



**DIRECTORATE GENERAL OF
MINES SAFETY (DGMS),
MINISTRY OF LABOUR &
EMPLOYMENT GOVERNMENT
OF INDIA
WELCOME
*ALL MEMBERS AND MEMBER
COUNTRIES ON THIS
CONFERENCE***

CORE CONVENTIONS OF ILO

- FORCED LABOUR CONVENTION (NO. 29)**
- ABOLITION OF FORCED LABOUR CONVENTION (NO.105)**
- EQUAL REMUNERATION CONVENTION (NO.100)**
- DISCRIMINATION (EMPLOYMENT OCCUPATION) CONVENTION (NO.111)**
- 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)**

DECENT WORK

- 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.**

ILO CONVENTIONS AND OSH IN MINING

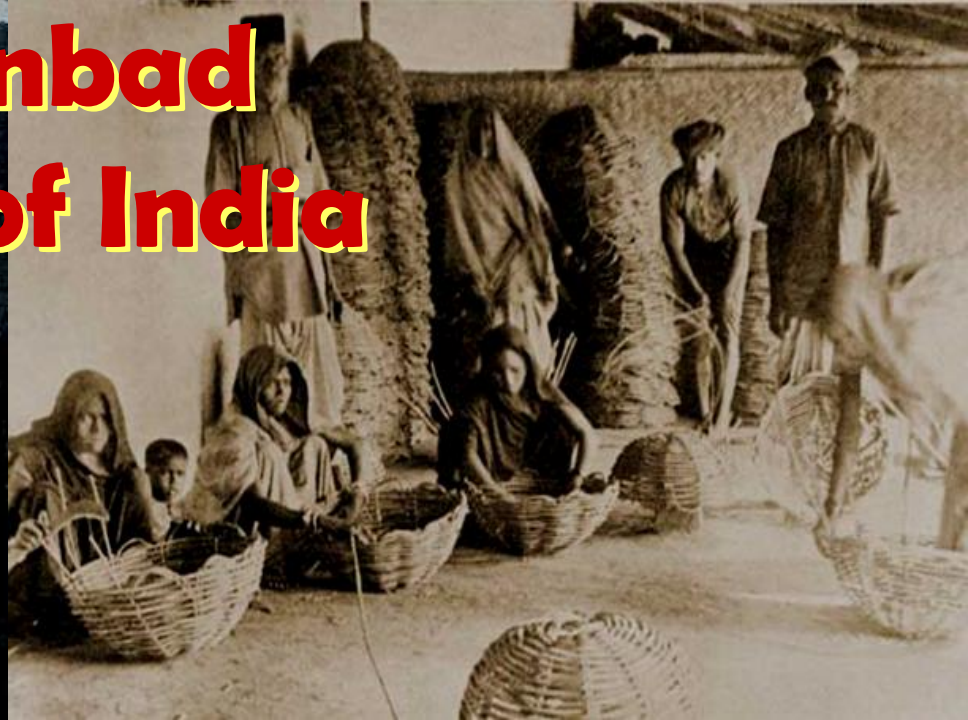
SI No	ILO CONVENTIONS AND PROTOCOLS
1	C14 Weekly Rest (Industry) Convention, 1921
2	C77 Medical Examination of Young Persons (Industry) Convention, 1946
3	C121 Employment Injury Benefits Convention, 1964
4	C124 Medical Examination of Young Persons (Underground Work) Convention, 1965
5	C124 Medical Examination of Young Persons (Underground Work) Convention, 1965
6	C131 Minimum Wage Fixing Convention, 1970
7	C135 Workers' Representatives Convention, 1971
8	C138 Minimum Age Convention, 1973
9	C139 Occupational Cancer Convention, 1974
10	C144 Tripartite Consultation (International Labour Standards) Convention, 1976
11	C155 Occupational Safety and Health Convention, 1981
12	C159 Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983
13	C161 Occupational Health Services Convention, 1985

ILO CONVENTIONS AND OSH IN MINING

Sl No	ILO CONVENTIONS AND PROTOCOLS
14	C162 Asbestos Convention, 1986
15	C176 Safety and Health in Mines Convention, 1995
16	C187 Promotional Framework for Occupational Safety and Health Convention, 2006
17	P155 Protocol of 2002 to the Occupational Safety and Health Convention, 1981



**Directorate General of Mines Safety
Ministry of Labour & Employment**



**Dhanbad
Govt. of India**

MINERAL RESOURCES

- **INDIA IS ENDOWED WITH SIGNIFICANT VALUABLE MINERAL RESOURCES.**
- **INDIA PRODUCES 89 MINERALS OUT OF WHICH 4 ARE FUEL MINERALS, 11 METALLIC, 52 NON-METALLIC AND 22 MINOR MINERALS.**
- **THE METALLIC PRODUCTION IS ACCOUNTED FOR BY IRON-ORE, COPPER-ORE, CHROMITE AND/OR ZINC CONCENTRATES, GOLD, MANGANESE ORE, BAUXITE, LEAD CONCENTRATES.**

MINERAL RESOURCES

- **AMONGST THE NON-METALLIC MINERALS, MORE THAN 90 PERCENT OF THE AGGREGATE VALUE IS SHARED BY LIMESTONE, MAGNESITE, DOLOMITE, BARYTES, KAOLIN, GYPSUM, APATITE & PHOSPHORITE, STEATITE AND FLUORITE.**

