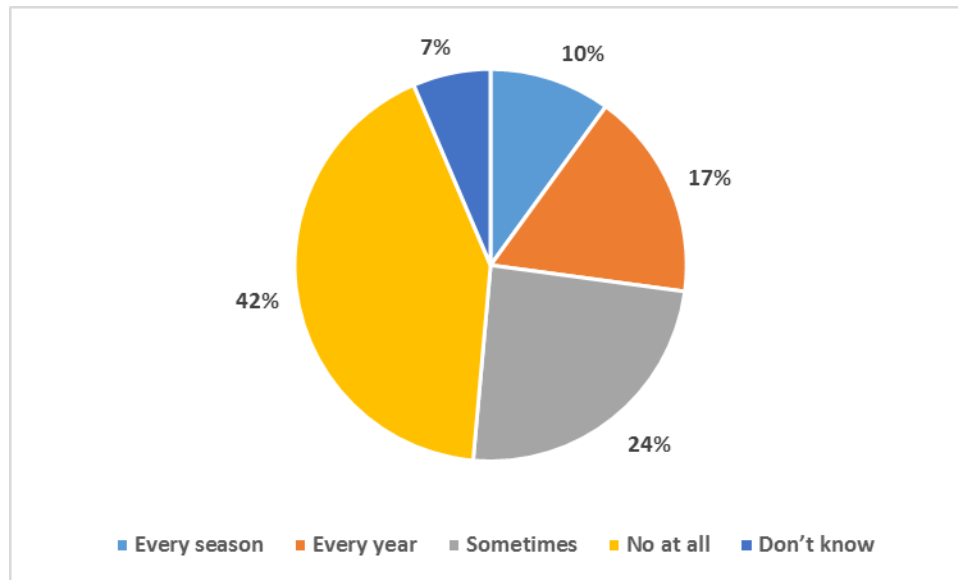
For the drivers of Energy Resources, the working and living conditions are met. For example, social issues of drivers (accommodation, school and kindergarten) are available, medical examination is offered constantly, professional and safety trainings are provided, and the labor contract is made. Moreover, the company provides a constant technical inspection, maintenance, working and relaxing regime is set and the standard camp and recreational facilities are available.

There is a significant difference among “Mongolian” company which is invested and owned by Mongolian individuals or companies in terms of numbers of trucks, workshops, hardware and whether they are following the labor requirements. The drivers indicated that “Mongolian” companies have many advantages that are offered to their drivers such as making the labor contract, opportunities to relax as there are standard camps and workshops around the mining site and along the transportation road, social and health insurances and safety trainings and son on. However, there are also disadvantages including low wage and it is not paid according to schedule of the labor contract, as well as when the truck is broken, it is considered because of the drivers and the cost is charged from their wages, technical inspection and maintenance is not carried out immediately. Therefore, a considerable number of drivers chose “Chinese” company that registered under the Mongolian individuals or companies’ name which invested by the Chinese individuals or companies.

The practice that police officers issue the penalties of violations which related to vehicles and traffic directly to the drivers becomes a financial pressure for the drivers and it also stimulates corruption and moreover it encourages the transportation entities to escape from responsibility.

**Figure 29. How frequently do you have medical checks?**





For “Chinese” company, there is very few practices to make labor contracts, basically, an oral contract is made through its translator and intermediary. Drivers visit to China to make an oral contract by meeting with the truck owners and then they become able to participate in the coal transportation. Most of the drivers belong to this category. The owner side is fully responsible for the truck insurance and maintenance while the drivers are responsible for their health and all the risks associated with their working condition. Most of the drivers of “Chinese” companies do not have any social and health insurance and limited opportunity to have safety trainings.

*A previous company lost our trust. Even though the company said they would be responsible for maintenance, it deducted that from our wages. Therefore, we are driving the trucks which are privately owned by a Chinese. An advantage of a Chinese individual is that it gives the required supply. For instance, a request is accepted as soon as the driver says it is cold in the truck.*

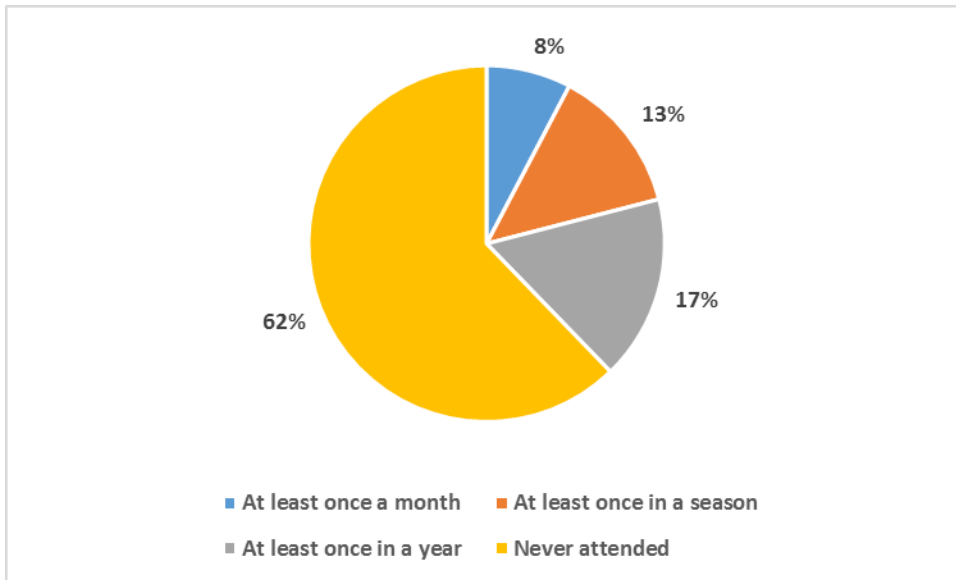
*There is no other option except staying overnight in the truck when the truck is on route, it is same as when we are at the mine site. Whereas, the drivers of a Mongolian company stay in their company's camp.*

*The company is registered under Mongolian company's name owned by Chinese. All the owners behind are Chinese. The contract is made under Mongolian company's name.*

*The Chinese company says show the damage of the car, then you can relax, take a shower, and they make us rest well. Once the damage is fixed, they say it is ready to go.*

*We do not have any life, social and even health insurances, don't even have a contract, just get paid upon the delivery of the shipment.*

Interviews with the drivers



**Figure 30. Do you attend work health and safety training?**

Prior to January 2018, Energy Resources was the only company that was transporting the coal by its own trucks. Apart from that, the company made the labor contract with each driver, provided safety trainings and was organizing the coal transportation according to related legislations, regulations standards, and encouraged its drivers to follow the working and relaxing regimes. However, when the market demand is increased (procurement from China’s side), subcontracts are welcomed to make contracts. Energy Resources explained that most of the coal transport entities are invested and managed by Chinese owners. Therefore, operation is unstable, contractual obligations and responsibilities are implemented insufficiently.

*Here is no any doctor, heard that Energy Resources has doctors. We don’t have that. We just go to a pharmacy to buy a pain killer when we get sick.*

*We cough a lot when we are little cold. Also, after coal is unloaded. I think it is because of our work. Because it did not happen in the past.*

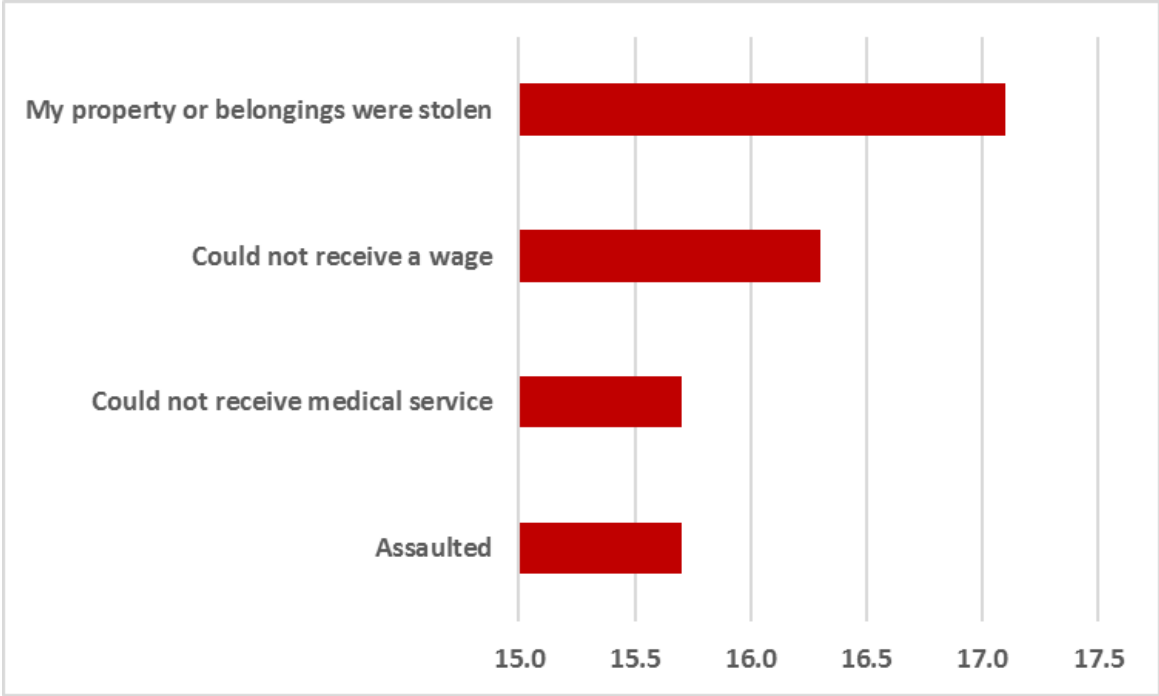
*We manage it ourselves when the tire is flat. Here is no such service, sometimes it comes up temporarily. If we drive further with a flat tire, the tire and coal will burn...*

Interviews with the drivers

Erdenes Tavantolgoi LLC and Local Tavantolgoi LC delegate the coal transportation to the coal buyers (Shenhua, Chalco, Winsway, Pushin etc) and avoid enforcing standards to the transportation companies. According to the governmental decision, since January 2018, all mining companies are required to make a transportation contract with the coal transport entities in order to receive “C” and “D” permissions from the National transportation agency. However, Erdenes Tavantolgoi and Tavantolgoi have been neglecting this issue.

An inspection that was organized by the ministry of road and transportation development in 2018 indicated that about 60 percent of all coal transport entities have the trucks which meet the standard requirements.<sup>55</sup> Furthermore, the national transportation agency organized a technical inspection for 6452 heavy-duty vehicles that belong to 124 transport entities which run coal transportation from the mine to Gashuunsukhait in May 2018. However, 3799 vehicles or 28 percent of them did not meet the “Heavy-duty vehicle”, technical general requirement MNS 6278:201. Particularly, 3790 of them had appearance problems, 69 of them with break problems, 31 of them did not meet the driving requirements and 9 vehicles did not meet lighting and signaling requirements.<sup>56</sup>

**Figure 31. Incidents occurred among truck drivers in the last one year (% of drivers)**

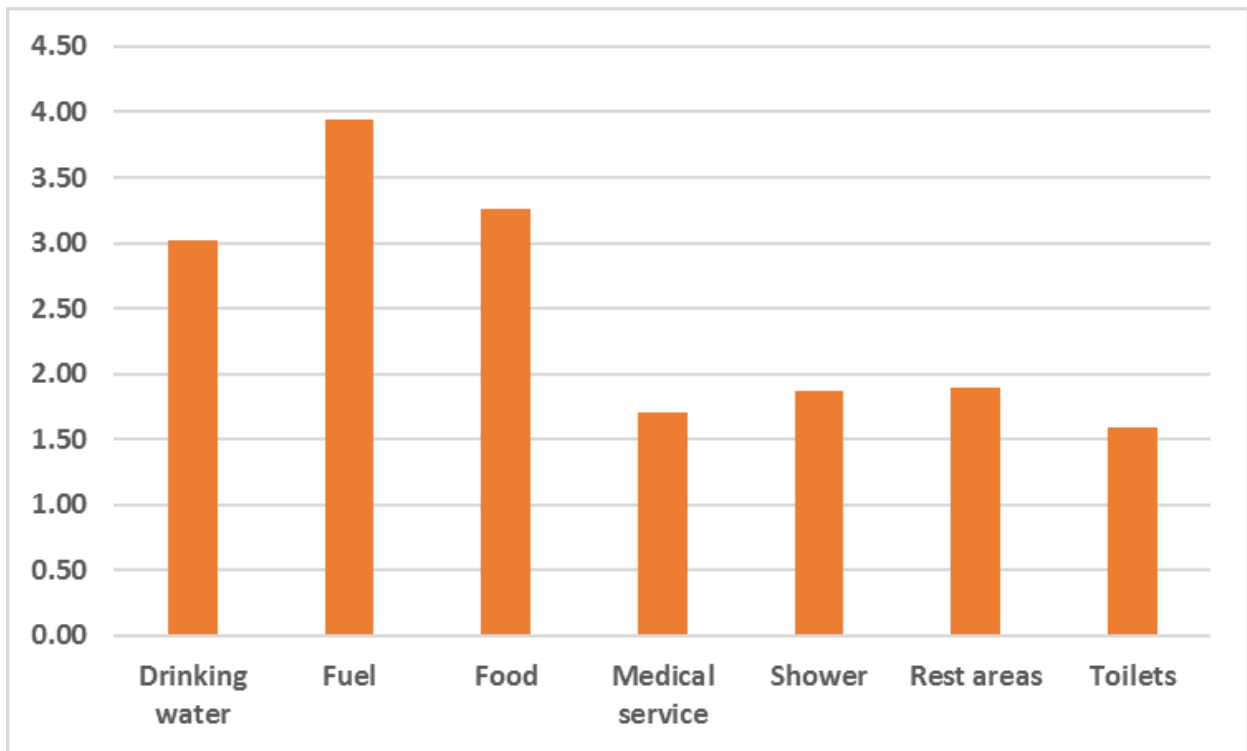


Also, coal transportation drivers are encountering the following working condition issues. Including:

- In Tsogttsetsii, Bayan-Ovoo and Khanbogd soums of Umnugobi aimag the operation, transportation and sales of the coal from Tavantolgoi deposit are taking place, like the local people, the drivers also work and live in environment of air pollution and water shortage.
- 90 percent of all drivers (except Energy Resources) are not able to receive medical services (primary care, diagnosis and treatment).
- It is impossible to work according to the rights granted under the Labor law (maximum 40 hours per week, a usual workday is up to 8 working hours, an additional wage for working overtime and weekends, benefit for working in hazardous condition etc.).

