



भारत सरकार / Government of India
श्रम एवं रोजगार मंत्रालय /Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय /Directorate General of Mines Safety



खान सुरक्षा महानिदेशालय – 123 वर्षों से राष्ट्र की सेवा में समर्पित

MAJOR INITIATIVES OF DGMS FOR OSH IN MINES

DGMS, a subordinate office of MoLE

- Constitution of India (**Entry 55-Union List-Article 246**) - Safety, Welfare and Health of mine workers are the concern of the Central Government.
- The objective is **regulated by the Mines Act, 1952** and the Rules and Regulations framed thereunder- **Administered by the DGMS**, Headed by the CIM /Director General
- The Act is applicable to the whole India [up to 12 nautical miles into the sea from appropriate baseline.
- **DGMS** : Bureau of Mines Inspection **1902**, HQ at Calcutta --- Renamed Department of Mines in **1904** and HQ shifted at Dhanbad in **1908** – Office of the Chief Inspector of Mines on **01.01.1960**,
Renamed & restructured as DGMS on 01.05.1967.

Vision & Mission of DGMS

VISION

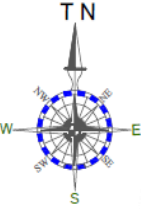
To attain **risk and hazard free** conditions of work and **welfare of persons** employed in mines.

MISSION

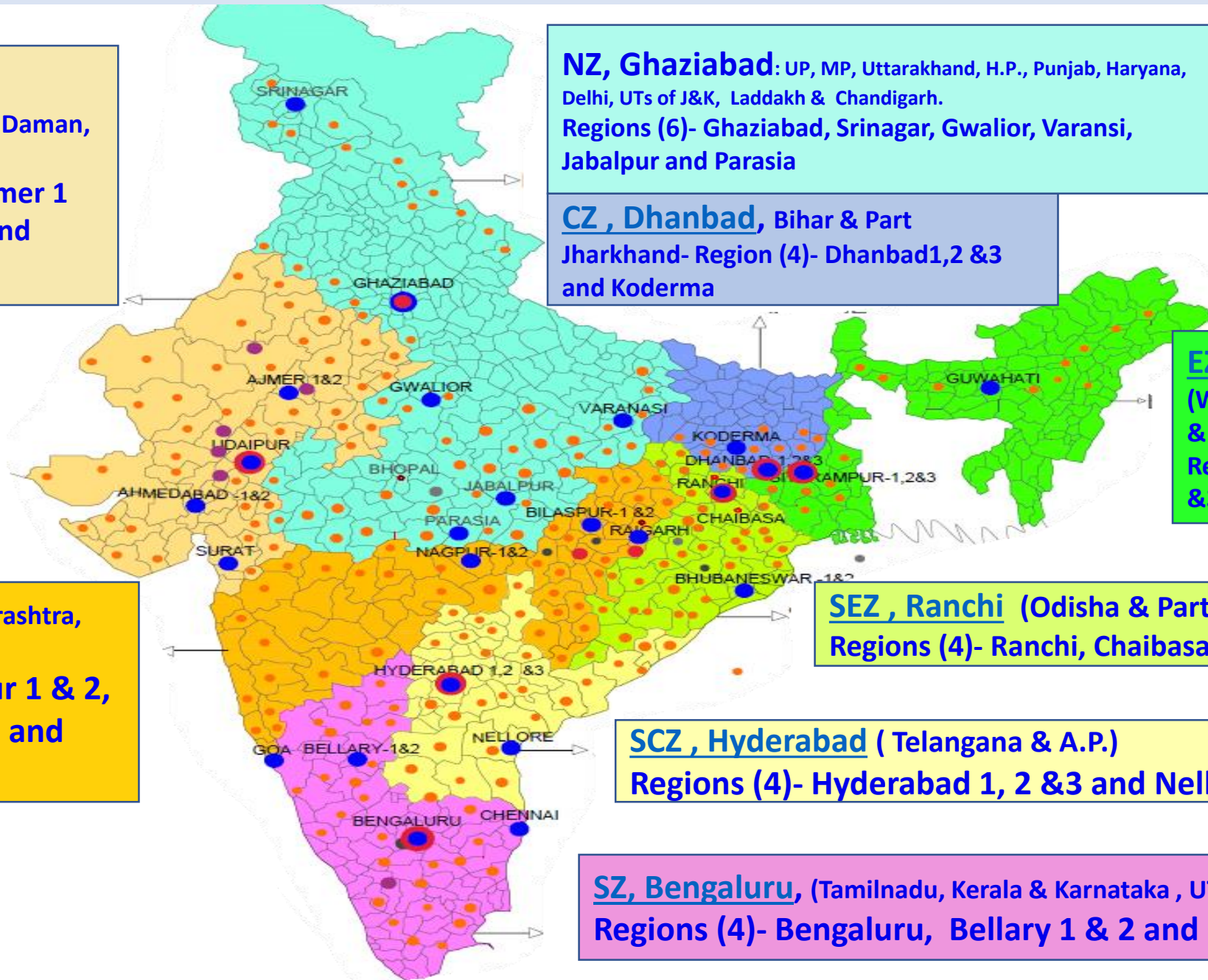
- To identify and reduce risk of accidents and diseases in and around the mine through:-
- Development of suitable legislation, rules, regulations, standards and guidelines;
- Adequate measures to ensure compliance and
- Awareness initiatives to inculcate safety and health culture amongst work-persons and stakeholders.

