

## Introduction

Mongolia's transition from a centrally planned economy to a market economy in the 1990s was followed by rapid economic growth, and then an economic slowdown after the global economic crisis of 2008. The mining industry played a key role in initial growth, and remains a crucial part of the national economy. Mongolia is rich in coal and mineral resources, including copper and gold. Tavan Tolgoi, the largest coal site in the country, is located in Umnugobi Aimag in southern Mongolia, and is one of the largest untapped coking and thermal coal deposits in the world. Oyu Tolgoi, a combined open pit and underground copper and gold mine, is also located in Umnugobi Aimag, and holds one of the largest undeveloped high-grade copper deposits in the world.

According to the Mongolian Statistical Information Service, 34,789 people aged over 15 are currently employed in mining and quarrying, although the actual figure is likely to be significantly higher on account of those working in informal mines.<sup>1</sup> Despite the fact that mining accounts for just 4 per cent of employment, it is responsible for one fifth of GDP, almost 90 per cent of exports and 20 per cent of government revenue.

In recent years, the Government, mining companies and mining associations have made significant efforts to strengthen occupational safety and health (OSH) standards in the mining industry. However, speedy growth in this sector in the absence of a long history of industrial development has meant that, despite political will and the existence of certain legal protections for workers, enforcement has not kept pace. Key constraints are limited institutional capacity for management, inspection and enforcement, and lack of technical OSH knowledge. Formal, large-scale mining projects suffer from some OSH shortfalls, but generally uphold standards better than artisanal, small-scale mining (ASM) and informal operations.<sup>2</sup> Recent years have seen a growing workforce in informal mining, consisting particularly of former herders who lost significant numbers of livestock following the harsh winters of 2010 and 2011, and skilled miners who were made redundant.<sup>3</sup> Much of this growth has taken place among smaller companies or in the informal economy ("ninja miners"), often in mines that were previously large formal operations but are now closed. These workers generally work in precarious conditions and with little or no government oversight. Child labour remains a problem in informal operations, as does the safety and health of young workers, who are particularly vulnerable to industrial accidents and diseases because they lack significant work experience and adequate education and training.

Stronger implementation of international labour standards, including those relating to OSH, can play an important role in attracting foreign investment. Recent decades have seen an increasing use of free trade agreements that include conditions relating to labour rights. Growing interest in corporate social responsibility and ethical trade in global supply chains has led to the incorporation of human rights provisions into many bilateral agreements and companies' codes of conduct. Large multinational corporations often cite a record of failing to meet international labour standards as a central reason not to invest in a country's economy. Compliance with international labour standards can therefore open channels for access to new international markets and collaboration with new trading partners. This can result in increased potential to strengthen and diversify a national economy, and to export domestic goods and services to new markets on a larger scale.

## Data collection

Due to the nature of the work and lack of effective OSH compliance, mining is among the most hazardous industries in Mongolia. Between 2000 and 2004, 261 non-fatal accidents and at least 53 fatal accidents were reported in the mining sector alone.<sup>4</sup> However, it is difficult to gauge the exact scale of the problem because of the absence of a current and accurate national OSH survey and a lack of reliable statistical data. (Mongolia's most recent national OSH profile was published in 2006,<sup>5</sup> and its latest national occupational health profile was published in 2009.) Available national statistics tend to be of limited value because they have been gathered from different sources, using different methodologies and different criteria, and are often not disaggregated according to relevant indicators, such as age, sex, disability, immigration status, causal factor,

extent of injury suffered and number of workdays lost. Significant underreporting of injuries (especially non-fatal injuries) is assumed, particularly in relation to ASM and informal mining, in which many inexperienced youth are employed, but also in formal, large-scale operations. Near-miss accidents are also not reported or recorded. It is important that all dangerous occurrences (events with the potential to cause injury or disease) are recorded, including those in which injury or disease is avoided. This enables the causes of accidents and diseases to be identified and understood, and for appropriate preventative measures to be developed, such as inspection protocols, monitoring of airborne particulates and gases, and confined space training.

