MLPC

Fair Trade Principles and Policies Document (FTPPD)

Mine Labour Protection Campaign

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Jodhpur, India

Chapter 1

Fair trade and its relevance to the Natural Stone Industry in the Indian and international context

1. Background

The history of trade in India goes far behind to the Harappan civilisation which extended into the regions of Gujarat, Punjab and Delhi. The people there were mainly agriculturists and were using the agricultural products as media of exchange in nearly 3000 BC. This was the barter system. Barter system – exchange of goods to goods, is actually the oldest system of transaction / trading all across the world. Man had to part with some valuable thing of importance to get something useful for himself. Cows were also used as media of transactions *(godaan)* by Vedic people where *gurudakshina (fees for the teacher)* was paid by presenting him with cows[1].

Gain; there are evidences that would prove that India was one of the largest economies of the world before the European colonization. In 321 - 185 B.C., India was unified under one ruler during the Maurya Empire. This empire was responsible for securing all the trade routes throughout India by focusing on the building and maintenance of roads through India for trade purposes. Trade in India was enhanced by these trade infrastructures as well as the increased usage of coins as currency. The Maurya Empire's economy was comparable to the Roman Empire since both had extensive trade connections and that trade was organized in a corporate manner. India became the leader in cotton and textile exports. They export and trade cotton and textiles for gold and silver. According to Angus Maddison, who estimated ancient world GDPs, India had the world's greatest economy with a 32.9% share of the world GDP during the 1st and 11th century and in 1700, India had a 24.4% share of the world GDP which was still the largest during that time. This share of the world's GDP by India dropped after the British colonized India by 24.4% in 1700 to just 3.8% in 1952 ("Economic History of India").

Economic historian Paul Bairoch also estimated that in 1750, India and China together accounted for 57.3% of the world manufacturing output with china having 32.8% and India having 24.5% (Philip S. Golub. October 2004). India in 1750 had a higher manufacturing output than that of Europe's 23.2%[2].

Trade, as we understand today is the willing exchange of goods, services, or both, whereas, international trade is the exchange of goods and services across national borders. Trade becomes important because in most countries, it represents a significant part of Gross Domestic Product (GDP). For instance, India's trade to GDP ratio has increased from 15 percent to 35 percent between 1990 and 2005[3].

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[1] http://www.associatedcontent.com/article/1027288/the_history_of_trade_in_india_prior.html
[2] http://www.rediff.com/money/1999/dec/08curncy.htm.
[3] http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/EXTSARREGTOPINTECOTRA/0,,contentMDK:20592520~menuPK:579454~pagePK:34004173~piPK:34003707~theSitePK:579448,00.html

Trade between nations follows The World Trade Organization (WTO) which is a global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business.

However, many developing country representatives feel that the original objectives of the multilateral trading system set out 50 years ago had not been achieved. A rules-based system that would lead to the benefit of all, had in fact contributed to increased poverty and an ever widening gap between the rich and poor. WTO rules are unbalanced in several important development-related areas, such as protection of intellectual property rights and the use of industrial subsidies, while the "special and differential" treatment that the agreements promised has been inadequate.

Developing countries have little power within the WTO framework for the following reasons:

1. Although developing countries make up three-fourths of WTO membership and by their vote can in theory influence the agenda and outcome of trade negotiations, they have never used this to their advantage. Most developing country economies are in one way or another dependent on the U.S., the EU, or Japan in terms of imports, exports, aid, security, etc. Any obstruction of a consensus at the WTO might threaten the overall well-being and security of dissenting developing nations.
2. Trade negotiations are based on the principle of reciprocity or "trade-offs." That is, one country gives a concession in an area, such as the lowering of tariffs for a certain product, in return for another country acceding to a certain agreement. This type of bartering benefits the large and diversified economies, because they can get more by giving more. For the most part, negotiations and trade-offs take place among the developed countries and some of the richer or larger developing countries.
3. Developing countries have fewer human and technical resources. Many cannot cope with the 40-50 meetings held in Geneva each week. Hence they often enter negotiations less prepared than their developed country counterparts.
4. Developing countries have discovered that seeking recourse in the dispute settlement system is costly and requires a level of legal expertise that they may not have. Furthermore, the basis on which the system is run—whether a country is violating free trade rules—is not the most appropriate for their development needs[1].

WTO has not been able to control the ugly exploitative shape that trade takes. For example, under conventional trade, a pound of coffee which is sold for almost $8 in the USA could bring only 80 cents to the Central American farmer who grows it[4] (if we can put some). The worst impacted are communities in developing and under-developed regions of the world who are exploited by multinational companies. These companies buy goods at very cheap rates, transport them overseas, and then sell them at high profit margins. Apart from the cross country impacts, on a local level, it affects the lives and livelihoods of the small-scale businessmen/producers throwing them into the vicious cycle of debt and poverty.

Again, unfortunately, the promises that recent trade liberalization measures would benefit developing countries have not been realized. The increase in imports and the continued decline in their terms of trade mean that growth in developing countries is now associated with higher current-account deficits. GATT/WTO trade rules and the structural adjustment programs imposed by the IMF and World Bank have obligated developing country governments to adopt liberalization policies—with disastrous results. Food imports have surged; many economic

[4] http://www.bbc.co.uk/dna/h2g2/A592706

sectors have been deindustrialized; and contrary to IMF/World Bank/WTO predictions, the majority of developing countries have not been able to increase their export revenues.

1.1 Natural stones and Trade in natural stones and/ stone products

The mining industry in India includes both metallurgical and mineral mining industries in India and together they form the backbone of the industrial development of India as they provide the basic raw materials like coal, petrol, mining minerals, steel, copper, Aluminium metals etc. to the Indian manufacturers.

India's long history, dating back to 3200 B.C. has been influenced considerably by the disposition, development and use of stones and other construction materials. Dimension stones have also left deep imprints on the architectural heritage of the country. Innumerable temples, forts and palaces of Ancient Indian Civilization have been carved out of locally available stones. The Taj Mahal at Agra stands testimony to the age defying beauty of Indian marble. Some of the ancient rocks cut wonders are Khajuraho Temple, Elephanta Caves, Konark Temple, etc. Besides, all major archeological excavations have revealed exquisitely carved statuettes and carvings in Stone. Ancient Buddhist monuments like the Sanchi Stupa of 3rd century BC have also been carved out of stone.

This tradition of Stone Architecture has continued to the present era with most of the important modern buildings in India like the Presidential House, Parliament House and Supreme Court made from high quality sandstone of Rajasthan. The Lotus Temple of New Delhi stands testimony to the relevance of marble in modern Indian architecture.

Stones are still the mainstays of civil construction in India, with stones being used extensively in public buildings, hotels, temples etc. It is increasingly being used in homes, with the use of stones now penetrating amongst the burgeoning middle class of India.

Natural stone is present in nature in a vast variety. Estimation over 6000 types of natural stone is available worldwide. Based on their origin, chemical composition, texture of the constituent particles and the processes by which they are formed they are ranked as belonging to a certain stone 'type' or 'group'. These indicators separate natural stone into four main groups: 'hypogene, igneous, sedimentary and metamorphic rock'. These are further divided

History of Mining in India

Mining in India is over 6000 years old. The oldest mines in India include lead-zinc mineral deposits at Zawar, copper deposits at Khetri, and gold deposits in Karnataka. The mining techniques used back then were much ahead of their time specially the smelting techniques. A timeless example of the mastery of the old times craftsmen is the Iron Pillar in the Qutab Minar complex in New Delhi.

Minerals constitute the back-bone of economic growth of any nation and India has been eminently endowed with this gift of nature. There are many evidence that exploitation of minerals like coal, iron-ore, copper, lead-zinc has been going on in the country from time immemorial. However, the first recorded history of mining in India dates back to 1774 when an English Company was granted permission by the East India Company for mining coal in Raniganj. M/s John Taylor & Sons Ltd. started gold mining in Kolar Gold Fields in the year 1880. The first oil well was drilled in Digboi in the year 1866 - just seven years after the first ever oil well was drilled anywhere in the world viz. in Pennsylvania State, USA in 1859. Mining activities in the country however remained primitive in nature and modest in scale up until the beginning of the current century. Thereafter, with progressive industrialisation the demand for and hence the production of various minerals gradually went up. After India became independent, the growth of mining under the impact of successive Five Year Plans has been very fast. There are ambitious plans in coal, metalliferous and oil sectors to increase production of minerals during the 8th Five Year Plan and thereafter.[1]

into subgroups. Well-known subgroup types include, for example, Limestone, Anorthosite, Charnockite, Diabase, Diorite, Granite, Gabbro, Gneiss, Marble, Monzonite, Sandstone, Slate, Steatite, Stromatolites, Syenite, Verde Antico, Travertine, Onyx, Flaggy limestone, Portoro Buono, Carrara Marble, Chalk, Flint, and Brownstone. These subgroups can comprise hundreds or thousands of stone types.

Natural stones are quarried. Box 1 gives the definition of quarrying according to ILO.
Box 1

Definition of mining and quarrying

The definition of **small-scale mining, artisanal mining** and **quarrying** is not clear-cut as the basic aspects differ from country to country according to the general development of the mining sector and legal framework. However, typical for the sub-sector is that the activities are often artisanal, family-based and labour intensive. **Informal mining** refers to unregulated mining activities often operated by family members or of close relatives without any license or formal permission. Hence they are often referred to as **artisanal** and **small scale mining**.

In India, it is difficult to differentiate between ***Artisanal Mining and Small-Scale Mining***. Probably it very much depends on individual perception. The artisanal miners, as many of us believe, normally work in small groups of family members and or of close relatives without employing any paid assistants. They may work in their own land or in public places or State owned land without any license or formal permission. But in India Small-Scale Mining (SSM) is mostly organised mining carried on with acquired mining rights under some statutory control although unlicensed or informal activities are not uncommon on many occasions e.g. straying into unlicensed areas from existing mines and working in disputed territory.

Both Artisanal and SSM are highly labour intensive and no mining equipment, except simple tools, are used in Artisanal mining and in tiny SSMs. But in non-tiny SSMs the workers quite often use some mining equipment and machinery and some mines in the higher rung, are even partially mechanised for higher production and better productivity. Artisanal mining is generally considered as unauthorised or illegal mining operation although not seriously prevented by the Government mainly because such activities provide at least some sustenance to the local people living below the poverty line and the Government is unable to provide regular employment to all of them.

In the present document artisanal mining and quarrying are used interchangeably.

Source:http://www-ilo-mirror.cornell.edu/public/english/bureau/inf/download/child/background.pdf and http://www.natural-resources.org/minerals/cd/docs/mmsd/asm/asm_india.pdf

The CBI market survey on the EU market for natural stone and stone products shows that demand continues to increase. Between 2002 and 2006 consumption of finished stone products increased from € 6.6 billion to € 7.7 billion, a compound annual increase of 5%. This growth can be partly explained by the increased popularity of natural stone as a flooring and cladding material. The recovering construction sector in some of the large EU markets has also fuelled demand. Growth was especially significant in the newest EU Member States in Central & Eastern Europe. These countries provide good opportunities for exporters from developing countries. As processing of natural stone is increasingly being done by developing countries the demand for intermediate stone products is dropping.[5]

[5] http://www.cbi.eu/marketinfo/cbi/docs/the_natural_stone_and_stone_products_market_in_the_eu

1.1.1 The international picture

Estimates of numbers engaged in the ASM sector vary widely. They range between 13 and 20 million men, women, and children from over 50 developing countries-with 100 million more dependent on this sector for their livelihood. It is estimated that there are many more people engaged in ASM than employed by multinational mining companies.

Growth in ASM numbers is expected to continue in line with higher prices for mineral commodities in OECD[6] countries, driven by the burgeoning demand from emerging economies such as China and India.

The range of commodities attracting the attention of artisanal miners is diverse. Although mining in gemstones and gold attracts many poor people into ASM, the demands for industrial minerals and coal are also significant.

Women are estimated to constitute approximately 30% of the ASM sector. They generally derive far fewer benefits from ASM than their male counterparts yet are more affected by negative impacts from ASM. In many countries, women's voices are virtually absent in political decision-making at national, regional and local levels. Consequently, women's perspectives, needs, knowledge and proposed solutions are being largely ignored.

The International Labor Organization (ILO) estimates that children account for 7.7% of the total of ASM workers, or 1.0 to 1.5 million under the age of 18 years old evenly split between boys and girls[7].

After being quarried, natural stone is further processed into natural stone products. Natural stone is used in a wide range of products. Important final natural stone products are as follows:

- Memorial stones (gravestones, tombstones);
- Kitchen counter tops;
- (Floor) tiles;
- Frontages;
- Doorsteps;
- Art and garden ornaments;
- Pavement materials and such others.

These products can be made of different types of natural stone, although some natural stone types are preferably used for a specific kind of product, because of factors including suitability, functionality and taste[8][9].

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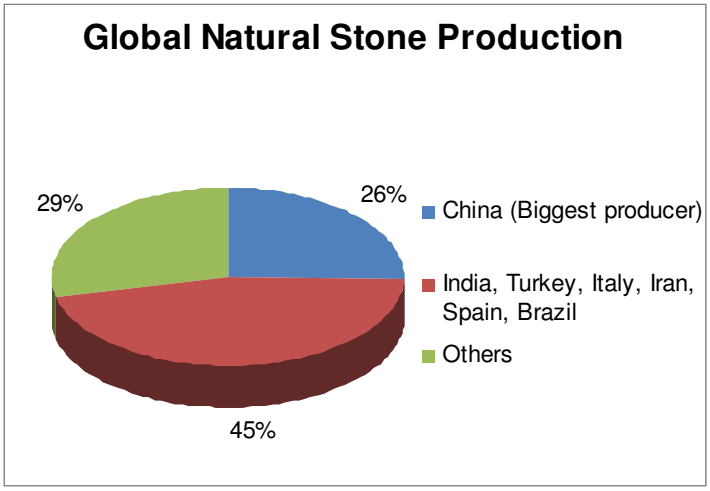
[6] Organization for Economic Cooperation and Development
[7] http://www.artisanalmining.org/index.cfm?page=page_disp&pid=2015
[8] http://www.indiahousing.com/infrastructure-in-india/mining-industry-in-india.html

[9] From Quarry to Graveyard – Corporate social responsibility in the natural stone sector, India Committee of the Netherlands, 2006



Since these products find applicability world wide, trade in natural stone becomes important. Also some of these products find a niche expensive market in developed nations lacking in these natural resources. These nations then source these stones from developing and underdeveloped countries.

At the global level, production figures of natural stone and natural stone products witnessed a substantial increase over the last decade, with an increasing number of countries involved in the production of natural stone. The worldwide production of natural stone has increased by 30 percent in the last 10 years[10]. In the last few decades, the extraction and processing of marble and granite went up explosively due to new production techniques facilitating the exploitation of such hard stone types in particular[11].

From 1990 on, the production increased at the rate of 7.5 percent annually. At the same time, the volume of trade grew by 9.3 percent. In 2007 the worldwide production reached over 210 billion tons, 11.7 percent more than in 2006. Worldwide trade exceeded 46.2 million tons. This means an increase of 11.5 percent compared with 2006.

Consumption amounted to 1,130 million square metres (at the conventional thickness of 2cm).

The biggest producers are (in order):
1. China,
2. India,
3. Turkey,
4. Italy,
5. Iran,
6. Spain and
7. Brazil.

The following **Figure 1** gives an idea of the production.

71.3 percent of all natural stone comes from these seven countries. China for its own accounts for 25.6 percent of the global production and a quarter of export amounts.

In the year 2008 prices were recovering on most parts of the main markets. (On the main markets prices were varying considerably in 2007). In China the price for worked stone rose to 17.50 US-$/square metre (2006: 16,50 US-$). There are considerable variations: prices

[10] Stone Report 2002
[11] Ibid 3

ranged from 43,40 Euro for Italian exports, 30.25 for Spanish euros, 23,75 euros for Portuguese and 24,85 US-$ for Turkish exports.

It is assumed that by 2025 the volume of the worldwide stone production will reach 490 million tons. Until then the consumption will amount 5.3 million square metres and trade 3.3 billion square metres[12].

European trends in imports and consumption

Nowadays, Europe's share of worldwide total consumption of natural stone is around 30 percent (CBI, 2004). In 2002, total European imports of natural stone and natural stone products amounted to €2,116 million, representing a volume of 11,003 thousand tonnes.

