

1.0 Introduction

Minerals constitute the backbone of economic growth of any nation and India has been eminently endowed with this gift of nature. A number of minerals of economic and commercial value abound in this country. There are many evidences 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 English Company was granted permission by the East India Company for mining coal in Raniganj. Coal mining got a boost in 1855 when railway line was laid from Howrah to 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 uptill 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 12th Five Year Plan and thereafter.

Table-1 shows the increasing trend in output of important minerals, whereas Table-2 shows the growth of mining activities in terms of some important parameters like number of mines, value of minerals mined, aggregate horsepower installed and explosive used. Table-3 shows average daily employment in coal, metal & oil mines. Table-4 shows the trend in average place-wise daily employment of men and women in mines. The table shows that there is a gradual fall in average daily employment of women in mines. Table-5 shows trend in production of coal from belowground and opencast workings. It also shows the trend in average daily employment in belowground, opencast workings and aboveground in the coal mines. It is observed that the production of coal from opencast workings has increased substantially while that from belowground workings has remained almost stagnant.

Minerals are depleting assets of a nation. Extraction of the same from below the surface of the earth is fraught with innumerable dangers. Mining has been and continues to be a hazardous profession and has rightly been deemed to be a war with the unpredictable forces of nature. The condition of roof and sides of underground mines can change without any prior indication. Dangers due to sudden inrush of water, release of lethal and inflammable gases or the fall of roof and side are inherent to mining and it is essentially because of such unpredictable dangers that mining is considered the most hazardous of all peace-time occupations.

2.0 Mine Safety Legislation

In earlier years when mining activities were modest in scale, safety problems too were simple. With the progress in exploitation of minerals, safety of persons employed became a matter of concern. In 1895, the Government of India initiated steps to frame legislative measures for safety of workmen. In 1897 first major disaster in mining hit the Kolar Goldfields killing 52 persons, to be soon followed by the Khost Coal Mine disaster in Baluchistan (now in Pakistan) killing 47 persons. The disaster hastened the process of formulation of safety laws and the first Mines Act was enacted in 1901. With further experience, this Act was superseded by the Indian Mines Act, 1923, which was again replaced by the present Mines Act, 1952. This Act came into force on the 1st July 1952. Major changes were incorporated in this Act in the years 1959 and 1983. The Mines Act, 1952 applies to mines of all minerals within the country except the State of Sikkim, including the offshore mines within the limits of territorial water.

For administering the provisions of the Indian Mines Act, 1901, the Government of India set up a "Bureau of Mines Inspection" on the 7th January 1902 with headquarters at Calcutta. The name of the organisation was changed to Department of Mines in 1904 and its headquarters shifted to Dhanbad in 1908. On 1.1.1960, the organisation was renamed as "Office of the Chief Inspector of Mines". Since 1.5.1967, the office has been re-designated as Directorate-General of Mines Safety (DGMS in short).

2.1 In view of recent development in the mining industry various amendments in Mines Act, 1952, Coal Mines Regulations, 1957, Metalliferous Mines Regulations, 1961 and Oil Mines Regulations, 1984 are under process. It is expected to complete the amendment job shortly. It has also been proposed to extend the jurisdiction of the enforcement of the Mines Act upto 200 nautical miles of territorial water in the sea by which offshore oil mines will also come under its purview.

3.0 Organizational Set-Up

Under the Constitution of India, safety, welfare and health of workers employed in mines are the concern of the Central Government (Entry 55-Union List-Article 246). The objective is regulated by the Mines Act, 1952 and the Rules and Regulations framed thereunder. These are administered by the Directorate-General of Mines Safety (DGMS), under the Union Ministry of Labour & Employment. Apart from administering the Mines Act and the subordinate legislation there under, DGMS also administers some other allied legislation, including the Indian Electricity Act.

A list of the subordinate legislation under the Mines Act and certain allied legislation administered by DGMS is at ***Annexure-I***.

Officers appointed to different technical posts in DGMS are selected by U.P.S.C. They are required to have Degree in Mining or Electrical or Mechanical Engineering and several years of experience, varying from seven to ten years of working in responsible capacity in mines or allied industry. Besides, officers of mining cadre possess First Class Mine Manager's Certificate of Competency. The Occupational Health cadre is manned by qualified and experienced medical personnel. Due to the nature of work performed by the officers of DGMS, the Govt. of India declared this organisation as "S&T Institution" on the recommendation of Science and Technology Department of Govt. of India, in November, 1987.

The organisation has its headquarters at Dhanbad (Jharkhand) and is headed by Director-General of Mines Safety. At the headquarter, the Director-General is assisted by specialist staff-officers in mining, electrical & mechanical, occupational health, law, survey, statistics, administration and accounts disciplines. The headquarters has also a technical library and S&T laboratories as a back-up support to the organisation.