The Ministry of Labour and Social Protection (MLSP), in cooperation with the National Statistical Office (NSO) and the Generalized Agency for Specialized Inspection (GASI), is committed to improving data collection on workplace accidents, including the types and causes of accidents. The MLSP recently initiated a new system of occupational accident and disease reporting. Data collection has been piloted in the first half of 2016, and official data are being announced from the second quarter of 2016 on GASI's website.<sup>6</sup>

## ILO instruments, codes of practice and domestic legislation

Mongolia has ratified the **Occupational Safety and Health Convention, 1981 (No. 155)**. Convention No. 155 provides for the adoption of a coherent national OSH policy, as well as action to be taken by governments and within enterprises to promote OSH and to improve working conditions. Mongolia has not, however, ratified the **Protocol of 2002** to Convention No. 155. The Protocol calls for the establishment and periodic review of requirements and procedures for the recording and notification of occupational accidents and diseases, and for the publication of related annual statistics.

In relation to ILO instruments on mining in particular, Mongolia has ratified the **Minimum Age (Underground Work) Convention, 1965 (No. 123)**. Convention No. 123 stipulates that individuals aged under 16 are not permitted to work underground in mines, and employers are required to keep lists of persons who work underground and are less than two years older than the minimum age. More recently, in November 2015, Mongolia ratified the **Safety and Health in Mines Convention, 1995 (No. 176)**. Convention No. 176 regulates the various aspects of safety and health characteristic for work in mines, including inspection, special working devices and special protective equipment. It also prescribes requirements relating to mine rescue. It sets out minimum requirements for a legal and regulatory framework to improve OSH in mining, such as reporting and investigation procedures, a national record of incidents and accidents, the designation of a "competent authority" and the suspension of work on OSH grounds through the competent authority. It also clearly identifies workers' and employers' roles, rights and obligations (including in relation to subcontracting). This includes the obligation of workers and employers to cooperate, for example, in joint safety and health committees, and the right of workers to remove themselves from mines in circumstances that appear to pose serious danger to their safety or health. Convention No. 176 also contains provisions mandating employers to take "all necessary measures to eliminate or minimize the risks to safety and health in mines".

OSH in Mongolia would particularly benefit from ratifying the **Labour Inspection Convention, 1947 (No. 81)**. Convention No. 81 is a key instrument that sets out the functions of a labour inspection system; supervision of labour inspection; recruitment, facilities and powers of inspectors; notification of industrial accidents and diseases; punishment for violations; and reporting on the results of inspections. Its ratification is particularly significant given the current labour inspection deficit in relation to mining in Mongolia (see below).

Other important ILO instruments relating to OSH and OSH in mining that have not been ratified by Mongolia include:

- the **Medical Examination of Young Persons (Underground Work) Convention, 1965 (No.124)**;
- the **Occupational Health Services Convention, 1985 (No. 161)**; and
- the **Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)**.

The ILO has also produced several codes of practice on OSH in mining. Based on principles established in ILO instruments, these provide practical recommendations for use in both the public and private sectors. They are primarily designed as a basis for prevention and protective measures, and are considered to be technical standards. They contain both general principles and specific guidance, in particular concerning the surveillance of the working environment and of workers' health; education and training; record-keeping; the role and duties of the competent authority, employers, workers, manufacturers and suppliers; and consultation and cooperation. These codes of practice on OSH in mining can be accessed from the ILO website.<sup>7</sup>

Turning to domestic legislation, the **Law on Labour Safety and Hygiene (2008)** sets out provisions in relation to the rights of workers; rights and duties of employers; use of machinery and equipment; use of toxic chemicals, explosives, radioactive and biological substances; fire safety; medical examinations of workers; protective equipment; workers with disabilities; registration, handling and investigation of accidents and diseases; sanctions for non-compliance; and division of powers between different government bodies. The **Labour Law (1999)**, which is currently being amended, also covers most of the abovementioned issues, as well as setting out provisions in relation to working hours, overtime, night work and rest periods. However, as noted above, there is often a significant compliance gap between the letter of the law and actual workplace conditions, particularly in ASM.