<sup>55</sup> <https://smartcar.mn/news/169>

<sup>56</sup> A comprehensive monitoring for coal transportation is in place <http://mminfo.mn/news/view/18658>



**Figure 32. Are the following services accessible when transporting coal? (Choose a score from 1 to 5)**

- The mining companies that participate in coal transportation (except Energy Resources), coal buyer (Chinese coal company and seller) and transport entities are not willing to enforce the law, regulation, legislation and standards that apply to the transport issues. Therefore, traffic safety and labor safety are getting lost. As a result, the drivers have a limited opportunity to work and live in a healthy and safe environment.

**Photo 9. Inside the cabin of a coal truck**



*A driver sleeps in the vehicle no matter it is winter or summer. During the winter, the driver rests in the vehicle while the heater is on.*

*The winter is hard, the driver might not get cold as there is a heater in the vehicle, but the vehicle gets frozen. Let's say the engine starts, but does not mean break works, this could cause all the vehicles in line to stop.*

*There is no other place to relax, if you leave the vehicle somewhere to get some rest, spare parts get stolen.*

*A man who was in the long line on route died while burning alive. No one was able to do anything, where could have a fire truck come from. The fire extinguisher that we have in our vehicle could not extinguish the fire.*

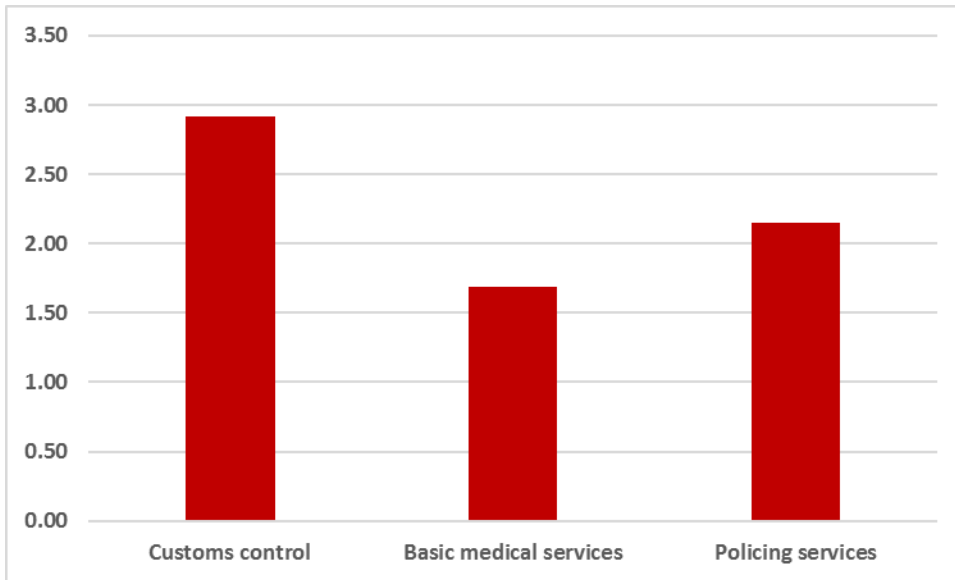
Interviews with drivers

- Limited rights to receive the state services (education, health, social welfare, court, administration and public regulations etc.) and the mechanisms to ensure are not in place.
- Within Chinese territory, it is impossible to protect the rights as a Mongolian citizen. There is no such mechanism to get resolved any labor argument with a Chinese individual or an entity. Also, there is no mechanism to protect the drivers who involved in any violation in China. Inner Mongolian citizens work as translators and intermediaries, in case if it is required, General Authority for Border Protection officials communicate with Chinese side and attempt to resolve the issues.

*It is believed that police officers beat the drivers in China. Some of them could be our drivers' fault; nevertheless, they beat too ruthlessly.*

*There is no organization or an individual to complain to if something happens in China. There is one Inner Mongolian translator, he has nothing to do. He only translates to us in case when the truck is broken.*

Interviews with drivers



**Figure 33. Please assess the quality and accessibility of government services? (Choose a score from 1-5)**

***A long line and traffic jam***

During the interviews, drivers have been requested to indicate the most critical three issues that they encounter, and the three issues are described below.

**Figure 34. The main problems that coal truck drivers encountering (Results of the survey, March, 2018)**



The drivers spend a large amount of time in the long line. For the “Long & Long” transport, the coal is loaded from the mines and delivered to Tsagaan Khad customs zone, and the trucks return to the mines. The trucks stick in the long line heading towards mines, this is where the drivers spend most of their time. For the “Short” transport, the drivers spend a significant amount of time while lining up in the long lines including reloading of the coal at Tsagaan Khad customs zone, border crossing via Gashuunsukhait and Gants Mod, unloading the coal in the territory of China, document preparation, technical inspection and return. According to the interviews that conducted by the assessment team in March 2018, an average number of days that drivers spend on both “Long” and “Short” is shown below.

**Figure 35. Average duration of coal transportation by “long” and “short” routes (Results of the survey, March, 2018)**



Drivers are impacted medically, psychologically and financially because of the factors such as long line which is about 20-100 kms at mines, unloading and reloading of the coal at customs zone and traffic jams.

- Due to lack of public washrooms along the routes, drivers pee and poo in the cabin using containers, bottles and cans and just outside. For female drivers, it is more challenging. However, between May and June of 2018, Gashuun sukhait road LLC placed a couple of public washrooms at certain locations along the routes.

*We sleep less and eat less, even It is impossible to take off our clothes when we sleep. Always sleep in the trucks and jump up to move forward the trucks when a vehicle ahead moves forward. To tell the truth, it is pretty much same as a prison that has less regimes here.*

*Well, males do not really care as they can pee and poo anywhere, we are females, therefore we need to hold it until evening. All the toilets are locked at Tsagaan Khad, at least one clean public toilet should be here.*

Interviews with female drivers

**Photo 10. Queues and pollution in the Tsagaan Khad customs control zone**



- Even though there are about 30 restaurants, food deliveries and people who provide delivery food services, it is very risky as professional and relevant organizations do not control the hygiene requirements.
- There are significant number of people who had suffered from stomachache resulting from eating the food that is uncertain in terms of health quality after hours of queue.
- Most of the drivers cook in their trucks. Relating to this, a lot of incidents such as gas explosion, slow cooker explosion, get burned and hurting their hands due to lack of lighting occur.
- Risks associated with drinking alcohol, fighting each other and getting involved in crime cases increase during the hours of queue in the long line. Although the police department tries to control, it is impossible to fully monitor all the vehicles that sell alcohol for the truck drivers who are in the line. Utilizing alcohol among the drivers tends to increase on Sundays as the border operation is closed according to its schedule.

*Instead of saying politely “hey buddy can I get into the line ahead of you”, they just cut into the line immediately. Because of that, an old driver killed a young man at Tsagaan Khad.*

*Cutting into the queue is very common. Stronger one gives bullying to weaker one or gang up, as soon as one gets off, then punched, so gets bullied by those who gang up.*

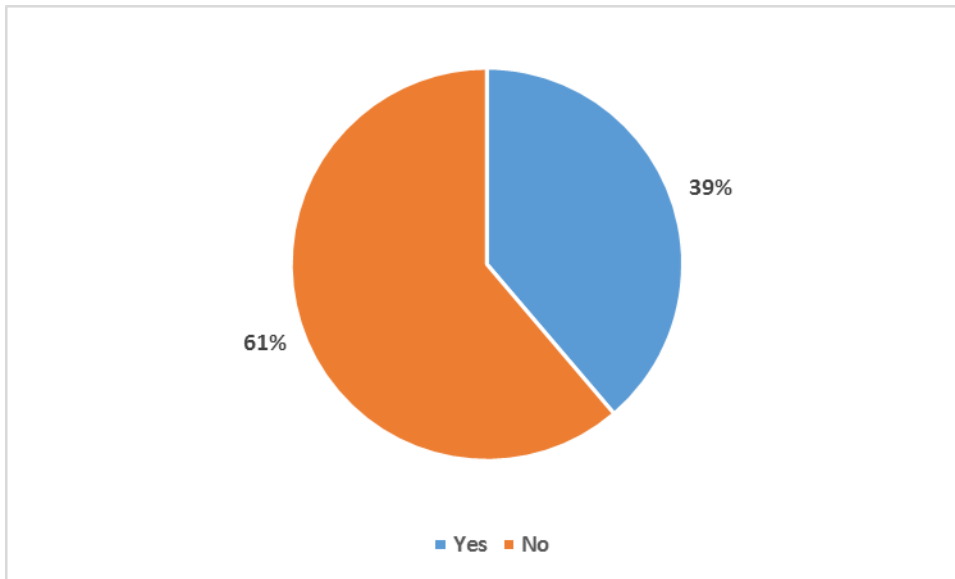
Interviews with drivers

- Stealing spare parts of the trucks in the long line is very common. Even though the drivers complain to the police officers, there is a small number of incidents that has been detected. The incidents that related to theft mostly occurs when the drivers leave their trucks for a short period of time or when they are asleep. According to the drivers, the theft does not occur in China, even when



the trucks are left temporarily on the road because there is a lot of security cameras along the road in China.

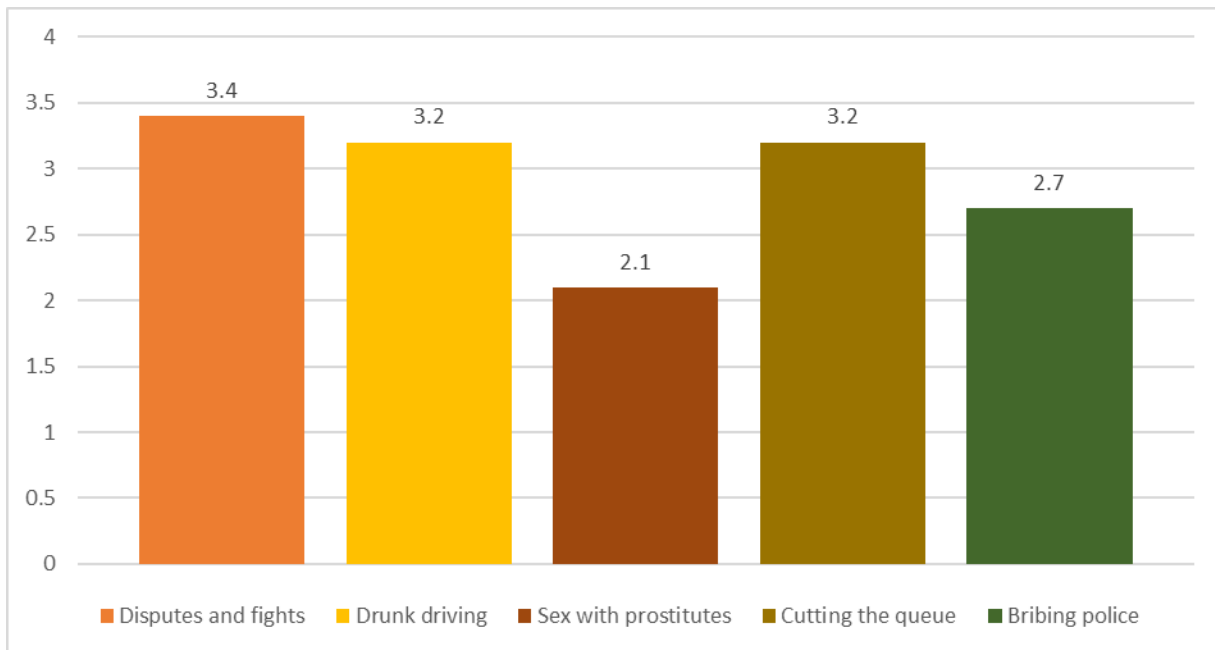
- Staying and sleeping many days in the trucks causes back problems, skin diseases and the drivers who have chronic illness get worse. Moreover, there is a small number of female drivers. It is informed that there is an increase in the number of respiratory and skin diseases which are resulting from the lack of facilities such as taking shower and wash hands.
- There is a great deal of incidents including a violation of traffic rules, wrong way driving, driving through dirt road and cutting into the line because of staying in the long queue for a couple of days. This leads the drivers to road accidents, police fines, police detentions and disputes between other drivers.
- A mobile police team that operates at Tsagaan Khad faces difficulties to deal with the drivers who committed a crime and drunk as there is no any facilities to make them sober and arrest temporarily. Therefore, the police team has to keep the suspects in their office, home and deliver them to the center of the province which is located 200kms away.
- It is very common among the drivers to have a huge frustration and depression which is resulted from being upset because of traffic condition and congestion, being far away from their families and being in a dirty environment for many days. It is proved by the following result of the survey questionnaire.



**Figure 36. Do you have a need for counselling services?**

The questionnaire examines how often the drivers face these issues shown in the graphic below. Taking the scale of 1-5, it can be concluded that most of these issues are very common to the drivers. Particularly, in cases of alcohol utilization among drivers, arguing and fighting because of traffic violations and drunk driving. It also shows that there is a great deal of corruption when the drivers are caught by the cops in case of traffic violations and the reason of driving the vehicles which do not meet the technical requirements. A lot of drivers emphasized about these issues during the interviews.

**Figure 37. Whether the following issues occur during coal transportation (Choose a score from 1-5)**



### **Traffic accidents**

There is a high possibility of getting involved into traffic accidents. Between 2010 and 2012, over 300 accidents occurred on both paved and dirt road during the coal transport and total of 30 people lost their lives. According to a statistic between 2016 and 2017, an average of 1500 accidents took place annually and about 10 people lost their lives, many people injured as well as a number people lost properties. An average of 4-5 traffic accidents occurred each day, 125 per month, and one death per month. During the field trip of the assessment team in Tsogttsetsii soum in March 2018, local police department announced that 26 accidents have been registered, 4 deaths and 6 people injured since the new year. Considering the amount of coal transport, traffic accidents and violations decreased during 2013-2014, at least 50 people lost their lives due to the accidents which took place on Gashuunsukhait coal transport route between 2010 and 2018.

