



**FORUM:** Sixth Committee of the General Assembly (Legal)

**QUESTION OF:** Establishing guidelines to ensure better and safer working conditions in quarries and mines

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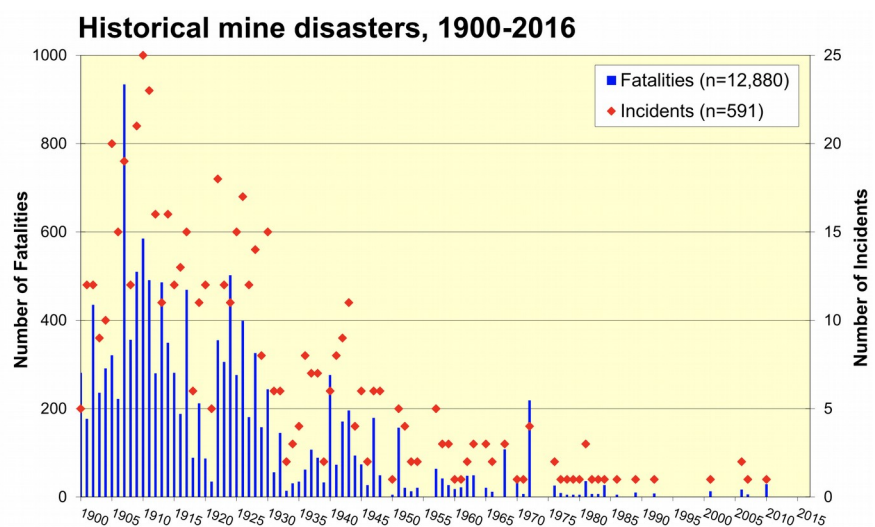
**POSITION:** Main Chair

## INTRODUCTION

**"Every coal miner I talked to had, in his history, at least one story of a cave-in. 'Yeah, he got covered up,' is a way coal miners refer to fathers and brothers and sons who got buried alive."**

~ Jeanne Marie Laskas

As stated in the quote above, every miner knows the risks it takes to work in such an industry. Mining has always been a risky occupation, especially in developing nations and countries with lax safety standards. Still today, thousands of miners die from mining accidents each year, especially in the process of coal and hard rock mining, as can be seen in the diagram below.



NOTE: A mining disaster is an incident with 5 or more fatalities. Data source: MSHA

Although the number of deadly accidents is declining, any fatal accident should still be considered a tragedy, and definitely must be prevented in advance. It seems totally irresponsible and reprehensible that while technological improvements and stricter safety regulations have reduced coal mining related deaths, accidents are still so common, most of them occurring in developing countries.

**Source: see: IX. Useful Links and Sources: XI. Statistics to mine accidents**

Sadly, striving for quick profits in lieu of safety considerations led to several of these tremendous calamities in the near past. Only in Chinese coal mines an average of 13 miners are killed a day. The Benxihu colliery disaster, which is believed to be the worst coal mining disaster in human history, took place in China, as well, and cost 1,549 humans their lives.

The tragedy occurred on 26 April 1942 in the Honkeiko coal mine where the fatal explosion of the underground coal mine was caused by a mixture of gas and coal dust which caused the underground fire to explode out of the mine shaft entrance.

Carbon monoxide poisoning due to the closure of the ventilation system was reported to have caused most of the deaths.

Consequently, it does not seem remarkable that many workers start to take narcotic drugs in order to be able to stay calm in narrow tunnels being aware of the constant danger of collapsing pits and other hazards and hardships.

But, regardless to all attempts to prevent common mining diseases and preparations, sadly many miners die at a maximum age of forty years anyway.

## **DEFINITION OF KEY TERMS**

### **Mining**

Since the beginning of civilisation, people have used resources found close to the earth's surface in order to make tools and weapons. Mining is the the so called quarrying of valuable minerals or other geological materials from the earth including metals, coal, oil shale, gemstones, limestone, chalk, dimension stone, rock salt, potash, gravel and clay.

Thereby, mining can be seen as the extraction of any material that cannot be grown through agricultural processes or feasibly created artificially in a laboratory or factory.