### **Management, training, inspection and compliance**

The MLSP has authority over issues including OSH. It suffers from low capacity in large part due to high staff turnover after elections and/or changes in ministerial leadership. This results in a loss of institutional knowledge and delays resulting from the need to train new staff to advance incomplete work priorities. This low capacity in both enforcement and technical assistance limits overall compliance with OSH requirements in all sectors. Based on a review of the OSH situation in Mongolia between 2005 and 2015, the MLSP will produce an updated National OSH Profile. From this, the Fifth National OSH Programme (2017–2020) will be developed with a focus on prevention.

The Confederation of Mongolian Trade Unions (CMTU) and the Mongolian Employers' Federation (MONEF) are both involved in the training of workers regarding OSH standards. This includes the translation and dissemination of training materials. Furthermore, Mongolia includes OSH training in its national technical and vocational education and training (TVET). Some non-governmental organizations (NGOs) also deliver OSH training, including training specific to mining (see below).

GASI is the body responsible for conducting labour inspections in relation to both public and private mining operations. Inspection and enforcement are limited due to a lack of state inspectors, limited capacity and laws that are not conducive to effective inspections and enforcement. In 2013, there were 49 GASI inspectors nationwide, supported by over 100 junior inspectors. Despite the addition of new inspectors in recent years, overall numbers remain insufficient to effectively monitor labour law compliance in the rapidly growing number of enterprises. Furthermore, under the **State Supervision and Inspection Law (2003)**, GASI is required to announce its inspection plan a year in advance, including naming the enterprises and locations to be inspected, greatly reducing the effectiveness of inspections. Efforts to eradicate child labour in mining are further impaired by the fact that most child labour occurs at informal work sites, which are outside GASI's formal jurisdiction; administrative fines are also too low to significantly deter employers from using child labour, according to GASI.<sup>8</sup>

In formal, large-scale mining, the management of safety and health requires effective government regulation of mining companies, including consistent enforcement of applicable regulations. The negative consequences of GASI's low enforcement capacity are therefore reflected in this sector. The National Human Rights Commission of Mongolia (NHRCM) reported in 2013 that the number of industrial accidents and diseases is increasing in the mining sector because of poor enforcement of OSH legislation, and unhealthy and unsafe working environments.<sup>9</sup> Commonly cited deficiencies include failure to regularly inspect machinery and equipment, inadequate lighting and electrical hazards. In some companies, workers are required to work

overtime, including night shifts for up to 20 consecutive days in contravention of the Labour Law – a work practice that can lead to hypertension, cardiovascular problems, depression and even death.<sup>10</sup>

Dirty and dusty working conditions can lead to lung diseases, including dust-induced chronic bronchitis and pneumoconiosis. Waste rock piles and tailing repositories pose a significant risk to OSH in medium- and large-scale operations, as most are unstable and prone to erosion. Private miners sometimes rework these sites under dangerous conditions, despite a significant risk of injury or death.<sup>11</sup>

In ASM, the main causes of accidents and injuries according to Mongolia's Mining Rescue Authority are failure to comply with safety regulations, lack of proper organization, lack of training in safe working practices and failure to use safety equipment.<sup>12</sup> Although different studies present different figures, over 60,000 people are estimated to work in informal ASM.<sup>13</sup> Miners working at informal coal mines frequently risk their lives in unventilated mine shafts with few timber supports that are prone to collapse.<sup>14</sup> Nalaikh coal mine is one such example, in which 47 deaths were reported between 2009 and 2011, mostly of men aged between 23 and 35. Following its formal closure in the 1990s, the Government has been unable to eliminate ASM activities. Over 1,500 people are believed to be engaged in such mining at Nalakh.<sup>15</sup> Shafts have been dug with little coordination between different mining teams, running deeper than before and closer to each other, causing cave-ins.<sup>16</sup> The Government has also not attempted to enforce OSH standards at Nalaikh.