The field organisation has a two-tier network of field offices. The entire country is divided into eight zones, each under the charge of a Deputy Director-General of Mines Safety. There are three to four Regional offices under each zonal office. Each Region is under the charge of a Director of Mines Safety. There are in all 29 such Regional Offices. Sub-regional offices have been set up in important areas of concentrated mining activities away from Regional office. There are three such sub-regional offices, each under the charge of a Deputy Director of Mines Safety. Each Zone, besides having inspecting officers of mining disciplines has officers in electrical & mechanical engineering and occupational health disciplines.

Organizational chart of DGMS is at ***Annexure-II***.

DGMS has a total sanctioned strength of 963 persons with 669 in position as indicated below:

CATEGORY	SANCTIONED STRENGTH	IN POSITION STRENGTH
GROUP-A	279	179
GROUP-B (GAZETTED)	38	28
GROUP-B(NON-GAZETTED)	186	157
GROUP-C	229	305*
TOTAL	732	669
** To be filled up by outsourcing	**231	

* Incumbents present on the post abolished/earmarked for outsourcing.

The table below shows the discipline-wise strength of the inspecting officers of DGMS (as on 1.1.2016)

Sl.No	Designation	Discipline							
		Mining		Electrical		Mechanical		O.H.	
		S	P	S	P	S	P	S	P
1.	DIRECTOR-GENERAL	1	1	-	-	-	-		
2.	DY.DIRECTOR-GENERAL	9	5	1	1	1	1		
3.	DIRECTOR	50	40	16	6	16	2		
4.	DY.DIRECTOR	99	83	34	17	33	14	5	0
5.	ASSTT.DIRECTOR Gr. I	-	-	-	-	-	-	4	2
	TOTAL	159	129	51	24	50	17	9	2

S - Sanctioned = 269

P - In position = 172

Shortage=97

3.1 Budget

For meeting with the expenditure on salaries, allowances, office expenses etc. in connection with various plan and non-plan activities, the following financial provisions have been made:

(Rupees in thousand)

Activity	Budget Estimate	Revised Estimate	Final Estimate	Actual Expend.	Budget Estimate	Revised Estimate (Prop)	Budget Estimate (Prop)
	2014-15	2014-15	2014-15	2014-15	2015-16	2015-16	2016-17
A-Non-plan							
DGMS Non plan	411325	437375	449325	447161	471695	462400	527995
Examination	12075	11025	10925	10550	12905	11900	13505
Total Non plan	423400	448400	460250	457711	484600	474300	541500
B. Motor vehicle	500	500	400	0	500	500	500
C. Plan Schemes							
MAMID(Gen)	79200	79200	70000	34965	45000	45000	64000
MAMID(NE)	8800	8800	8800	4646	5000	5000	7100
TOTAL MAMID	88000	88000	78800	39610	50000	50000	71100
SOCFOD(Gen)	66500	66500	65800	58929	58500	58500	82000
SOCFOD(NE)	18500	18500	18500	9803	9400	9400	14900
TOTAL SOCFOD	85000	85000	84300	68732	67900	67900	96900
Civil Works	100000	100000	100000	79884	26700	56700	52000
TOTAL PLAN	273000	273000	263100	188227	144600	174600	220000

4. Role and Function of DGMS

4.1 Mission of DGMS

The mission of DGMS is the 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.

4.2 Vision of DGMS

The vision of DGMS is "To ensure nationally acceptable and internationally competitive standards of health, safety and welfare for employees of the Indian mines."

4.3 Current functions of DGMS broadly include:

1. Inspection of mines
2. Investigation into -
 - (a) accidents
 - (b) dangerous occurrences - emergency response
 - (c) complaints & other matters

3. (a) Grant of :
 - (i) statutory permission, exemptions & relaxations
 - (ii) approval of mine safety equipment, material & appliances
- (b) Interactions for development of safety equipment, material and safe work practices through workshop etc.
- (c) Development of Safety Legislation & Standards
- (d) Safety Information Dissemination
4. Conduct of examinations for grant of competency certificates.
5. Safety promotional initiatives including :
 - (a) Organisation of -
 - Conference on Safety in Mines
 - National Safety Awards
 - Safety Weeks & Campaigns
 - (b) Promoting -
 - safety education and awareness programmes
 - workers' participation in safety management through -
 - workmen's inspector
 - safety committee
 - tripartite reviews

5. Measures to improve safety in mines

5.1 Legislative Measures

5.1.1 Inspection & Enquiries

Since mining is beset with many inherent hazards, detailed precautions have been laid down in the Mines Act and the Rules and Regulations framed thereunder to guard against dangers in mines and it is the responsibility of the mine management to comply with the same. While the onus of providing for and ensuring safety in mines rests with the mine managements, as clearly laid down under section 18 of the Mines Act, 1952 as ***"The owner and agent of every mine shall each be responsible for making financial and other provisions and for taking other such steps as may be necessary for compliance with the provisions of this Act and regulations, rules, bye-laws and orders made thereunder."***

The DGMS has the responsibility to see that the safety law is kept updated to absorb the technical advancements as well as to make the same comprehensive, practicable and legally sound and also to carry out periodic inspection of mines to oversee compliance of safety laws. The Mines Act and the subordinate legislations framed thereunder is periodically updated for the purpose. Each and every accident involving fatality is enquired into by an officer or a team of officers of DGMS. A few accidents involving serious bodily injury and most of the important dangerous occurrences are also investigated by DGMS Officers.

