## 1. How can the law play an important role in minimizing impacts of extraction of ores/ mining?

The **Ministry of Mines**, a branch of the Government of India, is the apex body for formulation and administration of the rules and regulations and laws relating to mines in India.

The Ministry of Mines is responsible for administration of the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) in respect of all mines and minerals other than coal and lignite.

The first National Mineral Policy(NMP) was enunciated by the Government in 1993 for liberalization of the mining sector. The National Mineral Policy, 1993 aimed at encouraging the flow of private investment and introduction of state-of-the-art technology in exploration and mining.

n line with the Hoda Committee recommendations, the Ministry of Mines commissioned ERM which prepared a Sustainable Development Framework Report in November 2011, for which the new MMDR Bill 2011 will provide statutory backing. The Ministry also set up a Steering Committee which comprised representatives from The Ministries of Mines, Environment &Forest and Tribal Affairs and also FIMI and 3 State Govts. In the Framework, "mining within a Sustainable Development Framework" is defined as mining that :

- Is financially viable
- Is socially responsible;
- is environmentally, technically and scientifically sound
- takes a long term view of development
- uses mineral resources optimally
- ensures sustainable post-closure land uses.

The Framework recognises 7 Principles as defining the Framework:

- Incorporate environmental and social sensitivities in decisions on leases
- Undertake strategic assessment of key Mining Regions at periodic intervals
- Manage impacts at the mine level through sound management systems
- Address land, R&R and other social impacts upfront
- Promote community engagement, benefit sharing and contribution to socio-economic development
- Ensure orderly mine closure planning and implementation and post-closure activities
- Put in place systems for assurance and credible reporting

The Bill specifies that the Mining Plan will be prepared within the Sustainable Development Framework (SDF) and have attached to it a Corporate Social Responsibility (CSR) document giving the proposed annual expenditure on socio-economic activities in the Panchayats adjoining the lease area (Section 26). While the CSR itself will remain voluntary, the Act mandates that both the CSR plan and the actual CSR work done should be probably disclosed in a standard manner.

## 2. Discuss the details of mining and quarrying in Udaipur.

Historically and eco-touristically rich, Udaipur Mineral Basin is located just 1° north of tropic of cancer in the southern part of the state of Rajasthan. This study aims to analyse the land use change during 25 years, between 1971-72 and 1996-97 due to mining activity. The Basin consists of Udaipur city and 153 villages, harbouring more than 5 lakh souls. There are 26 mining areas having 270 leases belonging to 54 villages; employing about 5000 people. The mining activity has brought amazingly unexpected economic prosperity among the both; labour and the state exchequer.

The Basin produces more than 90% Rock Phosphate of the country and 80 per cent Barytes, 60 per cent

Pyrophyllite and 10 per cent Lime Stone of the State, Marble Masonry Stone, Soap Stone and Red Ochre are also being mined in huge quantity.

The ruthless mining activity has degraded the valley ecosystem considerably. All the minerals are nonferrous, being in huge quantity and having open cast operational method, the overburden is produced enormously; threatening as much as 24050 hectares area indirectly. Of this, 1061.50 hectares area has been grabbed directly by the mining activity. The blasting activity consuming 2500 to 3000 tonnes of the explosive per year, has adversely affected more than 1200 houses, noting 380 accidents; registering 234 hurts and 146 deaths during last 6 years. Even 4000 houses located on the periphery of Udaipur city suffer a lot due to the blasting activity. The mining and overburden both have spoiled 170 rivulets. Besides, innumerable cases of animal hurt have been noted on one hand and fleeing away of wild life including birds and deforestation have been apparent on the other. The well known areas of large no. of tiger, lion and deer now completely deserted. The population are puncturing of vadose zone of Jamar Kotra, Rock Phosphate, Daroli Lime Stone and Lakhawali Soap Stone mines has led to excessive water collection at the mining site, leading to the drying up of more than 50 wells down stream . No of scars in the form of ditches having 10 to 50 M depth have defaced the surface of the vast area with great cruelty. The 32 crushers on the city periphery have consumed the hills over the hills while excavating the minerals; leading to the hot plate effect; enhancing the temperature of Udaipur valley.

During the last 25 years, area under mining activity has risen from 29 to 1061.50

For the immediate remedy there is an urgent need of a well defined specific mining law, based on conservation and Environment Management Plan with special reference to the site of mining activity, removal and disposal of surfacial materials, blasting with special reference to the distance from the habitation, precautionary measures against accidents and health hazards, deforestation and afforestion, disposal of overburden, conservation of water channels and above all, the reclamation of the abandoned mining pits on one hand and the participation of local people vis-à-vis duty of mine owner on the other. For this well evolved Dumb-bells model for the development of both, natural as well as social environment must be worked out. The model emphasises the two ends of the dumb-bells as most active; one end being the site of a particular mineral and the other end is the seat of the human being.

## 3. What are the common food problems faced in the world?

Natural Disasters: Climate change is having n increased impact on food production as droughts and flooding become more frequent and more severe.

Poverty: the main reason why most people are unable to feed themselves is that they cannot afford it.

Poverty reduces food output as well. many African farmers produce small harvests because they lack irrigation and fertilizers.

Global food prices: rising prices affect people's utility to buy enough to feed their families, especially the urban poor.

Uncontrolled population: "the balance of production and consumption" of foodstuffs is also a problem. if the world population grows in the current pace, the amount of cereal crops is said to be insufficient in the future.

## 4. What are the main causes for hunger in the world?

**War and Conflict** – It's no coincidence that many of the world's "conflict hot spots" are also the regions most ravaged by hunger. Imagine how difficult it is for

a community stressed by violence, crumbling infrastructure, and fleeing refugees to support stable food systems. In many cases, a family whose life has been interrupted by war will see a drop in income and access to arable land. War and conflict drastically impact food supply and security.

**Weather and Climate Change** – Natural disasters leave dramatic impact on the production of arable land. Between droughts, floods, and tropical storms, weather can be unpredictable and devastating. Although a natural disaster may strike quickly, its long-term damage can be unimaginable. In many developing countries, farmers depend on one small plot of land. If this land is destroyed by natural disaster, their source of food and livelihood is washed away with it.

**Agricultural Practices** – In recent years, farmers have seen an increase in deforestation, desertification, soil erosion, and drought. Combined with overgrazing, over-cropping, and deforestation, the impact of poor agricultural practices can destroy arable land. By improving farming practices and increasing access to quality infrastructure, we can make huge strides in eliminating hunger.

**Population Growth** – As the populations of countries rise, so too does the demand for food. Population growth has hit developing countries especially hard. Compounded with rising food prices, it's becoming increasingly more difficult to match food production rates with population growth rates.

**Poverty** – Like hunger, poverty is often a cyclical, structural crisis. In most cases, poverty and hunger go hand-in-hand. As a family sinks into poverty, they are forced to stretch their meager income. As more money is spent on food, less money is available to spend on health care, savings, and education. Farmers may find themselves unable to purchase seeds, tools, or farming

equipment. Poverty is a cause of hunger, but it is an effect as well.