Mandate of DGMS is achieved by the following Role & Function	
Mandate	ROLE & FUNCTION
<p>[Administering the Legislations for Mines]</p> <ul style="list-style-type: none"> • The Mines Act, 1952 • The Coal Mines Regulations, 2017 • The Metalliferous Mines Regulations, 1961 • The Oil Mines Regulations, 2017 • The Mines Rules, 1955 • The Mines Vocational Training Rules, 1966 • The Mines Rescue Rules, 1985 • The Mines Creche Rules, 1966 • The Coal Mines Pit Head Bath Rules, 1959 • Central Electricity Authority Regulations, 2023 	<ul style="list-style-type: none"> • Inspections of Mines and Investigation into Accidents, Dangerous Occurrences and Complaints; • Granting of Permissions, Approvals under different Regulation & Rules framed under the Mines Act,1952; • Development of Standards and updating Safety Legislation; Safety Information Dissemination • Conduct of Statutory Examinations and Grant of Certificates; • Safety Promotional Initiatives: Organization of Conference on Safety in Mines, National Safety Awards, Safety Weeks & Safety Awareness Campaigns; • Promoting Safety education and Awareness Programmes, and Workers’ participation in safety management through-workmen’s inspector (WI), Safety Committee (PSC) & Tripartite Safety reviews.

Zonal Jurisdiction [Zones-08; Regions-38]



● - ZONE OFFICE
● - REGIONAL OFFICE



NWZ, Udaipur

(Gujarat , Rajasthan, UTs of Daman, Diu, Dadra & Nagar Haveli)

Regions (6): Udaipur, Ajmer 1 & 2, Ahmadabad 1 & 2, and Surat

NZ, Ghaziabad: UP, MP, Uttarakhand, H.P., Punjab, Haryana, Delhi, UTs of J&K, Laddakh & Chandigarh.

Regions (6)- Ghaziabad, Srinagar, Gwalior, Varansi, Jabalpur and Parasia

CZ , Dhanbad, Bihar & Part

Jharkhand- Region (4)- Dhanbad1,2 & 3 and Koderma

EZ , Sitarampur

(W. B., all N.E States, and A & N Island)

Regions (4)- Sitarampur1,2 & 3 and Guwahati.