Over the past decade, EU imports of natural stone and natural stone products originating from developing countries showed an increase. This trend seems to be continuing, even if the overall EU natural stone trade experienced a marked decrease in the early years of this century. This decline is at least partly explained by the EU trend of increasing imports of finished products (relatively less volume and more value). This implies that proportionally more added value remains in the exporting
countries.

In 2002, developing countries accounted for 46% of the total value of EU natural stone imports (or 37% of the total volume):

- India € 276 million
- China € 221 million
- Brazil € 153 million
- South Africa € 104 million
- Turkey € 77 million[13]

In 2004, China became the most important supplier to the EU, overtaking India. The total value of developing country exports to the EU is mainly made up by blocks (54 percent), followed by natural stone products for landscape design (22 percent), funeral and other art (12 percent), slabs (8 percent) and tiles for flooring and cladding (4 percent). Figures regarding trade volumes are not readily available.

1.1.2 The Indian picture

India is among the top ten mineral producing nations in the world and the Indian mining industry indicates almost the full range of extractive mineral products. Small-scale mining is quite prevalent in India. The maximum production capacity of 50,000 tonnes/year has been accepted as a criterion to Indian small-scale mine[14]. Such mines constitute about 90% of total

[12] http://www.stone-news.com/2008/10/31/production-of-natural-stone-increases-2/

[13] Ibid3

[14] http://www.springerlink.com/content/ml7j8r1m722r4436/

number of mines, 42% of the total non-fuel minerals and metals, 5% of the fuel minerals. Some 3,000 small-scale mines account for a work force of about 0.5 million people[15].

India is the home of exquisite natural stones like granite, marble, slate and sandstone and has a tradition of usage of stones, not only for decades but for centuries and millenia[16]. Together with China and Italy, India was one of the most important producers and leading exporters (in terms of tonnage) of natural stone world wide over the past decade.

India traditionally exports large quantities of raw blocks, rough slabs and standard tiles. Of late, gravestones have become an (increasingly) important export product. In terms of stone type, India is world export leader in limestone and sandstone slabs[17]. Also, India is a global leader in terms of granite exports: Indian stone exports comprise mainly granite cut blocks, granite slabs and tiles[18].

On average over ten percent of the natural stone traded on the world market comes from India. The annual export growth rate has been around 10 to 15 percent over the last decade, although in the past two years the export role of India has stagnated somewhat due to the rise of China.

Leading Producer

India is one of the largest producer of stones in the world. The Indian stone industry has been growing steadily at an annual rate of around 10 percent per year for the past few years.

Indian Stone Production (In thousand tons)

	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05
Marble	3186	3712	3622	3761	4754	6831	6318	7511	8469	9608
Granite	4555	4550	4950	5000	5300	5900	6205	6710	7059	7759
Sandstone	4562	5501	5461	6310	9297	6659	6861	6363	8153	9313
Flaggy Limestone	1760	1710	2118	1428	1619	2096	2164	3387	3757	4268
Slate	7	11	10	7	12	16	18	14	11	110
Total	**14070**	**15484**	**16161**	**16506**	**20982**	**21502**	**21566**	**23986**	**27449**	**31059**

Export Trends

India is amongst the leading exporter countries of stones in the world, being a close competitor to China and Italy who are the leaders.

	Value in Rs. Lakhs				
Item	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**
Granite cut blocks/ slabs	133555.54	127629.70	102204.78	102921.26	87397.11
Granite monuments	41127.10	18916.37	21821.95	21523.02	17242.74

[15] http://www.springerlink.com/content/x833m1408q637r36/
[16] http://www.cdos.com, 2005
[17] Stonereport, February 2004
[18] Ibid8

Granite Products n.e.s	24620.39	13747.37	16664.70	10500.85	8309.62
Granite tiles	149756.10	95933.35	124688.80	111113.12	91681.95
Marble blocks/ slabs	8937.55	9336.73	8006.70	753.35	4709.61
Marble monuments	421.12	774.29	452.02	524.89	209.32
Marble tiles	7330.36	6722.60	11467.57	21636.03	15932.58
Other stones & Products	69375.71	52753.43	40961.73	35023.22	26639.22
Slate Stone	21074.97	18551.49	14598.09	13915.11	9334.84
Grand Total	**456198.84**	**344365.33**	**340866.34**	**317910.85**	**261456.99**

Source: DGCI&S/ CAPEXIL.

Indian Stone Exports comprise mainly Granite Cut Blocks, Granite Slabs and Tiles. The share of marble, slate and sandstone are steadily increasing for the past few years. The major importers of Indian stones are USA, Italy, Taiwan, Japan, Germany and China[19].

India's market presence notwithstanding, quarrying operations in the country may on average be characterised as relatively small in scale, with a low level of mechanisation and labour intensive. Quarrying operations are regularly unorganized and of informal nature. However, the trend over the past decade has been one of mechanisation and modernisation (Lahiri-Dutt, 2003).

India accounts for over 20 percent of the world's resources in granite. Granite reserves are estimated at over 1,690 million cubic meters according to CDOS India (Kumar & Singh, date unknown). Another source mentions granite area reserves (in the year 2000) of an estimated 42,916 million cubic meters, with black granite accounting for 6.7% of total reserves and coloured granites comprise 92% (MMP
India organisation, 2005).

Granite extraction and production mainly takes place in the south of India (Tamil Nadu, Karnataka). As an indication: In 1997-98, Tamil Nadu accounted for 30 percent of India's granite production Karnataka for 27 percent and Andhra Pradesh for 24 percent, while Uttar Pradesh and Rajasthan – in the north of India – accounted for only 9 percent and 4 percent respectively (TERI institute, 2001).

Sandstone

Sandstone reserves in India are estimated at around 1000 million tons and spread over the states of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Madhya Pradesh, Meghalaya, Mizoram, Karnataka, Orissa, Punjab, Rajasthan, Uttar Pradesh, Tamilnadu and West Bengal. Over 90% of the deposits of sandstone are in Rajasthan, spread over the districts of Bharatpur, Dholpur, Kota, Jodhpur, Sawai-Madhopur, Bundi, Chittorgarh, Bikaner, Jhalawar, Pali and Jaisalmer[20].

Granite

[19] http://www.cdos-india.com

[20] http://www.cdos-india.com/papers/09%20-%20Indian%20industry%20-an%20Insight%20-%20Alok%20Kumar.doc

India is endowed with one of the best granite deposits in the world having excellent varieties comprising over 200 shades. India accounts for over 20% of the world resources in granite. Granite reserves in India are estimated at over 1,690 million cubic metres. Splendid black and multicolour varieties of granite are available in the states of Karnataka, Andhra Pradesh, Tamilnadu and Uttar Pradesh. Granite deposits are also widespread over the provinces of Rajasthan, Bihar, West Bengal and Gujarat. India is the largest exporter of granite and granite products in the world.

Slate

Slate deposits in India are estimated at around 500 million tonnes. Deposits are found in Rajasthan, Haryana, Himachal Pradesh, Andhra Pradesh and Madhya Pradesh.

Marble

Marble reserves in India are estimated at 1200 million tonnes, with Rajasthan accounting for 91 percent of the total Indian reserves (Kumar & Singh, CDOS, 2005). MMP India quotes an inventory survey of India Bureau of Mines (IBM), which estimates that in-situ reserves of marble as on January 2000 approximated 31 million tonnes of proved reserve, 28 million tonnes of probable reserve and 1,504 million tonnes of possible reserve.

Although precise data on production figures do not exist, 95 to 99 percent of marble production is estimated to take place in Rajasthan. Overall, Rajasthan is estimated to account for approximately 65 percent of India's natural stone production[21].

The market for natural stone continues to grow, both in the India and internationally. There is a section of buyers who value the quality of the material and the large variety of colours that are available. However, there are several issues associated with natural stone starting from production, to processing and trade.

1.2 Issues in India

Rajasthan is the mainstay of the Indian stone industry and has over 90 per cent of the country's marble, sandstone and flaggy limestone deposits along with a major share of granite and slate deposits spread over the entire state[22].

Rajasthan alone accounts for 1,100 million tons of the total known Indian resources of 1200 million tons (91 per cent of India's deposits) and 95 per cent of India's marble production. With a production of 3.44 million tons in 1997-98 and about 3658 marble mining leases, 1,100 marble processing units and 50 automatic tiling plants with a marble slab processing capacity of 1,000 million sq. ft. per annum and marble tiling capacity of 300 million sq. ft. per annum, the marble industry in Rajasthan is phenomenal.

Granite reserves are estimated at 1128 million cubic metres with about 653 granite-mining leases resulting in a production of 52,020 tons in 1997-98. The granite industry has slab

[21] Ibid3

[22] http://www.indiamarkets.com/imo/industry/construction/constructfea11.asp

processing capacity of 15 million sq. ft. per annum and a granite tiling capacity of 50 million sq. ft. per annum.

The vast deposits of sandstone accounting for a production of 4.91 million tons in 1997-98 from 1847 mining leases; flaggy limestone (Kotahstone) deposits with an estimated production of 2.10 million tons in 1997-98; huge slate deposits accounting for a production of 8,000 tons in 1997-98 from 32 slate mining leases, the state employs about 10,00,000 people.

The Rajasthan stone industry is poised for a foray into the International stone market with its wide variety of stones and a dynamic entrepreneurial base. The industrial infrastructure in Rajasthan compares favourably with the best in the country. Industrial areas developed by the Rajasthan State Industrial Development Corporation Ltd. (RIICO) are spread over the whole state and have catalyzed an industrial revolution in the state.

The state has a well developed road and rail network well connected with the rest of India. Rajasthan also has a dry port with Inland container depots for easy exports.

The Government of Rajasthan is stressing the need to develop the stone sector in Rajasthan and has announced a wide variety of incentives and concessions to the stone industry. The state has brought forward in its New Industrial Policy, Mineral Policy, Marble Policy and Granite Policy.

Marble

The marble industry in Rajasthan is modern and very well developed with mechanized quarries, tiling plants, gangsaws etc. However, most of the production is consumed within India and international exposure is limited and needs to be exploited. Marble with highest geological reserves of around 1100 million tons in Rajasthan produced 3.44 million tonnes in the year 1997-98. Colors and patterns like Snow white, Creamish white, White with grayish/black bands and Wavy patterns, pink, pink with bluish bands, green, yellow, black, multi-color are mined in districts of Nagaur, Udaipur, Banswara, Jaipur, Sirohi, Bhilwara, Ajmer, Bundi, Pali, Dungarpur, Chittorgarh, Jaisalmer, Sikar, Rajsamand, Alwar. Whereas, on the export list are Snow white - fine grained, green and pink.

Granite

In districts of Barmer, Jalore, Pali, Sirohi, Alwar, Jaipur, Jhunjhunu, Tonk, Ajmer, Bhilwara, Sikar, and Udaipur, the geological reserves of high quality granite with hardness ranging from 6-7 on Moh's scale is around 1128 million Cu. M. Production of granite in 1997-98 was 52,020 tonnes with processing capacity of 1.5 million sq. m. of slabs and 5.0 million sq. m. of tiles. Though it is available in colors and patterns of Pink, Grey, Green, Multi-color, Bluish white, Red, Golden, Cream, Paradiso Black, Banded with wavy pattern, white with spots. Platinum white, Snow white, Tiger black, Imperial Pink, Mokalsar Green, Nagina Green, Jalore Pink, Kharda Red, Blue Pearl, Paradiso Red, Brownish Green, Jhunjhunu Red, and Yellowish Pink, but hot on the export list are varieties like Rosy Pink, Golden Pearl, China Pink, Anglo Grey, Royal Cream.

Sandstone
With a Production of 4.91 million Tonnes in 1997-98, Fine grained pink & buff Sandstone recorded a export of Rs. 50 million. Available in a range of colors and patterns like Red, Buff, Beige, Pink, Flaggy sandstone, they occur In districts of Bharatpur, Dholpur, Kota, Sawaimadhopur, Bundi, Chittorgarh, Nimbhahera, Jodhpur, Bikaner, Jhalawar, Pali and Jaisalmer.

Flaggy Limestone (Kotahstone)
Occurring in districts of Kota, Chittorgarh & Jhalawar, the Pale Yellow . Green & Greenish Blue. Flaggy limestone registered a production of 2.1 million Tonnes in 1997-98 Important centres are Ramganj Mandi, Suket, Chechat, Morak, Manpura. They have the potential to be exported to Europe, USA, Canada, Japan, and Singapore.

Slate
The slate deposits of Alwar district are of export quality although slate deposits occur in districts of Alwar, Ajmer, Bharatpur, Tonk, Sawai Madhopur, Pali, Udaipur, Churu and Chittorgarh. Appearing in multicolour, Brown, Red. Greyish black, colours, it is mainly exported to Holland, Germany, Australia, Japan, and Singapore. The annual Production in 1997-98 was 80000 tonnes.

People associated with the stone industries in Rajasthan and other parts of India and in other developing countries are plagued by child labour, environmental damage and low wages. Given this scenario, it is imperative that trade in natural stones should follow the ethics and conduct of fair trade. There are several very critical issues associated with the natural stone industry that need to be addressed. These include:

1.2.1 Hazardous working conditions and associated accidents and diseases

The health risks range from spinal injuries and deformities from carrying loads that are too heavy to potentially fatal rock falls and chronic diseases. These are compounded by the environmental hazards, such as the soil, water and air that may be contaminated[23]. In granite, marble and especially sandstone quarries, workers are exposed to a high incidence of the fatal occupational diseases like silicosis and tuberculosis In non-mechanised processing plants, these diseases are also common. Accidents at work, sometimes resulting in the death of workers, occur frequently in the quarries. Workers are also required to carry very heavy weights, mainly in shallow quarries and non-mechanised plants. Basic safety provisions, such as dust masks, are largely absent. This is a violation not only of universal human rights, but also of the ILO conventions and relevant national legislation.

1.2.2 Unavailability of basic facilities

Clean drinking water, health services and schools are often unavailable, especially in the more remote areas.

1.2.3 Labour Issues

[23] http://www.ilo.org/asia/info/public/pr/lang--en/WCMS_BK_PR_132_EN/index.htm

1.2.3.a Bonded Labour

Several studies suggest that a majority of quarry workers are indebted to the company and works under conditions of bonded labour. Companies abuse this situation to keep wages low. Bonded labour is a violation both of the universal human rights of workers and the relevant ILO conventions. Bonded labour is forbidden by Indian law [24].

1.2.3.b Child labour

In the average Indian quarry 20 per cent of the workforce is made up of child labour, some as young as six[25]. Child labour is common in India's stone quarries. Children tend to start work before the age of 14 and are often made to perform dangerous tasks. The root causes of child labour are acute poverty, the lack of child-care facilities and/or bonded labour. When bonded workers die, their debts are often passed on to their families, including his or her children. These children are then forced to go out to work in order to pay off these debts. There are mostly no schools or health care facilities available for children. Even where schools and clinics are available, work obligations often prevent child labourers from enjoying their benefits. In addition, such work often puts children at risk for involvement in the drug and alcohol trade and in prostitution, which are also considered worst forms of child labour[26]. Child labour violates the ILO conventions, while labour in stone quarries below age 15 is prohibited by Indian law.

1.2.3.c Migrant labourers and associated problems

Many of the people working in the quarries are migrant labourers who scrape an income among the derelict heaps of sandstone spoil, living in makeshift shelters without even the most basic facilities. They tend to come from the poorest rural communities and will work in the quarries for 8-9 months a year, returning to their native region in the rainy season.

They are vulnerable to many hazardous diseases. Dusty environmental conditions mean that tuberculosis is becoming widespread and in the case of diseases such as lung cancer, death is inevitable because of inadequate medical facilities.

A lack of health awareness is contributing to the rapid spread of syphilis, while poor hygiene and lack of sanitation mean that malaria is becoming a major cause of death[27].

1.2.3.d Lack of or limited use of mechanization

Lack of or limited use of mechanization in quarrying activity makes it a very physically demanding, especially for women and children.

1.2.4 Caste discrimination

Caste based discrimination of the labour force employed in the natural stone industry remains a cause of concern throughout the sector.