The drivers have been asked to indicate the reasons of accidents by giving scores of 1-5 and the result is revealed below. According to the drivers, the main reason of the accidents is that the road to Gashuunsukhait is significantly damaged. Leading causes of the accidents are resulted from number of reasons such as crushing with an ongoing truck from opposite direction when driving around the road damages, holes and obstacles, and hitting the truck behind by its trailer and overturned because of sudden decreased speed.



**Figure 38. Please assess the major accident causes**

An incident that the drivers violate the traffic rules influences significantly the number of accidents. For example, speeding, driving on the opposite side of the road, passing through and mechanical failures are considered the main traffic violations. Particularly, an increasing number of accidents occur due to lack of awareness and consideration of how risky it is to speed the oversized trucks. It is continued to be impossible to monitor closely all the violations where there are no any security cameras along the route except 4 specific check points.

Furthermore, it is deemed that the number of accidents is increased due to the drivers who do not have professional degrees, lack of safety trainings, and the lack of driving experience. Local police station also highlighted this. Furthermore, it is said that the driving license class is issued illegally in UB (it costs about 100-150 thousand MNT). This practice lets the young people who do not have their driver licenses to drive the trucks and it is seen to be continued. Many drivers and cops were mentioning that a lot of students come here during their summer break because of this reason.

*The reason why accidents keep occur is young people. They just buy the driver's licenses. The boy who just 17 years old already has got all the classes. I met him.*

*Crashes mostly occur at night due to driving around the road damages. There are too many damages on the road and there are no traffic break lines.*

*Some drivers know where road damages are while others do not.*

*Alcoholism is here. There was less alcoholism when there was no queue. They drink alcohol when they are lining up in the queue, they drive drunk when they must move forward their trucks when there is space. In this case, accidents tend to happen.*

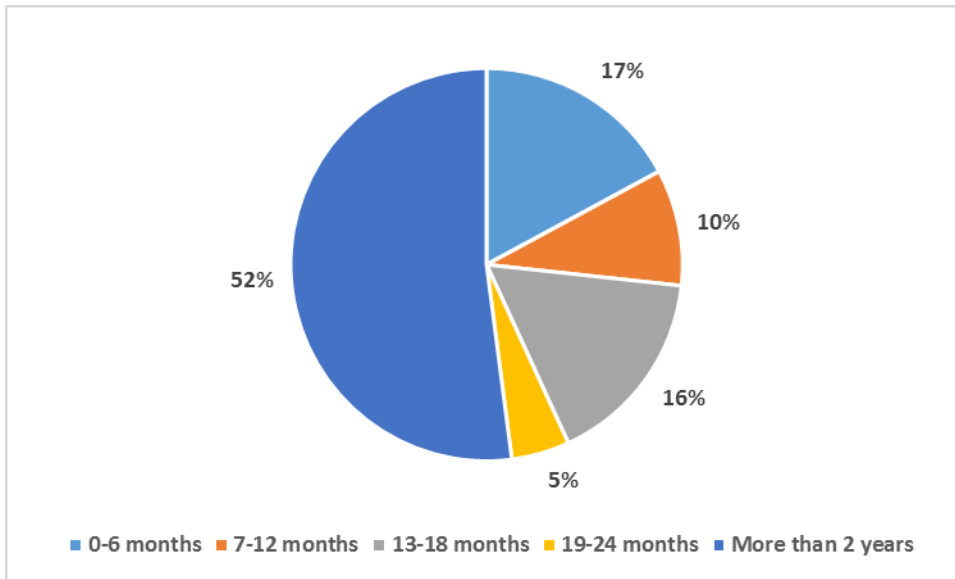
*Some of the drunk drivers drive wrong way.*

*It gets harder when the students come here during their summer break. Number of accidents increases. It is easy to get a driver license by paying 100, 150 thousand MNT. Police should work at it.*

*There are some complicated issues of the drivers who do not comply the traffic rules. The headlight is never shifted at night. They try to drive wrong way in order to avoid the road damage on their traffic line while I am driving right at it.*

Interviews with drivers and police officers

**Figure 39. Duration of working as coal truck driver (Results of the survey, March 2018)**



There is no any facilities for medical and emergency along the Tavantolgoi coal transport road. In case of any accident, it takes significant amount of time to wait for help from the nearest soum (Khanbogd, Tsogtsetsii, and Bayan-Ovoo) or any medical team or rescue team that operates at Tavantolgoi mine. In some cases, it leads to a fatality, as well as it stops the coal transport for a certain period of time.

*This route is 237 kms long from the mines to the border. What would happen if an accident occurs at the distance of 100 kms or 150 kms? For example, a serious accident took place a week ago. A truck hit crashed into another truck which was in front of it. A driver was bleeding too much as his two legs were cut, however he could not get any help immediately because it was too complicated to get him out from the crushed truck. Thus, an emergency was requested from Oyu Tolgoi and according to the request, rescue team brought a cutting tool along with its medical team. The person was delivered to UB by plane after receiving some medical treatment at Oyu Tolgoi mine site. Tragically, he passed away after 2-3 days because of his severe injury.*

Interviews with a police officer at Tsagaan Khad customs zone.

Energy resources LLC fully controls its trucks, if needed, it has the capacity to provide all the required medical services and technical supports. Whereas, Erdenes Tavantolgoi and Tavantolgoi have a policy to provide medical services only within their areas. There are no any units that provides primary and emergency services for about 7000-1000 drivers who transport the coal between Tavantolgoi and

Gashuunsukhait except a pharmacy that has two doctors who provide paid medical services at Tsagaan Khad area.

Erdenes Tavantolgoi and Tavantolgoi have been focusing on only coal extraction and sales and have been avoiding the responsibility of the coal transportation drivers. As a result, the drivers have lost their labor and recreational regimes and are unable to enforce laws, rules and regulations. Hence, all the coal transportation companies (except Energy resources and few other entities) have been violating some of the Mongolian laws shown below.

### **The laws that have been violated**

Labor Law

Law on Occupational Safety and Health

Law on Hygiene

Law on Social Insurance

Law on Health Insurance

Law on Environmental Protection

Waste Law

Law on Traffic Safety

Driver's Insurance Law

General Tax Law

Company Law

Law on Fighting Against Alcoholism

### **Regulations**

Regulation on freight and passenger transportation,

Regulation for technical inspection of motor vehicles (Ministry of transportation, 2013|10|21,  
<http://www.legalinfo.mn/annex/details/6116?lawid=9641>)

Regulation for maintaining vehicle registration and issuing state plates (2012|59  
<http://www.legalinfo.mn/annex/details/6010?lawid=9458>)

Regulation for the preparation of specialized driver and qualification training programs  
(ЗТБХБЯ, БСШУЯ, 2010|161\229)

Freight clearance (National Transportation Center)  
<https://www.transdep.mn/?subm/45.html> )

Common rules of the canteen (XXAAXYЯ, 2010|206  
<http://www.legalinfo.mn/annex/details/5447?lawid=8195>)

International agreements and negotiations

Implementation of the Mongolia-China automobiles agreement inter-ministerial protocol  
(<http://www.nartam.org/22.html>)

### **Issues related to working and living conditions of Tsagaan Khad customs zone**

Negative impacts on environment, soil, air quality, human health, labor conditions and surrounding pastureland of Tsagaan Khad area have increased considerably due to increased amount of coal export from Tavantolgoi deposit in 2016-2017. Although impacts on environment and human health are at the

same level as the mining area, the environmental, social and an assessment of impacts on human health, and monitoring of air quality, soil and water quality have never been carried out and it is being continued.

**Photo 11. Coal transportation in Tsagaan Khad**



In addition, the number of people who run various services and businesses increased, also shops, cafes, restaurants, and household service facilities and land utilization has been expanded significantly. As of June 2018, people who live and work near Tsagaan Khad, get their drinking water consumption from a potable source (60 MNT per liter) and bottled water sources.

There are a lot of shops, cafes, restaurants, and household service facilities at Tsagaan Khad area. However, the number always fluctuates because yurts and houses are built without any permits such as land utilization and others. According to the information given by the local authority, there are only 3 land utilization licenses.

Photo 12. Main shopping and service area in Tsagaan Khad



Photo 13. Streets in the main shopping and service areaЦагаан хадны үйлчилгээний төв цэгийн гол гудамжууд



This region is not connected to the electricity supply. There is a high risk of fire as all the houses and yurts are built without any approved planning. They use their own portable electricity generator and other energy sources.

**Photo 14. Service and food shops in Tsagaan Khad**



In 2017, although the government implemented an appropriate measure to reduce the consequence that continued more than 100 kms, it also created negative impacts. For the negative side, the numbers of vehicles and temporary residents have increased considerably. Also, the consequences such as unloading the coal which is transported from Tavantolgoi mines to Tsagaan Khad coal transferring station, a consequence of reloading the coal from this station, a traffic congestion of the reloaded trucks to merge onto the route from Tsagaan Khad to Gashuunsukhait and a sequence on the 23 kms of road that leads to Gashuunsukhait port have increased respectively. As a result, a situation has been created for the people who run various services, their families, children and thousands of drivers to wait many days in the extremely dusted environment.

*There is no company watering the road here. There is a loose dirt that is as deep as ankle. This is where we cook and eat. Or should I die of hunger not cooking here.*

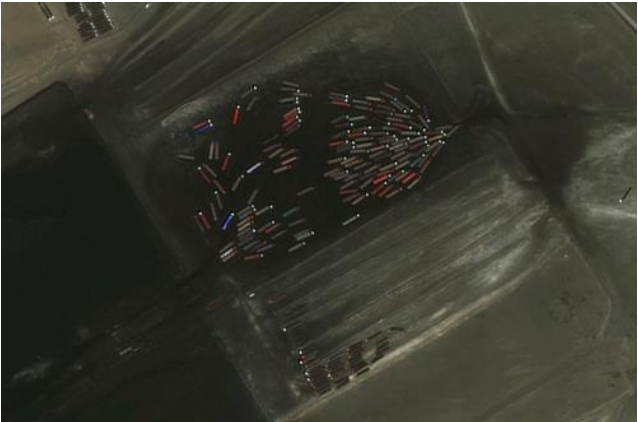
*Here people get stuck at Tsagaan Khad, people tend to drink a lot as they get stuck for many days here.*

*There is no any facility to treat people, even there is no doctor here. My lung became ill after working one year here. I wish the company could provide at least one doctor here.*

Interviews with drivers



**Photo 15. Difference between the coal loading and unloading sites in Gantsmod in PRC and Tsagaan Khad in Mongolia**



Queue at the gate of coal unloading and loading sites

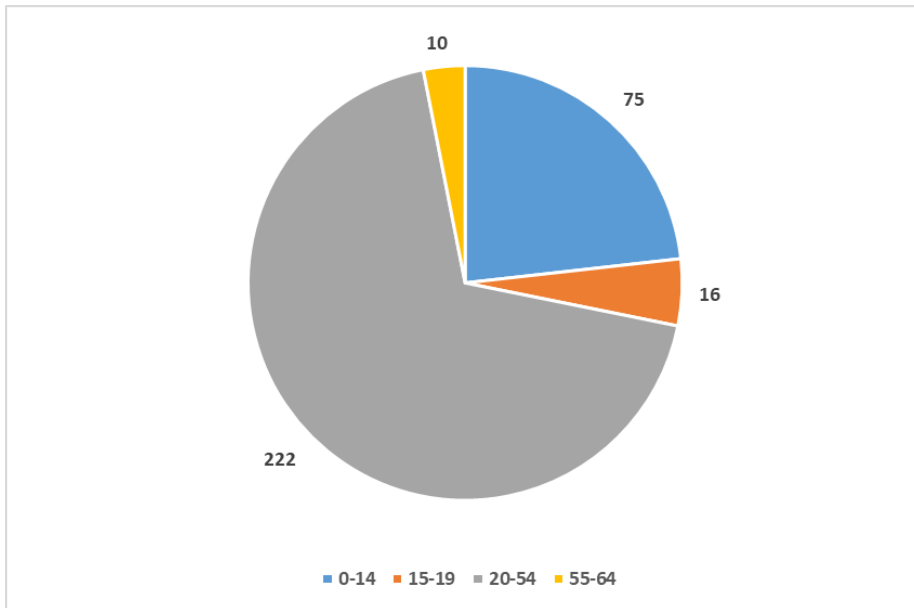


Coal loading and unloading site in Gantsmod

Tsagaan Khad customs zone is located within the territory of Khaikhan bag which belongs to Khanbogd soum. According to the statistics of National statistics office, registered population of this territory grew 177 in 2014 to 352 in 2017. Among the registered population, children aged 0-14 are 75. There is not any herder family registered.<sup>57</sup>

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<sup>57</sup> YCX. 1212.mn Unified statistical information database.



**Figure 40. Registered population in Khairkhan bagh of Khanbogd soum (age groups)**

In addition, this area is highly eroded and depressed. Moreover, there is a high risk of flooding when it rains heavily as the land surface is a depressed area. This area has been flooded between June and August 2017. It rained heavily for many days here, this is a area of soil pollution, lots of garbage and landfill, and open toilets. Disinfections have been done by relevant organizations, however, there is a high possibility to occur again. Relating to this, there is risk of infectious diseases and many people are at a risk of losing their health.

**Photo 16. Littering and waste disposal in Tsagaan Khad**



In February 2017, a permanent police station with 30 officers has been established in order to provide permanent monitoring of the police in the vicinity of Tsagaan Khad area. Currently, the station is operating with total of 24 officers including traffic police officers and criminal representatives. As of March 2018, the police station does not have its own office, it is temporarily locating in an office of an entity which runs a coal reloading/unloading facility, named “Golden Gobi”. 4 vehicles that bought by Erdenes Tavantolgoi have been used for its duties. There is not enough human resources, funding and equipment to provide a comprehensive monitoring for traffic and Tsagaan Khad customs zones.