INDIA'S CONTRIBUTION TO WORLD MINERAL PRODUCTION

- **INDIA IS THE WORLD'S LARGEST PRODUCER OF MICA BLOCKS AND MICA SPLITTINGS.**
- **WITH THE RECENT SPURT IN WORLD DEMAND FOR CHROMITE. INDIA HAS STEPPED UP ITS PRODUCTION TO REACH THE SECOND RANK AMONG THE CHROMITE PRODUCERS OF THE WORLD.**

INDIA'S CONTRIBUTION TO WORLD MINERAL PRODUCTION

- **INDIA RANKS, 3RD IN PRODUCTION OF COAL & LIGNITE**
- **2ND IN BARYTES 4TH IN IRON ORE**
- **5TH IN BAUXITE AND CRUDE STEEL**
- **7TH IN MANGANESE ORE AND**
- **8TH IN ALUMINUM.**

LIFE INDECES OF THE SOME OF THE NON-FUEL MINERALS

Sl No.	Minerals	Total Reserves In Million Tonnes	Life Index (Years)
1	Bauxite	3289.817	204
2	Copper	Ore – 1394.426 Metal – 11.41772	220
3	Lead & Zinc	522.58	82
4	Gold	90.289	240
5	Iron Ore	Hematite – 14630.388 Magnetite – 10619.481	104

S1 No.	Minerals	Reserves (Million Tonnes)	Life Index (Years)
6	Chromite	213.063	47
7.	Magnesite	337.882	603
8.	Manganese Ore	378.569	113
9.	Lime Stone	175328.914	364
10	Rock Phosphate	305308.576	94
11	Sillimanite	74339.869	Very large
12	Garnet	57655.633	61
13	Kyanite	102613.223	Very large
14.	Dolomite	7533.108	522
15	Diamond (in Caret)	4581913	41

HISTORY OF MINING

1774 → EAST INDIA COMPANY GRANTED FIRST PERMISSION TO AN ENGLISH COMPANY FOR COAL MINING IN RANIGANJ, BENGAL.

1866 → FIRST OIL WELL WAS DUG IN DIGBOI, ASSAM, ONLY SEVEN YEARS AFTER THE FIRST EVER OIL WELL WAS DRILLED ANYWHERE IN THE WORLD VIZ. IN PENNSYLVANIA STATE, USA IN 1859.

1880 → M/S. JOHN TAYLOR & SONS STARTED GOLD MINING AT KOLAR GOLD FIELDS (KGF) IN MYSORE STATE.

HISTORY OF MINING

**AFTER INDEPENDENCE, MAJOR EMPHASIS WAS
GIVEN
ON INDUSTRIALIZATION LEADING TO INCREASED
DEMANDS OF INDUSTRIAL MINERALS LIKE COAL,
IRON ORE
BAUXITE, MANGANESE, COPPER, LEAD-ZINC,
GOLD &
LIMESTONE THROUGH FIVE YEAR PLANS.**

CONSTITUTIONAL OBLIGATION

● ARTICLE 24

● “NO CHILD BELOW THE AGE OF FOURTEEN YEARS SHALL BE EMPLOYED TO WORK IN ANY FACTORY OR MINE OR ENGAGED IN ANY OTHER HAZARDOUS EMPLOYMENT”

● ARTICLE 39

● “THE STATE SHALL, IN PARTICULAR, DIRECT ITS POLICY TOWARDS SECURING -

● (e) THAT THE HEALTH AND STRENGTH OF WORKERS, MEN AND WOMEN, AND THE TENDER AGE OF CHILDREN ARE NOT ABUSED AND THAT CITIZENS ARE NOT FORCED BY ECONOMIC NECESSITY TO ENTER A VOCATIONS UNSUITED TO THEIR AGE OR STRENGTH;”

● ARTICLE 42

● “THE STATE SHALL MAKE PROVISION FOR SECURING JUST AND HUMANE CONDITIONS OF WORK AND FOR MATERNITY RELIEF”

Mines Safety Legislation in India

Background

- **1890, International Labour Conference, Berlin**
 - **Issues related to improvement in the working condition of miners taken up**
- **Govt. of UK requests Govt. of India to consider advisability of undertaking legislation for inspection of mines in general and coal mines in particular**
- **1894**
 - **Preliminary study of mining conditions in India by one HM Inspector of Mines**
 - **Committee appointed by the Govt. of India to**
 - **Frame suitable legislation to afford full protection to persons working in mines in such matters in which they have a reasonable claim on the State for protection**

Mines Safety Legislation in India: Background

- **22nd March, 1901**
 - **First Indian Mines Act enacted**
- **1923**
 - **New Indian Mines Act 1923 comes into force**
- **1952**
 - **The Mines Act 1952 supersedes earlier legislation**
- **1959 & 1983**
 - **Major changes incorporated in the Act through amendments**

DGMS: The History

● **1902**

- ***Bureau of Mines Inspection formed with Calcutta as headquarter***

● **1904**

- ***Name of the organisation changed to Department of Mines***

● **1908**

- ***Head Quarters of the organisation shifted to Dhanbad***

● **1960**

- ***Name of the organisation changed to office of "The Chief Inspector of Mines" with effect from 01.01.1960.***