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[24] Ibis3
[25] http://www.indianet.nl/a070508.html
[26] http://www.ilo.org/asia/info/public/pr/lang--en/WCMS_BK_PR_132_EN/index.htm
[27] http://www.indianet.nl/a070508.html

1.2.5 Gender insensitivity

Women are engaged in most aspects of quarrying. They are also indirectly involved through ancillary activities such as the supply of food, drink, tools, and equipment etc.The working conditions are especially harsh for women working in this sector. They often work while being pregnant and nursing infants at times being the sole earning members of the family. In India number of women directly involved in small scale mining is 33500[28].

1.2.6 Environmental Pollution

Environmental pollution from solid waste disposal by quarries and processing plants is severe and causes severe damage to agricultural areas. Unusable materials are frequently dumped in violation of national laws.

1.2.7 Habitat destruction and land stewardship

Quarrying in general leads to habitat destruction. In addition, illegal quarrying occurs in protected habitats. The obligatory restoration, reclamation and rehabilitation of mines, as required by Indian law, are often side-stepped.

1.2.8 Corruption

Corruption is a feature of all Indian industries, and the natural stone industry is no exception. As a consequence, companies get away with operating illegal quarry leases, and violating labour and environmental laws.

1.2.9 Lack of record

A lack of record keeping by quarrying and processing companies underlies the consistent violation of Indian labour laws and makes verification of company practices impossible. The failure to keep written employment registers is in itself a violation of various national laws.

1.3 Minimizing negative impacts of trade through the practice of making trade fair

Fair trade principles have deep roots in European societies long before the first structured alternative trading organizations (ATOs) emerged following World War II. Many of the fundamental concepts behind fair trade actually show a great resemblance with pre-capitalist ideas about the organization of the economy and society.

The notion of the ‘old moral economy’ is a fitting example of such conceptions. E. P. Thompson, in his work on 18th century England, described a society where “notions of common well being, often supported by paternalistic traditional authorities, imposed some limits on the free operations of the market”. Farmers were then not allowed to manipulate prices by withholding their products to wait for price increases. The actions of the middlemen

[28] http://www.iied.org/pubs/pdfs/G00905.pdf

were always considered legally suspect, were severely restricted and the poor were provided opportunities to buy basic staple foods in small parcels. Fair trade was already seen as a way to address market failures; although the concept mainly revolved around consumer, rather than producer, rights.

There are also a few instances in which fair trade in the 'old moral economy' is focused on producer rights: as early as 1859, Dutch author Multatuli the pen name of Eduard Douwes Dekker) questioned the injustice of the colonial and capitalist system towards commodity producers in his novel Max Havelaar. The fictional tale recounts the story of Max Havelaar, a Nederlandse Trade Company employee, who leaves everything to work in solidarity with local Indonesian workers. This account draws a direct correlation between the wealth and the prosperity of Europe and the poverty of the suffering of other parts of the world.

Early fair trade initiatives

The fair trade movement as we know today was shaped in the years following World War II. Early attempts to commercialize in Northern markets goods produced by marginalised producers were initiated by religious groups and various politically oriented non-governmental organizations (NGOs).

The Mennonite Central Committee (MCC) and SERRV International were the first, in 1946 and 1949 respectively, to develop fair trade supply chains in developing countries. The products, almost exclusively handicrafts ranging from jute goods to cross-stitch work, were mostly sold by volunteers in 'charity stores' or 'ethnic shops'. The goods themselves had often no other function than to indicate that a donation had been made.

The first fair trade agricultural products were tea and coffee, quickly followed by dried fruits, cocoa, sugar, fruit juices, rice, spices and nuts. Coffee quickly became the main growth engine behind fair trade: between 25 to 50 % of the total alternative trading organization turnover in 2005 came from coffee sales.

"Fair Trade (FT) is an organized social movement and market-based approach to empowering developing country producers and promoting sustainability. The movement advocates the payment of a fair price as well as social and environmental standards in areas related to the production of a wide variety of goods. It focuses in particular on exports from developing countries to developed countries, most notably handicrafts, coffee, cocoa, sugar, tea, bananas, honey, cotton, wine, fresh fruit and flowers. It is a trading partnership, based on dialogue, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South"[29].
Again, the International Federation for Alternative Trade (IFAT) a network of 158 Fair Trade organizations around the world defines FT as *an alternative approach to conventional*

[29] The currently accepted definition of Fair Trade has been agreed by FINE[29], an informal association of four international Fair Trade networks (Fairtrade Labelling Organizations International, World Fair Trade Organization, Network of European Worldshops and European Fair Trade Association):

international trade. It is a trading partnership which aims at sustainable development for excluded and disadvantaged producers. It seeks to do this by providing better trading conditions, by awareness raising and by campaigning.

1.3.1 How does Fair Trade make a difference?

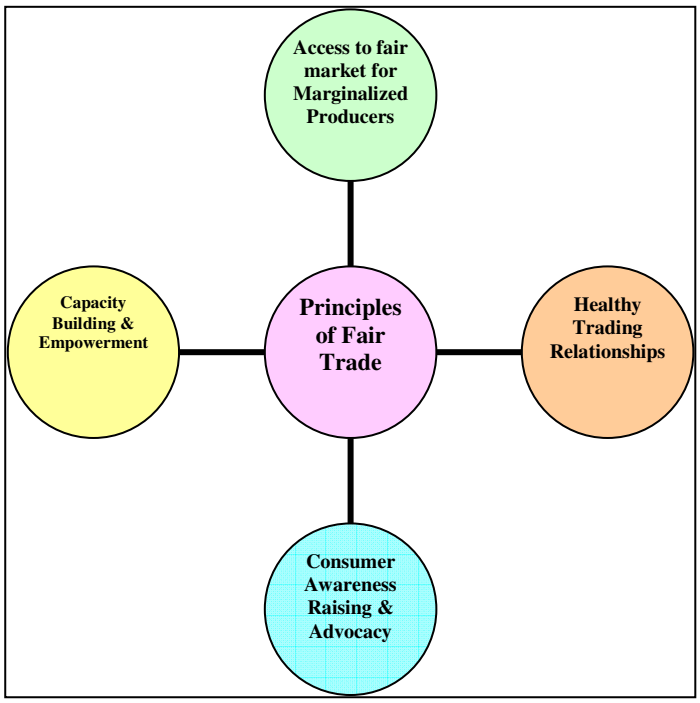
- It empowers consumers in the developed world to take some responsibility for the role they can play when buying products from developing countries.
- It means producers in the developing world can look forward to getting a fair price for their efforts and their produce.
- It challenges the conventional model of international trade, offering a progressive alternative for a sustainable future.

1.3.2 Key Fair Trade principles

The principles of Fair Trade are based on the practical and shared experience of Fair Trade organizations. This is given in **figure 2**.

Access to fair market for Marginalized Producers

Many producers mostly in developing countries remain excluded from mainstream and added-value markets, or only access them via lengthy and inefficient trading chains. Fair Trade helps producers realize the social benefits to their communities of traditional forms of production. By promoting these values (that are not generally recognized in conventional markets) it enables buyers to trade with producers who would otherwise be excluded from these markets. It also helps shorten trade chains so that producers receive more from the final selling price of their goods than is the norm in conventional trade via multiple intermediaries.



Healthy trading Relationships

The economic basis of transactions within Fair Trade relationships takes account of all costs of production, both direct and indirect, including the safeguarding of natural resources and meeting future investment needs. Trading terms offered by Fair Trade buyers enable producers and workers to maintain a sustainable livelihood; that is one that not only meets day-to-day needs for economic, social and environmental wellbeing but that also enables improved conditions in the future. Prices and payment terms (including prepayment where required) are determined by assessment of these factors rather than just reference to current market conditions. There is a commitment to a long-term trading partnership that enables both

sides to co-operate through information sharing and planning, and the importance of these factors in ensuring decent working conditions is recognized.

Capacity Building and Empowerment
Fair Trade relationships assist producer organizations to understand more about market conditions and trends and to develop knowledge, skills and resources to exert more control and influence over their lives.

Consumer Awareness Raising and Advocacy
Fair Trade relationships provide the basis for connecting producers with consumers and for informing consumers of the need for social justice and the opportunities for change. Consumer support enables Fair Trade Organizations to be advocates and campaigners for wider reform of international trading rules, to achieve the ultimate goal of a just and equitable global trading system.

1.3.3 In the context of natural stone quarrying who can participate in FT?

- ✓ **Any mining organisations that have demonstrated:**
  -successes in achieving the socio-economic and/or environmental development of the miners and/or their communities,
  -that they operate legally or are in a process for formalising their activities,
  -that they consider it desirable to participate in the FT process.

- ✓ **Any 'ethical' traders, refiners, and jewellers who wish to participate.**
- ✓ **Any artisanal and small-scale mining organisations, including public (government) bodies.**

There should be certain standards for natural stones to be included in Fair Trade. The implementation of these standards will be an ongoing process of gradual improvement, accompanied by monitoring and verification.

A key requirement is that there is full visibility of the supply chain from quarry to retailer/merchant/contractor, in order that all parties in the supply chain know where their stone is being quarried.

Minimum Standards:
1. All quarries must be operating legally.
2. No child, forced or bonded labour must be used.
3. Wages and hours of work must meet legal requirements as a minimum.
4. All quarries must respect the right of workers to a safe working environment.
5. Environmental impact is managed.
6. There is a clear commitment from the Quarry owner/manager to work towards these Minimum Standards.

The details of this are mentioned in subsequent chapters[30]

[30] BTE

Ideal Fair Trade goals for natural stone quarrying in India

- ✓ **Fair Trade is a vehicle for**
  _ stimulating local development in mining communities, particularly in the developing world;
  _ stimulating continual improvement in the sustainability of supply chains as operators compete to attract 'ethical' buyers;
  _ providing conscientious consumers with suitable products which uphold their values;

Stimulating local development.

- ✓ **Fair Trade aims to help miners and their communities:**
  _ escape the vicious circle of subsistence economy;
  _ gain access to education, healthcare, and sustainable human development;
  _ benefit from better exchange terms;
  _ gain better access to markets;
  _ strengthen their position in the supply chain;
  _ improve environmental, labour and social conditions;

Stimulating continual improvement in the sustainability of supply chains.

- ✓ As operators compete to attract 'ethical' buyers mostly in Europe, USA and UK there is continual improvement in the sustainability of supply chains in all its stages Production (extraction & processing), Refining, Manufacture (materials), cutting and polishing stones Retail/export

Enabling Conscientious Consumption.

- ✓ **Fair Trade market is fast growing**
  _ Consumption of Fair Trade products grew by 40% in 2006[31]
  _ Increasing demand for 'ethical' products in the UK, USA, and Europe
  _ Enormous and expanding markets for natural stones in China and India

Feasibility of Fair Trade Certification and labeling

Given the complexity of supply chain, certifying the natural stone products might be a difficult task but it is feasible. However FT Certification initiatives should have effective monitoring mechanism. In case of natural stone, at the primarily level, the contractors, sub lessee, small quarry owners/processing units, transporters, stockiest, etc are to be monitored.

Further, if products are certified for 'no involvement of bonded labor and child labour', one needs to be clear that child labour bound is not used at all as in certain quarries because of indebtedness (advance money) and the children are engaged in preparing food for the other workers and children collect kerosene from the marble slurry and sell them to the processing units owners. Thus, certifying a part of the supply chain may be viable.

The only way to increase sale opportunities was to start offering fair trade products where consumers normally shop, in large distribution channels. The problem was to find a way to expand distribution without compromising consumer trust in fair trade products and in their origins.

A solution was found in 1988, when the first Fairtrade label, Max Havelaar, was launched under the initiative of Nico Roozen, Frans van der Hoff and Dutch ecumenical development agency Solidaridad. The independent certification allowed the goods to be sold outside the worldshops and into the mainstream, reaching a larger consumer segment and boosting fair trade sales significantly. The labeling initiative also allowed customers and distributors alike to track the origin of the goods to confirm that the products were really benefiting the producers at the end of the supply chain.

On the producer end, the Max Havelaar initiative offered disadvantaged producers following various social and environmental standards a fair price, significantly above the market price, for their crop. The coffee, originating from the UCIRI cooperative in Mexico, was imported by Dutch company Van Weely roasted by Neuteboom sold directly to world shops and for the first time, to mainstream retailers across the Netherlands.

The initiative was groundbreaking as for the first time Fairtrade coffee was sold in supermarkets and mass-retailers, therefore reaching a larger consumer segment. Fairtrade labelling also allowed consumers and distributors alike to track the origin of the goods to confirm that the products were really benefiting the farmers at the end of the supply chain. The initiative was a great success and was replicated in several other markets: in the ensuing years, similar non-profit Fairtrade labelling organizations were set up in other European countries and North America, called “Max Havelaar” (in Belgium, Switzerland, Denmark, Norway and France), “Transfair” (in Germany, Austria, Luxemburg, Italy, the United States, Canada and Japan), or carrying a national name: “Fairtrade Mark” in the UK and Ireland, “Rättvisemärkt” in Sweden and "Reilu Kauppa" in Finland.

Initially, the Max Havelaars and the Transfairs each had their own Fairtrade standards, product committees and monitoring systems. In 1994, a process of convergence among the labelling organizations – or “LIs” (for “Labelling Initiatives”) – started with the establishment of a TransMax working group, culminating in 1997 in the creation of Fairtrade Labelling Organizations International (FLO). FLO is an umbrella organization whose mission is to set the Fairtrade standards, support, inspect and certify disadvantaged producers and harmonize the Fairtrade message across the movement.

In 2002, FLO launched a new International Fairtrade Certificaiton Mark. The goals of the launch were to improve the visibility of the Mark on supermarket shelves, facilitate cross border trade and simplify export procedures for both producers and exporters.

The Fairtrade Certification Mark harmonization process is still under way – today, all but two Labelling Initiatives (namely Transfair USA & Transfair Canada) have adopted the new International Fairtrade Certification Mark. Full transition to the new Fairtrade Mark should

become reality as it gradually replaces the old certification marks at various speeds in various countries.

In January 2004, Fairtrade Labelling Organizations International was divided into two independent organizations: FLO International which sets Fairtrade standards and provides producer business support, and FLO-CERT which inspects and certifies producer organizations. The aim of the split was to ensure the impartiality, the independence of the certification process and compliance with ISO 65 standards for product certification bodies.

At present, over 20 Labelling Initiatives are members of FLO International. There are now Fairtrade Certification Marks on dozens of different products, based on FLO's certification for coffee, tea, rice, bananas, mangoes, cocoa, cotton, sugar, honey, fruit juices, nuts, fresh fruit, quinoa, herbs and spices, wine and footballs etc[32].

Fair Trade certification of commodities began in the Netherlands in 1988 in response to plummeting prices in the world coffee market. The TransFair seal was later launched in Germany. Today 19 countries have their own labeling initiatives, operating with shared criteria under the Fairtrade Labeling Organization umbrella.

Fairtrade labelling (usually simply Fairtrade or Fair Trade Certified in the United States) is a certification system designed to allow consumers to identify goods which meet agreed standards. Overseen by a standard-setting body (FLO International) and a certification body (FLO-CERT), the system involves independent auditing of producers and traders to ensure the agreed standards are met.

For a product to carry either the International Fairtrade Certification Mark or the Fair Trade Certified Mark, it must come from FLO-CERT inspected and certified producer organizations. The crops must be grown and harvested in accordance with the international Fairtrade standards set by FLO International. The supply chain must also have been monitored by FLO-CERT, to ensure the integrity of labelled products.

Fairtrade certification guarantees not only fair prices, but also the principles of ethical purchasing. These principles include adherence to ILO agreements such as those banning child and slave labour, guaranteeing a safe workplace and the right to unionise, adherence to the United Nations charter of human rights, a fair price that covers the cost of production and facilitates social development, and protection and conservation of the environment. The Fairtrade certification system also promotes long-term business relationships between buyers and sellers, crop prefinancing, and greater transparency throughout the supply chain and more.

The International Fairtrade Certification Mark was launched in 2002 by FLO, and replaced twelve Marks used by various Fairtrade labelling initiatives. The new Certification Mark is currently used worldwide (with the exception of Canada and the United States). The Fair Trade Certified Mark, used in Canada and in the United States, also still identifies Fairtrade goods in

[32] http://en.wikipedia.org/wiki/**History_of_fair_trade**

both countries. Full transition to the new Mark should become reality in the future as it gradually replaces the old Certification Marks in both countries. Companies offering products that meet the Fairtrade standards may apply for licenses to use one of the Fairtrade Certification Marks for those products.

Chapter 2.