### **Mining Techniques**

Mining techniques can be divided into two common excavation types: surface mining and sub-surface (underground) mining, the former of them being more common in these days:

#### **Surface Mining**

Surface mining is done by removing (stripping) surface vegetation, dirt, and, if necessary, layers of bedrock in order to reach buried ore deposits.

Techniques of surface mining include:

- Open-pit mining, which is the recovery of materials from an open pit in the ground;
- quarrying, identical to open-pit mining except that it refers to sand, stone and clay;
- strip mining, which consists of stripping surface layers off to reveal ore and seams underneath;
- and mountaintop removal, commonly associated with coal mining, which involves taking the top of a mountain off to reach ore deposits at depth.

- Finally, landfill mining involves sites where landfills are excavated and processed. Therefore, landfill mining has been thought of as a solution to dealing with long-term methane emissions and local pollution.

### **Underground Mining**

Sub-surface mining consists of digging tunnels or shafts into the earth to reach buried ore deposits. In the following step, the ore, for processing, and waste rock, for disposal, are brought to the surface through the tunnels and shafts. Therefore, underground mining requires the use of mantrips in order to transport miners within an underground mine and out of it.

Sub-surface mining can be classified by some of the following types:

- Drift mining utilising horizontal access tunnels,
- slope mining using diagonally sloping access shafts,
- and shaft mining making use of vertical access shafts.
- Other methods include shrinkage stope mining, which is mining upward, creating a sloping underground room,
- long wall mining, characterised by grinding a long ore surface underground,
- and room and pillar mining, the removal of ore from rooms while leaving pillars in place to support the roof of the room.

### **Mining Machines**

Heavy machinery is used in mining to explore and develop sites, to remove and stockpile overburden, to break and remove rocks of various hardness and toughness, to process the ore, and to carry out reclamation projects after the mine is closed:

- Bulldozers, drills, explosives and trucks are all necessary for excavating the land.
- Large drills are used to sink shafts, excavate stopes, and obtain samples for analysis.
- Trams are used to transport miners, minerals and waste.
- Lifts carry miners into and out of mines, and move rock and ore out, and machinery in and out, of underground mines.
- Huge trucks, shovels and cranes are employed in surface mining to move large quantities of overburden and ore.
- Processing plants utilise large crushers, mills, reactors, roasters and other equipment to consolidate the mineral-rich material and extract the desired compounds and metals from the ore.

### **Common Mining Accidents**

The most common accidents occurring in the mining industry are the result of poisonous or explosive gases or mishaps relating to the use of explosives for blasting operations:

## **Methane and Consecutive Coal Dust Explosions**

Methane is a highly explosive gas trapped within coal layers. Mechanical errors from improperly used or malfunctioning mining tools, e.g. safety lamps or electrical equipment, or the use of improper explosives underground can trigger methane and initiate consecutive coal dust explosions.

Methane and coal dust explosions have caused the largest mining disasters in history and frequently kill or trap underground miners. The tragic Courrières accident, the worst ever mine disaster in Europe, was directly caused by methane and dust and caused the death of 1,099 miners in Northern France in 1906 (*for further information see below III. Background Information: The Courrière Disaster*).

## **Fly-Rocks**

For the past two decades, most explosives-related injuries and fatalities in surface mines occurred when workers were struck by rock, either because they were too close to the blast or rock was thrown much farther than expected, or caused by miners themselves being too close to the blast, followed by explosive fumes poisoning, misfires, and premature blasts.

## **Premature Blast**

A premature blast is the detonation of an explosive charge earlier than warranted. A premature explosion may be due to carelessness, accidental percussion, a faulty fuse, or degenerated explosives.

## **Misfires**

Misfire means the complete or partial failure of a blasting charge to explode as planned. The explosive or pyrotechnical products that remain in the ground or in the waste rock might be triggered by any mechanical effect during the digging, milling or crushing stages of the mining process, causing injuries or fatalities to blasters or operators.

## **Mine-Induced Seismicity**

Especially dangerous in underground mining areas, mine-induced seismicity also causes slope instability in surface mining, and is a major threat for all miners.