Action taken subsequent to inspections:

- Pointing out contraventions
- Withdrawal of permission
- Issue of improvement notices
- Prohibition of employment
- Informal stoppages
- Prosecution in the court of law

5.1.2 Enquiry into Accidents, Dangerous Occurrences etc.

Notice to be given of accidents

Whenever there occurs in or about a mine –

- An accident causing loss of life or serious bodily injury, or
- An explosion, ignition, spontaneous heating, outbreak of fire or irruption or inrush of water or other liquid matter, or
- An influx of inflammable or noxious gases, or
- A breakage of ropes, chains or other gear by which persons or materials are lowered or raised, or
- A premature collapse or any part of the workings, or
- Any other accident which may be prescribed,

All fatal accidents are required to be enquired into by DGMS within 2 months.

Apart from the incidents mentioned above the officers also enquire into complaints connected with the safety and welfare of the persons connected with mining which are received from various sources. Being concerned normally with safety, even anonymous complaints are also enquired into.

Following actions are taken after an enquiry:

- Warning to delinquent
- Suspension of certificate
- Modification in the method of working
- Action by management like stoppage of increment, dismissal from service, recorded warning, withholding promotion and
- Prosecution in the court of law

The number of inspections and enquiries conducted by DGMS officers during the year 2015 is shown in appended Table-6

Discipline	Inspection				Enquiries				Inspections & Enquiries			
	Coal	Metal	Oil	Total	Coal	Metal	Oil	Total	Coal	Metal	Oil	Total
Electrical	1314	349	155	1818	122	25	0	147	1436	374	155	1965
Mechanical	718	250	97	1065	117	24	3	144	835	274	100	1209
Mining	3950	5257	534	9741	986	604	33	1623	4936	5861	567	11364
O.H.	65	33	0	98	55	0	0	55	120	33	0	153
TOTAL	6047	5889	786	12722	1280	653	36	1969	7327	6542	822	14691

Note: Figures are provisional.

5.1.3 Permission, Exemptions and Relaxations

DGMS is keeping a constant vigil on the method of extraction of minerals, supports of the workings, working environment and safe code of practices to ensure that mine workers are not exposed to dangers and dangerous environments while working in belowground, opencast or any surface operations. Permissions, exemptions and relaxations are regularly granted by this Directorate to the mine operators under various provisions of the statute. Whenever a new technology is planned to be introduced in the mines, the officers of this Directorate are always approached to analyze and scrutinize the proposal for its safety and affectivity. The technology is either directly permitted to be introduced or modified to suit Indian environment. The workings in the mine are regularly checked by field officers during the course of their inspection and enquiries. If the conditions of workings and manner of extraction are found unsafe and not carried out as per the permissions granted, the permissions are immediately revoked.

Details of permission cases during the year 2015 are given below:

Mineral	No. received	Dealt	Recorded	Rejected	Granted	Under process	Pending
Coal	1394	1291	311	7	901	129	142
Metal	2404	2313	284	6	1944	165	177
Oil	176	117	47	1	86	12	36
Total	3974	3721	642	14	2931	306	355

5.1.4 Improvement Notices & Prohibitory Orders

During inspection of mines, if the workings or the environment are found to be unsafe and dangerous notices or prohibitory orders are immediately issued to the management to take necessary steps for improvement. Unless the conditions improve for re-deployment of persons as recorded through inspections, the orders are not vacated and persons are not allowed to be deployed in such dangerous conditions.

Details of the improvement notices and prohibitory orders are given in Table-7 in the annexure. In addition 36 statutory permissions were withdrawn for non-compliance of conditions laid down in the permissions.

5.1.5 Prosecution cases

Details of prosecution cases instituted and their status during the year 2015 are given below:

Prosecution	Coal	Metal	Oil
Launched	13	21	1
Disposed off	1	8	0
Pending	147	149	0

Figure of pending cases has been counted from the year 2000-2015.

5.1.6 RTI Cases Dealt

Details of RTI cases received and dealt during the year 2015 are given below:

No. of RTI application		
Received	Dealt	Pending
402	399	3

5.1.7 Complaint

Details of complaints received and dealt during the year 2015 are given below:

No. of compliant received and dealt with		
Received	Dealt	Pending
416	384	32

5.1.8 Approval and Testing

What constitutes "mine safety equipment" has not been precisely defined anywhere. Mining is a hazardous occupation and therefore the equipment, machinery, tools and material used in mines required to be safe, robust and reliable capable of working safely under hostile environment. The equipment needs to remain safe under prolonged usage even in adverse condition.