WZ , Nagpur (Maharashtra,

Chhattisgarh & Goa)

Regions (6): Nagpur 1 & 2, Goa, Bilaspur 1 & 2 and Raigarh

SEZ , Ranchi (Odisha & Part of Jharkhand)

Regions (4)- Ranchi, Chaibasa, Bhubaneswar 1 & 2

SCZ , Hyderabad (Telangana & A.P.)

Regions (4)- Hyderabad 1, 2 & 3 and Nellore

SZ, Bengaluru, (Tamilnadu, Kerala & Karnataka , UT of Lakshdeep)

Regions (4)- Bengaluru, Bellary 1 & 2 and Chennai

DGMS Intervention/ Services beyond OSH:

Protection of National Properties and Conservation of Minerals

DGMS facilitate through provisions of safety protocols/guidelines/scientific studies under the Mines Act 1952 and Regulations made thereunder to:

- **Implement appropriate measures to safe guard the Railways, National/ State highways, public Roads, river beds, power lines, Gas & Oil pipelines and other public structures in and around the mine through suitable methods;**
- **Conserve the coal/ minerals by suggesting suitable method and sequence of mining;**
- **Providing Technical guidance/advise to mine operators for scientific and systematic mining.**
- **Provide statutory and competent persons for the mines to operate.**

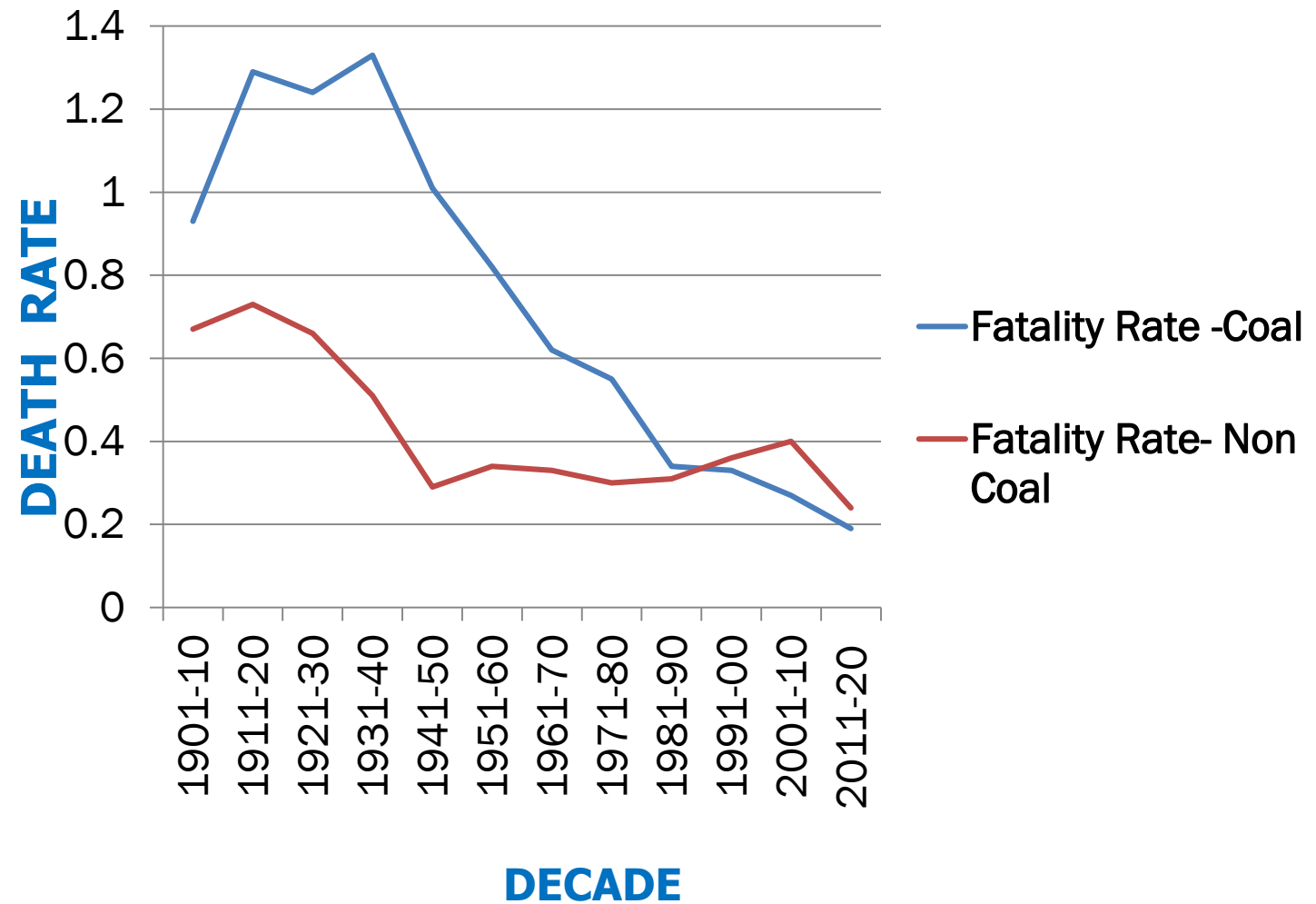
DGMS- major interventions to prevent Principle Hazards: Risk based Safety Management plan