Mines located in seismically active regions, such as the Andean region (also known to be one of the wealthiest metallic mining zones in the world), are even more at risk. The use of explosives might cause earthquake-like events that collapse mine workings, and traps

miners in, as happened to the 33 miners stuck underground from August to October 2010 in a Chilean mine near the city of Copiapo, or kill them, flood the mine and damage structures on the surface.

## **Health**

Health can be understood as the optimal level of the efficiency and functionality of our body. Health can worsen but also improve. It should be the goal of every individual to keep its health on a high level for a long and lucky life, due to this importance for the human states have the duty to take care for their inhabitants by guarantee an minimal level of health care, such as hospitals, fresh water and medicine.

### **Common Health Issues Related to Mining**

#### **Silicosis**

Silicosis is a form of occupational lung disease caused by the inhalation of crystalline silica dust. Because chronic silicosis is slow to develop, signs and symptoms may not appear until years after exposure. When small silica dust particles are inhaled, they can embed themselves deeply into the tiny alveolar sacs and ducts in the lungs, where the lungs cannot clear out the dust by mucous or coughing.

Silicosis, being a permanent disease with no cure, resulted in 46,000 deaths globally in 2013, most of whom were miners who are exposed to fine dust regularly in their job.

Protective measures such as respirators have brought a steady decline in death rates due to silicosis in Western countries. However, this is not true of less developed countries where work conditions are poor and respiratory equipment is seldom used.

#### **Coal Workers' Pneumoconiosis (CWP)**

CWP, commonly called black lung, is caused by long-term exposure to coal dust and therefore a very common disease for coal miners. Inhaled coal dust progressively builds up in the lungs because it can neither be destroyed nor removed by the body and leads to inflammation or, in the worst case, to the death of cells inside the lungs.

The main way to avoid contracting Coalworkers' Pneumoconiosis is to avoid the inhalation of coal dust by measures, such as wearing ventilated masks when coming in contact with potentially dangerous airborne particles, regular pulmonary exams, coupled with X-ray or autopsy evidence of severe lung damage, and becoming educated about the risks of lung diseases in your work environment.

Nevertheless, in 2013 CWP resulted in 25,000 deaths. However, a later 2018 study by the National Institute of Occupational Safety and Health shows a resurgence of the incurable respiratory illness, the highest rate recorded in roughly two decades.

## **Child Labour**

Child labour is work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.

Child labour refers to work that is mentally, physically, socially or morally dangerous and harmful to children; and interferes with their schooling. In the worst cases, children are trafficked to mine sites where they are forced to work in absolutely horrendous slavery-like conditions.

Quarrying stone for construction material or to make gravel is hard and dangerous work, particularly for children. Children carry loads far too heavy for their body size; they risk accidents from the use of explosives and they are constantly exposed to fine dust that can cause chronic respiratory infections, notably silicosis. Since informal gold miners often do not wear protective clothing (e.g. hardhats) or know correct methods for digging tunnels and using explosives the children may be injured by flying shards of rock that can cause severe eye injury, develop skin problems resulting from prolonged periods working in intense sun and heat, and suffer dehydration.

## **BACKGROUND INFORMATION**

### **Labour Rights**

Generally speaking, the Labour Rights are a group of legal principles and rights that regard the relation between employers and employees of companies. In the most cases, they are tackling poor working conditions, inequalities and discrimination.

Although there is no universal definition of Labour rights, many of them are part of the Human Rights or are included in the Sustainable Development Goals and are therefore of high importance and it falls under our obligation as the United Nations to try to support them as much as possible:

### **Sustainable Development Goals Including Labour Rights**

The Sustainable Development Goals (SDGs) came into effect in January 2016. They are seventeen targets set by the United Nations in order to ensure future sustainability in almost every major branch of global political issues. Several of them are extremely important to this issue because they directly or indirectly request more rights for workers. The following ones are some of the most significant ones regarding this issue:

#### **Goal 1: End poverty in all its forms everywhere**

The relevance of this goal could not be clearer; Millions of workers are suffering from extremely low wages not being able to feed their families which results in the necessity for their children to help their parents in the pits at an early age hoping to find a piece of rare mineral they can sell.

#### **Goal 5: Achieve equality and empower all women and girls**

The empowerment of women within the economy is also fundamental, since in almost every single country of our world, female workers are averagely paid less than men which needs to be solved. Furthermore, there needs to be paid special attention to pregnant women working in the mining industry and suffering from re-

lated diseases or taking narcotic drugs since they are directly influencing their unborn children's health.

**Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

When talking about working conditions, this goal seems to be the one that is most directly linked to the issue. Decent work, also meaning decent working conditions, and an inclusive economic growth should therefore be promoted.

**Goal 10: Reduce inequality within and among countries**

We can see that irresponsible working conditions and low wages are contributing to a larger wealth gap between More Economically Developed Countries (MEDCs) and Less Economically Developed Countries. This is due to the fact that those extremely low wages are occurring in the poorer countries so that the population of richer nations is able to buy their products for a cheaper price. In order to promote a more equal global economy, we need to fight against these conditions.

**Human Rights Including Labour Rights**

When it comes to Labour Rights in the context of the United Nations, another very important document that includes such principles is the Universal Declaration of Human Rights. Within the Universal Declaration of Human Rights, two articles are specifically relevant to the topic. Because they are so fundamentally important and form the core of Labour Rights, every delegate should be aware of their content and their country's position towards these:

**Article 23**

Article 23 of the Universal Declaration of Human Rights states as follows:

“(1) Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.

(2) Everyone, without any discrimination, has the right to equal pay for equal work.

(3) Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.

(4) Everyone has the right to form and to join trade unions for the protection of his interests.”

**Article 24**

Article 24 of the Universal Declaration of Human Rights states as follows:

“Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.”

## The Courrières Mine Disaster

The Courrières mine disaster in France, with a total death toll of 1,099, is the second deadliest coal mining disaster in history. The coal mining catastrophe occurred on 10 March 1906 due to a massive coal-dust explosion sparked by an underground fire in one of the pits of the Courrières Colliery. At least two-thirds of the miners working at the time were killed: 1,099 died, including many children - those who survived suffered burns or were sickened by the gases. One group of 13 survivors lived for 20 days underground; three of those survivors were under age 18. The mine accident sparked strikes from the angry public. The exact cause of what ignited the coal dust was never discovered. It remains the worst mining disaster in Europe's history.

## Benxihu Colliery

On April 26, 1942, a coal-dust explosion killed a full third of the workers on duty at the time: 1,549 died. The Benxihu Colliery disaster is believed to have been the world's worst mining accident in human history. A frenzied effort to cut off the ventilation and seal the mine to smother the fire left many unevacuated workers, who initially survived the blast, to suffocate to death. It took ten days to remove the bodies that then were buried in a mass grave.



## MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

### China



China's coal mines are the world's deadliest, killing an average of 13 miners a day. China accounts for the largest number of coal-mining fatalities, about 80% of the world's total, although it produced only 35% of the world's coal.

Besides that, China controlled 95% of production for rare earth minerals mining in 2013.