Approval Policy and Procedure

The objective of granting approval to various equipments for use in mines is to primarily fulfill the statutory obligation enshrined under different provisions of Coal Mines Regulations, 1957, Metalliferous Mines Regulations, 1961, Oil Mines Regulations, 1984, Central Electricity Authority (Measure relating to safety and electric supply) Regulation, 2010 and Mines Rescue Rules, 1985 besides statutory notification under these regulations by the competent authority from time to time.

For obtaining approval of any mines safety equipment material it is generally required to conform to the Bureau of Indian Standard specification and if there is no such specification then to standard specification of other countries like ISO/EN/DIN etc. Sometime the standards evolved on the basis of past practices are also accepted. The equipment/material is tested in any approved test house in India in accordance with the above standard. If the test report is satisfactory it is considered for grant of approval.

Approval are granted in two phases

- a) Approval for field-trials
- b) Regular approval

Based on preliminary examination of the application, which is made in a prescribed format, test report from an approved test house in conformity of applicable standard, approval to conduct field trial is granted. Factories of the manufacturer are also visited to ensure their capability and to check the quality control system adopted in the manufacturing process. The period of field trial approval vary between three months to one year. It is necessary to ensure that the field trials are conducted in mines suitable for the purpose and will offer adequate scope for monitoring the performance by DGMS officials. After successful completion of the field trial and receipt of the satisfactory report, the case is again examined and recommendations made to accord regular approval. If shortcomings are observed during the field trials the same is communicated to the manufacturer. The manufacturer may seek extension of the field trial. Regular approval is granted for a particular period initially for two years and is subsequently extended after obtaining satisfactory performance report from the field. The time period for extension vary between two years to three years.

During the year 2015, 436 approvals for use of material, equipment, machinery etc. in mines were granted as detailed below:

Type of approval	No. of approved
Approval for field trial	117
Regular approval including extensions	319
Total	436

5.2 Developmental Measures

5.2.1 Standard Setting

Based on the experiences, the developmental initiatives undertaken by DGMS are -

- (i) Amendment of safety laws,
- (ii) Issue of guidelines for safer operations in identified thrust areas through circulars and
- (iii) Issue of technical instructions to DGMS officers for their guidance.

Standard setting is a complex process consisting of translation of the vast experience of DGMS and multilevel interaction. Results of inspections and analysis of accident enquiries, recommendations of courts of enquiries and safety conferences, results of research & development activities, ILO guidelines and international state of the art of technology and its safety ramifications are some of the inputs going into standard setting. Amendment of statutes is an elaborate process wherein all the likely affected stake holders viz. Labour, management, academicians, research institutes, professional bodies are given adequate opportunities to send their comments, which in turn are considered before finalizing the amendment.

During 2015, DGMS issued 34 circulars to the mine management and 5 instructions to the inspecting officers as indicated below:

Type of Circular	No. issued
DGMS (Technical) Circulars	9
DGMS(Legislation)Circulars	0
DGMS (Approval) Circulars	23
DGMS (General) Circulars	2
DGMS (Exam) Circulars	0
Total Circulars	34
DGMS (Technical) Instructions	5
DGMS (General) Instructions	-
DGMS(Legislation) Instructions	-
Total Instructions	5

5.2.2 ILO Conventions - DGMS is paying utmost attention to the various recommendations of the ILO conventions held in the past related to the mining. Status of such conventions is given in Annexure-IA.

5.3 Conduct of Examinations and Award of Statutory certificates of Competency

Mining is a war against unpredictable forces of nature and since conditions of workings keep changing with time, the person at the spot has to take instantaneous decisions in respect of the work being performed, consistent with safety. Thus practical and on the spot decision of the front-line supervisor and managerial executive is of paramount importance to prevent loss of life and property. To examine the competency of persons eligible for manning such posts and to grant certificate of competency, two Boards of Mining Examination, one for Coal mines and the other for Metalliferous mines, function under the Chairmanship of the Director-General of Mines Safety.

Competency examinations are different from university examinations. In these examinations stress is laid on practical aspects of managing/supervising a mine/district apart from theoretical knowledge. In the case of Manager's, Assistant Manager's, Surveyor's and Overman's/Foreman's Certificates, the competency examination consists of a written part and an oral part. In the year 2015, Computer based Manager's (First and Second Class) examination under Coal Mines Regulations 1957 was introduced. The candidates have to secure not less than 50% marks in written (computer based) and then not less than 30% marks in oral with overall percentage of 50 or above (computer based and oral combined together) to be successful. For Manager's examination under Metalliferous Mines Regulations 1961, henceforth similar is the requirement for qualifying in the examinations. For Field candidates ie persons not holding Degree in Mining Engineering or Diploma in Mining the candidates have to appear in five subjects viz. Mine Management, Legislation & General Safety, Winning and Working, Ventilation, Mining machinery and Mine Surveying. Depending on the qualification and experience of the candidates, exemptions from appearing in some papers/subjects are granted. For Surveyor's and Overman's/Foreman's certificates,

candidates obtaining at least 40% mark in written examination in a subject is then called for the oral examination. Candidates obtaining at least 40% in orals and at least 50% in aggregate i.e. written and oral examinations are declared successful. Before a candidate is allowed to appear in an examination his application is scrutinized for valid first aid certificate, gas-testing certificate (wherever required) , other statutory certificate, practical experience, character certificate, medical certificate and basic qualification certificate.