There is no any doctor here at Tsagaan Khad. Although there is a pharmacy, it is uncertain whether it has a permission and relevant inspection is conducted. Even though the budget of hiring a doctor, providing an accommodation at the center of Khairkhan bag has been approved, this position was still vacant as of March 2018. There is a doctor who provides paid medical services. In most cases, this doctor provides primary services until the emergency arrives from Khanbogd soum.

The children of the people who live and work at Tsagaan Khad area are at a high risk of health issues due to polluted environment and unsafe traffic condition. The children come to visit their parents at Tsagaan Khad area during their summer vacation.

**Photo 17. Children living in Tsagaan Khad**



## Affected rights, impact and risk assessment

### Factors that need to be considered, activity and risk assessment

Affected right: The right to life				
Provisions contained in national and international human rights records	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural rights	Constitution of Mongolia
	Article 3	Article 6		Article 16.1
<b>Summary of right</b>				
The right to life is the sole purpose of conducting a lawful activity for the protection of life and rescuing from any arbitrary attack. The fundamental guarantee of the right to life of a human being is a healthy and safe environment and is the duty of the State to protect its citizens from environmental pollution and ecological imbalance.				
<b>Impacts and risk assessment/ Failure analysis</b>				
On average, about 4-5 accidents a day (125 accidents in a month) happens on a route. Every month one person's life is lost in a traffic accident. From 2010-2018, at least 50 people have been killed in a traffic accident on Gashuunsukhait's coal transportation road. Unfortunately, this number doesn't even account the decline in coal transportation amount from the year 2013-2014 also the decrease in traffic-related hazards and incidents. Most of the traffic accidents were caused by many different factors, including road deterioration, inexperienced drivers and lack of legal enforcement over drunk driving. There were also many drivers who got their driver's licence illegally.				

Affected right: The right to a healthy and safe environment				
Provisions contained in national and international human rights records	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural rights	Constitution of Mongolia
				Article 16.2
<b>Summary of right</b>				
The right to a healthy and safe environment means that people are not exposed to any harm to life or health in their daily lives and to be free from them. Environmental pollution includes				

inorganic pollution caused by human activities such as noise, waste and light, as well as organic contamination such as air, water and soil.
<b>Impacts and risk assessment/ Failure analysis</b>
<p>The long queue of tens of kilometres to the border and traffic at the loading and unloading zone around the shaft and customs zone has adverse health, emotional and financial impact on the truck drivers. Truck drivers had to wait for many nights in increased dust condition. Tsagaan Khad area is still hasn't connected to the electricity network.</p> <p>There is a high risk of fires in Tsagaan Khad area due to the fact that houses and gers are built without any planning in the region, each with a portable power source (generator) or furnace. Moreover, this area has a high risk of flooding since the area is heavily eroded and depressed. Thus, locals working and living in Tsagaan Khad area, especially children, are exposed to environmental pollution and significant traffic risks.</p>

Affected right: The right to health protection				
<b>Provisions contained in national and international human rights records</b>	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural rights	Constitution of Mongolia
	Article 25			Article 16.2, 16.6
Summary of right				
Everyone has the right to receive timely and appropriate health services and also have access to all kinds of medical equipment, medicines, hospitals and facilities, to have access to education and access to health-related decisions.				
Impacts and risk assessment/ Failure analysis				
Out of all driver's 90 percent, (except for Energy resources) of them is no longer able to have health and medical services (primary care, diagnosis and treatment). There is no medical and emergency unit along Tavantolgoi coal transportation road. There is no doctor in the customs control area in Tsagaan Khad, and it is unclear whether the pharmacy is working or not. Even the authorization of the pharmacy is still vague.				

Affected right: Human rights for drinking and sanitation	
<b>Provisions contained in national and international human rights records</b>	Resolution 64/292 of the General Assembly of the United Nations on July 28, 2010

<b>Summary of right</b>
Every person is entitled to have access to adequate, safe, and physically-accessible water for both personal and family needs.
<b>Impacts and risk assessment/ Failure analysis</b>
Drivers and Tsagaan Khad residents live in poor living conditions of water scarcity. Notably, there is a water shortage of drinking and household water consumption. The public toilet is unavailable along the road, so the drivers had to use glass jar in the cab or had to use an outdoor open toilet when in need. For female drivers, this situation is challenging.

Affected right: The right of favorable conditions of work				
<b>Provisions contained in national and international human rights records</b>	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural rights	Constitution of Mongolia
	Article 23		Article 6 Article 7	Article 16.4

<b>Summary of right</b>
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The fair and favourable conditions of employment are considered within the scope of adequate salaries and wages for the protection of the physical and mental integrity of the employees involved in the occupational safety or work undertakings, and to provide sufficient wages and support for their own and family's livelihoods.

**Impacts and risk assessment/ Failure analysis**

There are very few companies that are fully responsible for their employees' insurance such as social, health and transportation; and also, have signed a labor contract with each driver; that follow the relevant labor and health laws and regulations. The rights granted under the Labor Law is not available for the drivers to exercise such as maximum allowed working hour (weekly up to 40 hours, daily up to 8 hours) and additional wages for the overtime, weekends and extreme condition etc.

**Affected right: The right to personal liberty and safety**

Provisions contained in national and international human rights records	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural rights	Constitution of Mongolia
	Article 3	Article 9		Article 16.13

**Summary of right**

The principle of the right to personal liberty and safety is not to restrict the rights and freedoms of any form beyond any grounds and rules determined by law. This right includes the right to freedom, the right to privacy, physical, residential, confidential, honourable, and correspondence.

**Impacts and risk assessment/ Failure analysis**

There has been a case that Mongolian citizen has been beaten, illegally detained and sentenced due to labor and property disputes in the territory of the People's Republic of China. In such a situation, there is no mechanism to resolve labor disputes with citizens of China or the business entity. In case conflicts occur in Chinese territory, there are no mechanisms to protect the rights of the drivers.

**Affected right: Right to social security and protection**

Provisions contained in national and international human rights records	Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and	Constitution of Mongolia
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			Cultural rights	
	Article 22		Article 9	Article 22
<b>Summary of right</b>				
The right to social security, medical care, and medical benefits arising out of the loss of income due to illness, parenthood, injuries, unemployment, disability, life expectancy and death, and cash benefits are generally called "Social Guarantees."				
<b>Impacts and risk assessment/ Failure analysis</b>				
There are very few companies that are fully responsible for their employees' insurance such as social, health and transportation; and also, have signed a labor contract with each driver; that follow the relevant labor and health laws and regulations.				

Priority	Affected human rights	S	E	R	O
I	Right to life	3	1	3	3
	Right to the enjoyment of just and favourable conditions of work	2	3	2	3
	Right to living in a healthy and safe environment	2	3	2	3
	Right to health	2	3	3	3
II	Right to liberty and personal security	2	1	2	2
III	Right to social welfare and social insurance	2	2	1	2
	Right to water and sanitation	1	3	2	2

The following criteria and scales from 1 to 3 were used to determine the order of priority areas

- S – Severity of impacts (1-3)
- E – Extent of impacts (1-3)
- R - Likelihood of remediation (1-3)
- O - Likelihood of reoccurrence of rights abuses (1-3)

## Recommendations

The mutual understanding and cooperation of all parties involved are critical to a safe working condition and environment of the drivers who carry coal from Tavantolgoi coal deposit. Parties involved include the following: the state, local governing bodies, mining companies, coal buyers, transportation companies and individual drivers.

*Comprehensive measures should be implemented to improve the transportation condition of Tavantolgoi*

- The Government has to set up a working group to develop a short, medium, long term strategy and plan to address issues around Tavantolgoi's coal transportation. Moreover, the government has to create a comprehensive mechanism to implement this plan/strategy. Erdenes Tavantolgoi will need to provide support to the working group when deemed necessary.



- The Working Group need to get acquainted with coal transportation situation at Tavantolgoi. Then to make development policy for long-term (15-20 years), mid-term (8-10 years and 3-5 years) and short-term (1 year)<sup>58</sup> basis, also to coordinate the implementation programs with each sector, ministry, an agency's policies and activities.
- National Emergency Management Agency will accept the licensing of transportation companies that meet the standard requirements of permitted camps, labor, hygiene and transport laws.

#### *Improve the safety of the coal transportation road*

- Gashuun sukhait road company is in charge of ongoing work such as monitoring, road maintenance, road safety and control
- Gashuun sukhait road company is in charge of the establishment of the maintenance facility and organize prompt maintenance when needed.
- Gashuun sukhait road company is in charge of maintaining the safety training provided by the Traffic Police Department and arrange a procedure for the drivers to undergo second medical examinations (common infectious diseases). Relevant transportation and mining companies make any payments for these examinations.
- Operate traffic police and auto transport inspectors at Gashuun sukhait's border checkpoint; inspect the equipment from the Chinese side, and create a system to return non-compliant vehicles.
- Gashuun sukhait road company will establish a system for reporting enforcement of traffic rules, technical checks, and reporting on environmental factors that may affect traffic injuries, accidents and mobility in collaboration with General Police Department, National Police Department and National Emergency Management Agency.
- Gashuun sukhait road company will establish a system for receiving information of any violation rules including alcohol consumption, transfer of driver's licenses to non-professional person, sequence attack in collaboration with General Police Department, National Police and National Emergency Management Agency. Receive the information through regular telephone and addresses. Any driver violators and the carrier are subject to fines and make it to the public announcement.
- Gashuun sukhait road company, National Emergency Management Agency, and transport companies jointly install GPS for all coal haulage equipment to monitor traffic violations such as sequence attack, overpasses and over speeds. Responsibilities will be held for the violators (drivers) and its carrier entity.
- Move to the system that drivers crossing a border must use the same vehicle for return border crossing. To register the border crossing drivers and its vehicles into a system to decrease the issue around transfer of drivers.

#### *Improve the working condition of the coal transportation drivers*

- Erdenes Tavantolgoi LC and Tavantolgoi companies are to establish a "transport agreement" with a coal carrier operator. To develop a new working unit for reorganize/ update, disseminate and enforce relevant standards, rules and regulations and provide necessary personnel and equipment.

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<sup>58</sup> Law on Development Policy and Planning of Mongolia, (Article 6)

- No contract shall be made with an entity violating the labor, health, and transportation laws and regulations in Tavantolgoi's three mining companies. In such cases to terminate contracts.
- The Ministry of Health and the Umnugovi Aimag's Health Departments should carry out diagnostic and preventive measures to prevent the spread of infectious diseases among citizens and people involved in coal transportation. To organize medical emergency and emergency care when necessary.
- Increase workforce and equipment needed to implement public order enforcement and traffic rules along the Gashuun suukhait coal haul road.
- To establish emergency medical care unit at Tsogttsetsii soum hospitals for Gashuun sukhait's drivers and approve necessary resources and budgets.
- Implement the decision from the meeting of the Government of Mongolia on April 18, 2018, on the construction of recreational and parking complexes at the national border of Khairkhan bag in Khanbogd soum. The purpose of the development is to provide a safe, comfortable and healthy condition to work and rest and as well as serve a guaranteed food.
- To regulate and organize the establishment of a business entity and service centers located in the territory of Tsogttsetsii soum 4 and 6, also to establish transportation and logistics centers in that area.
- To create an organizational structure of cooperatives and association for the drivers, to promote and support the example of a non-polluting environment and non-violent public order.
- To run a professional psychotherapist and conduct research and surveillance related to the drivers, also to work with the organizations and individuals protecting their interests.

*Cease the operation of Tsagaan Khad customs zone*

- Cease the operation of Tsagaan Khad customs area until the minimum conditions of living and working in a safe and healthy environment is met.
- The government working group mentioned above will develop a policy on Tsagaan Khad Customs Inspection Zone and approve short, mid and long-term action plans.
- Companies and enterprises in the Customs zone should carry out labor safety, environmental, health and social impact assessments according to the law and implement relevant management plans.
- To cease operation of transportation companies, canteens, and maintenance departments that refuse to abide by the Labor and Hygiene standards, and to take actions per the violation and applicable law.

## 6. Орон нутгийн малчдын эрхэд нөлөөлөх байдлын үнэлгээ

Based on the discussions with herder families and observations at Tavantolgoi coal mines and also along the Gashuunsukhait road, we have identified the following five issues as the high-priority for herders in this affected area.

### Dust

So far, a number of independent studies and assessments were conducted to assess the social and health impacts of the dust resulting from the mining activities and related traffic on herders and a series of recommendations were proposed in these documents. The 2012 study of the National Human Rights Commission of Mongolia made the following conclusion and recommendations.

- *Although all mining companies are contributing to dusty conditions, all companies try to blame each other to escape from the responsibility. The state organizations need to carry out their duties and responsibilities under the given legal authority.*
- *To install the air quality measurement equipment at the centres of Tsogttsetsii and Khanbogd soums and other locations with high level of air pollution and dust in order to for conducting constant studies and measurement.*
- *Since people, who participated in the research, highlighted the increased impact of mining activities on cattle health, to enhance the capacity of veterinary services and to have sick cattle, especially with damaged intestine, liver, and spleen, examined by veterinary organizations and specialists.<sup>59</sup>*

In 2015, the Australian and Mongolian joint research prioritized the risks on livelihood of herders resulting from the dust in the final report and provided the following recommendation.

*“The dust pollution poses a serious problem for the quality of life of the people, who spend most of their time outside and live closer to the nature. Therefore, it is necessary to support herders, who are vulnerable to the dust and pollution and to conduct regular, transparent monitoring of the impacts from mining activities on air quality as well as dust impacts on health of people and cattle, the quality of the pasture, houses of herders and cattle corrals..<sup>60</sup>*

Regrettably, the relevant state organization, local authorities, and mining companies have not taken any measures in accordance with conclusions and recommendations reflected in these assessments. At the present, not only herders but also other people are concerned about the impact of the dust in Tavan Tolgoi mining areas on the cattle health. The 2012 study findings about diseases and changes on the cattle health, especially diseases related to liver, internal organs, and eyes. Yet, professional and veterinary organizations have not made any effort to study and to determine the impacts on the cattle health.

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<sup>59</sup> Тогтвортой эрдэс баялгийн хүрээлэн. Хариуцлагатай уул уурхай Монголд: Хамтын зүтгэл. 2016 он

<sup>60</sup> Мөн тэнд.