## Côte d'Ivoire

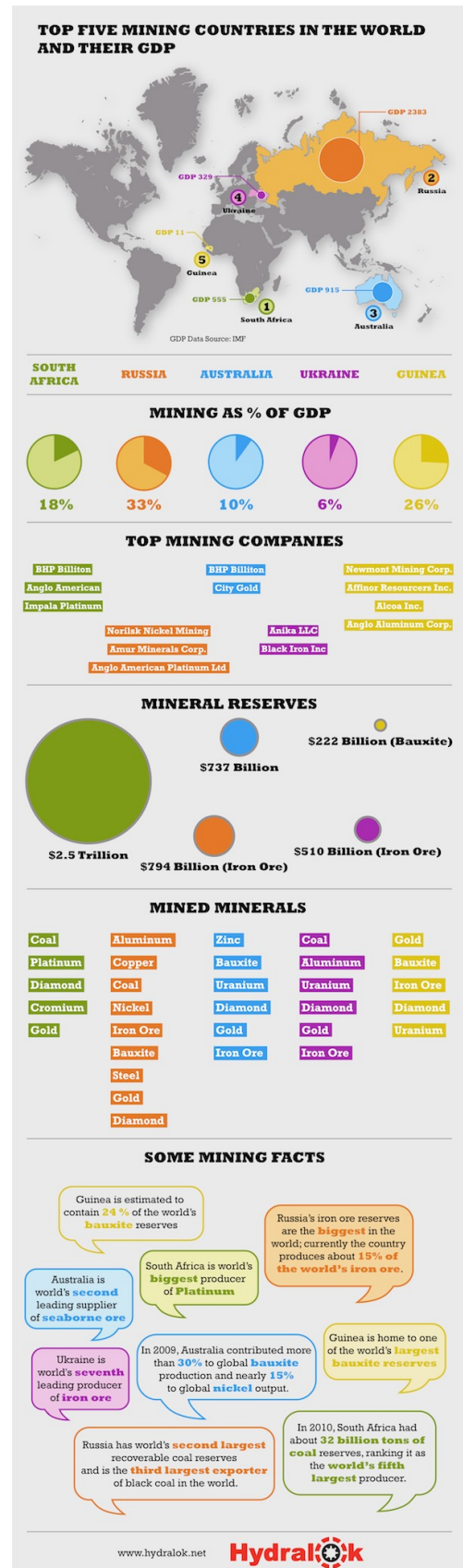
An IPEC sponsored study on small-scale gold mining in Côte d'Ivoire describes some truly distressing practices at illegal mine sites in that country. In the worst cases, children are being held in slavery-like conditions. The researchers found children trafficked from neighbouring Burkina Faso, Guinea and Mali. These children worked ten hours a day, seven days a week, were paid very little and were badly nourished. Abusing amphetamines to get through the day was common.

## Democratic Republic of Congo (DRC)

The mining sector makes 90% of all exports in the DRC. The country has a unique position with substantial untapped gold, cobalt and high-grade copper reserves, but equally significant security risks accentuated by a lack of robust infrastructure. The Democratic Republic of Congo is the largest producer of cobalt globally, accounting for 51 percent of global production in 2015. Moreover, it was the second largest producer of industrial diamonds in 2015, contributing about 24 percent of global production.

## International Labour Organization (ILO)

The ILO is a set up specialised agency by the United Nations with the aim of improving human rights regarding working environments, as well as making sure people are offered appropriate opportunities for employment, encouraging the protection and strengthening social issues related to people's work. During its almost one hundred years of work, the organisation advocated for Labour Rights and played a major role in providing a platform for mediation between states, companies and workers, for example by administering the International Labour Conference and the International Labour Standards.



### **Latin America (especially the Andes region: Bolivia, Ecuador, Peru)**

In 2002, Chile and Peru were reportedly the major mining countries of South America. Sadly, child labour is prevalent in small-scale gold mining in Latin America. This is mainly because there are so many families or entire communities that earn their livelihood from this dangerous work. There may be as many as 65,000 children participating in Bolivia, Ecuador and Peru alone. Mining communities are isolated, particularly during the rainy season, as roads, which in many cases are unpaved, become treacherous. These isolated settlements lack basic services such as decent housing, water, electricity, medical services or schooling facilities for the children. Working conditions are very poor, as production systems are generally obsolete and inadequate. Work days can last up to 10 hours. Small children begin working with their mothers at a very young age. Many children work with their parents in such activities as extraction, hauling ore, crushing and grinding the ore, and mercury amalgamation.

### **Newmont Mining**

Newmont was established in 1921. Being a major gold digger, this organisation supplies and produces gold in the U.S., Australia, Peru, Indonesia, Ghana, Canada and Mexico. The organisation follows great ecological methods and are well known for their social and environmental practices.

### **Russian Federation**

The mineral industry of Russia is one of the world's leading mineral industries and accounts for a large percentage of the Commonwealth of Independent States' production of a range of mineral products, including metals, industrial minerals, and mineral fuels. The value of mineral exports to the Russian economy has been increasing in recent years; and, in 2005, the minerals sector accounted for more than 70% of the value of exports.

### **UNICEF**

Across 190 countries and territories, UNICEF defends the rights of children and young people. UNICEF supports “[...] immediate and effective measures to [...] secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms”. Adding to this, they aim to work with as many firms to evaluate and determine the effect the production of these firms has on the children. They also encourage the promotion of awareness of child labour and its deeply rooted causes.