In case of junior examinations i.e. sirdar's, shotfirer's, mate's, blaster's etc. only oral examinations are held. A candidate has to secure at least 50% marks with different examiners to be declared successful.

Details of examinations conducted during the year 2015 are given in ***Annexure-III***.

Processing of the large nos. of application is a big job and the system requires computerization for which a plan scheme named SSEX has been initiated.

5.4 Promotional initiatives

Some of the recent developments in safety movement, besides the legislative measures, include:

5.4.1 Conference on safety in mines.

The Conference on Safety in Mines is a tripartite forum at the national level in which the employers' representatives, the trade unions' representatives, the Government represented by Ministry of Labour & Employment, DGMS, various administrative ministries/ departments and State Governments and associated institutions, professional bodies, service associations, etc. take part. They review the status of safety in mines and the adequacy of existing measures in a spirit of mutual cooperation. The conference also suggests measures for further improvement in safety, welfare and health of mine workers. The first Conference was held in the year 1958 and the eleventh conference was held on 4th & 5th July, 2013 at New Delhi. A number of recommendations of these conferences have been given statutory backing and most of the others have been absorbed in management practices and policies.

5.4.2 National Safety Awards (Mines)

Ministry of Labour & Employment, Government of India instituted National Safety Awards (Mines) in 1983 (for the contest year 1982) with a view to promote a competitive spirit amongst mine operators for the betterment of safety standards in mines and to give due recognition to outstanding safety performance at national level. This award is generally given away by the Hon'ble President of India every year and has generated considerable enthusiasm amongst the Mining community. National Safety Awards (Mines) for the years 2011 & 2012 were given away on 20th March, 2015 at New Delhi by the Hon'ble President of India. The Ministry has reconstituted the National Safety Awards (Mines) Committee vide their letter No.D-14011/01/2013-ISH.I dated 06.03.2013 for a period of three years. Finalization of list of awards for the contest years 2013 and 2014 are under process.

5.4.3 Vocational Training and Other Training

Recognizing the need for safety education to enable the mine workers to prepare them to face the challenges of mining, the Mines Vocational Training Rules were framed in 1966. These rules provide for initial, refresher and specialised training to mine workers. This also provides for construction of mines vocational training centres

with training officers and instructors along with proper and adequate equipment and softwares. It also provides for payment to trainees during the training period.

5.4.4 Observance of Safety Week, Safety Campaign etc.

During the safety week held every year in different mining fields, efforts are made through various audio-visual means, to inculcate safety consciousness amongst workers, supervisors and others so as to influence their behaviour at work. Further, by holding competition amongst various participating mines an attempt is made to improve the working conditions. In all 56 nos. of safety weeks were observed during the year 2015 in different regions spread over the country covering all types of mines. Based on the accident experience, special safety drives are sometimes launched to focus attention on specific cause-groups.

5.4.5 Holding Rescue Competitions etc.

Rescue competitions amongst different teams from all coal and non-coal mining companies are conducted every year. In these competitions, among others, the main events comprise of actual rescue competition, recovery completion, competition in First-Aid and Fresh Air base, Statutory & Theory Competition, Test of Captain's Competency etc.

In the year 2015, 46th All India Mines Rescue Competition, 2015 was held at Mines Rescue Station, Manendragarh, of M/s SECL between 05th and 08th December 2015 under the aegis of DGMS. In this competition 17 teams from coal mining companies and 5 teams from metal mining companies had participated.

5.4.6 Promoting Participation of workers in safety management

Much greater strides in safety can be achieved by participation of workmen in safety programme, the twin institutions of 'Safety Committee & 'Workmen's Inspector' have been conceived and even given the statutory backing. DGMS is also associated with training of Workmen's Inspectors to make them effective in discharge of their duties. In coal mines almost all the eligible mines had a Workmen's Inspector and a Safety Committee. The table below shows the status of appointment of Workmen's Inspector and Safety Committees during 2015:

Type of Mine	No. of Safety Committees		No. of Workmen's Inspectors	
	Required	Provided	Required	Provided
Coal	539	540	1555	1561
Metal	372	328	499	508
Oil	82	82	98	113
Total	993	950	2152	2182

5.4.7 Promoting Self-regulation by management

Most of the mining companies in the organised sector have enunciated company's safety policy and set up Internal Safety Organisation (ISO) for monitoring, advising on and aiding in the implementation of safety measures in mines as per Company's policies and guidelines in keeping with the statutory provisions. ISOs are headed by a senior officer of the Executive Director/Chief General Manager level in the coal companies and are multi-disciplinary in character.