Miners working at informal gold mines also suffer from poor OSH conditions. A 2006 ILO report on informal gold mining in two areas found that miners faced extremely difficult working conditions and their awareness of OSH requirements was very low. The survey, which examined both hard-rock mining and placer mining (mining stream bed deposits for minerals), showed that half suffered from health problems, most commonly kidney, urinary and respiratory diseases as a result of humid and dusty environments, and musculoskeletal disorders from carrying excessive loads.<sup>17</sup>

Working conditions are a significant source of health problems for artisanal miners. Many develop rheumatism and varicose veins as a result of cold and wet working environments and lack of proper air conditioning, and many are exposed to a high risk of poisoning. Due to dust and air pollution, respiratory diseases and eye infections are also prevalent. Physicians who examined 71 miners in the Gobi-Altai Aimag reported that 68 suffered from eye problems related to air pollution.<sup>18</sup>

Mining is a complex operation that presents frequent dangers and therefore requires alert, healthy workers. However, the isolation of work sites is often conducive to unhealthy lifestyles and consequently low productivity. In informal mine sites in particular, many miners drink alcohol to endure the work and stay warm, engage in informal drinking sessions that run from the evening into the early hours of the next day or miss work for several days to engage in longer binges. This can lead to arguments and physical violence.<sup>19</sup>

GASI recognises the contribution that ASM and informal mining make to the economy and the livelihoods of miners. However, compliance assistance to workers engaged in ASM and informal mining is limited by the lack of available resources, including human resources, and in the case of informal mining, the fact that it is outside of GASI's formal jurisdiction. Under national law, formalization of work must take place first before OSH issues are addressed.<sup>20</sup>

Some NGOs have been involved in projects to improve OSH compliance in ASM. Their activities have included formulating informal OSH rules and procedures, erecting signposts bearing safety instructions in mining areas, providing OSH training, and organizing events for ASM workers from different areas to meet and exchange knowledge about safety practices.<sup>21</sup>

Protecting workers' freedom of association and right to collective bargaining gives them a solid platform from which to participate in meaningful dialogue with employers and raise OSH concerns without fear of reprisal. In the past, however, there have been complaints of miners being denied freedom of association – for example, workers from the Canadian-invested firm Southgobi Sands complained that they were collectively dismissed for establishing a trade union. Investigations by the NHRCM in 2011 found these complaints to be well-

founded.<sup>22</sup> Furthermore, under the current **Law on the Rights of Trade Unions (1991)**, freedom of association and the right to collective bargaining are only guaranteed for “citizens” and do not extend to migrant workers.

## Children and youth in mining

Potential occupational hazards for children and youth working in mines include carrying heavy loads of rocks and stones, which puts excessive pressure on their backs and joints; breaking rocks and stones in quarries, resulting in eye injuries, contusions and cuts; exposure to toxic chemicals such as mercury, which is used to extract gold from rock; and working close to unguarded machinery. Underground mining work places young workers at risk of tunnels collapsing, gas and fuel fires and explosions, and respiratory diseases caused by inhaling airborne particulate matter. Properly assessing the situation of children and youth in mining is complicated by the fact that, due to their age and inexperience, they are more likely to be engaged in informal work. Their accidents and injuries are therefore less likely to have been observed and recorded. Children and youth often do not fully realise the dangers they face in mining due to a relative lack of emotional and physical maturity, limited work experience, inadequate knowledge of workplace hazards, and lack of training. Even those who do realise these dangers may neglect to take measures to reduce the risk posed. Employers may also assign them to carry out tasks that are beyond their physical capabilities or require work involving skills which they have not yet mastered.<sup>23</sup>

Mongolia has ratified the **Minimum Age Convention, 1973 (No. 138)**, which prohibits children under 15 from working, except for certain forms of light work, and in most cases prohibits those under 18 from engaging in hazardous work. Following amendments to Mongolia’s Labour Law (which came into force on 1 September 2016), children under 15 years old are not legally permitted to work, 15 year olds may enter into contracts for vocational training or apprenticeships with the permission of their parents/guardians and the state, and 16 year olds may enter into employment contracts without permission. The Labour Law further limits children’s working hours according to their age and prohibits them from working overtime, or on public holidays or weekends. Children are also not permitted to perform work included on the list of jobs prohibited for minors (see below). Employers who contravene these provisions are liable to, at most, a fine of 15,000 to 30,000 Mongolian tögrögs (MNT), which is less than €15 at current exchange rates – an amount unlikely to have a significant deterrent effect.