● **1967**

- ***Organisation renamed as Directorate General of Mines Safety (DGMS) on 01.05.1967.***

● **1988**

- ***DGMS declared S & T organisation***



DIRECTORATE GENERAL OF MINES SAFETY (DGMS)

A LAW ENFORCEMENT AGENCY UNDER

THE MINES ACT, 1952

IN RESPECT OF

SAFETY, HEALTH AND WELFARE OF PERSONS

EMPLOYED IN MINES INCLUDING OIL & GAS

IN THE SERVICE OF THE MINING INDUSTRY SINCE 1902

VISION

TO ENSURE NATIONALLY ACCEPTABLE AND
INTERNATIONALLY COMPARABLE STANDARDS OF
HEALTH, SAFETY & WELFARE FOR EMPLOYEES OF THE
INDIAN MINES





MISSION OF DGMS



Reduction in risk of occupational diseases and casualty to persons employed in mines by drafting appropriate legislation and setting standards, by overseeing compliance thereof and through a variety of promotional initiatives and awareness programmes creating an environment in which safety is given due priority.

RULES AND REGULATIONS FRAMED UNDER THE MINES ACT, 1952

Rules & Regulations	Applicability
The Coal Mines Regulations, 1957	Coal Mines
The Metalliferous Mines regulations, 1961	Non-coal
The Oil Mines Regulations, 1984	Oil & Gas
The Mines Rules, 1955	All Mines
Mines Rescue Rules, 1984	All Mines
Mines Vocational Training Rules, 1966	All Mines
Mines Creache Rules, 1966	All Mines