### **World Health Organisation (WHO)**

The World Health Organisation is a worldwide acting agency that was founded in 1948 as a sub-body of the United Nations. The main goal of the organisation is to improve the medical care all over the world, especially in crisis areas. The World Health Organisation works together with other UN sub-bodies to support the workers in factories in LEDCs.

## TIMELINE OF EVENTS

Date	Event
43,000 years ago	oldest-known mine on archeological record, the Ngwenya Mine in Swasiland, was used by Paleolithic humans
The Middle Ages	the growing use of weapons and armour greatly increased the demand for iron as medieval knights were often laden with up to 45kg of armour in addition to their swords, lances and other weapons
1465	the silver crisis occurred when all mines in medieval Europe had reached depths at which the shafts could no longer be pumped dry with the available technology that was using water mills employed in crushing ore
1627	first use of black powder which allowed blasting of rock and earth to loosen and reveal ore veins much faster; Western cities, such as Denver and Sacramento, originated as mining towns
1762	the world's first mining academy was established in the Kingdom of Hungary (now Slovakia) as the growing use of metals as a building material was requested
1848	California Gold Rush made mining camps „expressing a distinctive spirit, an enduring legacy to the new nation“
1850s	Australian Gold Rush makes Australia one of the world's top 5 major mineral producer till today
early 20th century	mining industry grew due to increasing demand for copper for electrical and households goods
March 10, 1906	Courrières Mine Disaster: A coal-dust explosion killed 1,099 miners and is considered Europe's worst mining accident
1919	The International Labour Organisation is founded in the Treaty of Versailles as a part of the League of Nations
April 26, 1942	Benxihu Colliery Accident (China): a coal-dust explosion killed 1,549 people in the world's worst mining accident
1946	The International Labour Organisation is incorporated into the United Nations as its first specialised agency
December 10, 1948	The Universal Declaration of Human Rights is adopted by the United Nations General Assembly
January 2016	The Sustainable Development Goals come into effect
in the near future	unless future end-of-life recycling rates are dramatically stepped

	up critical metals will become unavailable for use in modern technology due to recycling rates of many rare metals used in applications such as mobile phones, battery packs for hybrid cars, and fuel cells being so low
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## RELEVANT UN TREATIES AND EVENTS

- Universal Declaration of Human Rights
- Declaration on Fundamental Principles and Rights at Work
- Forced Labour Convention, 1930 (No. 29)
- Equal Remuneration Convention, 1951 (No. 100)
- Abolition of Forced Labour Convention, 1957 (No. 105)
- Minimum Age Convention, 19 June 1976 (C.183)
- Convention on the Rights of the Child, 20 November 1989 (A/RES/44/25)
- PROMOTION AND PROTECTION OF THE RIGHTS OF CHILDREN; Exploitation of child labour, 14 October 1996 (A/51/492):

A total of 178 States have recognised this Convention. The Convention requires: (Article 32) “...States parties recognize and guarantee, through legislative, administrative, social and educational measures, the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.”

- Worst Forms Convention, 1 June 1999 (C.182)  
This Convention was set up by the ILO. It has been ratified by 151 countries. This Convention prevents the ‘worst forms of child labour’. This includes forms of slavery and practices compatible with slavery.
- Pneumoconiosis Field Research (PFR), 17 November 2013: The research underpinned the recommendations for more stringent airborne dust standards in British coalmines and the PFR was ultimately used as the basis for many national dust standards around the world.

## POSSIBLE SOLUTIONS

Due to dust being the main cause for work related illnesses of miners, recent and ongoing research efforts work on developing dust controls. In many countries, companies already must provide certain safety measures for employees who work with or around silica, in order to prevent silicosis, lung cancer, and other related diseases.

Already used methods are: Water spray that is often used where dust emanates to control the kick up of silica dust. To avoid dust accumulating on clothing and skin, clothes should be put in a sealable bag and one should shower once returning home. When dust starts accumulating around a workplace, an industrial vacuum can be utilised to contain and transport dust to a safe location. Dust can also be controlled through personal dry air filtering.

Besides appropriate ventilation and water sprays, water additives, like foam and wetting agents, should be used and efficient dust collectors should be applied filtering the dusty air.

Some states even offer their workers a "rate retention" that allows miners with a progressive lung disease to transfer to jobs with lower exposure without loss of pay, seniority, or benefits.