Another popular concern among herders are that the dust impacts not only the liver and internal organs, but also the fetuses of the cattle.

Herders presented solid examples of dust impacts on the cattle health of even those are living in 10-20 km distance from the mines and roads. As mentioned earlier, the research proves that the dust particles can travel from 10-20 km to several hundred kms in Gobi region; therefore, herders' complains about the dust and dust particles from the mining and transportation activities are valid.<sup>61</sup> But it is difficult to take any measures regarding herders' complaints without measuring and monitoring the dust at multiple points transparently and frequently by professional organizations in order to determine the dust dispersal and content as well as their environmental and health impacts. In this regard, the cooperation and social responsibility of the mining companies, state and local authorities are vital. There is opportunity to learn and adapt the dust monitoring and reduction program and experience of the Oyu Tolgoi company, which operates in neighbouring soum in the same province.

The dust health impact is higher in case of herders since they spend most of their time outside by herding the cattle. Besides, herders are also worried about the health and value of their cattles, which are the main source of their livelihood. The following section presents challenges and some examples of how the dust impacting herders' livelihood.

### Common challenges related to the dust

### Some specific examples

#### Cattle Disease

- Liver, internal organs, and eye diseases are common.

*"The livers of our one goat and one sheep became watery and internally bleded"*

*"Droppings of the cattle is dark coloured after eating dust-covered plants. When there is more moisture, it becomes normal for 2-3 days, but then the colour changes back. The cattle liver is (ereen). Livers had large spots."*

*"Cattle offsprings of this year have runny noses and noises in their chest. It feels like they have pneumonia."*

#### Financial loss

- The price of wool, cashmere, and meat dropped.
- It creates additional cost in food expenses.

*"I saw it myself last year. When we look at it, it is normal, nice cashmere. But, when we hit this cashmere, more dust and dirt fell from it on the paper. When you hit cashmere from other places, you do not see dust and dirt. Therefore, it is not the fault of the people who refuse to buy our cashmere. In the beginning, I was angry, but once I see the dust and dirt."*

#### Psychological impact/stress

- More stress is caused because of worrying too much about the cattle health.

*"Sometime, the internal organs are too dark to eat"*

*"People don't like to buy meat from this area."*

*"The liver disease is common. I think this is because of this coal dust. We live about 20 km away from the mine. But, the dust and particles reach here. I do not know what to do."*

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<sup>61</sup> Troy Sternberg and Mona Edwards. Desert Dust and Health: A Central Asian Review and Steppe Case Study. Int. J. Environ. Res. Public Health 2017, 14, 1342

*“Cattle eyes get hurt. This also relates to the dust.”*

## Water quality and availability

The following are the priority issues concerning the water quality and availability based on the interviews from herders of Tsogttsetsii, Khanbogd, and Bayan-Ovoo soums, observations, focus-group discussions with local communities,<sup>62</sup> statistics, and findings of previous studies/assessments.

### *Lack of Information and Public Participation*

Herders are worried about the impact of water usage by Tavan Tolgoi coal mines on surface and subsurface water reserve. There is lack of information regarding the scope, quantity and purpose of the current and future water usage and the environmental impacts from the water consumptions by coal mines.

There is a limited information is available concerning the water consumption of the coal-washing plant of the Energy Resources Ltd, which has been consuming the largest quantity of water at the moment. Since 2011, the Energy Resources Ltd started a “Participation-Based Water Monitoring and Study Program” to conduct the water monitoring with local residents at herders’ wells near the mine, the centre of Tsogttsetsii soum, and waters along the coal transportation roads. Now, within the framework of this program, the company conducts water monitoring (i.e., testing and measuring) once in a month and reports the results to the public, but herders have a very little knowledge about the program. Also, we observe popular tendencies of doubting in mining companies and especially not trusting in their water monitoring activities and the results.<sup>63</sup>

Moreover, there is a lack of simplified public information about the quantity of water usage of the coal washing factory and its impacts on the subsurface water resource. This type of important information and data need to be explained in professional jargon-free and less complicated manner. For example, during the focus-group discussions and stakeholders’ meetings, local residents inquired the possibility of converting some measures such as litre per second, million m<sup>3</sup> into litres or tons and creating commonly accepted, understood concepts.

According to herders, although the Erdenes Tavantolgoi SOE conducts the monitoring the water level and quality of the herders’ wells in the mining impact zones, they company does not have a schedule for regular monitoring, not allow the public participation, and not share the findings or results with the public.

Groundwater resources are classified as shallow, located in unconfined and deep confined aquifers. The shallow aquifers might be relatively thin and narrow often reaching up to 5 m, located in up to 10 m from the surface and recharged by rainwater. The water quality varies from pure to saline. The deeper aquifers are located at a depth of 400 m in large water catchments or basins. These deep aquifers are overlaid by

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<sup>62</sup> In June 2018, the Citizens’ Representative Khural organized the multistakeholder discussions on the water use for mining and ways to control the industrial water usage in Tsogttsetsii and Khanbogd soums.

<sup>63</sup> In 2014, only 11 percent of survey participants in south Gobi region responded that they trust in mining companies (ХБСХ, Өмнөд говийн усны талаарх иргэдийн мэдлэг хандлагыг тодорхойлох судалгаа. 2014).

mostly impermeable layers of clay, which eliminates or limits an ability to be recharged and water quality could be saline.

The shallow aquifer is the important water source for drinking and household water, agriculture, and plants, those are dependent on shallow aquifer.<sup>64</sup> Since 2008, several studies warned the risk of running out of deep aquifer water by 2030 if the mining activities continue to expand in Tavantolgoi region.<sup>65</sup> In case herders, there is limited information available regarding how the future infrastructure and mine development at West and East Tsankh of Erdenes Tavan Tolgoi company impact the underground water resources and particularly how these projects would effect Balgasyn Ulaan Nuur (lake). In spite of lack of information, many herders strongly believe in overwhelmingly negative impacts on Gobi water resources and ecological balance if mining companies use the water of Balgasyn Ulaan Nuur (lake) for the mining purposes. Although the initial estimate of the water resources of Balgasyn Ulaan Nuur as 444 l/sec, in 2008, the QGX company concluded the water resources is even lower than the earlier estimate and warned that there would be more negative consequences on overall Gobi water resources if the lake water will be used for mining and industrial purposes. The Government reassessed the water resources as 404 l/sec, but this assessment still under scrutiny and is disputed.<sup>66</sup>

Until mining companies establish a mechanism to provide sufficient information about the industrial water usage policies, estimates, potential risks and ways to mitigate these risks and make available all relevant data and studies for local residents and herders, the current complaints, disputes, and suspicions would never stop, but rather intensify.

#### *Lack of Wells for Herders*

The lack of wells has been the most challenging issues for herders in the Gobi region. Herders, who are living in Tavantolgoi coal basin, described a number of water-related challenges like not having enough water for their cattles, drained wells, need of digging new wells, and difficulty of watering their cattles from the wells of Naran mine. According to these herders, key factors for falling level of water are (1) low precipitation, (2) the increase of the number of cattles, and (3) mining companies extensively use the subsurface water sources. During the multi-stakeholders' discussions on water, chairman of the Citizens' Representative Khural of the province reported that the water-related dispute between Tsogttsetsii soum herders resulted in the death of one herder.

According to the reports of the National Statistical Office, the number of wells are increased in most eastern soums of Umnugobi province whereas the number of wells in Tsogttsetsii soum reduced substantially.<sup>67</sup> In contrast, the well numbers of Khanbogd soum, which have been affected by major mining projects (e.g., Oyu Tolgoi), increased by 100 wells between 2012 and 2015.

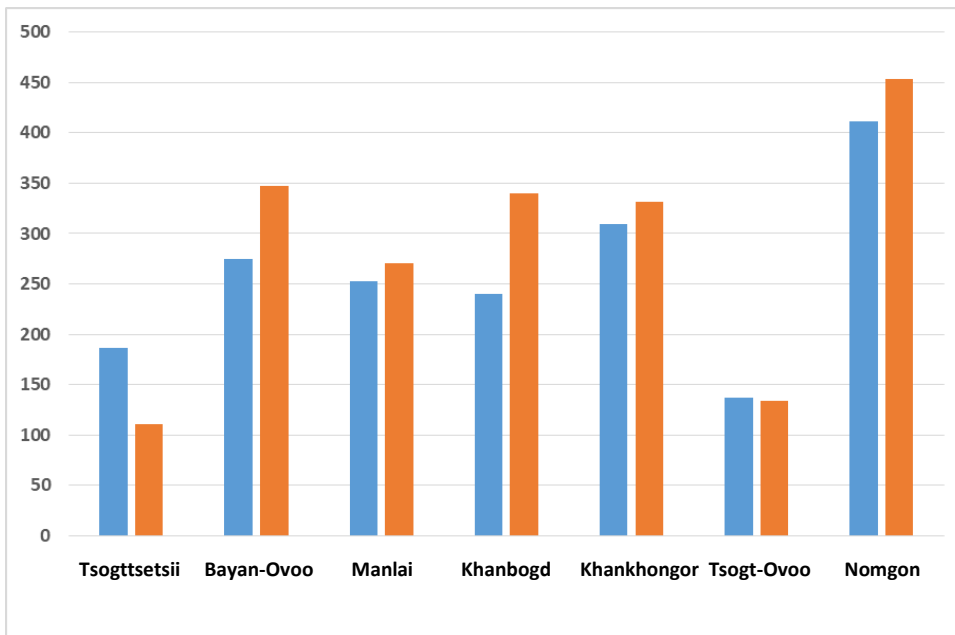
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<sup>64</sup> Тогтвортой эрдэс баялгийн хүрээлэн. Хариуцлагатай уул уурхай Монголд: Хамтын зүтгэл. 2016 он

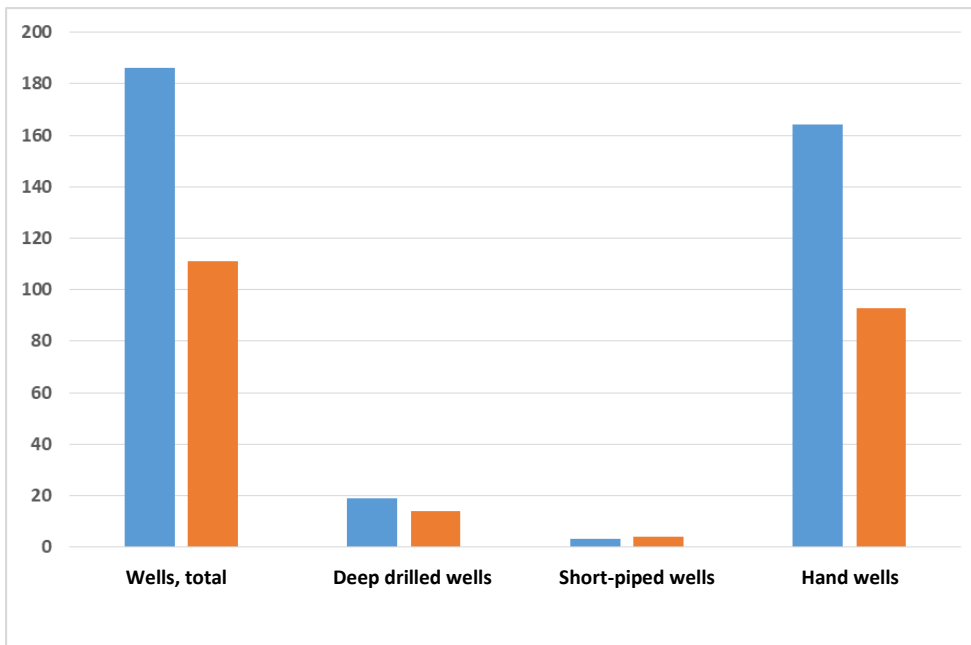
<sup>65</sup> Мөн тэнд.

<sup>66</sup> Ус 2030. Хуудас 24.

<sup>67</sup> УСХ. Худаг, усан сан, уст цэгийн тоо. 2018. [http://1212.mn/tables.aspx?TBL\\_ID=DT\\_NS0\\_1001\\_031V1](http://1212.mn/tables.aspx?TBL_ID=DT_NS0_1001_031V1)

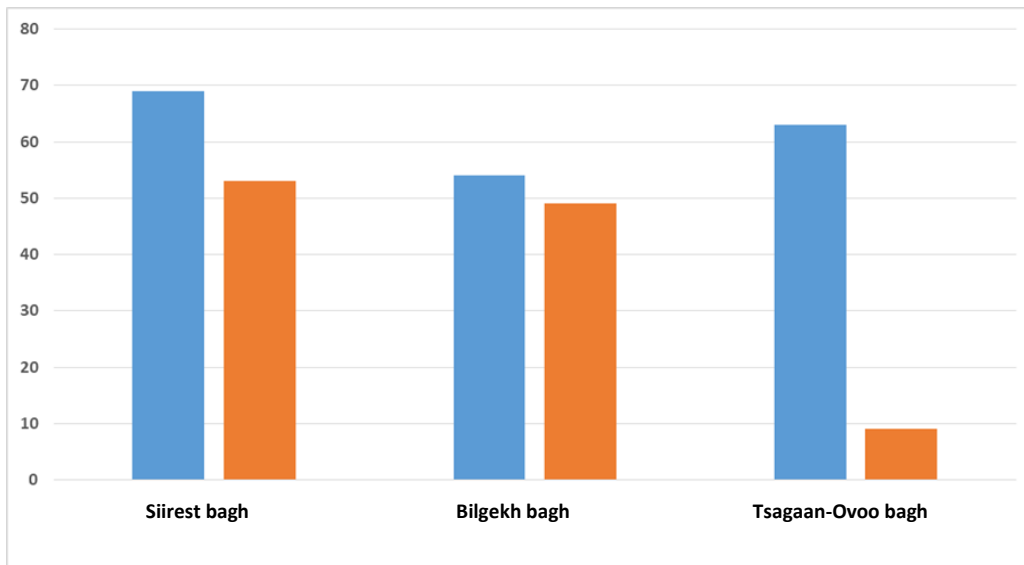


**Figure 41. The number of herders' wells in soums in the eastern region of Umnogobi**



**Figure 42. The number of herders' wells in Tsogttsetsii soum**

But, in the case of Tsogttsetsii soum, the number of wells belonging to herders reduced from 160 in 2012 to 90. Now there are barely ten wells were left in Tsagaan-Ovoo bag of Tsogttsetsii soum, where used to be 60 wells in the past.