Mongolia has also ratified the **Worst Forms of Child Labour Convention, 1999 (No. 182)**. Convention No. 182 conveys the urgent need to eliminate the worst forms of child labour as a priority, whilst retaining the elimination of all child labour as a long-term goal. In February 2016, the Minister for Labour approved an updated list of jobs prohibited for minors (order A/36). Applicable to both formal and informal sectors, it forbids under-18s from working in jobs and under conditions harmful to their lives, health, ethics, safety and development. It also prohibits them from working with certain materials, such as dangerous chemicals and flammable materials, lifting loads above a certain weight (dependent on sex and age) and working in particular occupations. Prohibited work includes exploitation of coal, brown coal, metallurgical ore, salt and other minerals; crude oil and natural gas exploration; artisanal mining of gold and ore; and assisting in mining exploitation.

The ILO and the NHRCM published a joint study on the worst forms of child labour in Mongolia in 2008, including in the mining sector.<sup>24</sup> This involved questionnaires and interviews of 50 parents and 232 children and youth engaged in mining activities at informal mines in eight *aimags* (provinces). Of those interviewed, 57 per cent were aged 15–18, 36 per cent were aged 8–14 and one was aged 7. Over three quarters of the parents worked together with their children, as is common in the mining sector, and lack of employment contracts was widespread. 73 per cent of children and youth reported working every day, 56 per cent worked underground, 54 per cent in polluted and noisy conditions, 39 per cent in excessively hot or cold conditions, 33 per cent using mechanical equipment and tools and 16 per cent in cold conditions with polluted water. Safety equipment (including masks, gloves, helmets, earplugs and safety harnesses) was used only occasionally.

53 per cent of children and youth had suffered accidents at work, including falling into pits (19 per cent), being struck by rocks or tools (17 per cent), falling into water (13 per cent) and accidents involving equipment (3 per cent). Almost half had suffered an injury to their legs, hands, back or head. Over half reported deterioration in their health because of their work. Although the majority of parents did not believe it was appropriate for their children to be involved in mining (77 per cent), most felt that it was an economic necessity. Poverty was identified as an important factor contributing to children and youth being involved in such work.

Another informal ILO study examined the experiences of 40 children aged up to 17 in informal hard-rock and placer gold mines in two areas in 2006.<sup>25</sup> Of these children, 43 per cent complained of aching limbs and backs, 29 per cent reported kidney and urinary diseases and 29 per cent suffered from fatigue. In terms of their working situation, 48 per cent of them assessed it as very poor and 40 per cent assessed it as poor. Half of the children in one area worked with mercury for amalgamation, yet did not know it was hazardous. Almost 90 per cent of all participants considered themselves to have no knowledge of OSH standards and ten per cent reported not following standards even though they were aware of some of them. Only two per cent were both aware of and claimed to actually follow safety standards. Many did not use safety equipment such as masks, helmets and earplugs. Half of the children stated that they did not take measures to protect themselves from mercury when using it.

One in eight participants had been involved in at least one workplace accident. Four had been involved in collapsed tunnels, one fell into an open pit, one had an accident involving a tool, four had broken limbs and one suffered a spinal injury.

In 2005, the Ministry of Social Welfare and Labour, the CMTU and MONEF signed a national tripartite agreement to eliminate child labour in the mining sector by 2015. Since then, various projects to implement the agreement have been launched, including the Informal Gold Mining (IGM) project, which was implemented by MONEF and the ILO, and supported by the International Programme on the Elimination of Child Labour (IPEC). Its aims included facilitating dialogue between informal and formal mining companies and various authorities, removing children from work, improving their educational opportunities, providing older children with vocational training to perform alternative, non-hazardous work and improving OSH in small-scale gold mining.<sup>26</sup> Currently, the ILO's Global Action Programme (GAP) on Child Labour Issues Project, in cooperation with the Swiss Agency for Development, is supporting an action-oriented research programme to better understand children working in artisanal mining and develop effective interventions. The programme covers ten aimags and is a collaborative effort of the National Network on the Worst Forms of Child Labour and the National Authority for Children.