5.4.8 Awareness and information dissemination

Officers of DGMS serve as guest faculties at several short-term safety courses organized by the Mine Managements, Institute for Miners & Metal Workers' Education and Scientific and Academic Institutions. The officers also participate in various technical workshops, seminars, symposia and conferences and present technical papers relevant to their field of work. At all these forums they strive to spread the message of safety in right perspective.

Lists of various training courses/seminars/symposium & workshops attended/participated by DGMS Officers during 2015 are given in **Annexures IV & IVA** respectively. Besides, lectures were delivered by Officers of DGMS in various forums. They also chaired technical sessions and delivered key-note/valedictory addresses at various seminars/symposia/workshops and conferences etc.

Another piece of information which is widely disseminated and extensively made use of relates to accident statistics and analysis thereof. The DGMS also publishes the following:

- (a) DGMS Annual Report - annually
- (b) Statistics of Mines in India Vol. I (Coal) - annually
- (c) Statistics of Mines in India Vol. II (Non-coal) - annually
- (d) Monthly Review of Accidents – monthly

5.4.9 Technical Measures

It is well recognised that reasonable frequency of inspections is important to keep the mine operators alert to their responsibilities. It is also recognised that quality of inspections is equally important. This underscores the need for:

- Technical and professional competency of the officers of DGMS to be kept continually updated and upgraded;
- The regulatory, enforcement, advisory and promotional roles of DGMS to be backed by strong in-house S&T support; and
- Optimize the scarce resources of DGMS through:
 - Automation of office work so as to free the technical officers from work of routine and repetitive nature; and
 - Develop and implement comprehensive computer-based Mines Safety Information Monitoring System.

5.4.10 Interactions & advisory role

One of the measures to promote the cause of safety is inter-action with mine operators, workers' representatives, teaching and research institutions etc. A list of important organisations/ committees the meeting of which are organised/ participated by DGMS is indicated below:

1. Standing Committee on Safety in Coal Mines under the Chairmanship of the Union Minister of Coal.
2. Safety Board of Coal India Ltd.
3. Review Committees of various mining companies on implementation of recommendations of the Conference on Safety in Mines.
4. Mineral Advisory Council of India.
5. Mining Education Advisory Board, West Bengal.
6. Executive Council, Central Institute of Mining & Fuel Research.

7. Research Council of Central Institute of Mining & Fuel Research
8. Project Advisory Committee - Central Institute of Mining & Fuel Research.
9. Standing Sub-committee on Production, Productivity & Safety of Central Mining Research Institute.
10. Task Force Committee of Central Institute of Mining & Fuel Research
11. Advisory Panel for Mine Environment & Health Discipline - Central Institute of Mining & Fuel Research
12. General Council of Indian School of Mines University.
13. Executive Board of Indian School of Mines University.
14. Establishment & Finance Sub-committee of Indian School of Mines University.
15. Joint Board on Mining Engineering Education & Training.
16. Advisory Committee for Mining Engineering Department, Indian Institute of Technology, Kharagpur.
17. Coal Advisory Council of India.
18. The Council of the Mining, Geological & Metallurgical Institute of India.
19. Bihar Mineral Advisory Council.
20. Environmental Appraisal Committee for Mining Projects.
21. SSRC's Standing Sub-committee on production productivity & safety - CMPDI
22. Advisory Committee for Safety Review of Projects of Indian Rare Earth Ltd. (Organised by Atomic Energy Regulatory Board)
23. Governing Body of National Institute of Rock Mechanics.
24. Standing Co-ordination Committee on Mine Safety and Mineral Development.
25. Coal Conservation & Development Advisory Council.
26. Consultative Committee of the Ministry of Labour & Employment.
27. S & T Advisory Committee of the Ministry of Labour & Employment.
28. Standing committee of Parliament of Labour Welfare.
29. Committee of Parliament on Environment & Forest - Sub-committee on Dams & Mining.
30. Various Technical Committees of Bureau of Indian Standards.

Director-General or other Officers of DGMS being the Chairman/Member of these bodies are able to influence the policies and programme with a view to promote safety, welfare and health of workmen employed in mines.

6. Plan Schemes

In order to provide in-house technical support to field offices, DGMS is implementing following Plan Schemes namely:

Ongoing schemes:

- (1) "Mine Accident Analysis and Modernization of Information Database (MAMID)"
- (2) "Strengthening of Core Functions of DGMS (SOCFOD)"

6.1 "Mine Accident Analysis and Modernization of Information Database (MAMID)"

This is the restructured plan scheme after merging of the two Plan Schemes of Tenth Plan (2002 -07) namely (i) Study of Mines Accidents and Development of Mines Safety Information System (SOMA) and (ii) Modernization of Information Database in DGMS (MID) as per the Report of Working Group on Occupational Safety & Health for 11th Five Year Plan 2007-12 of Ministry of Labour and Employment, Government of India. Keeping the objective of integration in view, these schemes were merged into

one scheme "Mine Accident Analysis and Modernization of Information Database (MAMID)". This Plan Scheme is continued for the 12th Five Year Plan 2012-17. Later, a part of Plan Scheme "e-Governance in Directorate General of Mines Safety (e-DGMS), is merged with the ongoing Plan Scheme MAMID.