MINERAL INDUSTRY IN INDIA

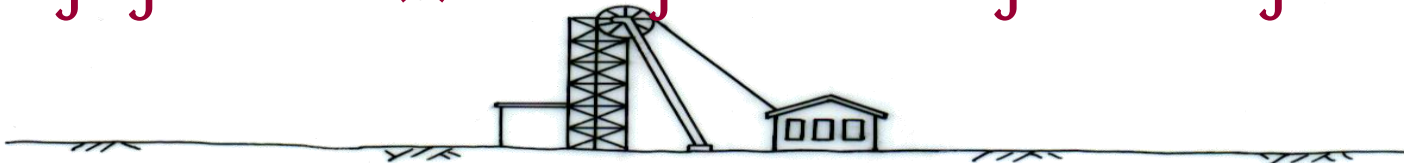
565 Coal Mines

85 Oil & Gas Projects

Over 8268 Non-Coal Mines



Employing over one (1) million persons directly on a daily average basis





राष्ट्र की सेवा में 100 वर्ष

NORTHERN ZONE

HEADQUARTERS

CENTRAL ZONE

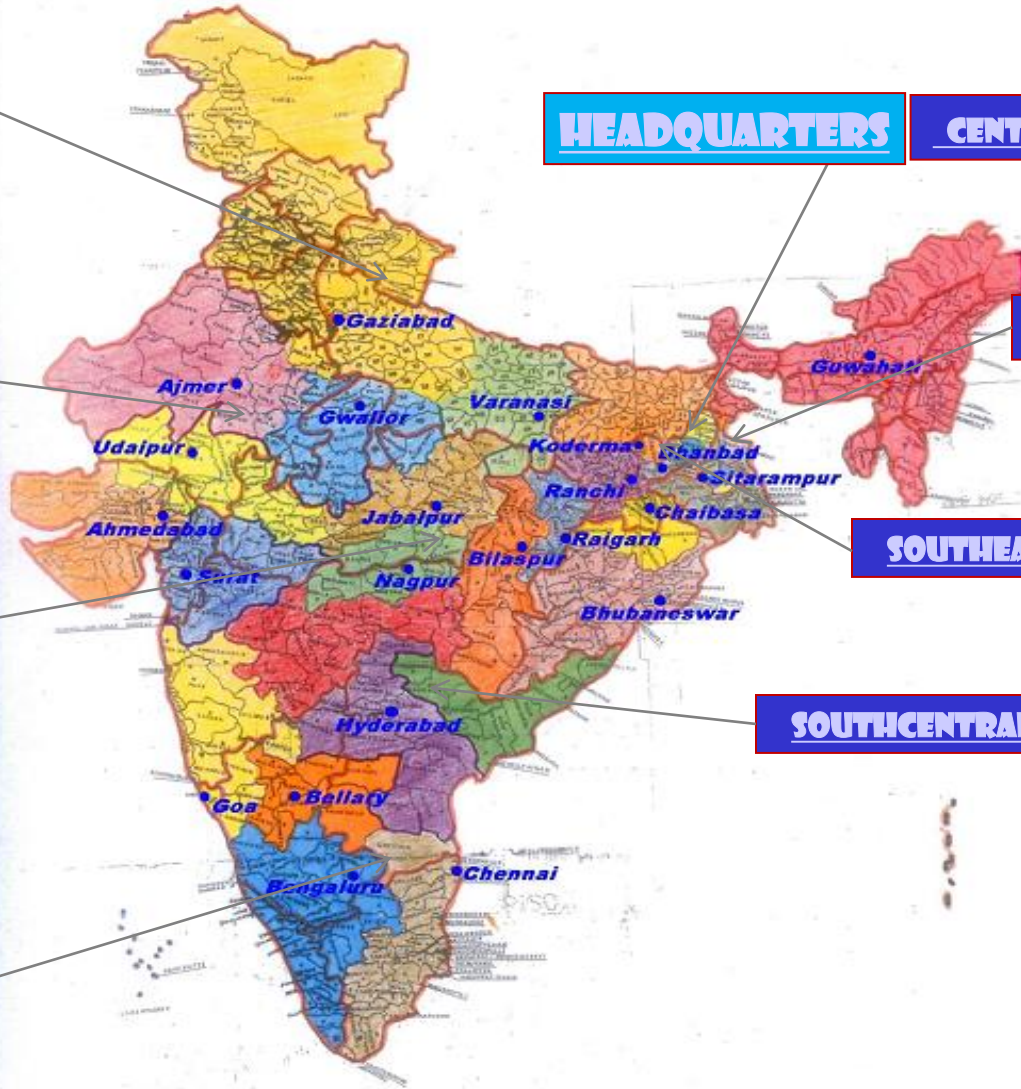
EASTERN ZONE

SOUTHEASTERN ZONE

SOUTHCENTRAL ZONE

WESTERN ZONE

SOUTHERN ZONE



*Geographical distribution of
Different Regions*

DGMS-Organisation

FUNCTIONS OF DGMS: I

☐ ENFORCEMENTAL

- Inspection**

- Investigation into -**

 - ☐ Fatal accidents**

 - ☐ Dangerous occurrences - emergency response**

 - ☐ Complaints & other matters**

☐ EMERGENCY RESPONSE – RESCUE AND RECOVERY

☐ REGULATORY

- Development of safety legislation & standards**

- Statutory permissions, exemptions, etc.**

- Approval of mines safety equipment/material**

FUNCTIONS OF DGMS: II



DEVELOPMENTAL

- **Conduct of exams. for grant of competency certificates**
- **In-house tech. support**
 - **DMSIS**
 - **SOMA**
 - **S&T SUPPORT**
 - **DMRS**
 - **HRD**
 - **OH**
 - **MID (Mine Information Database)**
- **Interactions for development of safety equipment/ work practices**

FUNCTIONS OF DGMS: III

📌 PROMOTIONAL

- ❑ National conference on safety in mines**
- ❑ National Safety Awards**
- ❑ Safety Weeks & Campaigns - Workers' education**
- ❑ Safety information dissemination**
- ❑ Self-regulation**
 - ❑ Safety policy**
 - ❑ ISO**
- ❑ Workers' participation in safety management**
 - ❑ Workmen's inspector**
 - ❑ Safety committee**
 - ❑ Tripartite review committees**
 - ❑ Standing committee on safety in coal mines - Ministry of coal**
 - ❑ CIL Safety Board**
 - ❑ Company Level Committees**

Welfare Amenities

- **PROVISION OF DRINKING WATER**
 - **PORTABLE AND COOL**
- **PROVISION OF REST SHELTERS**
 - **STANDARDS OF REST SHELTERS**
- **PROVISION OF CANTEENS**
 - **STANDARDS OF CANTEENS**
 - **CANTEEN MANAGING COMMITTEE**
 - **SUBSIDIZED RATE ON NO PROFIT BASIS**

Welfare Amenities

- **SURFACE LATRINES AND URINALS**
- **UNDERGROUND LATRINES AND URINALS**
 - **STANDARDS OF CONSTRUCTION**
 - **SANITATION AND CLEANLINESS**
- **PROVISION OF FIRST AID STATIONS AND FIRST AID ROOMS**
- **MEDICAL ATTENTION IN CASE OF INJURIES**
 - **LEAVE WITH WAGES AND FULL WAGES DURING TREATMENT**
- **APPOINTMENT OF WELFARE OFFICERS**

Workmen's Inspector and Safety Committee

- **APPOINTMENT OF WORKMEN'S INSPECTOR**
 - **INSPECTION BY WORKMEN'S INSPECTOR**
- **SAFETY COMMITTEE**
 - **COMPOSITION OF SAFETY COMMITTEE**
 - **INSPECTION BY SAFETY COMMITTEE**