Inundation	Preparation of water danger plan; Monsoon Preparation Plan; Check survey by independent surveyor; Advance boreholes method while approaching within 60m of waterlog areas/workings.
Explosion/Fire	Ventilation standards; Environmental monitoring; Use of intrinsically safe, flame proof apparatus in mines to arrest ignition source for coal dust and fire damp. Interlocking of cutting machines to prevent source of ignition. Use of permitted explosives; Introduction of Dust control measures and installations of Stone dust barriers.
Roof and side Falls (UG Mines)	Paul Committee Recommendation- Roof bolting - support of Freshly Exposed Roof (FER); Introduction of Resin capsules; Strata Control Officer and Strata Control and Monitoring Plan “SCAMP”; Phasing out of manual loading in coal mines (SDL, LHDs); Mechanised drilling operations; High Mechanisation and Remote operation at faces in FER area;
Roof and side Falls (OC Mines)	Introduction of provisions for designing, planning and working of mines on scientific basis. Systematic monitoring of slopes in open cast mines. DGMS guidelines through technical circulars on work place safety and Safety of person.
Blasting and Explosives	<ul style="list-style-type: none">▪ Guidelines for storage, transport, handling and use of Explosives and precautions while firing;▪ Guidelines for Safe transport of Bulk explosives; Dealing with misfires.▪ Fixing of danger zone for blasting; Controlled blasting based on the scientific study and field trial▪ Fixing limits of ground vibrations (PPV) of blasts for the safety of structures through Blast vibrations monitoring.

DGMS INITIATIVES [Mining Accident Analysis]: Since 1901 fatality rate per thousands person employed has come down from 0.93 to 0.19 (in coal mines) and from 0.67 to 0.24 (in non-coal mines) in decade 2011-2020.

Decreasing trend of accident is due to several initiatives taken by DGMS and MoLE:

- Risk based inspection system with Proactive activities
- Amendments and implementation of CMR 2017, OMR 2017
- Operations of Mines on the basis of Scientific Study & reports: [Method & Slope Stability in OCPs]
- Risk Assessment and Safety Management Plan
- Safety Alerts
- Standard Operating Procedure/ Code of Practices(SOPs/COPs)
- Technical Circulars /Guidelines
- Awareness Programmes



Major Initiatives for transparency & timely delivery of services

[Ease of doing Business]

e-DGMS:

- **Official website <https://www.dgms.gov.in/>** - updates to the stake holders;
- **Unified Shram Suvidha portal (SSP)**- transparency, accountability and speedy disposal;
- **Online Inspection** (randomized and risk-based) of mines through SSP;
- **Online grant of Permission/Exemption/ Relaxation**;
- **Online systems** for dealing with approvals of safety equipment;
- **Standardization** of major approvals through general orders;
- **Online statistical module** for filing of online Annual returns; Accident Statistics.