International bodies and their status of Quarrying

Within the larger context of Sustainable development in the quarrying sector and in recognition of the fact that a collaborative understanding and action is necessary, to bring together a spectrum of perspectives on issues related to fair trade of natural stones and quarrying it is important to understand all the players in this sector, both internationally and nationally. Mapping of stakeholders in change can be a useful tool to understand the support and opposition one will get for planned interventions. In this context MLPC tried to understand the stakeholders of quarrying of natural stones both in the International and National context. Various international bodies and their roles and responsibilities pertaining to quarrying or small scale mining are enumerated in this section. This chapter gives an idea of the various international bodies working on Natural Stone Industry quarrying related issues which would make trade in natural stone fairer.The idea is not to polarise discussions but to integrate all stakeholders to work collaboratively. The present chapter elaborates on those stakeholders.

International bodies and their roles and responsibilities

2.1 Role of International Labour Organization (ILO) - mining and quarrying

The International Labour Organization (ILO) has been dealing with labour and social problems of the mining industry since its early days, making considerable efforts to improve the working and living conditions of those in the mining industry from the adoption of the Hours of Work (Coal Mines) Convention (No. 31) in 1931 to the Safety and Health in Mines Convention (No. 176), which was adopted by the International Labour Conference in 1995.

For over 50 years, tripartite meetings on mining have addressed a variety of issues ranging from employment, working conditions and training in occupational safety and health and industrial relations in coal and non-coal mining. The results are over 140 agreed conclusions and resolutions, some of which have been used at the national level. Others have triggered ILO action - including a variety of training and assistance programmes in member states, and some have led to the development of codes of safety practice including, most recently, the new Mining Convention.

The ILO also works closely with other international organisations, bringing the social and labour dimension of mining to their attention and collaborating with them as appropriate.

Most recently, the ILO has been associated with the Mining, Minerals and Sustainable Development (MMSD) project[33].

[33] The Mining, Minerals and Sustainable Development Project (MMSD) was an independent, two-year, research and consultation project that sought to understand how the mining and minerals sector could contribute to the global transition to sustainable development. MMSD was a project of the International Institute for Environment and Development (IIED) commissioned by the World Business Council for Sustainable Development (WBCSD). The project was completed in 2002 with the release of the final report, **"Breaking New Ground: Mining, Minerals, and Sustainable Development"**. The document laid emphasis on artisinal and small scale mining.

The ILO's objective is to ensure that all mineworkers have the opportunity for decent working conditions in an industry that contributes to sustainable development.

India and its role at ILO

India is a founder member of the International Labour Organization, which came into existence in 1919. At present the ILO has 175 Members. A unique feature of the ILO is its tripartite character. The membership of the ILO ensures the growth of tripartite system in the Member countries. At every level in the Organization, Governments are associated with the two other social partners, namely the workers and employers. All the three groups are represented on almost all the deliberative organs of the ILO and share responsibility in conducting its work.

The three organs of the ILO are:
International Labour Conferences: - General Assembly of the ILO – Meets every year in the month of June.
Governing Body: - Executive Council of the ILO. Meets three times in a year in the months of March, June and November.
International Labour Office: - A permanent secretariat.

The Communities and Small-scale Mining (CASM)

CASM initiative was launched in 2001, in response to a critical need for integrated, multi-disciplinary solutions to the complex social and environmental challenges facing artisan small scale mining (ASM) communities, and improved coordination between those working in this sector.

CASM is a global networking and coordination facility with a stated mission to “to reduce poverty by improving the environmental, social and economic performance of artisanal and small-scale mining in developing countries.” CASM is currently chaired by the UK's Department for International Development and is housed at the World Bank headquarters in Washington, D.C.

CASM can provide support to, and mobilize practical expertise from, its global network of members. Its activities range from ASM initiatives in many countries-working with companies, governments, civil society and, of course, miners themselves-through to engagement in international development policy dialogues. CASM's engagement in capacity building and community level projects with country partners and miners has helped CASM in its important advocacy role to communicate to international forums and development agencies the potentially positive development influence that ASM can have, based on evidence provided by practical experience.

To ensure CASM is addressing the priorities identified by its developing country partners, CASM has established three regional networks: Asia, China and Africa.

The objective of CASM Asia-Pacific is to function as a hub for CASM activities through which we can build cooperation network of those engaged or have interest in artisanal/small scale mining (ASM), and to bridge the small scale miners with the stake holders, the communities, technology and science in the region. All this is aimed towards improving the lot of the small scale miners and their communities, contributing directly to poverty alleviation.

Various activities listed under the Action plan of CASM-India include.

- Enlarging the database for India with Field surveys in different parts of India using ASM questionnaires.
- Trying JAICA and other agencies in Delhi for funding field surveys in ASM research.
- Establishing network with Governmental and Non-Governmental authorities, academic institutions for ASM.
- Getting various statistics on issues concerning with ASM from Governmental and Non-Governmental organizations.
- Listing out all the agencies, if any, working towards ASM.
- Preparing a strategy for formulating a workable framework for policies that can be introduced for the solution of some problems associated with ASM
- Establishing contacts in Sri Lanka for ASM data acquisition for that country[34].

Industry Initiative: Mining, Minerals and Sustainable Development (MMSD)

Between 2000 and 2002, the Mining, Minerals and Sustainable Development (MMSD) project conducted two years of research, analysis, and consultation. This introduction describes what the project set out to do and the process that evolved to accomplish those goals.

The mining and minerals industry has come under tremendous pressure to improve its social, developmental, and environmental performance. Like other parts of the corporate world, companies are more routinely expected to perform to ever higher standards of behaviour, going well beyond achieving the best rate of return for shareholders. They are also increasingly being asked to be more transparent and subject to third-party audit or review.

In response, a number of companies, either independently or with other actors, is establishing 'voluntary standards' that often go beyond any law. But even so, some observers remain suspect that many businesses are merely engaging in public relations exercises and doubt their sincerity. In particular, the industry has been failing to convince some of its constituencies and stakeholders that it necessarily has the 'social licence to operate' in many areas of the world.

Despite the industry's undoubted importance in meeting the need for minerals and its significant contributions to economic and social development, concerns about aspects of its performance prevail. Mining, refining, and the use and disposal of minerals have in some instances led to significant local environmental and social damage.

[34] http://casm-asia.ccop.or.th/action_plan.php

It is not always clear that mining brings economic and social benefits to the host countries, as the minerals sector sometimes operates where there is poor governance, including corruption, and is thus associated with it. In some cases, communities and indigenous groups near or around mines allege human rights abuses. The litany of concerns is long.

Against this background, and with the tenth anniversary of the Rio Earth Summit in mind, in late 1998 nine of the largest mining companies decided to embark on a new initiative intended to achieve a serious change in the way industry approached today's problems. They called this the Global Mining Initiative. It included a programme of internal reform, a review of the various associations they belonged to, and a rigorous study of the societal issues they had to face. Through the World Business Council for Sustainable Development (WBCSD), they commissioned IIED to undertake a scoping study in May 1999 to set out the global challenge of sustainable development facing the mining sector and to propose the scope of a two-year process of participatory analysis to explore the role of the sector in the transition to sustainable development.

A team of IIED researchers reviewed existing initiatives and materials, and consulted over 150 separate individuals and organizations to understand their views of how the minerals sector's contribution to sustainable development could be improved and to develop a more detailed framework for the process. The Mining and Energy Research Network (MERN) held an experts meeting to review the findings. There were few precedents to go by.The nearest was a project on the paper sector, conducted by IIED in partnership with the WBCSD in the mid-1990s.

IIED published its results in October 1999, making recommendations for the design and scope of the process that became known as the MMSD Project.

MMSD is a North American group looking in mining in North and South America, South Africa and Australia where large mining sector persists. MMSD has however sometime back commissioned a Global Report on ASM, where reports from 18 countries were submitted including INDIA, CHINA, PHILLIPINES and more.

Mining Policy Research Initiative (MPRI)

The Mining Policy Research Initiative (MPRI) was created in 1998 by the International Development Research Centre (IDRC) with a mission to:

- Contribute towards the development of research capacity in the region and to promote the participation of research groups in giving social use to existing knowledge about mining, well being and sustainable development.
- Promote and facilitate communication among diverse stakeholders involved in mining through the development of networks of suppliers and users of relevant knowledge and information, in order that they can identify and implement more sustainable policies and practices.
- Promote more inclusive and equitable decision-making processes, by strengthening the capacities of the more vulnerable stakeholders and by increasing their access to

information and to capacity building opportunities for the co-management of mining impacts.

Though the process of transition of IDRC's mining programming through MPRI concluded in year 2006, the 8 years of execution of this project witnessed a number of developments in terms of the generation of evidence responding to key mining issues in the region; contribution to the improvement of research capacities and regional networks, and the recognition of key stakeholders in the context of the debate on the role played by mining development in the development process of the region etc. .

Sustainable Artisan and Small-scale Mining (ASM)

The ASM Network was formed in a multi-stakeholder meeting hosted by UNESCO, IDRC/MPRI and EKAMOLLE in Lima, in April, 2002.

MPRI research in this topic focuses on identifying the legal, political, technological, environmental and social requirements for moving towards a formalized and more sustainable ASM. This involves a combination of appropriate government policies and tools and the institutional strengthening of miner's organisations.

Over 3 million people are directly involved with ASM in Latin America and the Caribbean. Considering that it occurs mostly in areas of high biological and socio-cultural vulnerability and conflict, work in this area has a direct bearing on poverty reduction strategies, governance and local development.

International Federation of Chemical, Energy, Mine and General Workers' Unions (ICEM)

International Federation of Chemical, Energy, Mine and General Workers' Unions (ICEM) is a global union federation of trade unions. As of 2001, it had 399 member organisations in 108 countries, representing a combined membership of over 20 million workers.,

The organization represents workers employed in a wide range of industries, including, mining.

Its main focuses are:

- negotiating and monitoring global agreements with multinational companies - mainly on workers' rights, equality at work and the highest standards of health, safety and environmental protection worldwide
- networking trade union reps within global corporations
- coordinating solidarity and support for member unions during disputes
- union-building in countries where unions are weak or non-existent
- providing information and expertise on topics ranging from collective bargaining to health and safety standards
- representing workers' interests within the UN, its agencies and other intergovernmental bodies

- skills training and development work with trade union officers and rank-and-file union members.

United Nations Educational, Scientific, and Cultural Organization (UNESCO)

MPRI teamed up with the United Nations Educational, Scientific, and Cultural Organization to develop a vision to reshape ASM according to the following aims: “In 10 years, artisanal and small-scale mining [will be] a formalized, organized, and profitable activity that uses efficient technologies and is socially and environmentally responsible. Artisanal and small-scale mining [will] develop within a framework of governance, legality, participation, and respect for cultural diversity.”

International Council on Mining and Metals (ICMM)

ICMM is a CEO-led organization representing many of the world's leading mining and metals companies as well as regional, national and commodity associations. ICMM members are committed to the responsible production of the minerals and metals society needs. It seeks to identify good policy practice for mining and metals investments at national, regional, local and corporate levels within developing countries.

Other Stakeholders

Government

Government, both State and Central have a principal role to play. They need to develop an appropriate, consistent, and transparent policy and regulatory framework that focuses on both the facilitation and management of ASM. For the framework to be effective, they need to ensure that sufficient financial and regulatory incentives exist for small-scale miners to formalize their activities. It is also important that any framework recognizes the linkages between large-scale mining and ASM, and that there is coherence in policy, regulation, and legislation for the whole spectrum of mining activities.

Donors, and INGOs and NGOs

Donors and NGOs are also important stakeholder. They should continue to recognize the importance of ASM and focus on improving the livelihoods of those involved as well as reducing its impacts as part of integrated rural development. ASM activities should also be incorporated in relevant regional and local development programmes. INGOs and NGOs also function as watch dogs. This is crucial to curb exploitation and make trade fair.

Research institutions

Research institutions could help the ASM sector. They too can function as a stakeholder. They should increasingly focus on the development and implementation of viable solutions to the well-documented problems in ASM. Research should be directed at learning from existing experience and successes in ASM, in community development, and even in large-scale mining operations that could be incorporated within ASM initiatives.

Large mining companies

Large mining companies could engage directly with artisanal and small-scale miners and ASM communities near a mine, helping them to work in a more sustainable fashion and, where necessary, to find alternative employment.Many more in the mining industry could recognize ASM as part of the mineral sector and find ways to support it, for example through the provision of technical advice**,** or collaboration with national governments and NGOs. A key incentive for the mining industry to help small-scale miners is reputation protection and corporate social responsibility.

Chapter 3

Legal Policies an Laws pertaining to Quarrying/ Artisanal Mining in India

In India, 80% of mining is in coal and the balance 20% is in various metals and other raw materials such as gold, copper, iron, lead, bauxite, zinc and uranium. India with diverse and significant mineral resources is the leading producer of some of the minerals. Of the 89 minerals produced in India, 4 are fuel minerals, 11 metallic, 52 non-metallic and 22 minor minerals[1].

The only broad classification of mining activities in India is that of **'minor'** and **'major'** minerals. Most of the mining of minor minerals, which includes all construction related minerals such as stones, are performed in an unorganized way usually at small-scales of operation, whereas the minerals used for other industrial purposes fall into the category of 'major' minerals. However, it is not necessarily correct that all major minerals can not be mined at small-scales. Though generally major minerals are mined at large scale but often these minerals trespass each others' mining leases or territories. Similarly, at times minor minerals are extracted at large scales of operation[1].

Quarrying of natural stones at times provide temporary or full-time work for the rural poor. At times it is potentially the only source of income not just to the people directly involved in quarrying but also those benefiting from the trade. Following table gives Employment in production of selected minerals, 2002-'03

Employment in production of selected minerals, 2002-'03

Mineral	Employment(000s)
Copper	7.3
Gold	6.1
Iron	38.7
Lime	30
Manganese.	14.8
Mica	0.9
Stone	4.9
Others	63
Total	165.7

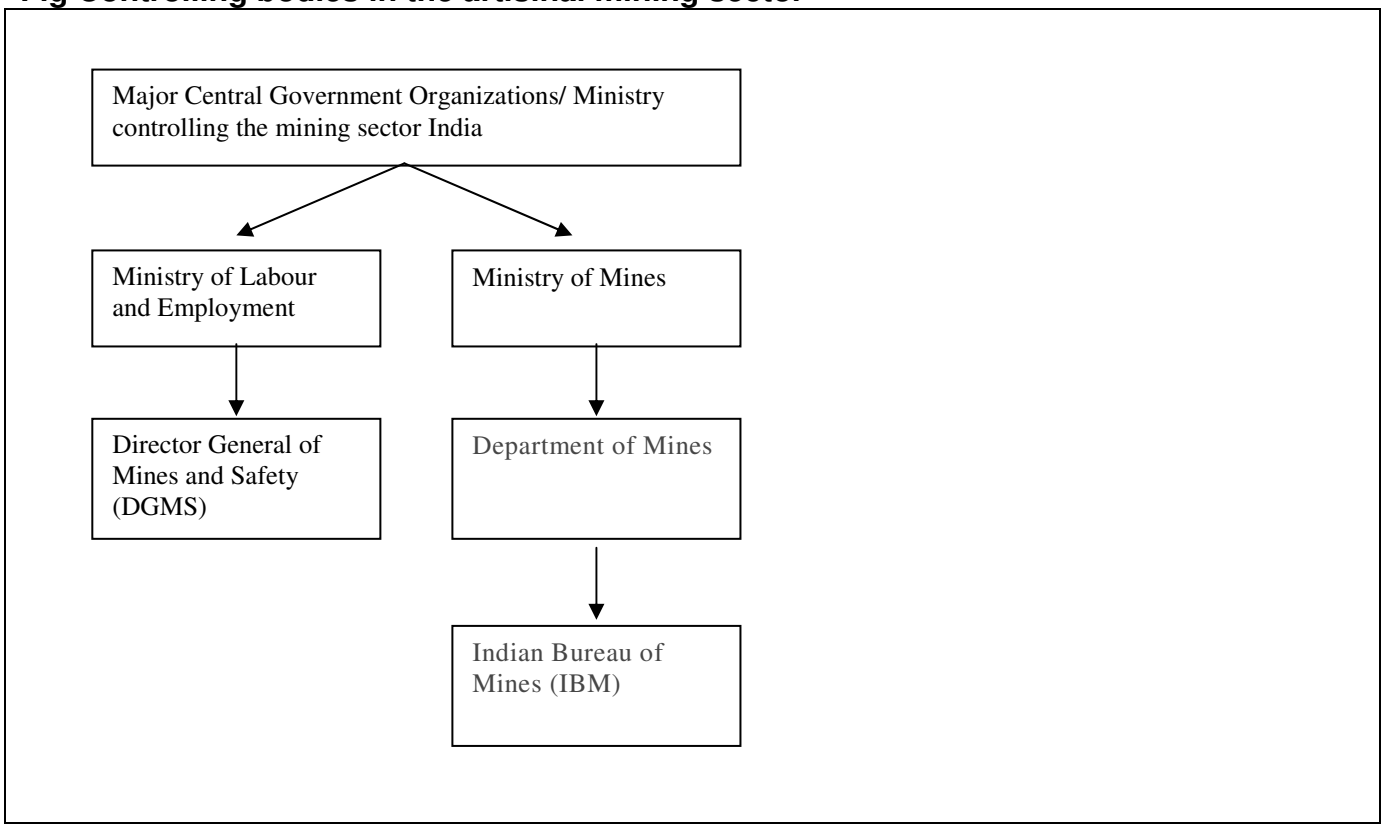
However, at what cost? It also has many serious social and environmental implications, as indicated in Chapter 1. In order to make trading in natural stones happen in a sustainable and ethical manner there are in place several national legislations and policies. This chapter explores those pertaining to natural stone industry, quarrying and labour issues.