Additionally, some nations have funds, e.g. financed by a federal tax on coal, that distributes benefits to miners disabled by the disease and their widows. Miners who participate in the such programmes receive health evaluations once every five years, at no cost to themselves. Offered chest x-rays can detect the early signs of and changes in CWP, often before the miner is aware of any lung problems.

### **QUESTIONS DELEGATES SHOULD CONSIDER**

- What is my nation's status and prestige in the UN like? What role and influence does it have in the global arena?
- Am I able to describe the issue of poor working conditions in quarries and mines in a few sentences?
- Do I know about important resolutions and how my country voted on them or other actions of my nation on this topic?
- What are my country's natural resources and geopolitical significance and implications?
- What are my state's major products exports and imports, trading partners and agreements?
- What are my nation's general policies and particular views on the topic? Can I give names of key people and some quotes?
- What NGOs that are relevant to the issue are operating in my country?
- Is my nation developed or developing, and does it have many instances of child labour?
- What is my state's situation regarding Labour Rights and how are they respected in my country?
- Is my country part of the ILO?
- If you are representing an NGO, you should consider the following questions: What is my organisation's purpose?, Who are my organisation's member states?, What are past and current projects?, In what countries is my Organisation operating in and what is my organisation's role in solving the issue?, How much influence does it have regarding the topic?

## USEFUL LINKS/SOURCES:

### I. Information about your specific country and its relations:

<http://www.imuna.org/resources/country-profiles/> [retrieved July 8, 2019]

### II. Global Human Development Indicators (*here you can easily access data and statistics about your state*):

<http://hdr.undp.org/en/countries> [retrieved July 4, 2019]

### III. CIA World Fact Book (*here you can find more information about your nation*):

<https://www.cia.gov/library/publications/the-world-factbook/> [retrieved June 29, 2019]

### I. Index to Proceedings of the General Assembly 2017/18: Index to Speeches (*here you can find speeches of your country's head of state or experts on several topics*):

[https://library.un.org/sites/library.un.org/files/itp/a72-partii\\_0.pdf](https://library.un.org/sites/library.un.org/files/itp/a72-partii_0.pdf) [retrieved July 7, 2019]

### IV. United Nations Digital Library (*here you can find former resolutions and official UN documents regarding the topic of mining*):

<https://digitallibrary.un.org/search?>

[ln=en&p=mining&f=&action\\_search=Search&rm=&ln=en&sf=&so=d&rg=50&c=United+Nations+Digital+Library+System&of=hb&fti=0&fti=0](https://digitallibrary.un.org/search?ln=en&p=mining&f=&action_search=Search&rm=&ln=en&sf=&so=d&rg=50&c=United+Nations+Digital+Library+System&of=hb&fti=0&fti=0) [retrieved July 7, 2019]

### V. Preamble of the UN Charter (*delegates should always keep in mind the purpose of the United Nations during their work*):

<https://www.un.org/en/sections/un-charter/preamble/index.html> [retrieved July 7, 2019]

### VI. Universal Declaration of Human Rights:

<http://www.un.org/en/universal-declaration-human-rights/> [retrieved July 4, 2019]

### VII. Information about Child Labour in Mining provided by the ILO:

<http://www.ilo.org/ipecc/areas/Miningandquarrying/MoreaboutCLinmining/lang--en/index.htm> [retrieved July 4, 2019]

### VIII. United Nations Sustainable Development Goals:

<https://sustainabledevelopment.un.org/?menu=1300> [retrieved June 29, 2019]

### IX. Wikipedia: World's Worst Mining Accidents:

[https://en.wikipedia.org/wiki/Mining\\_accident](https://en.wikipedia.org/wiki/Mining_accident) [retrieved July 1, 2019]

### I. Statistics to Mine Accidents:

<https://www.cdc.gov/niosh/mining/statistics/minedisasters.html> [retrieved July 1, 2019]

### X. Statistics published by the United Nations to download:

<https://unstats.un.org/unsd/publications/> [retrieved June 29, 2019]

### XI. Handbook for Dust Control in Mining:

<https://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/2003-147.pdf> [retrieved July 8, 2019]