Reform in Examination System: Online (100% CBT) since 2023; The examination for Jr. certificates in Hindi, English and **five regional languages (Bengali, Oria, Tamil, Telugu & Kannad)**.

- Online Verification of certificates at **24 Zonal & regional centers**.
- All Statutory Certificates on Examination & Exemption basis, issued in Online mode only.

Major Initiatives-Legislative Measures/reforms [OSH]

- **Amendments in Laws:** The Coal Mines Regulations, 2017, The Oil Mines Regulations 2017;
- CEAR -2023 :Measure relating to Safety and electric Supply applicable to mines.
- Mines Act subsumed in the OSH & WC Code, 2020, Notified in the official Gazette No. 62 dated 29, September 2020;
- Draft OSH & WC Regulation for coal, Metalliferous & oil mines, U/s 136 of the Code framed;
- **Women Empowerment in Mining Sector:**
- Before 2019, employment of women was fully restricted in the mines having belowground workings and also during night hours (i.e. between 7 P.M. and 6 A.M) in opencast mines;
- The restriction on the employment of women in mines was relaxed vide Gazette Notification No. SO 506(E) dated 29.01.2019. DGMS Circular issued.
- Now women can be employed round the clock in OCMs & surface operations in mines and 6AM to 7 PM in belowground workings in mines subject to provision of adequate safeguards with regard to safety and security.

Women Empowerment in Mining Sector



"Mining has the potential to be a key driver for development within the nation, creating new job opportunities & contributing to economic growth. There has been a transformative change in the mining sector recently with women leaders stepping forward to lead front-ending roles. Proud to be the first lady in the Indian Mining Sector to achieve this milestone!"

Ms. Sandhya Rasakatla



Occupational Diseases & its prevention in Mines (Notified under Sec. 25 of the Mines Act 1952)

Disease

- Silicosis
- Pneumoconiosis
- Manganese Poisoning
- Asbestosis
- Cancer of lung or the stomach or the pleura and peritoneum (i.e. mesothelioma)
- Noise induced hearing loss
- Contact Dermatitis caused by direct contact with chemicals
- Pathological manifestation due to radium or radioactive substances

Preventive Measures

- Wet drilling, Periodic monitoring of dust levels at workplace;
- Personal Dust Exposure profile
- Use of Dust respirator;
- IME and PME
- Occupational Health Survey.
- Awareness Campaign on the causes, symptoms and prevention of Silicosis /other dust related diseases.

DGMS Initiatives for prevention and control of silicosis & other Notified Diseases [Work Place and Health surveillance]

- **Work Place Monitoring:**
 - Permissible limit of respirable **asbestos fibre** in mine, reduced from **2 to 1 fibre/millilitre**;
 - **Permissible limit** of airborne respirable dust brought down;
 - [8 hrly time-weighted average concentration **3 to 2 mg/cum** of air sampled in coal mines, **1 mg/cum proposed** for all mines in 12th NSC.]
 - Guideline on “**Procedure for conducting air-borne respirable dust surveys.**”
 - **Wet drilling** and measures for prevention of airborne dust generation, liberation, propagation, Isolation and use of Dust respirator [**CMR & MMR**]
- **Health surveillance:**
 - Periodicity of PME @ 5 yrs Interval (general) and @ 3 yrs interval (for aged > 45 yrs).
 - Spirometry Mandatory in PME/IME.
 - Medical Examination, only by OH & ILO trained Medical officers.
 - ILO classification of Digital Chest Radiograph introduced.[**ILO-2022 Standard digital**]
- Occupational Health survey and Awareness Programme;
- SOP for Detection, reporting, Rehabilitation and compensation of Miners