A FEW FACTS

Mining accounts for only 1% of World Employment

BUT

It accounts for 7% of Fatal accidents at work place

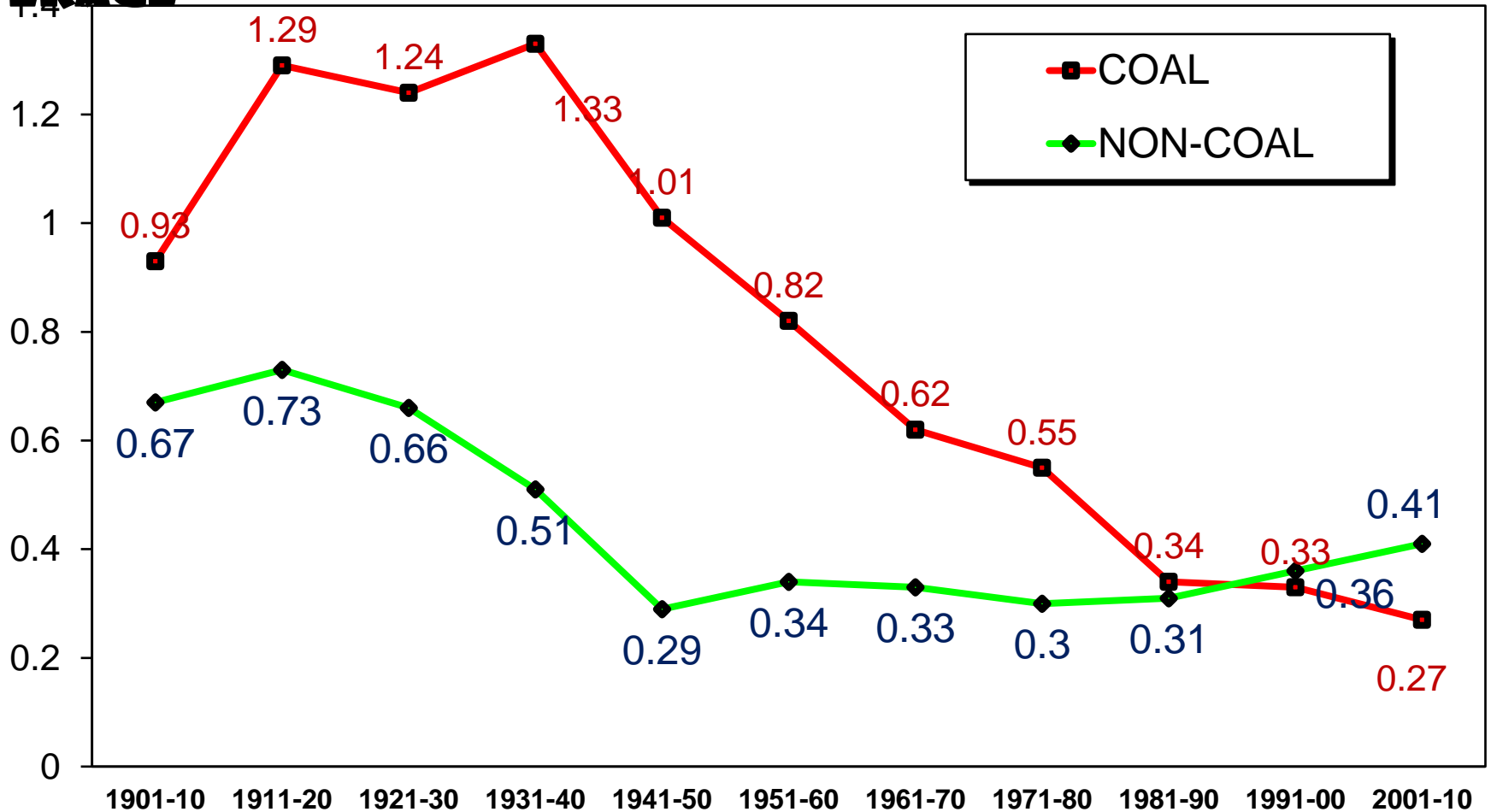
Mining is a Dangerous Occupation & a fight against natural forces