## Women in mining

In both formal, large-scale mining and ASM, men form the majority of the workforce. Official statistics indicate that women perform 18 per cent of mining and quarrying jobs.<sup>27</sup> In ASM, women are estimated to form between 19 and 50 per cent of the workforce, and are most likely to enter mining with their husbands or other family members.<sup>28</sup> While men tend to perform actual mining duties, such as digging, blasting, hauling, loading and transporting ore, women in the mining sector tend to occupy roles involving secondary services, such as processing, cooking and cleaning.<sup>29</sup>

This occupational segregation reflects the perceived appropriateness of certain tasks for women and men. Studies have shown that most miners, particularly men, believe that mining is not an appropriate source of income for women. Underground work is often deemed particularly unsuitable for women because of its physical demands and harsh conditions, and the reluctance of men to expose women to risk.<sup>30</sup> Gender stereotypes are further reflected in that women tend to carry out more household chores and childcare duties than their husbands, thus performing a double working day. These family responsibilities, which are not traditionally borne by men, mean that women work fewer hours, extract fewer mine products and earn lower incomes on average than men.<sup>31</sup>

The current Labour Law also characterizes women as sole child carers, providing particular protections to pregnant women and women with young children. This is likely to deter some employers from recruiting women and reinforces gender norms.<sup>32</sup> Labour regulations that existed until 2008 also significantly limited women's participation in mining, prohibiting their involvement in a wide range of activities, including all types of underground work. Although they were introduced to address OSH concerns, their extensive nature in fact prevented women from performing many jobs that are deemed safe in many other countries.<sup>33</sup> By failing to employ women and instead relying on a smaller pool of skilled workers, mining companies drive up labour costs. Employing more women in mining is likely to be a more cost-effective solution than recruiting workers from abroad.<sup>34</sup>

## Recommendations

**Data and statistics:** The Government should continue its efforts to tackle the problem of data collection relating to OSH, as accurate, up-to-date statistics are required to inform the design and implementation of an effective Fifth National OSH Programme. This should include requiring all dangerous occurrences to be reported and recorded, even those that do not result in injury or disease.

**Technical capacity:** The Government should seek to address shortfalls in the labour inspection system to ensure that international OSH standards are upheld in mining. The training of further inspectors would help to ensure greater coverage and therefore encourage greater compliance from mining companies.

**Law, policy and enforcement:** Legislation impeding effective inspection should be reviewed, for example, regarding the prior announcement of inspections. Ratification of Convention No. 81 and the Protocol to Convention No. 155 should be prioritised and fines should be increased for employers who engage children in work on the list of jobs prohibited for minors to provide an adequate deterrent.

In order to promote the labour rights of miners, including in relation to OSH, efforts should be made to ensure they are free to form, join and participate in workers' associations, and engage in bipartite negotiation with their employers. Freedom of association and the right to collective bargaining should also apply equally to workers in the informal economy and migrant workers as to those in the formal economy. Domestic legislation should therefore be amended accordingly.

**Knowledge and awareness:** Greater attempts should be made in relation to the education and training of employers and workers in OSH in both the formal and informal sectors. This should include training to promote healthy lifestyle practices at work. Particular efforts should be made concerning young workers, who are most vulnerable to industrial accidents and diseases.

**Gender issues:** Women should share equally in the economic benefits of Mongolia's mining sector, promoting gender relations, challenging gender stereotypes and enabling them to establish financial independence rather than being dependent on men for their economic survival. The aim should not only be to achieve gender equality, ensuring equality of opportunities, but also gender equity, improving equality of outcomes. For example, while opening up recruitment to women in mining may ensure gender equality, if they are effectively excluded from management and decision-making roles, there is little gender equity.<sup>35</sup>

To open up mining and particularly underground work to women at all levels, the Government, in conjunction with academics and the mining industry, should conduct research into issues affecting their participation in mining to establish an effective plan of action. Further steps should include:

- providing TVET to ensure women are suitably qualified to perform mining jobs, especially given existing levels of occupational segregation that tend to limit their participation to secondary services;
- raising awareness among workers and employers of gender equality laws, including those on sexual harassment, and complaint mechanisms; and
- requiring employers to produce and enforce equal opportunities policies.<sup>36</sup>

Future amendments to the Labour Law should extend protections currently given to pregnant women and women with young children to men. This will challenge the characterization of women as sole child carers, as well as the reluctance of some employers to recruit women for this reason.