The Government of India often put some small mines and quarries under the head of 'small/unorganised industries'.

In India, the characteristics of small industries as per accepted definitions are: relatively little specialization in management, close personal contact of top management with production, workers, customers, suppliers and owners, lack of access to capital through the organized security market, and often difficulty in obtaining even short term credit, no special bargaining strength in buying/selling, a relatively close integration with the local community through local ownership and management and dependence on nearby markets and sources of supply.

Government quarrying laws and policies in the context of quarrying of natural stones
In India we have two major Central Govt organisations controlling the mining sector namely the **Directorate General of Mines Safety (DGMS),** previously known as Mines Inspectorate, and the **Indian Bureau of Mines (IBM).**

Fig Controlling bodies in the artisinal mining sector



The Ministry of Labour and Employment has the following thrust areas of work:

- Labour Policy and legislation;
- Safety, health and welfare of labour;
- Social security of labour;
- Policy relating to special target groups such as women and child labour;
- Industrial relations and enforcement of labour laws in the Central sphere;
- Adjudication of industrial disputes through Central Government Industrial Tribunals cum Labour Courts and National Industrial Tribunals;

Workers' Education;

- Labour and Employment Statistics;
- Emigration of Labour for employment abroad;
- Employment services and vocational training;
- Administration of Central Labour & Employment Services;
- International co-operation in labour and employment matters;

Directorate General of Mines Safety, DGMS in short, is the Indian Goverment Regulatory agency for safety in mines and oil-fields and comes under The Ministry of Labour and Employment. The mission of the DGMS is to continually improve safety and health standards, practices and performance in the mining industry and upstream petroleum industry by implementing:

- pro-active safety and health strategies;
- continuous improvement of processes;
- effective use of resources;
- commitment and professional behaviour in its personnel[35].

Ministry of Mines is responsible for survey and exploration of all minerals, other than natural gases, petroleum and atomic minerals; for mining and metallurgy of non-ferrous metals like aluminium, copper, zinc, lead, gold, nickel etc. and for administration of the Mines and Minerals (Regulation and Development) Act, 1957 in respect of all mines and minerals other than coal, natural gas and petroleum[36].

The Indian Bureau of Mines (IBM) established in 1948, is a multi-disciplinary government organisation under the Department of Mines, Ministry of Mines, engaged in promotion of conservation, scientific development of mineral resources and protection of environment in mines other than coal, petroleum & natural gas, atomic minerals and minor minerals[37].

The DGMS implements the provisions of the Mines Act (1952) exclusively in the field of safety and labour welfare and the

IBM operates primarily for the development of the mining industry under the statutory provisions of the Mines & Minerals (Regulation & Development) Act, 1957.

However, it is to be noted that since both DGMS and IBM falls under different ministries most often they function in isolation and are at cross purposes.

Specific Mining Legislations

The Mines Act 52
– mainly concerned with safety and labour welfare
– Coal Mines Regulations
– Metalliferous Mines Regulations

[35] http://dgms.in/
[36] http://mines.nic.in/
[37] http://www.indiaenvironmentportal.org.in/content/indian-bureau-mines

– Mining Rules

Mines and Minerals (Regulations & Development) Act'57
– Mineral Conservation and Development Rule'1988
– Mineral Concession Rules 1960
– State Minor Mineral Concession Rule

The Mines and Minerals (Regulation and Development) (MMRD) Act of **1975** is the main legal framework governing the mines besides the Indian Mines Act of 1952.

The **Indian Bureau of Mines (IBM**), working under the MMRD Act is important for the following two reasons:
- first it classifies all minerals into
two categories, major and minor, and
- second, it gives the responsibility of developing the minor
minerals to the concerned State Governments.

Relevant information pertaining to quarrying of natural stones : The Mines Act, MMRD and Indian Bureau of Mines (IBM)

The Indian Government's Ministry of Mines regulates and promotes the sector, other than coal, lignite, oil and natural gas, and atomic minerals. The Mines and Minerals (Regulation and Development) Act, 1957 (The MMRD Act) and The Mines Act, 1952 constitute the basic laws governing the mining sector. The relevant rules in force under the MMRD Act are Mineral Concession Rules, 1960, wich outline the procedures and conditions for obtaining a Prospecting License or a Mining Lease, and the Mineral Conservation and Development Rules, 1988, which lay down guidelines for ensuring mining on a scientific basis and without environmental degradation. Health and safety of mining workers are governed by the Mines Rules, 1955 made under the Mines Act, 1952.

The Mineral Concession Rules and Mineral Conservation and Development Rules are, however, not applicable to atomic and minor minerals. Minor minerals are separately notified and come under the purview of the state governments, who have formulated Minor Mineral concession Rules for this purpose[38].

The IBM under Sec 3(i) of the MMRD Act 1957 **follows the definitions of "mine"** and **"owner"** as given in the Mines Act 1952. The Mines Act 1952, under Sec 3 provides that the provisions of this Act, except those contained in Sections 7,8,9,40,45 and 46 ***shall not apply to any mine*** or part thereof in which excavation is being ***made for prospecting purposes only*** and not for the purpose of obtaining minerals for use or sale :
Provided that -
1. not more than 20 persons are employed on any one day in connection with any such excavation;

[38] http://archives.nic.in/indiainfra/CHAP5_3.HTM

2. the depth of the excavation does not exceeds 6 metres (15m in case of excavation for coal) and
3. no part of such excavation extends below superjacent ground;

Even for operation on commercial basis such exemption also applies to any mine engaged in the extraction of kankar, murrum, leterite, boulder, gravel, single, ordinary sand (excluding moulding sand, glass sand and other mineral sands) ordinary clay (excluding kaolin, china clay, white clay or fire clay), building stone, slate, road metal, earth, fullers earth, marl, chalk and lime stone : (all these are “Minor Minerals”).
Provided that -
1. the workings do not extend below superjacent ground; or
2. where it is an open cast working -
a) the depth of the excavation does not exceed 6 meters
b) the number of persons employed on any one day does not exceed fifty and
c) explosives are not used

If the circumstances demand the Central Govt may by notification rescind these exemptions. But all these exemptions do not exclude the provisions of Sec 7 (Power of Inspector of Mines), Sec 8 (Power of special officer to enter, measure etc), Sec 9 (facilities to be offered to the Inspectors), Sec 44 (Working hours of adolescents not certified to be fit for work as adult), Sec 46 (restriction of employment of women below ground and even on the surface between 10 PM to 5 AM).

Thus although very small mines and quarries of these specific minerals (mostly “Minor Minerals”) are exempt from the provisions of the Mines Act’ 52, the tiny mines of other minerals (non-Minor Minerals) and the other “Minor Mineral” Mines in the upper range of operation are not exempt and are equally liable like Medium and Big Mines. The exemptions under the Mines Act’52, restricting the sphere of activities of the DGMS (Mines Inspectors) in this specific category of tiny mines has been made perhaps because chances of fatal and serious accidents in such tiny mines are minimal and as such unnecessary waste of time and money in non-essential inspections and administrative control may be avoided, maintaining authority for intervention under Sec 7,8,9,40,45 and 46 where ever felt necessary.

In the case of IBM also such quarries are exempt from their control because these mines are really “Minor Minerals” mines which are specifically exempt from the jurisdiction of IBM. The control of “Minor Mineral” has been statutorily shifted by the Central Govt. to the State Governments under Sec 14 and 15 of the MMRD Act’57. Thus the officers of IBM have no authority to inspect and control the activities of “Minor Mineral” mines and thus have no jurisdiction for collecting statistical figures of production, employment, number of mines etc from such mines. They have therefore to depend on the figures supplied by 19-20 State Governments which are not always reliable, except broadly.

However, after the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) organized a Workshop on Mineral Policy for Small-Scale Mining in New Delhi in 1984 which was co-organised by IBM, the MMRD Act has been amended in 1986 dividing all

the mines into two categories, namely **Category A** and **Category B** under Rule 42 of the Mineral Conservation and Development Rules, 1988 :

This Rule provides that "for the purpose of carrying out prospecting and mining operations in accordance with these rules (a) every holder of a prospecting license shall employ a part time or whole-time geologist or mining engineer and (b) every holder of a mining lease shall employ (i) in the case of a mine, where the average employment exceeds one hundred and fifty in all or seventy-five in workings below ground, or a mine where work is being carried out by a system of deep hole blasting or with the help of heavy machinery for drilling, excavation and transport of earth, over-burden, minerals or other material, referred to as ***Category 'A' mines***, a whole-time mining engineer provided that if any doubt arises as to whether any mine is category 'A' mine, it shall be referred to the Controller General for decision.

(ii) in the case of any other mine, referred to as **Category 'B' mine**, either a part-time mining engineer or a full-time person permitted to be employed in terms of the provision of Sub-rule (6)". Category B is really tiny mines and quarries belonging to the lower rung of SSM responsible for only 10% of the total production although representing 86.5% of the total number of formal mines.

The MMRD Act was amended in 1994 with a view to accelerate inflow of private capital both domestic and foreign, as also state-of-the-art technology. The highlights of the amendments pertaining to mining of minor minerals are as follows:

- Thirteen minerals which were reserved for exploration and emploitation by the public sector have been dereserved for private participation. These are iron ore, managanese, chrome ore, sulphur, gold, diamond, copper, lead, zinc, nickel, molybdenum, tungsten ore and the platinum group of metals.
- Any compaly registered in India irrespective of its foreign equity holding, can apply for prospecting license or a mining lease.
- States have been given morepowers to finetune the minerals and metal policy to suit their and investors' needs[39].

National Mineral Policy

In pursuance of the reforms initiated by the Government of India in July, 1991 in fiscal, industrial and trade regimes, the National Mineral Policy was announced in March, 1993.

The National Mineral Policy recognized the need for encouraging private investment, including foreign direct investment and for attracting state-of-the-art technology in the mineral sector. Further, the policy stressed that the Central Government, in consultation with the State Governments, shall continue to formulate legal measures for the regulation of mines and the development of mineral resources to ensure basic uniformity in mineral administration so that

[39] http://archives.nic.in/indiainfra/CHAP5_4.HTM

the development of mineral resources keeps pace, and is in consonance with the national policy goals.

India announced a new National Mineral Policy (for non-coal and non-fuel minerals) in early April 2008. Under National Mineral Policy 2008, Management of mineral resources is the responsibility of the Central Government and the State Governments in terms of Entry 54 of the Union List (List I) and Entry 23 of the State List (List II) of the Seventh Schedule of the Constitution of India. The Mines and Minerals (Regulation and Development) Act, 1957 lays down the legal frame-work for the regulation of mines and development of all minerals other than petroleum and natural gas. The Central Government have framed the Mineral Concession Rules 1960 for regulating grant of prospecting licences and mining leases in respect of all minerals other than atomic minerals and minor minerals. The State Governments have framed the rules in regard to minor minerals. The Central Government have also framed the Mineral Conservation and Development Rules, 1988 for conservation and systematic development of minerals. These are applicable to all minerals except coal, atomic minerals and minor minerals.

In order to attract investment, both domestic and FDI, the new National Mineral Policy, 2008, seeks to introduce a shift in policy from a Conservationist approach (primarily conserving the minerals for current and future domestic use) to an appropriate-use-of-resources approach (i.e. most economic use of each mineral whether for domestic processing, for import substitution or for exports). The new National Mineral Policy, 2008 has suggested policy measures like seamless transition, transferability of mineral concessions and transparency in allotment of concessions to reduce delays and discretionary powers which are seen as impediments to investment and technology flows in the mining sector in India. The Mining policy also seeks to develop a sustainable framework for optimum utilization of the country`s natural mineral resources for the industrial growth in the country and at the same time improving the life of people living in the mining areas, which are generally situated in the backward and tribal areas of the country.

Important features of the new initiatives taken in the National Mineral Policy, 2008 includes, absolute right of a prospector to obtain a Mining Lease in the areas where they have done requisite work, implying seamless transition from regional exploration (RP) to prospecting (PL), and to mining (ML), except for National Security/ specified Public Purpose. Unbundling of prospecting from mining, whereby prospector may invest, find and sell data. Policy also aimed to encourage competitive exploration with state-of-art technology and investment with introduction of two new concessions, i.e. Non exclusive reconnaissance operations (NERP) and Large Area Prospecting License (LAPL). Allow State Governments to give preference to a `value adder` in case of multiple applicants for a concession subject to other eligibility requirements. At the same time State Governments cannot hold back grant of mineral concession if no `value adder` is available.

The additional proposed initiatives flowing out of the New Mineral policy includes creating an empowered-cum-coordination committee at Central & State levels to work as pressure point to reduce delay in grant of mineral concessions, Setting up of a Mining Administrative & Appellate Tribunal, this can be approached by an applicant in case of failure of the Centre and State

Government to adhere to time limits, enlarging the role of existing State Level Mineral Development Corporations as Mineral Infrastructure Development and Finance Corporations (MIDFICs) for financing/promoting mining infrastructure projects through Joint ventures and special purpose vehicles.

The government is also going to create Mineral Development Fund (MDF) in every State by the State Government by earmarking a portion of the annual royalty[40].

The New Mineral Policy is ambiguous about minor minerals particularly quarrying of natural stone giving no clear directions to address issues pertaining to artisinal mining or quarrying. It however states "Small Deposits Small and isolated deposits of minerals are scattered all over the country. These often lend themselves to economic exploitation through small scale mining. With modest demand on capital expenditure and short lead-time, they provide employment opportunities for the local population. However, due to diseconomies of scale they can also lead to sub-optimal mining and ecological disturbance. Efforts will be made to promote small scale mining of small deposits in a scientific and efficient manner while safeguarding vital environmental and ecological imperatives. Regulation of these conditionalities will be tightened so as to control and prevent the growth of illegal mining. Where small deposits are not susceptible to viable mining a cluster approach will be adopted by granting the deposits together as a single lease within a geographically defined boundary. Efforts would be made to grant such mineral concessions to consortia of small scale miners so that such clusters of small deposits will enable them to reap the benefits of economies of scale. In grant of mineral concessions for small deposits in Scheduled Areas, preference shall be given to Scheduled Tribes singly or as cooperatives."

The Mining Legislations and policies mentioned above constitute the basic laws governing the mineral sector. Apart from these direct legislations, there are several legislations which apply to the quarrying sector.

Regulatory framework for environmental safeguards pertaining to quarrying

– Environmental Protection Act, 1986
An Act to provide for the protection and improvement of environment and for matters connected therewith.Whereas decisions were taken at the United Nations Conference on the Human Environment held at Stockholm in June, 1972, in which India participated, to take appropriate steps for the protection and improvement of human environment[41].

– Forest Conservation Act, 1980
An Act to provide for the conservation of forests and for matters connected therewith or ancillary or incidental thereto[42].

– Air Act 1981 & Rules
An Act to provide for the prevention, control and abatement of air pollution[43].