It has higher rates of accidents in comparison to other Industries



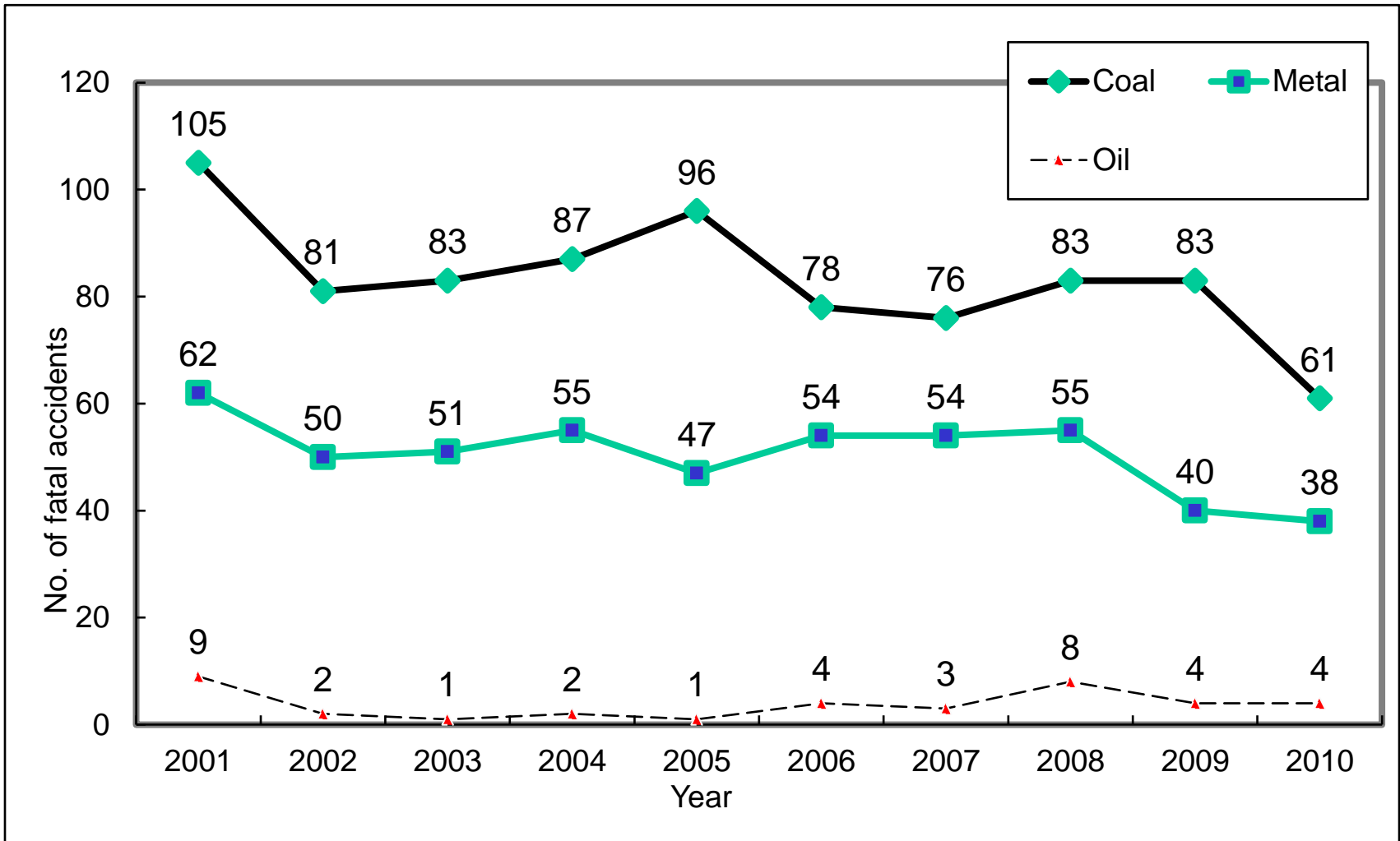
ACCIDENT SCENARIO

FATALITY RATE PER, 000 PERSONS EMPLOYED-TEN YEARLY AVERAGE



ACCIDENT SCENARIO

TRENDS OF FATAL ACCIDENTS IN MINES



Accident Scenario

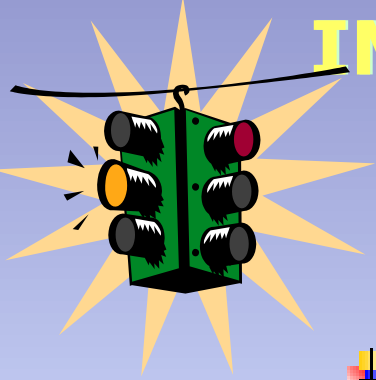
TEN YEARLY AVERAGE FATALITY RATE PER THOUSAND PERSONS EMPLOYED

Mines	1951-60	2000-2010	Remarks
Coal Mines	0.82	0.27	Declining
Non-Coal Mines	0.36	0.41	Fluctuating

NUMBER OF FATAL ACCIDENTS:

Mines	2001	2009	Remarks
Coal Mines	105	83	Declining
Non-Coal Mines	62	40	Declining
Oil & Gas Mines	09	04	Declining

ROLE OF NOTICES AND ORDERS IN IMPROVING SAFETY IN MINES



- ⚡ DANGEROUS CONDITIONS IDENTIFIED
- ⚡ IMPROVEMENT WORK UNDERTAKEN/ EFFECTED
- ⚡ COMPLIANCE TO STATUTE ENSURED
- ⚡ DISASTERS AVOIDED
- ⚡ ACTS AS DETERRENT TO MINE MANAGERMENTS



Accident Prevention Programme

INSPECTION PLANNING

- 1. IDENTIFICATION OF DANGERS FROM WITHIN AND ADJACENT MINES USING IMSIS.**
- 2. ACCIDENT PROFILE OF THE MINE USING ARMAS.**
- 3. NATURE OF VIOLATIONS & STATUS OF COMPLIANCE.**
- 4. SYSTEM & METHOD OF MINING ASSOCIATED RISKS.**
- 5. MINE ENVIRONMENT AND CONDITIONS.**
- 6. DISASTER RISK AND EMERGENCY PREPAREDNESS.**

NUMBER OF PNEUMOCONIOSIS CASES NOTIFIED

Year	Coal Workers' Pneumoconiosis
1994	12
1995	12
1996	20
1997	5
1998	4
1999	4
2000	8
2001	0
2002	3
2003	5
2004	40

NUMBER OF PNEUMOCONIOSIS CASES NOTIFIED - CONTD

Year	Coal Worker's Pneumoconiosis
2005	9
2006	8
2007	9
2008	1
2009	0
2010*	1
Total	141

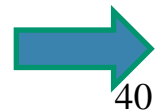


NUMBER OF SILICOSIS CASES NOTIFIED

Year	Silicosis
1994	0
1995	1
1996	5
1997	0
1998	2
1999	0
2000	3
2001	1
2002	60
2003	5
2004	9

NUMBER OF SILICOSIS CASES NOTIFIED - CONTD

Year	Silicosis
2005	33
2006	6
2007	0
2008	4
2009	0
2010	0
Total	129



Occupational Health & Disease

OH SURVEY → 1. ORGANIZED SECTOR

- 1. INITIAL & PERIODICAL MEDICAL EXAMINATIONS - CHECK OF CHEST RADIOGRAPHS OF IDENTIFIED GROUP OF WORKERS**
- 2. TRAINING OF MEDICAL OFFICERS FOR IDENTIFICATION OF SILICOSIS & PNEUMOCONIOSIS**
- 3. CLOSE FOLLOW UP OF THE SUSPECTED & IDENTIFIED CASES**
- 4. ENGINEERING CONTROL ON GENERATION OF AIRBORNE DUST**