<sup>1</sup> <http://www.1212.mn> (Labour force, unemployment > EMPLOYEES POPULATION AGED 15 AND OVER, by sex, classification of economic activities, by quarter > 2016 1/4)

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[http://books.google.co.uk/books?id=em16JXDkuUgC&pg=PA956&lpg=PA956&dq=tavan+tolgoi+safety&source=bl&ots=7KYjOo1bPb&sig=w\\_OD-QUPLcjEISy0dCIsTr9YqZ4&hl=en&sa=X&ved=0ahUKEwjg9JHwhZvOAhWILMAKHU0xD2QQ6AEIVjAI#v=onepage&q=tavan%20tolgoi%20safety&f=false](http://books.google.co.uk/books?id=em16JXDkuUgC&pg=PA956&lpg=PA956&dq=tavan+tolgoi+safety&source=bl&ots=7KYjOo1bPb&sig=w_OD-QUPLcjEISy0dCIsTr9YqZ4&hl=en&sa=X&ved=0ahUKEwjg9JHwhZvOAhWILMAKHU0xD2QQ6AEIVjAI#v=onepage&q=tavan%20tolgoi%20safety&f=false) (p956)

<sup>3</sup> <http://thediplomat.com/2014/04/the-ninja-miners-of-mongolia/?img=2#postImage>

<sup>4</sup> [http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/policy/wcms\\_bk\\_pb\\_303\\_en.pdf](http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/policy/wcms_bk_pb_303_en.pdf) (p38)

<sup>5</sup> [http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/policy/wcms\\_bk\\_pb\\_303\\_en.pdf](http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/policy/wcms_bk_pb_303_en.pdf)

<sup>6</sup> <http://www.om.inspection.gov.mn> (Mongolian language)

<sup>7</sup> [http://www.ilo.org/safework/industries-sectors/WCMS\\_219026/lang--en/index.htm](http://www.ilo.org/safework/industries-sectors/WCMS_219026/lang--en/index.htm)

<sup>8</sup> <http://www.dol.gov/ilab/reports/child-labor/findings/2013TDA/mongolia.pdf> (p4)

<sup>9</sup> <http://mn-nhrc.org/eng/main2/188/> (12th report, p17)

<sup>10</sup> <http://mn-nhrc.org/eng/main2/188/> (12th report, p17)

<sup>11</sup> <http://siteresources.worldbank.org/INTMONGOLIA/Resources/Ex-Summary-Mongolia-Mining.pdf> (p2)

<sup>12</sup> Presentation by Head of Mining Rescue Authority, S Nyamsuren (2013)

<sup>13</sup> <http://blogs.ubc.ca/mongolia/2015/policy-series-mining-policy-failures-i/>

<sup>14</sup> [http://www.worldcoal.com/coal/02042014/Illegal\\_coal\\_mining\\_in\\_Mongolia\\_683/](http://www.worldcoal.com/coal/02042014/Illegal_coal_mining_in_Mongolia_683/)

<sup>15</sup> <http://blogs.ubc.ca/mongolia/2015/policy-series-mining-policy-failures-i/>

<sup>16</sup> <http://www.eurasianet.org/node/63373>

<sup>17</sup> [http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms\\_bk\\_pb\\_123\\_en.pdf](http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_bk_pb_123_en.pdf) (pp42–43)

<sup>18</sup> <http://mn-nhrc.org/eng/main2/188/> (12th report, p17)

<sup>19</sup> [http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource\\_en\\_229028.pdf](http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource_en_229028.pdf) (p41)