Objective/scope of the scheme

- To mitigate risk of disasters and accidents in mines through detailed analysis of accidents and dangerous occurrences using risk assessment and management techniques and activate promotional channels;
- Identification of mines having highest risk of accidents/disasters through detailed investigation into the operating systems and environment in the mine and prepare a Risk Management Plan for such mines for implementation;
- Dissemination of mine information system through various reports, technical instructions/guidelines, circulars on electronic as well as other conventional media.
- Re-engineer work processes to change governance pattern for simplicity, transparency, productivity and efficiency.
- Transform from Process bound System to Computerized Automated System.
- Develop and Establish Risk Observatory and National Archives on Occupational Safety, Health and Work Environment in mines including Oil & Gas Mines.

The major achievements and activities taken up during the year 2015 include

- Annual Report, 2012 published and publication Annual Reports for the years 2013 & 2014 are under process.
- Standard Note on DGMS as on 1.1.2015 published
- Compilation of
 - Statistics of Mines in India, Vol. I (Coal), 2013
 - Statistics of Mines in India, Vol. II (Non-Coal), 2013
- Publication of Monthly Review of Accidents and
- Report on Monthly Inspection Analysis
- DGMS has conceived the development of 8 nos. of software modules. An empanelled vendor of NICS I has taken up the job for "Digital DGMS".
- Development of following stand-alone software modules by National Informatics Centre (NIC) and/or National Informatics Centre Services Inc. (NICS I). M/s Unecops Technologies Ltd., an empanelled vendor of NICS I, has been entrusted (by NICS I) with the job of development of Software modules. The status of each module is given below.

Sl.No.	Software Module	Status
1.	Approval System	SRS completed. Development is Under Progress
2.	Permission, Exemption and Relaxation System	SRS is Under Scrutiny
3.	National Safety Awards (Mines)	SRS is Under Scrutiny
4.	Accidents & Statistics	SRS is Under Progress
5.	Accounts and Budget	SRS is Under Progress
6.	Administration/Establishment	To be taken up in II Phase
7.	Legal Management System	
8.	Material Management	

- National Safety Awards (Mines) for the years 2011 & 2012 were given away on 20th March, 2015 at New Delhi by the Hon'ble President of India.

- On-line system for Registration of all establishments (mines) for Labour Identification No. (LIN), and Randomized Inspection System is being carried out through the Unified Web Portal (UWP), namely Shram Suvidha Portal <http://efilelabourreturn.gov.in>.
- Development of Softwares for online submission of Annual Returns and Online Inspection for Coal Mines is under development by NIC.
- The software for digitization of approval mechanism in DGMS (As per the instructions of Project Monitoring Group of the Cabinet Secretariat is implemented.
- Risk assessment study & preparation of Safety Management Plan for 42 different identified cases in Coal & Non Coal Mines have been carried out.
- 65 Accident Reports have been analysed in Coal & Non Coal Mines.
- Three technical workshops on safety related to ventilation, handling of explosives and respirable dust were conducted.
- Exhibition cum Awareness meeting was organized by the Ministry of Labour & Employment on the initiatives of Labour & Employment, at KedarnathSahni Auditorium, C block, Civic centre, New Delhi on 25.05.2015. The function was inaugurated by the Hon'ble Minister of State for Labour & Employment (I/C), Shri Bandaru Dattatreya. Directorate General of Mines Safety (DGMS) participated & present the Latest initiatives of DGMS in a stall. The theme of the exhibition was to display good governance by bringing transparency & accountability in enforcement of Labour Laws.
- Thirty awareness camps have been conducted in mines located at different zones and regions of DGMS on " Latest initiatives and Safety Measures taken up DGMS
- 5 Technical Circulars & 2 Instructions have been issued.
- Geo-tagging of all DGMS offices in Bhuvan Portal was done.
- Complaints under CDAU have been dealt by this department

6.2 "Strengthening of Core Functions of DGMS" (SOCFOD)

This is a continuing plan scheme. The scheme has been formulated by merging three on-going plan schemes of DGMS, namely (1) "Augmentation of S&T Capabilities, Mine Rescue Services and Human Resource Development (S&T) (1975)", (2) "Strengthening of Machinery for Conduct of Statutory Examinations (SSEX)(2000-01)" and (3) "Improving Efficiency by Providing Infra Structure Facilities in DGMS (PIF)(2000-01)" along with components like Occupational Safety and Health Surveillance, promotional initiatives and Emergency Response system. Later, rest part of Plan Scheme "e-Governance in Directorate General of Mines Safety (e-DGMS), is merged with the ongoing Plan Scheme "Strengthening of Core Functions of DGMS (SOCFOD)".