**Figure 43. The number of wells in three bags of Tsogttsetsii soum**

Байгалийн нөөц ашигласны төлбөрийн тухай хууль, Засгийн газрын 2014 оны Байгаль орчныг хамгаалах, нөхөн сэргээх арга хэмжээнд зарцуулах төлбөрийн орлогын хэсгийг бүрдүүлэх, зарцуулах, тайлагнах журамд заасны дагуу ус, рашааны нөөц ашигласны төлбөрийн орлогын хэсгийг дараах арга хэмжээнд зарцуулах ёстой. Үүнд:

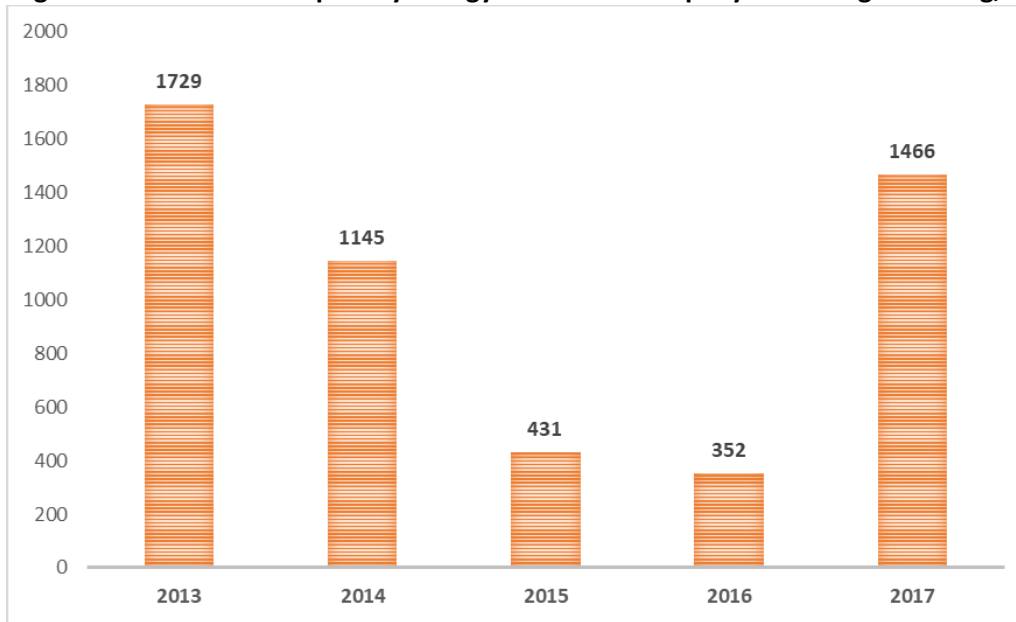
- Усны сав газарт усны нөөцийн хайгуул судалгаа, зураглал хийх, усны нөөц, горим, чанарын төлөв байдал, өөрчлөлтөд хяналт-шинжилгээ явуулах, усны тоо бүртгэл хийх;
- Усны үр ашигтай, хэмнэлттэй хэрэглээг болон хаягдал усыг дэвшилтэт технологиор цэвэрлэх, тоолууржуулах, үнд-ахуйн ус хангамж, ариутгах таттуургын байгууламжийг шинэчлэх, засч сэлбэхийг дэмжих, үндны ус цэнгэгжүүлэх, усны хяналт шинжилгээний болон лабораторийн тоног төхөөрөмж худалдан авах, хаягдал ус зайлуулах цэгийг сайжруулах;
- Усны тухай хууль тогтоомж, хөтөлбөрийг хэрэгжүүлэх, дүрэм журмыг мөрдүүлэх, усны сан бүхий газрын хамгаалалтын бүс, ус хангамжийн эх үүсвэрийн эрүүл ахуйн бүсийн заагийг тэмдэгжүүлэх, хаалт, хамгаалалт хийх, тохижуулах;
- Усны сав газрын усны нөөцийн менежментийн төлөвлөгөөг хэрэгжүүлэх, усны сав газрын зөвлөлийн үйл ажиллагааг дэмжих, орон нутгийн иргэдийн оролцоог нэмэгдүүлэх;
- Усны сав газрын байгаль хамгаалал, нөхөн сэргээлт, цас, борооны усыг хуримтлуулах хөв цөөрөм байгуулах, рашаан, гол мөрний урсац бүрэлдэх эх, булаг шанд, баянбүрдийг хамгаалах төлөвлөгөөг хэрэгжүүлэх арга хэмжээнд тус тус зарцуулна.

Энэхүү үнэлгээний явцад ба орон нутагт болсон усны хэлэлцүүлгийн үеэр сумын удирдлага, малчид Тавантолгойн уурхайнуудын төлж буй ус ашигласны төлбөр зориулалтын дагуу сум орон нутгийн усны нөөцийг нэмэгдүүлэх, малчдын худаг, уст цэгүүдийг нэмэгдүүлэх, сайжруулахад зарцуулагдахгүй байгаа асуудлыг хөндөж байсан. Ухаа худаг уурхай ус ашигласны төлбөрт 2016 онд 352 сая төгрөг, 2017 онд 1 тэрбум 466 сая төгрөг Өмнөговь аймагт төлсөн байна.<sup>68</sup> Энэ төлбөрөөр Тавантолгойн уурхайн нөлөөллийн бүс нутагт хийгдсэн ажил, цаашдын төлөвлөлтийн талаарх ил тод мэдээлэл алга байна.

<sup>68</sup> Олборлох үйлдвэрлэлийн ил тод байдлын санаачилга. Цахим тайлангийн систем. 2018



**Figure 44. Water use fee paid by Energy Resources Company to Umnugobi Aimag, million tugrugs /2013-2017/**



As specified in the Law on Natural Resources Utilization Fees and the Government Regulation on Generating, Spending, and Reporting the Funds for Protection and Reclamation of Natural Resources Utilization (2014), the specific percentage of the fund must be spend for the following purposes. They are as follows.

- To conduct geological surveys and mapping of water resources in the water basin, to monitor the water reserve, quality, and changes, and to do the water registrations;
- To introduce new technologies for increasing the effective and efficient use of the water and for purifying; to introduce the water measurement system, to improve and to fix the drinking water supply system and water treatment facility, to purify the drinking water, to purchase lab equipments for the water control and monitoring, and to improve the waste water drainages;
- To implement the water-related law, regulations, and programs, to enforce water regulations, to improve signs, markings, gates, and protection of the protected zones with water reservoirs;
- To implement water basin reserve management plan, to support activities of water basin boards, and to increase the participation of local residents;
- To establish the pool or reservoir for the collection of rain and snow to support environmental protection and reclamation at the water basin and to implement the protection plans for spa, river mouths, springs, and oasis.

During this assessment and also the discussions in the countryside, local authorities and herders pointed out that the water-usage fees paid by mining companies have not been used appropriately, as stated in the laws, to improve the water reserves of soum, to increase the herders' wells and water-distribution points. Ukhaa Khudag mine paid 352 million tugrug in 2016 and about 1.5 billion tugrug (1,466,000,000) for the water usage to the Umnugobi province.<sup>69</sup> There is no available reports or information on spending of this fund or plans for future spending in Tavantolgoi mine impact area.

<sup>69</sup> Олборлох үйлдвэрлэлийн ил тод байдлын санаачилга. Цахим тайлангийн систем. 2018

## ***Negative Impacts on Ulaan Nuur***

Herders, those live by northside of the Tavan Tolgoi mine, and the soum authorities demanded the Erdenes Tavan Tolgoi company to remove the tailings and also ditches near Ulaan Lake, which is fed by rain and flood water. The tailing and ditches would block rain and flood water routes to the lake; therefore, it would dry up Ulaan Lake.

The following fact was reported by a local herder.

*“Tavan Tolgoi company is extracting coal in the east side of Ulaan lake. In the north, there are camps of Khishig-Arvin company as well as the soil-removal section of Erdenes Tavan Tolgoi company. Ulaan Lake flows from the west side and contributes to the ground water. All camels from Tsogttsetsii and Khankhongor pasture here, eat plants (buds), and get water from here. But, Erdenes Tavan Tolgoi rockpiles of the removed soil and dirt on rain and flood water routes to the lake. This blocks the water feeding. The rain water usually runs down from the mountain, but now the water routes are blocked. Plants stopped growing because of the dryness and the beautiful lake is disappearing. When herders raised this issue at meetings, the company authority promises to build a bridge and then nothing is done. All companies have employees in charge of community engagements. These employees tell us that they receive our complaints and understand our concerns; however, they resolve nothing. No measures have been taken so far.”*

As mentioned in the Tavan tolgoi feasibility report, Ulaan Lake was dried up in 1990 and 2014. In general, the lake emerges in some years, when the precipitation is high. However, in last several years, the lake was literally dry-up.<sup>70</sup> The report states that 10 out of 22 flood water routes were damaged because of newly digged hole, ditches, rockpiles/tailings, soil removals, and extraction. The mining operations directly impacted the groundwater feeding system of the lake. The report concludes that although the quantity of water seepage to the open pit has not been properly measured and recorded, the seepage would eventually contribute to the disappearance of the lake.<sup>71</sup>

There was no mentioning of any plans to reduce the environmental impact on Ulaan Lake or proposed actions, in response to complaints of local authorities and herders, in the 2015-2017 Environmental Management Plan of the Tsankh Mine of the Erdenes Tavan Tolgoi company.

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<sup>70</sup> Таван толгойн нүүрсний уурхайн бүс нутгийн хуримтлагдах нөлөөллийн үнэлгээ. Хуудас 62-63

<sup>71</sup> Мөн тэнд. Хуудас 134-135



**Photo 18. Camels grazing nearby waste dumps of the Tsankhi mines on the dry Ulaan lake bed**

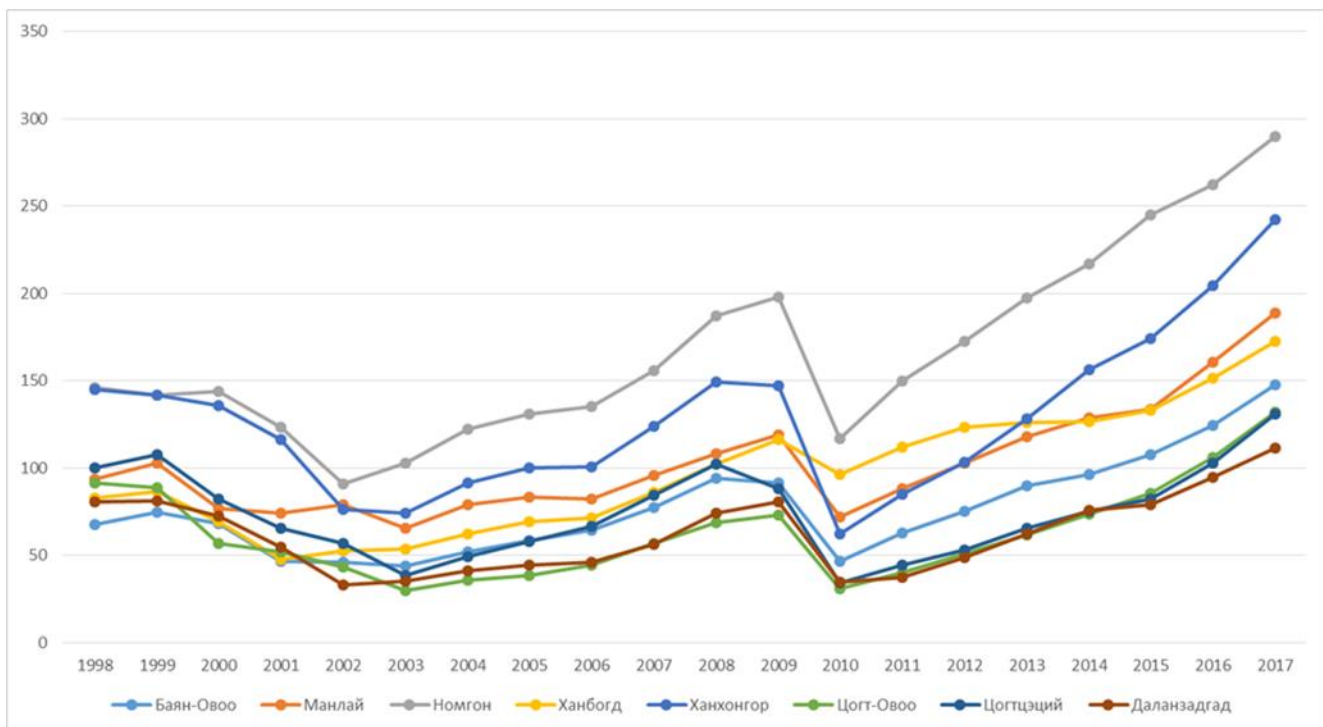
### Pasture degradation and scarcity

The available land, especially pastureland for herders who living on the land belonging to the mining companies are on gradual decrease as mining companies develops their roads and other infrastructure projects. In particular, the pastureland of herders those living between Tavan Tolgoi mine and West Naran mine has been squeezed from both sides.

It is becoming difficult for herders, living along the Gashuunsukhait coal transportation road, to pasture their cattle because of the paved road, unfinished railway dams, old coal transportation roads, as well as unregulated, multiple roads - created by truck drivers who wanted jump the road queues or to make shortcuts.

Besides the impact of the mining and coal transportation, the other factor, which contributed to the lack of the pastureland, is the increase of the number of the total cattle of Tsogttsetsii soum in last several years.

**Figure 45. The number of livestock animals in soums of the eastern region of Umnugobi /1998-2017/**



Prior to the 1999-2001 *zud*, Tsogttsetsii soum had about 150 thousand cattle; however, soum herders lost 30 thousand cattle during *zud*. The number of the cattle reached 150 thousand in 2014 and 250 thousand in 2015-2017. Tsogttsetsii soum has 7.2 thousand km<sup>2</sup> land, which is considered the smallest soum by the size of the land in Umnugobi province.