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[http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjgp7npgJ7OAhWsKMAKHe6qBOQQFgggMAA&url=https%3A%2F%2Fwww.csrm.uq.edu.au%2Fpublications%3Ftask%3Ddownload%26file%3Dpub\\_link%26id%3D1550&usg=AFQjCNHqwHDAIPOqNUEh\\_7JMvX\\_w\\_cXqDA](http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjgp7npgJ7OAhWsKMAKHe6qBOQQFgggMAA&url=https%3A%2F%2Fwww.csrm.uq.edu.au%2Fpublications%3Ftask%3Ddownload%26file%3Dpub_link%26id%3D1550&usg=AFQjCNHqwHDAIPOqNUEh_7JMvX_w_cXqDA) (pp49–50)

<sup>21</sup> Swiss Agency for Development and Cooperation SDC (2014), *The Best Practices of Artisanal and Small-Scale Miners in Mongolia, Part II*

<sup>22</sup> NHRCM (2014), ‘11<sup>th</sup> Report on Human Rights and Freedoms in Mongolia’: <http://mn-nhrc.org/eng/main2/188/> (p71)

<sup>23</sup> <http://www.ilo.org/public/portugue/region/eurpro/lisbon/pdf/minas.pdf> (p10)

<sup>24</sup>

<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwjpzL2059DJAhVY92MKHS5fDg8QFggrMAI&url=http%3A%2F%2Fwww.ilo.org%2Fipecinfo%2Fproduct%2Fdownload.do%3Ftype%3Ddocument%26id%3D14815&usg=AFQjCNE9E99ddkwQ-R4ly88Vw-CCFtqy1A>

<sup>25</sup> [http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms\\_bk\\_pb\\_123\\_en.pdf](http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_bk_pb_123_en.pdf) (pp68–71)

<sup>26</sup>

[http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjC\\_p3ysJ7OAhWFCMAKHWnUCvwoFggjMAA&url=http%3A%2F%2Fwww.ilo.org%2Fipecinfo%2Fproduct%2Fdownload.do%3Ftype%3Ddocument%26id%3D19315&usg=AFQjCNHnJhV02R8L87f9JCOjVQFXd4NSA](http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjC_p3ysJ7OAhWFCMAKHWnUCvwoFggjMAA&url=http%3A%2F%2Fwww.ilo.org%2Fipecinfo%2Fproduct%2Fdownload.do%3Ftype%3Ddocument%26id%3D19315&usg=AFQjCNHnJhV02R8L87f9JCOjVQFXd4NSA) (p42)

<sup>27</sup> <http://www.1212.mn> (Labour force, unemployment > EMPLOYEES POPULATION AGED 15 AND OVER, by sex, classification of economic activities, by quarter > 2016 1/4)

<sup>28</sup> [http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource\\_en\\_229028.pdf](http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource_en_229028.pdf) (pv)

<sup>29</sup> [http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource\\_en\\_229028.pdf](http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource_en_229028.pdf) (pvi)

<sup>30</sup> [http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource\\_en\\_229028.pdf](http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource_en_229028.pdf) (pvi)

<sup>31</sup> [http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource\\_en\\_229028.pdf](http://www.eda.admin.ch/content/dam/countries/countries-content/mongolia/en/resource_en_229028.pdf) (pv)

<sup>32</sup> <http://www.expertguides.com/articles/women-in-mining-will-mongolias-proposed-new-labour-law-encourage-greater-participation-by-women/arillic>

<sup>33</sup> <http://documents.worldbank.org/curated/en/171201468323105562/pdf/775110WP0Box3700scale0mining0sector.pdf> (p16)

<sup>34</sup> <http://documents.worldbank.org/curated/en/171201468323105562/pdf/775110WP0Box3700scale0mining0sector.pdf> (p5)

<sup>35</sup> <http://siteresources.worldbank.org/INTOGMC/Resources/toolkit-web.pdf> (p14)

<sup>36</sup> <http://documents.worldbank.org/curated/en/171201468323105562/pdf/775110WP0Box3700scale0mining0sector.pdf> (pp21–25)