[40] http://myiris.com/newsCentre/newsPopup.php?fileR=20080410161529179&dir=2008/04/10&secID=livenews
[41] http://www.vakilno1.com/bareacts/envProtAct/preamble.htm
[42] http://www.vakilno1.com/bareacts/forestconserAct/preamble.htm

– Water Pollution Act 1974 & Rules
An Act to provide for the prevention and control of water pollution and the maintaining or restoring of wholesomeness of water

– Environmental Statement, 1993
An Environmental Statement is a management tool to assess the effect of policies, operations and activities on the environment[44].

– Environmental Impact Assessment 1994
An environmental impact assessment (EIA) is an assessment of the possible impact—positive or negative—that a proposed project may have on the environment; considering natural, social and economic aspects. The purpose of the assessment is to ensure that decision makers consider the ensuing environmental impacts to decide whether to proceed with the project[45].

Again, Environmental management for the mining sector is regulated by the Environmental (Protection) Act 1986, the Forest Conservation Act, 1980 and the Mines and Minerals (Reg & Dev) Act 1957 and Mineral Conservation and Development Rule 1988. For exploration and mining in forest land prior permission of the Government is required under the provisions of the Forest Conservation Act, 1980.

Environmental Statement 1993 and Environmental Impact Assessment, 1994

These were implemented by The Government of India implemented for systematic and periodic evaluation of environmental status.

The regulatory framework to ensure environmental safeguards in carrying out mining operations is provided by the Environmental Protection Act (EPA), 1986. The Environmental Impact Notification of 1994 issued under the EPA, 1986 contains a list of 32 types of development projects for which prior environmental clearance has to be taken from the MoEF (Ministry of Environment and Forests), GoI. Mining of major minerals on leaseholds exceeding 5 ha (hectares) in area is included in this list. Two other related acts are the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 administered by the respective SPCBs (state pollution control boards). These SPCBs issue annual consent letters permitting discharge of effluents or emission of air pollutants into the atmosphere along with stipulations for mitigating measures and requirement of quarterly monitoring report and an annual environmental statement.

Another statutory provision related to environmental protection measures in mines is the MCDR (Mineral Conservation and Development Rules), 1988 framed under the Mines and

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[43] http://www.vakilno1.com/bareacts/airprevofpollact/preamble.htm
[44] http://books.google.co.in/books?id=OV1mdNAQtfgC&pg=PA298&lpg=PA298&dq=Environmental+Statement,+1993+india&source=bl&ots=jjugdRFQJF&sig=9pfkq0jMJLdrQEx6MMDZ6eDbAYY&hl=en&ei=vqUCSoe5KJWMtgeIitCEBw&sa=X&oi=book_result&ct=result&resnum=5
[45] http://en.wikipedia.org/wiki/Environmental_impact_assessment

Minerals Development and Regulation Act, 1957. Chapter V of MCDR, 1988 is devoted fully to the protection of environment and in addition Rules 23A to 23F dealing with mine closure have been inserted by an amendment of the MCDR, 1988 in April 2003.

Many mineral deposits occur wholly or partly in forest areas and the Forestry Division of MoEF, GoI generally imposes many environment-related conditions while giving clearance for diversion of forest land for nonforestry purposes under the Forest Conservation Act, 1980.

The EIA (environmental impact assessment) 1994 was amended in 1997 to introduce the concept of public hearing in the EIA process. This gives an opportunity to the local community to voice their concerns relating to the project before it receives environmental clearance. For arranging a public hearing, a project proponent has to apply to the concerned SPCB with 20 sets of executive summary and the EIA/EMP (environment management programme) of the project both in English as well as in the local language. The SPCB publishes a notification in at least two local newspapers giving the date, time, and place of the proposed public hearing. A minimum of 30 days should be there between publication of the notice and the conduct of the public hearing. All persons likely to be affected including bonafide residents, environmental groups, and others located at the project site can have access to the executive summary and the EIA/EMP of the project, can and participate in the public hearing. They can also make oral or written suggestions to the SPCB regarding the project. The SPCB forms the public hearing panel which must have the Deputy Collector of the district or his nominee, state government officials, and may include not more than three representatives of the local bodies/*panchayats* and not more than three senior citizens of the area nominated by the deputy collector.

Role of public hearing in the EIA process with focus: environment

The project proponent gets an opportunity at the public hearing to explain the environmental safeguards incorporated in the project and to clear apprehensions, if any, expressed by various stakeholders. The details of the public hearing such as date and name of the newspapers in which notice of the public hearing was advertised, date of public hearing, name of panel members present, number of people present, issues raised by the public, response of the proponent, and suggestions made by the
public hearing panel form a part of the report to be included with the application for environmental clearance submitted to the MoEF, GoI.

The experience gained so far from the public hearing process of mining projects is a mixed one. The most common issue raised by the public relates to the provision of jobs for the local community in the project and next important issue is the programme for community development to be carried out by the proponent in the surrounding villages. The core environmental issues of air and water pollution, lowering of ground water table, noise, and vibration etc., are also sometimes, although less frequently, raised. When a public hearing is held for an existing project (undergoing expansion or for renewal of lease), the public generally supports such a proposal as it brings economic benefit to the region. However, occasionally, sharp criticisms to the project are also voiced, and these are moderated by the public hearing panel and included in the report forwarded to the MoEF, GoI.

In the olden days mining was carried out without paying much heed to the protection of environment. Old mining regions often contain abandoned and exhausted mines presenting pictures of derelict land surfaces. The April 2003 amendment of the MCDR 1988 attempts to address the problem through its requirement for every mine to have (a) a PMCP (progressive mine closure plan) and (b) an FMCP (final mine closure plan). The PMCP forms a part of the approved mining plan of the mine and is prepared for the purpose of providing protective, reclamation, and rehabilitation measures in a mine. The PMCP has to be reviewed every five years by the mine management.

Miscellaneous Acts concerning Labour Welfare Fund:

Limestone and Dolomite Mines Labour Welfare Fund Act 1972. This is an Act to provide for the levy and collection of a cess on limestone and dolomite for the financing of activities to promote the welfare of persons employed in the limestone and dolomite mines[46].

Bonded Labour System (Abolition) Act, 1976
An Act to provide for the abolition of bonded labour system with a view to preventing the economic and physical exploitation of the weaker sections of the people[47].

The Child Labour (Prohibition And Regulation) Act, 1986
To prohibit the engagement of children in certain employment's and to regulate the conditions of work or children in certain other employment's[48].

The Children (Pledging Of Labour) Act, 1933
An Act to prohibit the pledging of the labour of children. WHEREAS it is expedient to prohibit the making of agreements to pledge the labour of children, and the employment of children whose labour has been pledged[49];

The Contract Labour (Regulation And Abolition) Act, 1970

An Act to regulate the employment of contract labour in certain establishments and to provide for its abolition in certain circumstances.

THE EMPLOYMENT OF CHILDREN ACT, 1938
Regulates the employment of children in certain industrial employments, including bidi-making; carpet-weaving; cement manufacture; cloth-printing, dying and weaving; manufacturing of matches, explosives and fireworks; mica cutting and splitting; shellac manufacture; soap manufacture; tanning and wool weaving.

THE EQUAL REMUNERATION ACT, 1976

[46] http://www.commonlii.org/in/legis/num_act/ladmlwfa1972447/
[47] http://nrcw.nic.in/shared/sublinkimages/58.htm

[48] www.vakilno1.com/bare**act**s/**childlabouract**/**childlabouract**.htm
[49] http://indiacode.nic.in/fullact1.asp?tfnm=193302

An Act to provide for the payment of equal remuneration to men and women workers and for the prevention of discrimination, on the ground of sex, against women in the matter of employment and for matters connected therewith or incidental thereto.

THE MATERNITY BENEFIT ACT, 1961

An Act to regulate the employment of women in certain establishments for certain periods before and after child-birth and to provide for maternity benefit and certain other benefits.

THE WORKMENS COMPENSATION (AMENDMENT) ACT, 2000

The Workmen's Compensation Act, 2000, provides for payment of compensation to workmen or their dependants in case of personal injury caused by accident or certain occupational diseases arising out of and in the course of employment and resulting in disablement or death. The Act, at present, applies to railway servants and persons employed in certain hazardous employments specified in Schedule II of the Act.

Role of state government

The Central Government has empowered the respective State Governments to frame their own rules in the case of minor minerals under section 15 (1) of M.M. (D&R) Act, 1957. Accordingly, individual states like Andhra Pradesh or Rajasthan have framed their own Minor Mineral Concession Rules, 1966. Subsequently, in pursuance of Granite Conservation and Development Rules, 1999, the Sate Government has 'suitably amended the Andhra Pradesh Minor Mineral Concession Rules, 1966 in tune with G.C.D.R. 1999. These amendments will ensure greater revenue earnings, scientific exploitation, greater regulation and supervision over mining activity, removal ' of procedural delays and
expeditious disposal of applications.

Role of local government- gram sabha and panchyats

In pursuance of the 73rd Amendment to the Constitution of India (Central Act 40 of 1996), a provision has been incorporated in the Minor Mineral Rules to obtain the recommendations of Gram Sabha or Panchayats for granting of leases in the scheduled areas. Thus, the local governments also have some form of control over permitting a mining operation. In order to improve the infrastructure facilities in the mineral bearing areas, the State Government of Andhra Pradesh is allocating 35% of the minor mineral revenue for the establishment of infrastructure facilities. The entire minor mineral revenue is being allocated to local bodies. The funds are being distributed in the ratio of 25:50:25 to Gram Panchayat, Mandal Parishad and Zilla Parishad[50].

International Labour Standards and India's Role

[50] http://rspas.anu.edu.au/papers/asarc/WP2006_08.pdf

The principal means of action in the ILO is the setting up the International Labour Standards in the form of Conventions and Recommendations. Conventions are international treaties and are instruments, which create legally binding obligations on the countries that ratify them. Recommendations are non-binding and set out guidelines orienting national policies and actions.

The ILO instruments have provided guidelines and useful framework for the evolution of legislative and administrative measures for the protection and advancement of the interest of labour in India. To that extent the influence of ILO Conventions as a standard for reference for labour legislation and practices in India, rather than as a legally binding norm, has been significant.

Ratification of a Convention imposes legally binding obligations on the country concerned and, therefore, India has been careful in ratifying Conventions. We have so far ratified 39 Conventions of the ILO, which is much better than the position obtaining in many other countries. Even where for special reasons, India may not be in a position to ratify a Convention, India has generally voted in favour of the Conventions reserving its position as far as its future ratification is concerned.

Core Conventions of the ILO: - The eight Core Conventions of the ILO (also called fundamental/human rights conventions) are:

- Forced Labour Convention (No. 29)
- Abolition of Forced Labour Convention (No.105)
- Equal Remuneration Convention (No.100)
- Discrimination (Employment Occupation) Convention (No.111)

(The above four have been ratified by India).

Freedom of Association and Protection of Right to Organised Convention (No.87)
Right to Organise and Collective Bargaining Convention (No.98)
Minimum Age Convention (No.138)
Worst forms of Child Labour Convention (No.182)
(These four are yet to be ratified by India)

Consequent to the World Summit for Social Development in 1995, the above-mentioned Conventions (Sl.No. 1 to 7) were categorised as the Fundamental Human Rights Conventions or Core Conventions by the ILO. Later on, Convention No.182 (Sl.No.8) was added to the list.

As per the Declaration on Fundamental Principles and Rights at Work and its Follow-up, each member State of the ILO is expected to give effect to the principles contained in the Core Conventions of the ILO, irrespective of whether or not the Core Conventions have been ratified by them.

Under the reporting procedure of the ILO, detailed reports are due from the member States that have ratified the priority Conventions and the Core Conventions every two years. Under the Follow-up to the ILO Declaration on Fundamental Principles and Rights at Work, a report is to be made by each member State every year on those Core Conventions that it has not yet ratified.

Reasons for non-ratification:Conventions no.87 and 98:

Convention No.87 provides for the right of workers and employers, without any distinction to establish and join organizations of their own choosing without previous authorisation. Their organizations have the right to form or join federations and confederations, including on the international level. These organizations or federations may not be liable to arbitrary dissolution or suspension by an administrative authority. The only exception provided for in the Convention to the right to organise "without distinction whatsoever" are the armed forces and the police, to whom special rules and regulations may apply. Convention No.98 aims to protect the exercise of the right to organise and to promote voluntary collective bargaining. The guarantees provided for under these two Conventions are by and large available to workers in India by means of constitutional provisions, laws and regulations and practices. The main reason for our not ratifying these two Conventions is the inability of the Government to promote unionisation of the Government servants in a highly politicised trade union system of the country. Freedom of expression, freedom of association and functional democracy are guaranteed by our Constitution. The Government has promoted and implemented the principles and rights envisaged under these two Conventions in India and the workers are exercising these rights in a free and fare democratic society. Our Constitution guarantees job security, social security and fair working conditions and fair wages to the Government servants. They have also been provided with alternative grievance redressal mechanisms like Joint Consultative Machinery, Central Administrative Tribunal etc. Hence, our stand has been that this section of the workforce cannot be said to have been deprived of the right of association.

Convention No.138

As of now, there is no omnibus provision in our labour laws prohibiting children below certain age from doing any work whatsoever. For ratifying Convention No.138, enactment of a suitable all encompassing Central Legislation for minimum age of entry to employment would need to be enacted to have provisions for:

(a) fixing a minimum age of 14 years for admission to employment or work in all occupations, employment and work but excluding agriculture in family and small holdings producing for own consumptions and not regularly employing hired workers; and

(b) fixing a minimum age of not less than 18 years for admission to any type of employment or work which by its nature or circumstances in which it is carried out is likely to jeopardise the health, safety or morals of young persons.

The definition of 'child' in all concerned existing legislations would then need to be determined in accordance with the provisions of the Central Legislation on minimum age for admission to employment. Thus, the Bill on the above lines on its enactment was to replace or supercede the concerned existing legislations like the Child Labour (Prohibition and Regulation) Act, 1986 etc.

Fixing of minimum age for admission to employment needs to be preceded by creation of suitable enforcement machinery and measures as would warrant the children not being

compelled by circumstances to seek employment. The setting up of such machinery, particularly, for the unorganised sector in agriculture, cottage and small-scale industries etc., (except for those industries which are covered under the Factories Act) becomes a difficult task in a developing country like India.

In the background of the above position, consultations have been held with the concerned Ministries/Departments and State Governments to examine the existing provisions of national laws and practices on the subject vis-à-vis the provisions of the Convention. Since there is no omnibus law on minimum age for entry into employment and the existing laws prescribe different minimum ages for different sectors, the process is likely to be long drawn.

Convention no.182:

Ratification of Convention No.182 concerning Worst Forms of Child Labour is being pursued by the ILO with all member countries. The ILO has also initiated a concerted campaign for this purpose. India is examining the feasibility of ratifying this convention in consultation with the concerned Central Ministries and State Governments. This is also to be discussed in a tripartite forum with the participation of the Employers and Workers Representatives.

Active Partnership Policy & Multi-Disciplinary Team

One of the major reforms initiated recently is the launching of the "Active Partnership Policy" whose aim is to bring ILO closer to its constituents. The main instrument for implementation of the policy – is the multi-disciplinary team, which will help identify special areas of concern and provide technical advisory services to member States to translate ILO's core mandate into action. The multi-disciplinary team for South-Asia is based in New Delhi. It consists of specialists on employment, industrial relations, workers and employers' activity, small-scale enterprises and International Labour Standards.

ILO And Child Labour

ILO's interest in child labour, young persons and their problems is well known. It has adopted a number of Conventions and Recommendations in this regard. In India, within a framework of the Child Labour (Prohibition and Regulations) Act, 1986 and through the National Policy on Child Labour, ILO has funded the preparation of certain local and industry specific projects. In two kanor projects, viz. Child Labour Action and Support Programmes (CLASP) and International Programme on Elimination of Child Labour (IPEC), the ILO is playing a vital role.

The implementation of IPEC programmes in India has certainly created a very positive impact towards understanding the problem of child labour and in highlighting the need to elimination child labour as expeditiously as possible. A major contribution of the IPEC programme in India is that it has generated a critical consciousness among all the 3 social partners for taking corrective measures to eliminate child labour.

Decent Work

The concept of Decent Work is being propagated by the ILO. It encompasses four strategic objectives –

I. Promotion of Rights at Work - It calls for renewed attention to ILO's standards, as well as a fresh look at complimentary means and instruments for achieving this goal.