Herders, who were interviewed, complained the lack of the pasture as the number of cattle increases, limited areas to move around with the cattle, and tensions and even some conflicts with herders pasturing from different provinces. Moreover, there are frequent water-related conflicts. Because of these challenges, some herders stay in same areas without moving around as called *otorloh*. If herders stay in one area for two and more years, the availability and quality of the pasture become lower in the following year. Specially, during the year with droughts, there are more conflicts and tensions related to the pasture and water sources.

## Safe living environment of herders

### *Safety of Mine and Its Surrounding*

There are three main issues having direct impacts on health and property of herder families near Tavan Tolgoi mine.

First, there are increasing incidents of the cattle falling into ditches, trenches, and holes of the Tsankh mine section of the Erdenes Tavan Tolgoi Company. As these holes are filled up with water after the rain and flooding; the cattle comes to these holes for water sources. Some dies as stuck in the bog or broke

its legs in the ditches. Although herders suggested to make these holes as the cattle-friendly way, the company have not taken any preventive actions.

*In summer, these trenches are filled with water. The earth on the edge goes into the trench. This becomes like hidden trap.*

*Last year, they digged trenches around the mining site. But, it was filled with water and our three baby camels stuck. Two of them got out and the third was died. Later the mining company pulled out the dead camel and threw away. I learned about this incident after two days and didn't make any complaint.*

*Since last summer, I complained and asked to fill these trenches or make them safer. When there is more rain, this type of incidents will be repeated.*

*My brother's mare died because of falling into the trench. I called the company. They often said that they would let their environmental people know about. Although they assessed my loss as 3 million tugrug and talked about giving me 1.750 thousand tugrug, I haven't received any money.*

Interview with Herders

Second, there are many dogs near the mine. Some dogs have owners and others are stray, but they causing risks not only the herders' health, but also their properties. There was an incident, in which stray dogs ate 8 baby-camels near the Erdenes Tavan Tolgoi tailings. Even though the herder and the soum authorities reported to the police, it is still not clear who could be hold responsible for and how the herder's damage would be compensated.

According to herders, employees of contracting companies feed dogs on their camps, but they left these dogs behind as they leave camps. As a result, the number of stray dogs has increased. Also, soum families are increasingly have dogs to prevent the theft and other types of crimes as the soum population has grow significantly.

Although the soum authority organizes the annual dog eradication work, it has been effective; therefore, stray dogs causing risks to herders. Recently, a newly established service and development company is mandated to be responsible for dog eradication work and planning to take some progressive measures against stray dogs. However, this measure will not reduce the risks for herders and their properties as expected unless the mining companies also take measures against stray dogs near their tailing and licensed area.

Third, families are vulnerable to noise and seismic activities resulting from the blasting activities of mining companies at Tavan Tolgoi coal deposits. Since no one controls and records the level of the noise and seismic effects, it is impossible and difficult to determine the impacts of these blasts on herders' health and properties. Mining companies do not provide the blasting schedules and other related information to herders. As herders observed, blasting activities usually happened in the afternoon, but companies do not have regular hours and days for such activities.

### **Traffic safety**



**Photo 19. Herder family living alongside the Gashuunsukhait coal road**

Based on discussions with herders live along the Gashuunsukhait coal transportation road and our observation, the following issues require immediate attention and need to be resolved.

First, there are accidents involving *bod mal* (i.e., horse, camel, and cow) and *bog mal* (sheep and goat). Herders point out that speeding over the speed limit, night time transportation, and lack of cattle crossings are main reasons for these accidents. Even though there are a few crossing for the cattle, these crossings are narrow and marked inadequately. When the pasture is poor, cattle need to cross the road for better pastures.

Since herders do not know to whom they need to address when their cattle hurt/died from the accidents, they are hurt economically. Only when the herder see the accident, the herder can get compensation from the driver.

*Two years ago, one male sheep was hit by a truck. Hard to know who run over, too many trucks travelled. The sheep was shattered into pieces. If there is no one around, trucks ready to go over. When someone is watching, they usually reduce their speed. I didn't report and remained silent about this incident. But, I left the sheep on the road all day long, just wanted to let people see. And, then I put away.*

*The pasture is on both side of the road, many cattles were run over. No one holds responsible. I caught one person who run over the sheep, but I didn't get any money. When this road was Gobi Road, we report any incidents and now it is hard to figure out to whom I need to contact.*

Interviews of Local Herders

It is common in the countryside that herders use cars and motorcycles to tend their cattles instead of traditional herding by using horses and camels. Because herders use motorcycles and cars, it is difficult for them to cross the road with their cattle unless the road crossing has been made conveniently.

Second, truck drivers get water from herders' wells along the road for the drinking and other purposes. For such reasons, trucks drivers makes their own roads to reach wells; thus resulting the soil erosion and dust. Furthermore, drivers vandalize wells, wash cars near the well, and scare the cattle. In particular, more soils around wells were damaged by heavy trucks. Because the difficulty of knowing the companies, to which drivers and trucks belong, it becomes impossible to make any complaints.

Third, the garbage and trash along the coal transportation roads poses negative impacts on the cattle health, Truck drivers throw trash in plastic bags, all sorts of plastic cases, and toilet papers along the road, where the cattle eats them.

### Impact management

According to international practices and policies of the development of mining and related infrastructure in south Gobi region, the companies (1) determine families that would be affected by the mining construction and then extraction and transportation operations, (2) provide compensations for material and nonmaterial impacts, and (3) implement programs to support their livelihoods in the long-term. The material impact refers to property and other loss that are incurred to the resettlement of the family from one location to another because of the mine, mining facility and infrastructure projects. The material impact includes property and material that could be compensated. For example, if the herder family has a winterplace in the mining licensed areas, the mining company needs to provide the same quality (not lower than the current) winterplace and pastureland at the different location. The company should also provide additional funds to cover the associated costs for settling and making sustainable living in the new location through the compensation programs. This type of international practices were implemented by Oyu Tolgoi company, which is operating in Khanbogd soum, and Ukhaa Khudag mine of Energy Resources in Tavan Tolgoi coal basin. Because there is no such legal requirement and standards in Mongolian legal system, companies pursue different policies and practices due to their own corporate social responsibility practices and investors' requirements.

Some families have been facing the risks of losing the income sources not because of the resettlement requirement to build the mine, factory, and infrastructure projects, but rather because these projects are creating environmental, social and other challenges for their livelihood and household economy. In case of Oyu Tolgoi and Energy Resources, they used different methodologies to determine this type of impacts based on the specificity of the project and company's policies. Even now, there are complaints and disputes regarding the impact zoning, contracts with affected families, and the provision of reimbursement/compensation.



**Photo 20. A herder watering her animals in the north west of the Tsankhi mines**

Following the requirements of the European Bank for Reconstruction and Development, Energy Resource company conducted the environmental and social impact assessment regarding Ukhaa Khudag mine and afterwards, Energy resources implemented programs to reduce the social impacts on 13 herders families, to relocate some of these families, to conduct the monitoring of these families, and to carry out projects to assist their living.<sup>72</sup> According to Energy Resources, its Local Cooperation Department has 4 employees, who are in charge of local engagement affairs. To engage with local community, the department works through the Local Voluntary Council, which includes representatives from all concerning parties. The council does the water quality monitoring and conduct open, inclusive discussions and roundtables with the local community. Energy Resource has a 30-day policy for receiving and responding/resolving complaints through the Complaints Commission.

*As Ukhaa Khudag mine was established, over twenty herding families were relocated by the mine. The mine built new winter-places and wells for all these relocated families.*

*There were complaints about the cattle wasn't getting enough pasture. Some herders are still living near the mine after the mine sites were developed. They are herding their cattles where enough grasses.*

*The mining company provided the transportation and petroleum for families to move. Herders said the support was enough.*

*When the Energy Resources was established, there were several winter-places of herder families in the Energy Resources company's impact zone. It was good in the beginning. In comparison with other mining companies, the Energy Resources is relatively responsible. Other mining companies disappeared.*

*The Energy Resources company provided compensations for herders with winter-places in the mining impact areas and gave new winter-places for these herders.*

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<sup>72</sup> EBRD. Project complaint mechanism. Energy Resources Phase II. Compliance review report. March 2017.



Erdenes Tavan Tolgoi company moved herders with winter-places in the mining zone, but the company neither build the wells nor paid the compensation fully. In 2014, the World Bank commissioned study, which examined ways to improve the relocation (resettlement) plan of East Tsankh, provided recommendations to improve the impact management of Erdenes Tavan Tolgoi company.

As stated in the study, there are 4 herder families with winter places and 2 families with summer and autumn places within the licenced areas of East Tsankh mine. If the impact zone is extended to 5 km radius from East Tsankh mine, there are 5 families with both winter and spring places, 15 families with summer and autumn places. In total, 26 herder families are in the impact zone of East Tsankh mine. However, the company concluded contracts with only two herder families within the licenced area to relocate and to compensate the related expenses. Erdenes Tavan Tolgoi have not taken any measures to determine the material and nonmaterial impacts, to relocate, to compensate any expenses, and to support the livelihoods of the remaining families. According to the 2014 study, 15 families, that have been affected by mining activities since 2010, already moved away from the mining dust, noise, and soil erosion by themselves.

In regards with two families that had contracts with Erdenes Tavan Tolgoi, the company did not make proper assessments of material and nonmaterial impacts, but rather the company preferred to conclude the contract, which did not provide any options for these herders and even opportunities to do self assessment of potential risks for their livelihoods. Moreover, the company have not fulfilled its obligation under these contracts until now. The company built a new winterplace for one of these herders, but the company did not dig the well; as a result, it became impossible for the herder to move into that winterplace. Erdenes Tavan Tolgoi company has not followed any international or national best practices of resettlement/relocation of families in the impact zone. The company doesn't have any unit or employees, who are responsible for this matter. Plus, financial aspects for resettlement/relocation matters have not been fully considered and resolved.<sup>73</sup> The study recommends Erdenes Tavan Tolgoi must take immediate measures such as registering families in the impact zone, calculating the related expenses, developing a program to provide compensations and assist the livelihoods of these families and implementing such program jointly with the local authorities. The study suggests specific plans and organizational setting. But, so far, Erdenes Tavan Tolgoi have not developed any policies and taken any measures to follow these recommendations. As a result, herders frustrated and generally perceive the national state-owned companies in negative terms such as dealing with herders in forcible ways and impossibility of getting compensation and support from the state-owned companies.

Before building the Gashuunsuhait road, Energy Resources company defined the impact zone of this coal transportation road by 500 m x 5 km and began to implement the program to reduce material and nonmaterial impacts of the road on herders. Herders talked about how Energy Resources took measures to resettle some herders by building them new winter places and providing new wells. Some herders agreed to get new wells developed by Energy Resources company instead to be relocated in new areas and provided with new winter places. Even after the road construction period, the company provided

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<sup>73</sup> Бодлогын судалгааны хүрээлэн.

folders for their cattle and took measures as herders' complained about the dust and water problems. At this time, the company implemented the policies of providing employment opportunities for herders, who living along the road, at the company's camp or hiring herders in the road related jobs (e.g., road maintenance, control).

However, according to herders, issues of these families along this road were abandoned after the Gashuunsukhait road was transferred to the state-owned Gashuunsukhait road company. The state-owned company has not taken any measures concerning the soil erosion, dust, traffic incidents involving the cattle, road damages caused by drivers near wells, and waste along the road. Furthermore, the company did not meet or consult with herders in the impact zone.

### Summary of violated rights, impacts, and risks

<b>Violated rights: Right to live in healthy and safe environment</b>				
<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on Civil and Political Rights	International Covenant on Economic, Social and Cultural Rights	The Constitution of Mongolia
				16.2-р зүйл
<b>A brief commentary to this right</b>				
Right to live in a healthy and safe environment means people are entitled to be free in their daily life from harmful impacts, and have the opportunity be apart from such harms. Environmental pollution refers to air, water, soil such as organic pollution but also include non-organic pollution from human activities such as noise disturbance, waste, light waste.				
<b>The conclusion of the impacts and risks</b>				
There are many incidents of cattle falling into or stuck in trenches and ditches of Erdenes Tavan Tolgoi mine, particularly, when these ditches, trenches, and holes are filled with the rain or flood water. Because there are many dogs (with owners or stray) near the mine, these dogs are causing risks to health and property of herders. There are numerous challenges such as soil erosion, dust, driving unregulated roads (simply making new roads), damaging and polluting soils near the water wells.				

<b>Violated right: Right to drinking water and sanitation</b>	
<b>Clauses of National and international human rights documents</b>	United Nations General Assembly Resolution 64/292 July 28, 2010
<b>A brief commentary to this right</b>	
Right water and sanitation mean that everybody has a right to safe, sufficient and continuous water for personal and family needs.	
<b>A conclusion of the impacts and rights</b>	
Due to mining holes, ditches, rockpiles, and extractions, 10 out 22 water passage ways of Ulaan Lake (of rain and flood) were damaged. The water feeding routes to Ulaan Lake were blocked by rockpiles of Tsankh mine. According to the	

reports of the National Statistical Office, the number of wells in eastern soums of Umnugobi province has increased whereas the number of herdes' wells in Tsogttsetsii soum drastically decreased.

**Violated right: Right to own property (alone as well as in association with others)**

<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	Constitution of Mongolia
	Article 17			Article 16.3
<b>A brief commentary to this right</b>				
Every person shall have the right to fairly obtain, possess and own movable and immovable property, and to give such property as an inheritance. Illegal seizure and expropriation of private property are prohibited. In the event the state and its authorized agency have a need to expropriate or seize private property for public use, the state shall provide appropriate compensation.				
<b>A conclusion on the impacts and risks</b>				
15 herder families, who have been affected by Tsankh mine since 2010, moved and abandoned their winter and spring places due to the dust, noise, and soil erosion. Coal truck drivers get water from herders wells for drinking and other reasons (e.g., technical and household use). Drivers broke the wells and washed their trucks near the wells.				