MINES IN UN-ORGANISED SECTOR

APPOINTMENT OF CERTIFYING SURGEONS IN SELECTED AREAS

SILICOSIS STUDY CONDUCTED BY DGMS

Name of Company	Year of Study	No. of Person Investigated	Cases of Silicosis detected
Hutti Gold Mines Ltd	2001	4883	313
Hindustan Zinc Limited	2002	442	131
Uranium Corporation of India Ltd	2002	91	9

Compensation Paid to Silicosis Victim

Name of Company	Period in year	No. of cases Compensation paid
Hindustan Zinc Lld	2000-2006	33
Hindustan Copper Limited	1980-2000	216
Hutti Gold Mines Co. Ltd	1979-2008	270

Occupational Health Surveys

- ☞ **Programme for elimination of Silicosis and Coal Workers' Pneumoconiosis**
- ☞ **Prevalence of Chronic Obstructive Airway Diseases in Coal Mines**
- ☞ **Musculoskeletal Disorders and Role of Ergonomic Factors**
- ☞ **Role of Physiological Factors and arduous working conditions in Sudden Cardiac Death at work in Mines**
- ☞ **Prevalence of Noise Induced Hearing Loss among Mine Workers**
- ☞ **Prevalence of Manganese Poisoning in manganese mines**
- ☞ **Health status of persons employed in asbestos mines and processing mills**

NEW PLAN SCHEMES

1. e-Governance in DGMS (eGMS)

2. Objective of the Scheme

- **COMPLETE COMPUTERIZATION OF THE DGMS OFFICES AND PROCEDURES;**
- **DEDICATED NETWORK FACILITIES FOR DATA, AUDIO, VIDEO AND MESSAGING;**
- **ON-LINE FILING OF APPLICATIONS, RETURNS, QUERIES, STATUS OF APPLICATIONS, CONDUCT OF EXAMINATIONS AND MANY OTHER FACILITIES;**
- **TO DEVELOP ON & OFF LINE TRAINING AND AWARENESS PROGRAMMES**
- **TO DEVELOP NATIONAL RESOURCE CENTRE FOR MINES SAFETY AND INFORMATION**

NEW PLAN SCHEMES

2. Occupational Safety and Health Surveillance in Unorganised Sector Mines

- TO CONDUCT OCCUPATIONAL SAFETY AND HEALTH SURVEY IN MINES OF UNORGANISED SECTORS**
- TO IDENTIFY THE REASONS OF NON COMPLIANCE AND NON-PROVISIONS OF BASIC FACILITIES AND AMENITIES FOR THE WORKERS**
- TO UNDERTAKE COMPLIANCE MEASURE PROGRAMMES**
- TO REHABILITATE THE WORKERS AFFECTED BY ACCIDENTS AND OCCUPATIONAL DISEASES**
- PREPARE AND IMPLEMENT SUSTAINABLE DEVELOPMENT PROGRAMME**

TECHNICAL ADVANCEMENT AND MODERNIZATION

- **COMPUTERISED SYSTEM OF OFFICE WORK**
- **LOCAL AREA NETWORK (LAN) HAVE BEEN ESTABLISHED IN ZONAL OFFICES.**
- **INDIAN MINES SAFETY INFORMATION SYSTEM (IMISIS) SOFTWARE HAS BEEN DEVELOPED THROUGH WHICH OFFICERS ARE INSPECTING THE MINES AND RECORDING INFORMATION, PREPARING REPORTS AND GENERATING VIOLATIONS LETTERS.**
- **ACCIDENT REPORTING, MONITORING AND ANALYSIS SYSTEM (ARMAS) SOFTWARE HAS BEEN DEVELOPED FOR CONDUCTING ACCIDENT ENQUIRY AND REPORTING IN ADDITION TO THE ANALYSIS OF ACCIDENTS AND FORMULATION OF ACCIDENT PREVENTION MEASURES.⁴⁶**

TECHNICAL ADVANCEMENT AND MODERNIZATION

Modernisation of S&T Laboratory

- **IN-FIELD AND FAR FIELD BLAST VIBRATION MONITORING SYSTEM, VELOCITY OF DETONATION (VOD) AND DELAY MONITORING INSTRUMENTS AND HIGH SPEED CAMERA WITH ASSOCIATED SOFTWARE HAVE BEEN PROVIDED TO MONITOR THE BLASTING IN MINES.**
- **MULTI-GAS DETECTORS, GAS ANALYZERS, NOISE DOSIMETERS, DUST & NOISE MONITORING SYSTEM HAVE BEEN PROVIDED IN THE S & T LABORATORY AND ALSO IN FIELD OFFICES.**
- **DEVELOPMENT OF MINES RESCUE SYSTEM (DMRS) LABORATORY HAS ALSO BEEN PROPOSED TO BE PROVIDED WITH THE LATEST ARTIFICIAL LUNG FUNCTION TESTING MACHINE WHICH IS TO BE IMPORTED FROM GERMANY.**

MINES SAFETY AND HEALTH ACADEMY

(MSHA)

UNDER THE HUMAN RESOURCE DEVELOPMENT (HRD) PROGRAMME, MSHA IS FUNCTIONING AT DGMS, DHANBAD. OFFICERS OF DGMS, OFFICERS, SENIOR SUPERVISORY STAFFS, WORKMEN'S INSPECTORS AND OTHER COMPETENT PERSONS FROM THE MINING INDUSTRY ARE BEING IMPARTED SPECIALISED TRAINING ON OCCUPATIONAL SAFETY & HEALTH (OSH) SUBJECTS EVERY YEAR.