Major Initiatives for transparency & timely delivery of services

[Ease of doing Business]

- Transformation from regime of **inspection to Inspection-cum-facilitation** for compliance and thus effective implementation of subsumed Act, as **OSH & WC Code, 2020**.
- **Modernization of DGMS** through e-governance, e-HRMS, Sparrow, user friendly software modules and use of modern technologies to improve its performance and delivery of services to stakeholders
- **Training and Capacity building** programs for the officers of DGMS to meet the requirements of latest technologies adopted by the industry at international level and Soft Skills.
- **Reduction in Accident:** To reduce rate of accident by 50% in next five years through targeted inspections, Pro-active measures, capacity building, Technical and Process interventions.
- **ZAP:** To achieve zero harm potential in Indian mines (Vision Zero) by 2047.
- **Re-organization of DGMS** to extended OHS outreach to the mine workers in a more effective way.

Promotional Initiatives

- Conference on safety in mines.
- Observance of Safety Week, Safety Campaign etc.
- Annual mines rescue competition, mock drill on emergency preparedness,
- Safety talk, training, workshops / seminars on safety issues in mines;
- Promoting Participation of workers in safety management (WIs, PSCs, Tripartite review)
- Drive on self-regulation: [Implementation of Safety Management Plan]- Facilitating mining industry in the process of risk assessment study & preparation of the Management Plan.
- DGMS Social Media Platforms: Twitter (now “X”) handle <https://twitter.com/DGMS1902>, YouTube channel <https://www.youtube.com/@DGMSINDIA> and Instagram page- <https://instagram.com/dgms1902/> for dissemination of information and awareness to the stakeholders on the DGMS pro-active OHS measures

[Follow us for latest updates, safety tips and insights from the DGMS]

Mapping of unregistered mines- DGMS Initiatives

- **Continuous endeavors** in consultation with State Authority;
- **Total 19012** mines (Coal, Oil & Metal), including the unorganized mines registered;
- **Special registration drives** /Awareness programmes;
- **PM Gati Shakti:** DGMS got access of the mine's data in **National Master data of PM Gatishakti portal**. Mapping with DGMS/SSP under process;
- The unregistered mines in unorganized sector are not regulated resulting into unsystematic/unscientific mining causing potential dangers to the person employed and also led to loss of minerals and thus loss National property.

Benefits of Registered mines

- Regulated by Mines Act and Rules & Regulation;
- Systematic and scientific method led to production, productivity and conservation of minerals;
- Safe and Sustainable Mining;
- Monitored for Work place safety & SOPs;
- Better employment opportunities for supervisors and skilled work person;
- Provisions for health, hygiene, sanitation and welfare in mines
- Medical Examination (IME & PME), and vocational training for the workers;
- Free medical treatment, alternate employment and compensation to the workmen in case of any accidents or notified diseases.
- Contribution in National Building [VIKSIT BHARAT MISSION]

Way Forward- Co-ordinations with State Government.

- **Lease area and period:** Technically & economically feasible, Mining laws, [10 hec. > 15 yrs];
- Grant/cancellation/expiry of leases **linked to LIN** [ShramSuvidha Portal];
- No grant of small leases near Railways, NH, Close proximity to Residential area, HT lines or Pipelines;
- Stone quarried on **small hillocks** [whole hillock to single lessee not to multiple];
- Issue of **Mineral transport/dispatch** challans, only after complying Notice of opening; appointment of Manager and obtaining permissions under the Mines Act & Regulations;
- Creation of infrastructure for **Vocational training**, medical facilities (**IME & PME**);
- Mechanism to detect, treatment, compensation and rehabilitation for silicosis and other occupational disease cases;
- **Orientation Programs** for officers of State Mine and Geology Departments & District Mining Officers on OSH Laws & issues applicable to mines.



THANK YOU