II. Employment - Creation of greater employment and income opportunities for women and men as a means to reduce poverty and inequality.

III. Social Protection – This section emphasises expansion of social security schemes.

IV. Social Dialogue – This emphasises examining ways of strengthening the institutional capacity of ILO constituents as well as their contribution to the process of dialogue.

The concept of Decent Work emphasises that the quantity of employment should not be divorced from quality of work and stresses that a social and economic system should be evolved to ensure basic security and employment without compromising workers' rights and social standards in a highly competitive world.

Although India agrees that the four strategic objectives are necessary for decent work, this has no meaning unless we can provide an opportunity to work. Therefore, employment generation should be the focus of the all ILO programmes and activities. The basic requirement of Decent Work should be to first ensure work to any potential worker and then all other elements of the decent work concept will automatically follow. This stand of India was appreciated by other nations as well. India also made it clear in the meetings of the ILO that the concept of decent work has to be fixed keeping in mind the conditions of work in the social, economic and cultural context of each country. It cannot be made applicable uniformly to every country.

Linkage between trade and labour standards:

The issue of linkage between trade and labour standards was first raised at the conclusions of the Uruguay Round at Marrakesh in 1994 by the USA. India and other developing countries had taken the position that labour standards at the international levels can be appropriately addressed only in the ILO, not in the WTO. The social clause is not within the mandate of the WTO. In response, India had countered that the relationship between trade and immigration policies may also be examined in the WTO.

Snapshot of Policy Analysis

The most important aspect of Artisanal Mining in India is absence of any nationally accepted criteria for identifying such mines and the Govt is absolutely silent in this regard. As a result, no statistical data are collected, maintained and published for highlighting the issues involved in quarrying.

It won't be unreasonable to speculate that in India the Small and Medium mines are responsible for over half (50%) the total non-fuel mineral and Minor Mineral production

- This sector of our economy, does not find any appropriate place in our government Policy Statements. There is however, a very special place for Small-Scale Industries (SSI) but no such place for Small-Scale Mining or for quarrying. And quarrying is not

considered as an Industry for claiming any benefit from the long list meant for SSI. In a way it is a neglected sector.

- There are several issues about the National Mineral Policy- 2008. It seems the policy focuses heavily on FDI and sidelines environment and social issues. The policy treats them as hindrances, rather than an integral part of mining. NMP -2008 plans to mitigate the environmental and social fallouts of mining by relying on a voluntary mechanism, Sustainable Development Framework (SDF). It wants mining companies to voluntarily practise CSR. This kind of voluntary mechanism will not work in India.

  The mining industry has poor rehabilitation and resettlement record. It is estimated that not even one-fourth of the people displaced by mining have been resettled. The result is that people in mineral-rich areas are not willing to give up their land for mining. In such an environment of acute discontent and distrust, the solution NMP -2008 offers is to follow the government resettlement and rehabilitation policy and to rely on corporate social responsibility (CSR). This might not work[51].

- There is a multiplicity of regulations and regulatory institutions in India but most regulatory institutions do not have a capacity to regulate mines and quarries. The entire environmental governance in mining—from the granting of lease to the mining operation to the ultimate closure of mines—is a series of paperwork, with little impact on the ground. The country's debilitating institutional capacity for managing environment is further compromised by the fact that the policy prescribes no deterrence for non-compliance.

- The apparent neglect, without guidance and support of proper policies led the quarrying sector to be developed in a haphazard manner (mostly by a large number of uneducated or poorly educated mine owners in the tiny sector with their intentions of maximizing profits alone).

- None of the categories of mining however, are explicitly termed as quarries or artisinal mining. These two categories have two major parameters -- employment and standard of machinery and equipment used. These two parameters somewhat give rise to some anomalies because of variations of these parameters under different circumstances and as such, both categories can interchange the status from the point of view of production and profitability. As a result the IBM statistics do not help in determining the number, spread and mineral wise indication of small mines and quarries except in the cases of a few minerals specifically reported by frequency groups and thus the rest would have to depend on special exercise and intelligent guess work of experienced people having grass root contact / experience for drawing the adopted bottom line. Thus both the Mines Act'52 and the MMRD Act'57 have no scope of defining quarrying although exemptions under Sec 3 of the Mines Act are really for tiny mines and that too of 'Minor Minerals'. As the Mines Act'52 does not differentiate between major and "Minor Minerals" and there are many fairly large "Minor Mineral" SSMs (Stone mines-for example) the statistics of mines maintained by the DGMS, (including MM mines), do not

[51] http://csestore.cse.org.in/full6.asp?foldername=20080531&filename=news&sid=27&page=2&sec_id=50

tally with those maintained by IBM (excluding MM mines). More over DGMS statistics are on calendar year basis and IBM records are on the basis of financial year – April to March. Thus the statistical records of these two organizations are somewhat different. Similarly both the Mines Act'52 and the MMRD Act 57 do not define Small-Scale Mining and they do not maintain any statistics of natural stone quarries.

- The officers of IBM have no authority to inspect and control the activities of "Minor Mineral" mines and thus have no jurisdiction for collecting statistical figures of production, employment, number of mines etc from such mines. They have therefore to depend on the figures supplied by 19-20 State Governments which are not always reliable, except broadly. But except for production value they do not supply the figures about the number of Mines and the total employment. The quarries of natural stone are not exempt from the payment of Government revenue because such mines, working commercially, are liable to pay Royalty, Cess etc on the quantum of minerals raised. Hence there are several illegal mines operating.

- In the last decade, with liberalization of the economy and globalization, the natural stone quarrying activities have picked up. This was also boosted by the industrial policies of the government laying emphasis on export.

- Since there are no official definitions of quarrying so are there no specific legal codes and regulations meant for quarrying. In this respect quarrying has its existence merely as a part of overall mining activities except where such legal provisions give exemptions from specific provisions on the basis of size and nature of activities.

- At times provisions of the Mines Act 1952 does not apply to quarries when quarrying do not use explosives, do not employ more than 50 person and are not more than 20ft deep since on quarrying happening on a small scale may not employ 50 people, operate less than 20 feet and may not use explosives.

- The National Mineral Policy Statement of 1993, as also in the earlier Policy Statements, pays little importance to quarrying. There has not been any significant change in the legal or policy frame work during the past 10 years. This indicates that little progress has been made in rationalizing and regulating the existing activities. Again, the national mineral policy 2008 which expects large-scale foreign investment and the introduction of the latest technology in India's mining sector.

  The policy does admit that most mineral deposits are in forest areas and says a 'sustainable framework' should be worked out, along with rehabilitation for displaced tribals, but it fails to outline how these will be accomplished.

- Since quarrying has no official status, no statistics or data are being regularly collected on any direct or indirect aspect such as total number of such mines, (formal or informal), and on mill, processing or fabricating operations that serve the needs of SSM. All such information and data collected so far are based on presumptive exercise and guess work done for studies on specific aspects by individual researchers. Since such

generation of data is not done on the basis of any national standard most of such figures and information are not strictly compatible. Even official statistics of all formal and reporting mines are not compatible because they are collected and maintained on different basis fewer than two main statutes namely, the Mines Act 1952 and the Mines and Minerals (Regulation and Development) Act 1957. Thus all such figures relating to quarrying are at best assumptions and most figures are area specific.

- Legal framework gives no provision to determine individual value for quarrying of natural stone, although the total value of all minerals extracted has been ascertained statistically (INR 440940 million in 97-98; INR 445500 million in 98-99 and INR 452330 million in 99-2000) no such value is formally available for quarrying. Similarly, the revenues derived from quarrying activities by the owners of minerals (State Govts under Indian Constitution) in the form of Royalty, Dead Rent, Cess, Land Rent etc are not separately maintained for quarrying. Even if some rough estimates are made in this regard they would need an elaborate time consuming exercise. There is need for cooperation at the state level and no legal compulsion to do that makes it difficult to convince the State Governments to co-operate. Similarly no official statistical figures or congruous estimates are available for quarrying on many other aspects and we have to depend on intelligent presumptive guess works. However, such presumptive figures are often not dependable to ascertain the trend of development of quarrying and its position in our national economy.

- Since quarrying is highly labour intensive and as such prolific employers of unskilled workers, distributed all over the remote corners of India, the mine output is mostly the result of human relationship. Hence in the matter of development and management the SSMs need not follow merely a cut-and-dry approach but should give sympathetic visionary support with appropriate understanding of socio-economic aspects of the rural and backward communities.

- Mining policies should take cognizance of this. Since quarrying has, as regards supportive activities, financial help for quarrying activities are not so easily available leaving the entire sub-sector to its own internal resources which results in attempts for quick return on capital without much concern for proper scientific eco friendly operations. In the matter of technical assistance projects some State Government Mining Directorates (particularly Rajasthan) provide technical support mostly in the form of infrastructure developments. Many other State Directorates also give some form of support but the exact nature and magnitude is not a concerted effort. It is certain that many initiatives of giving support to quarrying not adequate.

- For quarrying any acquisition of land if necessary is normally done on mutually agreed basis and rarely by land acquisition procedure under the Land Acquisition Act. Such acquisition, affect the people who own these land. They are often too small in numbers to instigate or organize big commotion to get their rightful dues. Often, they are not even aware of their rights. Quarrying has no legal process to fall back upon to get justice for these people.

- Many small mines and quarries, especially of low value non-metallic industrial minerals, have small leaseholds and an annual turnover of a few lakhs of rupees only. The government decided that the public hearing process is too expensive for the owners of such mines ad quarries. In 2003, MoEF, GoI decided to waive off the requirement of public hearing for mines with a lease area of less than 25 ha. Public hearing is a very important to understand local problems and issues pertaining to quarrying and hence it should be retained.

- The PMCP (progressive mine closure plan) and an FMCP (final mine closure plan) preparation does not apply to quarries. The PMCP forms a part of the approved mining plan of the mine and is prepared for the purpose of providing protective, reclamation, and rehabilitation measures in a mine. The April 2003 amendment of the MCDR has made it mandatory for a mining leaseholder to furnish sureties to the competent authorities so as to indemnify the authorities against the reclamation and rehabilitation cost if the same is not carried out by the lessee. Regulation 23F of the MCDR puts the amount of financial assurance to be 25 000 rupees for A category mines and 15 000 rupees for B category mines, per hectare of the mining lease area put to use for mining and allied activities. The MCDR 1988 is not applicable to minor minerals and hence mines of these minerals have no statutory requirement to prepare mine closure plans or to furnish financial assurance to ensure decommissioning and reclamation of the mined out areas. Two years have passed since the introduction of the requirement of mine closure planning in MCDR 1988 and the guidelines prepared need to be reviewed after more experience is gained in the matter.
  Since mine closure plans do not apply to quarries, hence when quarrying activities are over quarries are left abandoned and unattended. This adds to environmental degradation of the area and there is no reclamation and rehabilitation of the quarries.

- Quarry leasehold may have a mixed category of pre-mining land use. A part of it might have been under forest cover, another government declared wasteland, and still others might have been tenancy lands of various land use categories. Quarrying being an interim use of the land, the footprints of quarrying should ideally be removed soon after the activity, and the area restored to near-original topography and similar or better land use. However, the government policies do not include any direction as to how proper coordination amongst these various actors can take place so as to effectively remove foot prints of quarrying.

- In the case of quarries which is referred to as Category ‘B’ mine, either a part-time mining engineer or a full-time person permitted to be employed in terms of the provision of Sub-rule (6). However, this rule is hardly implemented.

- Quarrying is carried out in India for a large variety of minerals occurring in different geological, topographical, and climatological settings. There are many local problems such as mining near inhabited areas, in hilly regions, near sea coasts, and in sulphide bearing strata with potential for acid mine drainage. The policies at present do not focus on local issues.

- The forest policies and quarrying are often at loggerheads. The quarrying industry differs from other industries in one vital aspect,namely the lack of choice for its location. A quarry comes up wherever the mineral deposit occurs be it on a forested tract, an area with hilly topography, or in an arid or high rainfall zone. The per capita availability of forest land of 0.07 ha in India is extremely low to provide for the timber, fuelwood, and fodder needs of the country. Of the 23.4% of land area in the country recorded as forest land only 20.5% has some kind of forest and only 11.5% of the area has got a forest cover of more than 40% crown density. The gravity of the situation was realized even a quarter century ago and the Forest Conservation Act was enacted in the year 1980 with strict provisions to regulate the diversion of forest land for non-forestry purposes, and to ensure compensatory afforestation for the diverted forest land. As the mining industry expands in the coming decade, further diversion of a few thousand hectares of forest land cannot be avoided. At present the gap the mining policies and forest policies need to be bridged.

- India's Air and Water (Prevention and Control of Pollution) Acts allow pollution control agencies to check only 'point' [or final] sources of pollution, thus bypassing most of the problems caused by quarrying.

- Though generally major minerals are mined at large scale but often these minerals trespass each others' mining leases or territories. Similarly, at times minor minerals are extracted at large scales of operation. Also, the term 'scale' tends to indicate only production amounts, and leave out the important question of valuation of output, making the situation more complicated. Hence policies need to have more clarity on scale and its implications.

Summing up, in the face of the ever-increasing demand for minerals, whether domestically or in the international market, there is a clear move in policy towards greater opening up of the minerals sector for private and foreign investments. On the other hand, there are a number of developments in recent years that indicate rising awareness of environmental and socio-economic issues and consequently high expectations among the people directly or indirectly involved in or effected/ affected by quarrying. Questions of environmental protection and socio-economic development that traditionally belong to the sphere of governance are now increasingly being seen as issues where private players are having a much more direct role. In most cases the development of a mineral project has been visualized only in terms of reserves, markets and market prices, and production costs. However this approach is myopic, as projects impinge on and, therefore, need to take account of, the particular exigencies of the location, and the community. More than in other industries, the success of a mineral project is dependent on recognizing and understanding the context in which it is located. Here the question of responsibility assumes relevance. Governance has been a weak link in mining so far. Lack of co-ordination between various departments of government is affecting mining activity. To complicate issues further there are at present no clear legal framework to deal with some of the impacts of quarrying. The lack of reliable data further adds to the problem since access to information is an important part of responsible quarrying specially in the context of fair trade and to this end a reporting framework is vital. Compensation, rehabilitation and

dispute resolution remains as *Achilles heels*. There is poor response towards addressing local issues especially with the doing away of public hearing process in EIA for quarrying

Chapter 4

Suggestions for Fair Trade of natural stone

About Mine Labour Protection Campaign (MLPC)

Several civil society groups in India have been working to achieve the objectives of fair trade in quarrying. Mine Labour Protection Campaign (MLPC) is one such serious organization.

It is a pioneer initiative for the welfare of mine labour in Rajasthan. MLPC has facilitated the mine workers to organize cooperatives and Self Help Groups (SHGs). It has set up Labour Assistance centre and 24 hour help line. In some mines, it has formed unions and provides paralegal assistance to workers. 'The role of the unions is to safeguard the rights of mine workers. These unions operate on membership basis and the role of MLPC is to build their capacities through trainings, exposures and legal assistance'. Around 10 crèches are run by MLPC for the benefit of quarry workers. It has formed district and Tehsil levels committees through which it operates. Currently it is engaged in collecting the data of 1000 quarry workers. The data includes wage slip, identity card, pension and insurance scheme and migration.

MLPC suggestions on making trade fair for Natural stone Industry

- **Creating a data base exclusively for natural stone quarrying**

The most important aspect of Artisanal Mining/Quarrying in India is absence of any nationally accepted criteria for identifying such mines and the Govt is absolutely silent in this regard[52]. But because Quarrying has no official status, no statistics or data are being regularly collected on any direct or indirect aspect such as total number of such mines, (formal or informal), and on mill, processing or fabricating operations that serve the needs of Quarrying. All such information and data collected so far are based on presumptive exercise and guess work done for studies on specific aspects by individual researchers. Since the generation of data is not done on the basis of any national standard most of such figures and information are not strictly compatible. Even official statistics of all formal and reporting mines are not compatible because they are collected and maintained on different basis under two main statutes namely, the Mines Act 1952 and the Mines and Minerals (Regulation and Development) Act 1957.

Thus all such figures relating to Quarrying are any body's guess – and most figures are area specific. Creating a data base and collating authentic data about various quarrying activities and properly collating authentic data from various mining areas would also be a step towards identifying illegal and unethical quarrying practices in the state. The government needs to generate/compile locally relevant information on mineral resources, specific natural stone deposit areas, quality of deposits, its usefulness, industrial use and suitable market for sale. Such information would be a great help both to the government and to the mine entrepreneurs.