-  ALL THE MODERN FACILITIES LIKE PROJECTORS, COMPUTERS, INTERACTIVE MIKES, AND OTHER NECESSARY FACILITIES HAVE BEEN PROVIDED IN THE LECTURE HALLS, WORKSHOP AND CONFERENCE HALLS.**

PROMOTIONAL INITIATIVES & SELF REGULATION

- **WORKERS PARTICIPATION IN SAFETY MANAGEMENT IS A AN IMPORTANT TOOL TO DEVELOP AWARENESS AND SELF INITIATIVES IN ELIMINATING THE RISK OF ACCIDENTS AND DANGERS TO HEALTH AND HYGIENE OF WORKERS.**
- **WITH THIS OBJECTIVE IN VIEW THE PROVISIONS OF SAFETY COMMITTEES AND WORKMEN'S INSPECTORS WERE MADE IN THE MINES RULES.**
- **THE FUNCTIONING OF SUCH INSTITUTIONS ARE BEING ACTIVATED BY DGMS DURING THE COURSE OF THEIR INSPECTIONS. MEETINGS AND WORKSHOPS ARE BEING ORGANISED AT UNIT LEVEL, AREA LEVEL AND COMPANY LEVEL.**
- **TRIPARTITE SAFETY COMMITTEES ARE FUNCTIONAL AT COMPANY LEVEL.**

PROMOTIONAL INITIATIVES & SELF REGULATION

- **NATIONAL CONFERENCE ON SAFETY IN MINES ARE BEING ORGANISED FROM TIME TO TIME. XTH CONFERENCE ON SAFETY IN MINES WAS HELD IN NOVEMBER 2007.**
- **NATIONAL SAFETY AWARDS (MINES) ARE BEING ORGANISED EVERY YEAR IN WHICH SAFE MINES ARE BEING GIVEN RECOGNITION AT NATIONAL LEVEL. AWARDS FOR THE YEAR 2008 & 2009 HAVE BEEN PROPOSED TO BE ORGANIZED IN JANUARY 2011.**
- **NATIONAL MINES RESCUE COMPETITIONS AND FIRST AID COMPETITIONS ARE ALSO ORGANISED EVERY YEAR.**
- **NATIONAL SEMINAR, CONFERENCES AND WORKSHOPS ARE ORGANISED ON IMPORTANT TOPICS TO IMPLEMENT THE BEST SYSTEM AND PRACTICES IN THE MINES.**

DGMS STRATEGIC PLAN 2011-15

Strategic Plan for the next five years i.e. 2011-15 has been prepared with the following objectives :

- 1. Improvement in Safety Conditions**
- 2. Reduction in Accidents and Disasters**
- 3. Introduction of New Technologies**
- 4. Introduction of Risk Analysis and Safety Management System**
- 5. Improvement in Occupational Health and Reduction in Incidence of Occupational Diseases**
- 6. Research and Development in Key Areas**
- 7. Improvement in Conditions of Working in Un-Organised Sectors**

DGMS STRATEGIC PLAN 2011-15

Thrust Area

Elimination of Mine Disasters due to

- **Inundation**
- **Explosion**
- **Spontaneous Heating and Fire**
- **Strata Failure**

Reduction in Fatal & Serious Accidents

- **Accidents due to Roof & Side Falls**
- **Accidents due to Dumpers, Tippers & Earth Moving Machinery**
- **Accidents due to Fall of Objects & Person**

Prevention of Dust Borne Diseases

- **Checking and Review of Medical Examination Records**
- **Medical Surveillance in Unorganised Sector**
- **Engineering Measures on Dust Control**

DGMS STRATEGIC PLAN 2011-15

Thrust Area

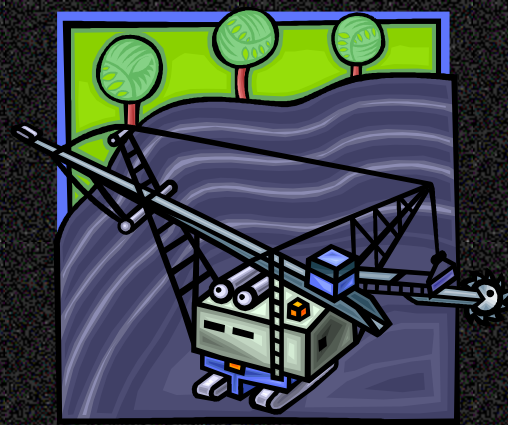
Investigation on Introduction of New Technology

- **Continuous Miner- Shuttle Car Technology**
- **Longwall Technology**
- **Highwall Mining**

Slope and Dump Stability Problems of Opencast Mines

Research and Development Projects

- **Strata Control and Monitoring**
- **Mine Environment Control and Monitoring**
- **Risk Assessment and Risk Management System**
- **Emergency Response and Disaster Control & Management**



THANK YOU