**Violated right: Right to obtain a remedy through requests and complaints**

<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and political rights	International covenant on economic, social and cultural rights	Constitution of Mongolia
				Article 16.12
<b>A brief commentary to this right</b>				
Any person has a right to submit a petition or a complaint to State bodies and officials to eliminate damages, to address conflict or to stop human rights violations. The State bodies and officials shall be obliged to respond to the petitions or complaints of citizens in conformity with law.				
<b>A conclusion on the impacts and risks</b>				
The state-owned company treats herders in threatening and disrespectful manners. Herders are overly pessimistic about getting material and nonmaterial compensation and support from the state-owned companies even though their rights were affected. Herders, who lost their cattle in the traffic accident, remain suffered from the loss because there is no mechanism to handle this type of issues.				

**Violated right: Everyone has the right to freedom of opinion and expression, and receive information**

<b>Clauses of National and international human rights documents</b>	The Universal Declaration of Human Rights	International Covenant on civil and	International covenant on economic,	Constitution of Mongolia
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		political rights	social and cultural rights	
	Article 19	Article 19		Article 16.16
<b>A brief commentary to this right</b>				
This right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.				
<b>A conclusion on the impacts and risks</b>				
At present, there is a lack of information about the water usage of the coal-washing factory of Energy Resources and how the consumption of water would impact overall water resources and availability. This factory is the largest water consumer in the region. Even though Erdenes Tavan Tolgoi company conducts monitoring on water level and quality of herders' wells, the company does not have regular schedule, include local public, and share (report) the water monitoring results.				

### Scales of impacts on human rights and the order of priority

Priority	Хөндөгдөж буй эрхүүд	S	E	R	O
I	Right to living in a healthy and safe environment	2	3	2	3
	Right to freedom of information, opinion and expression	1	3	2	3
II	Right to water and sanitation	1	3	2	2
	Right to an effective remedy	2	1	3	2
	Right to own property	2	1	2	2

The following criteria and scales from 1 to 3 were used to determine the order of priority areas

- S – Severity of impacts (1-3)
- E – Extent of impacts (1-3)
- R - Likelihood of remediation (1-3)
- O - Likelihood of reoccurrence of rights abuses (1-3)

### Recommendations

- The professional organizations need to conduct the dust monitoring at multiple points regularly and transparently, and to determine the environmental and health impacts of the dust by examining the dust dispersal (coverage area) and chemical contents of dust.
- To calculate the risks before digging trenches and ditches and construct the structure, especially sharp slopes and holes, with clear aims of preventing cattle from falling into or sticking in the bogs.
- To allocate the certain percentage of the water usage taxes from Tavan Tolgoi mines in order to increase the water resources of soum and local community and to improve and increase the number of wells and water-distribution points for herders.
- To implement specific programs to improve the traffic safety.

- To establish mechanisms to receive and follow up complaints of herders who are living along the roads.
- To include specific measures and actions in the 2015-2017 environmental management plan of the Tsankhi section of the Erdenes Tavan Tolgoi company in regards with Ulaan Lake as demanded by the local authorities and community.
- To study herders who have been directly and indirectly impacted by the Tsankhi section and to implement a program to compensate damages and to support their livelihoods.

## 7. The Stakeholders' Discussion

On June 29, 2018, the stakeholders' discussion was organized in Tsogttsetsii Soum of Umnugobi Province (1) to introduce the preliminary findings of the *Human Rights Impact Assessment Concerning the Coal Transportation Activities in Tavan Tolgoi Coal Basin*, (2) exchange views with the local authority, residents, and business entities regarding ways to resolve the challenges, and (3) consult with stakeholders about proposed recommendations.

The Chairman of the Citizens' Representative Khural, Governor and officials of Tsogttsetsii soum, senior officials of the Ministry of Labour and Social Welfare, senior leaders from National Centre for Auto Transportation, mining companies (i.e., Erdenes Tavan Tolgoi, Energy Resources, Tavan Tolgoi companies), Gashuunsukhait auto road LLC, coal transportation companies, the authorities of Tsogttsetsii, Khanbogd, and Bayan-Ovoo soums, representatives of citizens and herders, small and medium business owners, and media participated in this discussion and exchanged their views.

Senior decision-makers of Erdenes Tavan Tolgoi, Energy Resources, and Tavantolgoi companies attended in the discussion and presented their companies briefings on how these companies are following environmental laws, regulations, and standards, taking measures to reduce and prevent the negative impacts, and making efforts for appropriate usage of natural resources.

Dr. Byambajav, chief of research team, introduced the preliminary findings and recommendation of the *Human Rights Impact Assessment Concerning the Coal Transportation Activities in Tavan Tolgoi Coal Basin*. The impact assessment report makes series of recommendations concerning human rights issues in specific areas of environment, community partnership, labour relations, and public health. Following these presentations, participants exchanged their views in the following six themes.

1. The current state of implementation of Mongolian laws and regulations, detailed environmental assessment and management plans;
2. Waste and garbage issues of Tavan Tolgoi mines, water, soil erosion, road damages, multiple roads (unregulated), dynamics of the soum centre traffic, dust, and health impacts of the dust and air pollution;
3. Transportation contracts of mining companies, coal extraction, duties and responsibilities of coal buying companies, the health, family, discipline, and social issues of drivers, drivers' right to work, and availability;
4. State and local authorities, their information and coordination, and complaints related to the customs and police organizations;
5. The health issues of herders and residents of Tsogttsetsii soum and other soums, employees of mining companies, mobile population; the quality and availability of public health and medical services; disease and treatment; and the food safety control;
6. Herding families, human rights issues related the animal husbandry; pasture degradation, decrease of the well water level, lack of water resources, relocation, compensation, complaints handling by mining companies.

Herders, residents, and public servants made a number of specific complaints and criticisms. Badarch O, Governor of Tsogttsetsii soum, proposed to include the following four issues in the recommendation of the report.

- To elevate the status of the soum hospital,
- To build 10 km paved road between the start point of the coal transportation road and the mine (of Erdenes Tavan Tolgoi),
- To transfer the air pollution tax to the local authority, and,
- To establish a joint governing mechanism to resolve the local problems.

During the discussion, participants brought up and discussed a number of ideas and proposals to improve human rights conditions and to reduce the negative impacts on environment, social, labour relations, and public health resulting from the coal extraction and transportation in Tavan Tolgoi coal basin.

Participants exchanged their views regarding proposals such as - to require mining companies conclude the transportation contracts, which will specify duties and responsibilities of the mining and transportation companies; as a result, the companies would be hold responsible rather than individual drivers; to have mining companies establish a joint funding, which would have the joint committee and be expected to increase the funds in order to solve environmental and social matters; to relocate Tsagaan-Ovoo bag; to restrict heavy trucks using the soum centre traffic by limiting the numbers and establishing a new route; to plant trees and gardens in soum and bag centres; and to invest in social projects targeting the youth.

The most important achievement of the stakeholders discussion was all participants endorsed the findings and recommendations and agreed to establish a consultative mechanism to reduce the human rights impacts resulting from the coal mining and transportation activities. The best option is to create a joint control and monitoring system concerning environment, waste, and transportation, to establish a joint funding to generate the required funds and budgets, to make a joint decision to reduce the human rights impacts resulting coal mining and transportation activities in Tavan Tolgoi coal basin. Participants expressed the importance of bringing not only three coal mining companies, but also supply and service companies (e.g., fuel, transportation, and food service) into the social responsibility framework in order to increase their collaboration.

Since the creation of the consultative mechanism would require efforts, understanding, and funding from all stakeholders, the National Human Rights Commission of Mongolia and Governor's Office of Umnugobi Province, as request by participants, lead the initiatives by making all initial coordination and facilitation as well as information sharing.





# “The Human Rights Impact Assessment Concerning the Coal Transportation Activities in Tavan Tolgoi Coal Basin”

## 8. General conclusion and recommendations

### General Conclusion

The scale of the coal transportation from Tavan Tolgoi basin to the PRC has constantly increased since 2010. In the past, based on the evidence and facts, local authority and residents, international and national organizations, and researchers have been warning about the serious social, environmental, and health implications resulting from the mining and transportation activities. As the coal price has risen since February 2016, the coal export also increased substantially. However, there was no measures were taken to prevent and to reduce the negative environmental, social, and human rights impacts that all were pointed in the past. The situation has worsened since 2016 and impacts are already disastrous.

Mining and transportation activities of the state and private business entities violated the fundamental human rights - to live in healthy and safe environment, to health protection, to live, to suitable working conditions, to information, and to complaints resolved - of local residents. These violations are likely to continue and deteriorate the situation. They are as follows.

- There are average 4-5 accidents per day, 125 per month, and one loss of life on the Gashuunsukhait coal transportation road. In 2010-2018, fifty people died due to traffic accidents and other careless human activities on the Gashuunsukhait road.
- Because the mining companies (except the Energy Resources), coal buyers (Chinese coal companies, dealers, and transporters), and transportation companies have not obeyed the transportation and other related laws (e.g., Law on Auto Transportation), regulations, procedures, and standards, the traffic and work safety situations are deteriorated; therefore, drivers’ rights to work and live in healthy and safe environment have gravely violated.
- The most concerning matter for residents at the centre of Tsogttsetsii soum is the dust and air pollution resulting from mining and transportation activities. But, three mining companies, operating at Tavan Tolgoi basin, neither follow international and local standards for monitoring the air quality and dust nor disclose the data, methodology, and findings. This type of negligence and lack of transparency effects negatively to rights of health protection and living in healthy and safe environment, and even people’s right to live. These companies have not taken any measures to reduce the dust, to improve control and monitoring, and to increase transparency. Although companies planned to improve the technology and standards as well as to plan new infrastructure (i.e., mining facilities and roads) to reduce the dust, none of planned activities were implemented.
- The relocation of the Tsagaan-Ovoo bag centre, which is located 1-1.5 km from the tailings of West Tsankh section of the Erdenes Tavan Tolgoi company and 0.6-1 km from the loading and parking zone of coal transportation trucks, must be carried out immediately. Because the company has been reluctant to take a comprehensive measure to relocate the bag centre, to

provide compensations, to protect health and property of residents, and to create a sustainable living condition in new location, the damage to health, life, property, and livelihood are in constant increase.

- The minimum living and working condition (such as healthy and safe environment and health protection) has not been established at the Tsagaan Khad customs control zone. Risks to people's lives, health, and property are extremely high due to unregulated traffic, extremely dusty conditions, coal burning as well as uncontrolled and unregistered mobile population. It is highly recommended to close this area temporarily until the customs zone and coal loading/unloading zones meet the minimum standards of health and work safety and have electricity, water, health, and washrooms.
- The load for the public health facilities has risen as results of the increased dust at Tavan Tolgoi coal mine, the population growth of Tsogttsetsii soum, and influx of the mobile population that are taking part in the coal extraction and transportation activities. However, this growth has not been reflected in local public health/medical organizations. Because of human and material resources shortages, it is extremely challenging to provide medical services to the people.
- Many herders are in desperate situations and living as internally displaced migrants because of insufficient measures and negligence of Erdenes Tavan Tolgoi company to reduce the environmental and health impacts, especially on those living near the mine and Gashuunsukhait coal transportation road. All mining companies, except the Energy Resources company, do not make any efforts to receive, to respond, and to resolve herders' complaints. There is no clear procedure for communicating with herders.
- Tsogttsetsii soum does not receive any additional funds or resource to reduce the environmental and health impacts and to conduct reclamation activities even though the soum is located at the centre impact of coal mining and transportation in Tavan Tolgoi coal basin. It is necessary to appropriate the legally-mandated percentages from the water usage and air pollution taxes to the local authority to fund activities for reducing the air pollution and to increase the water supply.
- The main reason of accumulated serious environmental, social, and human rights impacts are related to unregulated participations of one state-owned mining company, one local mining company, one private mining company, 130 transportation companies, and many supply and support companies in the coal extraction, transportation, and export business of Tavan Tolgoi coal deposit. Although there are few companies follow the relevant laws of Mongolia and introduce the better-models in their operations, three mining companies, major transportation and supply companies, and the state and local governments lack common understanding, collaboration, and coordination. All parties acknowledged the importance of collaboration and joint efforts of all participating parties, especially mining companies, major transportation and supply companies, and the government.
- The Mongolian Law on Air focuses on regulating air quality issues only of Ulaanbaatar and provincial centres, but it excludes duties and responsibilities of business entities and local

impacted areas. There are no statements or follow-up regulations to specify duties and responsibilities of business entities to monitor and reduce the dust.

### **General Recommendation**

Considering the current situation aforementioned in the “Human Rights Impact Assessment Concerning the Coal Transportation Activities in Tavan Tolgoi Coal Basin,” it is highly recommended to take the following measures immediately in order to respect, provide, protect, and reclaim human rights.

- To introduce the human rights violations resulting from coal mining and transportation activities in Tavan Tolgoi coal basin to the Sub-Committee on Human Rights for State Great Khural, and (the Sub-Committee) should direct the Government to provide quarterly report concerning the government’s activities to resolve the human rights violations;
- To require appropriate authorities to prohibit business activities of mining and transportation companies and individuals, who are not obeying Mongolian laws, regulations, procedures, and standards and continue causing risks to human lives, health and work safety. To task relevant state organizations, mining companies, and other business entities to take collaborative, comprehensive measures to resolve the current situations and to monitor and evaluate the implementation of such measures.
- To close the Tsagaan Khad customs and control zone until the relevant organizations and business entities to take measures in order to reach the minimum health and safety conditions. To stop operations of transportation companies, food services, and maintenance facilities that do not follow or refuse to obey the Labour and Health Standards, and to penalize these business entities under the Administrative Law and other relevant laws.
- To make joint efforts to create a multi-stakeholder consultative mechanism to make joint decisions, to reduce the human rights impacts of the coal mining and transportation activities, to establish a joint control and monitoring system for environmental, waste, and transportation issues, and to create the joint fund in order to overcome challenges and difficulties.
- To establish a consultative mechanism, which would be coordinated jointly by the Governor’s Office of Umnugobi province and National Human Rights Commission of Mongolia; To include three mining companies operating in the Tavan Tolgoi coal basin and all companies in charge of transportation, fuel, food, and other related services in the coordination mechanism.