- **Quarrying or ASM needs to have separate legal provisions**

There are no official definitions of quarrying for natural stone with no specific legal codes and regulations meant for it. In this respect Quarrying has its existence merely as a part of overall mining activities except where such legal provisions give exemptions from specific provisions on the basis of size and nature of activities e.g. the Mines Act 1952 does not apply to such mines which do not use explosives, do not employ more than 50 person and are not more than 20ft deep. Similarly in the latest National Mineral Policy Statement of 1993, as also in earlier Policy Statements, Quarrying was not given any place of importance except in one item of the statement in a casual manner. Therefore there has not been any significant change in the legal or policy frame work during the past 10 years indicating any discernible impact on rationalizing and regulating the existing activities or promoting new activities within this sub-sector[53]. Any such, rationalization and regulation have been the indirect effect of general improvement in the development atmosphere. No changes in the general policy decisions or the legal codes are adverse to the interest of

[52] http://www.natural-resources.org/minerals/cd/docs/mmsd/asm/asm_india.pdf
[53] http://www.natural-resources.org/minerals/cd/docs/mmsd/asm/asm_india.pdf

Quarrying. However, there is a need for separate legal provisions for natural stone quarrying

- **Need for assessment of the quantum of stone to be extracted**

The existing policies concentrate on excavation of minerals, its promotion and expansion of the domestic and international markets. All minerals are valuable resources of the state and there is an urgent need for the conservation of such minerals. Any embezzlement of mineral resources and its excavation would directly harm the state's economy. The state needs to be consulted about the quantum of minerals, which can be extracted from the local resources.

- **Need for understanding socio-economic aspects of the rural and backward communities**

Since quarrying activities are highly labour intensive and as such prolific employers of both skilled and unskilled workers, distributed all over the remote corners of India, the mine output is mostly the result of human relationship. Hence in the matter of development and management of quarrying need not follow merely a cut-and-dry approach but should give sympathetic visionary support with appropriate understanding of socio-economic aspects of the rural and backward communities.

- **Separate guidelines on export of natural stones**

The present policies lay emphasis on export. However, not all stones quarried in the state are exported. Hence, there is a need of a separate guideline for export of minerals.

- **Need to stop unauthorized and illegal Quarrying**

In order to check unauthorized mining, the mineral policy, 1994 has stressed upon strategic framework and in this newly proposed policy it also stressed the need of solving unauthorized mining/Quarrying in the state. Unless a full-fledged enforcement department, under the auspices of the mine department, is created, it is not possible to halt unauthorized and illegal mining.

- **Formalizing Quarrying activity**

Though there are several laws in place, the informal nature of the activity makes implementation of laws difficult thus leaving the negative impacts of Quarrying unaddressed. The need of the hour is transforming Quarrying into a formalized activity. This would also address unauthorized and illegal Quarrying

- **Collaborative multi stakeholder approach**

At present different aspects and issues are present in isolation which are adversely impacting trade. Since most of the issues are interlinked, they need to be addressed in an

integrated manner through a collaborative and multi-stakeholder approach involving all stakeholders.

- **Sustainable approach**

Presently, Quarrying is looked upon with a short term approach. But to address all issues associated with Quarrying there is a need to see it from a long term sustainable perspective. The government needs to incorporate Quarrying into local and regional planning and long term sustainable development process

- **Improved coordination amongst various stakeholders**

Quarrying functions within a framework of governance, legality, participation, and respect for cultural diversity. Integrated solution can happen only when there is improved coordination among the various institutions working in this sub-sector. Presently, in India there is poor coordination amongst the stakeholders.

- **Multi-donor approach**

To address negative impacts there is a need to establish multi-donor, territorially based programs in regions of Quarrying, where the coordinated action of donors, government institutions, miners organizations, NGOs, CBOs, the media, and educational/research institutions, with a shared agenda and agreed upon roles and responsibilities, collaborate to ensure long-term local and regional development processes that incorporate Quarrying as part of a pro-poor governance mandate. There is need for bilateral cooperation programs with experience in Quarrying, as well as with key inter-governmental initiatives to improve fair trade.

- **Inclusion of NGOs to improve fair trade**

NGOs in all countries have been proactive to ensure fair trade of natural stones. There is a need to capture the interest and commitment of environmental NGO's in Canada, Europe, the USA, and Australia apart from India. They can play a very useful role in helping initiate a stewardship program for quarrying organizations/companies committed to sustainable development. They are well positioned to provide advice on how artisanal and Quarry workers can access fair trade markets, and with a better understanding of the challenges and the potential involved, they can provide support for coordinated, long-term action in this sector.

- **Training and capacity building**

Providing trainings to the labourers still remains a low priority area. As far as training and capacity building is concerned, majority of the labourers are not aware about safe and scientific methods of quarrying and about safety norms. There are no formal training programs to acquaint them about safety issues or scientific methods of quarrying. There is need for planned target-achievable training programmes, specifying number of training

programmes of each district for the mineworkers which needs to be implemented in all quarrying districts in all states. This can be done jointly local NGOs and local institutions for smooth implementation of these training programmes.

As regards offering training most of the training arrangements in Central Mining Research Institute (CMRI), National Institute of Small Mines (NISM), Indian School of Mines (ISM), Indian Bureau of Mines (IBM) and other organisations, are adhoc, short term and on isolated mining practices mostly for the benefit of bigger mines. And none of them organise on a regular basis any composite training programme including policy, administrative and technical aspects, to give a sound overall training and guidance for proper management of small/medium mines.

There is need for such training of the educated progeny of many of the present day uneducated, prejudiced and superstitions mine owners. There is need for planned target-achievable training programmes, specifying number of training programmes of each district for the mineworkers, which needs to be implemented in all quarrying districts in all states. This can be done jointly with local NGOs and local institutions for smooth implementation of these training programmes.

- **Management of waste**

Management of waste disposal is a genuine need. Government needs to formulate a time-bound waste disposal strategy for each and every quarrying area. The allotment of the land for dumping of the overburden/host rock should be done on priority basis in a time bound schedule so that the quarrying operations are not disturbed due to non-availability of dumping area. Necessary guideline needs to be formulated and be issued to all the District Collectors for implementation.

- **Environmental management**

There are obvious difficulties in the environmental monitoring and enforcement related to Quarrying. The unsystematic and scattered nature of such operations does not permit, in many instances, the pursuance of proper compliance on an individual basis. Moreover, Quarrying does not entail detailed environmental impact analyses and the regulatory agencies require only an environmental impact statement. In this regard, the following may be done, such as posting of an individual or collective environmental performance bonds or payment of a tax to the reclamation or rehabilitation fund that is generally administered by local or provincial government authorities.

Where the rock conditions permit, more number of quarry owners should switch over to extraction with ‘surface miners’, ripper dozers, or primary rock breakers as an alternative to drilling and blasting and thus eliminate many related problems of dust, noise, ground vibration, and fly rock. Quarry owners need to make an effort to contain the cost of production and also to avoid the risk of affecting the sub-surface hydrologic regime and increase tree cover in its leaseholds by creating green belts. Quarry owners need to make

substantial budgetary allocation and carry out their plantation programme in cooperation with or through the agencies of state forest development corporations.

- **Foot prints of quarrying specially in agricultural land**

Quarrying being an interim use of the land, the footprints of quarrying should ideally be removed soon after the activity, and the area restored to near-original topography and similar or better land use. In many cases agricultural land is acquired for a mine and with the resources in command of a mining company (funds, earth moving machinery, water supply, and manpower), it should be possible to convert a major part of the post-mining land suitable for agriculture. Conversion to agricultural land would result in better land use and provide a greater employment opportunity for the surrounding community. But this is not the common method of land reclamation currently practised by the quarrying companies. A quarrying company needs to invest more for the conversion of mined land to agricultural land than to forest land, and at present there is no incentive for the mining companies to make the extra investment on land reclamation. The policy-makers in the government for the mining sector as well as the mining associations need to deliberate on alternative methods of land reclamation and take steps to modify legal restrictions, if any, on ownership of post-mine land which is standing in the way of good land reclamation practices.

- **Need for proper medical investigations**

The most important negative impact of Quarrying on the workers and the population of neighbouring villages is dust pollution which needs elaborate and in-depth high standard medical investigations (as being carried on by NISM at present in a cluster of stone mines sponsored by the Government of India) to investigate the magnitude of damages done and to identify / find practical preventive measures. There is need for actual detailed techno-medical investigations – at times based intervals rather than perfunctory isolated studies.

- **Quarried Land Rehabilitation Management Programme**

Rehabilitation Management Programme comprises of both rehabilitation of mined areas and that of the uprooted local population. Rehabilitation of mined areas needs a better Rehabilitation management system. The objective is to recover depleted soil nutrients. This system involves the conscious, ground reality, climatic condition and the plant species selection for the concurrent production of fodder and feed species. The best species for the degraded area with the good fodder value free from any negative physical or chemical effect on the soil should not compact with other native species. Therefore a modest beginning towards ecological restoration, rehabilitation of degraded lands and afforestation on barren area in the mined area is needed. For this, selected areas need some treatments like control, development of micro catchments systems so that planting and pits receive additional rain water as run off in addition to the water refilled in the mining pits.

Again, Reclamation of quarried lands requires systematic and scientific closure of mining operations keeping in view the conservation of minerals, environment and safety aspects.

Eco-development and afforestation is possible on mined lands to generate biomass. To deal with mining rehabilitation programme, framing and regularly updating legislations on mines in accordance with scientific, environmental, and increasing social accountability, has to be done. Care should be taken about minimizing loss of vegetation and landslides, clearing of waste dumps, maintaining soil quality, protection of hydrological slopes and proper rehabilitation of uprooted local population.

- **People's participation in ameliorating the Quarrying environment.**

Creating "environment cells" at the mining sites, by people's participation would help in ameliorating the mining environment. These cells can be manned by the people and they could play the role of a watch dog to reduce negative impacts of Quarrying.

- **Role of large mines in providing technical assistance**

It has been observed that artisanal mining and Quarrying sector does not have mine workers with formal mining skills.

Large mining companies could assist Quarry workers in obtaining necessary training and skills for the mutual advantage to each other. The areas that have to be focused on are on mineral production (including mining), technology, marketing (if feasible). Such action on a priority basis should include:

- Improving access of Quarry workers to information and support services;
- Adapting material on mineral development so that it can be effectively communicated;
- Strengthening capacity of government agencies to monitor, advise and regulate Quarrying activities:
- Advise on how to deal with environmental impact of Quarrying.

- **Need for safeguarding Occupational Health and Safety**

In some of the developing countries of Asia and the Pacific Quarrying has been identified as an integral part of the social and economic infrastructure but this activity has not been given adequate attention so as to ensure its continued contribution to local economic and social well-being. Therefore, more attention should be paid to improve the occupational health safety of Quarry workers.

Mining hazards both in underground and surfaces mines in the informal sector are recorded in some major mining countries in the region. The countries in the region with the highest number accidents especially in small-scale coalmines are China, India, and Pakistan. Our government needs to take meaningful steps to avoid such hazard by improving the working conditions of the mine workers by bringing in new legislation.

The major health risks in Quarrying are:

- exposure to dust (silicosis)
- exposure to mercury an other chemicals

- exposure to noise and vibration
- effects of poor ventilation

For abating dust pollution, quarries could use mobile and fixed water sprinklers on haul roads, loading, unloading and transfer points, and cutting houses. In arid regions, a check has to be kept on the industrial use of water, and more and more number of quarries should adopt rainwater harvesting and recycling of water as a standard practice.

Corporate social Responsibility (CSR) in natural stone quarrying

Given the complexity of the global natural stone industry as well as the harsh competition among natural stone companies, a process approach needs to be promoted. The chief beneficiary of quarrying should have the good intention to assume responsibility and to contribute to improving sustainability performance throughout the supply chain. Subscribers to CSR approach should integrate CSR throughout the management system. It is understood that the inclusion of CSR principles might affect purchasing practices, such as agreements on price and delivery times. The definition of the quality of a product will change accordingly, i.e. a high quality product will, eventually, by definition be produced in compliance with CSR-norms. However, compliance with CSR standards may involve costs, such as the payment of overtime or minimum wages or the provision of drinking water. But, motivated and trained workers generally have a higher output and care for the environment, such as reduced water use, can save some costs. It is suggested that increased costs should not exclusively be borne by the producer/supplier. By principle, the sourcing company, the party imposing CSR standards upon the supplier, will have to bear (part of) these costs. To make this possible without disadvantaging some players, a level playing field needs to be created. Implementation of CSR codes can only become truly effective when a larger group of quarry owners subscribes to its contents.

Apart from the above mentioned suggestions MLPC aspires that all quarries should at least adhere to these minimum standards for fair trade

Minimum Standards:

1. All quarries must be operating legally.
2. No child, forced or bonded labour must be used.
3. Wages and hours of work must meet legal requirements as a minimum.
4. All quarries must respect the right of workers to a safe working environment.
5. Environmental impact is managed.
6. Clear commitment from the Quarry owner/manager to work towards these Minimum Standards.

1. All quarries must be operating legally

• The quarry must possess the relevant updated document as per the list from the respective state government.

Grant of Quarrying lease / Quarrying License

- Sanction of First renewal / Second renewal of a quarry lease / license

- Mineral / Minor Mineral dispatch permit
- Approved Mine Plan
- Copy of License of blasting contractor
- If non forest land – No Objection Certificate / consent of establishment or consent of operation
- If forest land – Forest Clearance and Environment Clearance Certificate (ECC) from
- Ministry of Environment and Forest (MOEF). Forest clearance has to be acquired
- In case of forest land before initiating the process of acquiring ECC for environmental clearance.
- Consent from relevant Pollution Control Board (PCB) has to be taken every year by all Quarries.
- No objection certificate in case of mines which do not require environmental clearance.
- Notification of Minimum Wages
- Mine closure plan

• Only licensed blasting contractors should be used, who have personnel that are trained in the procedure
• Safety training to be provided for the handling of machinery

2. No Child, forced or bonded labour must be used

• Site must have a policy not to employ under 18s. Age records & associated documentation should be maintained for both permanent and casual workers. This should include any sub contracted and migrant workers.
• Employment policy must cover the rights of workers to leave at any time and the deposit procedure for the site.
• Basic written contract of employment must be issued to all workers and a method agreed to outline employment conditions to those workers who are illiterate.
• Separate appropriate arrangement must be made with regard to migrant labourers (who may have their families and children on site with them).
• There must be no verbal or physical intimidation of the workforce.

3. Wages and hours of work must meet legal requirements as a minimum

• All sites should maintain at the administrative office:
- The copy of the minimum wage notification published by their respective states which must be posted on the site for all workers to see. This should include any subcontracted and migrant workers.
- All wage records including payments made by sub contactors to their workers.
- PF / ESI Chalans (documents) if provided.
- Record related to payment of Bonus, Gratuity or any such benefits if provided.
- Daily attendance registers.
- Simple but formal procedure on leave. This may be a simple policy on leave – weekly off, festival holidays, religious holidays, sick leave etc.

4. All quarries must respect the right of workers to a safe working environment

• The provision of safe access to the site and fencing if appropriate.

• Neighbouring areas, and whole site, must be informed well in advance of blasting.
• The site must ensure the following is provided, maintained and workers are trained on their use:

- First Aid facility and basic orientation on First Aid at least to supervisors.
- Medical care in case of injury or accident
- Assessment of the need for basic and appropriate Personal Protective Equipment **(**PPE**),** provision of PPE where Necessary and ensuring use of supplied PPE on all sites.
- Appropriate fire fighting equipment.
- Alarms in case of emergency.
- Safe drinking water.
- Makeshift sanitary facilities separate for male and female workers.
- Makeshift sheds for breaks, such as Tea / Lunch Break (to offer shelter in particular from the sun in the summer).
- Emergency evacuation drills once a year.
- Training on basics of Health and Safety.
- Simple but basic policy on Health and Safety to include a Health and Safety risk
- Assessment and an Action Plan.
- Medical care in case of injury/ accident.

• The same safety norms must be applied to any accommodation provided for workers.

5. Environmental impact is managed

• Quarry must comply with all local environmental legislation as a minimum.
• Quarry must have basic simple Environmental Policy and Action Plan.
• All sites must have a rehabilitation procedure