Objectives of the Scheme for the 12th Plan

The objectives of the scheme are:

- To render scientific and technological support to the enforcement wing of DGMS. To develop, improve and update need based rescue and emergency response services to the mining industry.

- To establish Mine Safety & Health Academy with institutes at different offices of DGMS for imparting structured training to DGMS officers and key personnel of the mining industry.
- To provide infrastructure facilities i.e. office buildings and residential complexes, communication facilities and office equipment and furnishing of offices.
- To conduct Occupational Safety, Health and Welfare Survey in mines of unorganized sectors.
- Provide dedicated network facilities for Data, Audio-Video and Mail messaging with Online interactive Communication and Data Processing System (DC & DRC & all offices)
- Provide and maintain infrastructure facilities including hardware for National Mines Safety & Health Resource Centre and National Mine Disaster Control & Management Network.

Activities

The activities of SOCFOD Plan Scheme can be classified under three major components as given below.

(A) Science & Technology (S & T) Component:

The Science and Technology component as above caters to providing scientific and technological support to the enforcement wing of DGMS in 'fulfillment and discharge of its statutory responsibilities and advisory role', 'developing, improving & updating need based rescue and emergency response services to the mining industry' and 'providing support to the activity "Human Resource Development for Improving Health and Safety Standards in Mines (HRD)" in meeting the demands of scientific support, consultancy and guidance to other institutions concerned with Occupational Safety and Health matters'.

- (a) Under the heading of 'providing scientific and technological support to the enforcement wing of DGMS in fulfillment and discharge of its statutory responsibilities and advisory role', the following are the major areas of studies/activities.
- Approval of new methods of mining after duly reviewing and assessing the hazards which may accompany with the introduction of new method, in coal, metalliferous & Oil/Gas mines.
 - Standardization of prototype tests and accreditation of testing laboratories /test houses.
 - Guidelines for accreditation of testing laboratories/test houses.
 - Protocol for design, manufacture, testing and use of powered roof support and its components.
 - Guideline for testing steel chocks.
 - Standardization of ultrasonic testing technique and formulation of acceptance & rejection norms.
 - Standardization of rejection criteria for winding rope and development of assessment procedure.
 - Collaboration with other research institutions.

- Interaction and information dissemination through technical seminars, symposiums, meets and workshops.
 - Issuing of technical direction and guidelines on various mining subjects both for internal and external circulation.
 - Special investigations and studies in the areas of mine environment, ventilation, strata/ ground control, other rock mechanic behaviors,
 - Formulation and standardization of fire ladders for Indian coal seams i.e., classification of coal seam/mine prone to spontaneous combustion and fire on scientific basis.
 - Explosives and Blasting with respect to optimization of explosive energy in rock breaking.
- (b) The component on 'developing, improving & updating need based rescue and emergency response services to the mining industry' is based on the concept of "Integrated Emergency Response System (IERS)", essentially devised to deal emergencies of diverse kind in different industries and vital installations, strategic in nature, including the mining profession which is by far, one of the most hazardous operations of peacetime. The concept underlined in IERS when applied to belowground mines, revealed that adoption of self-escape philosophy offers the best chance of survival to the underground personnel, when ably supported by an aided rescue strategy, which provides for external assistance to those persons unable to reach a place of safety, unaided. It is appropriate to consider adoption of a pro-active approach in tune with this doctrine of self regulation and duty of care for formulation of an Emergency Management Plan, to effect a significant improvement in the emergency preparedness and response systems of Indian coal mines. Based on inferences drawn from the review of existing practices and conducted simulated emergency exercises, the following are the major areas of studies/activities under this component.
- Formulation of detailed control measures consequent upon risk assessment exercise, detailing responsibility of concerned mine officials with a protocol of implementation, to obviate the possibilities of dangerous occurrence in a coal mine.
 - Scenario planning & Hypothesis testing sessions to search for possible solutions/controls of hazards and risks which may have not been previously identified.
 - Ventilation network in mines to be incorporated suitably with ventilation plans detailing all aspects of ventilation.
 - Drawing up of schedule of training and re-training for all persons on the correct donning and wearing procedures for self rescuers.
 - Introduction of 'gas chromatography' for mine gas analysis purposes.
 - Reviewing of current standing orders to incorporate concepts like developing trigger action response plans to establish specific trigger points.
 - Devising suitable mode of emergency initiation protocol in the workings of belowground mines by way of introducing 'stink gas' to serve as

warning to all work persons in the mine, particularly those without easy access to telecommunication system.

- Establishment of procedures detailing standard methods for deciding plans/options with work persons prior to evacuation, including routes of travel, modes of travel, order of travel, use of link lines, communications, signaling, etc.
- Primary and secondary escape routes be established and maintained. The escape ways may be fitted with guide ropes, clearly sign posted and facilities like fluorescent droppers , embossed printing be used to make them identifiable in poor visibility.
- Development of duty cards that individually detail the expected roles, responsibilities and authorities of all persons in charge of coordinating and/or controlling an emergency response, which may be kept at a number of designated places around the mine site.
- Construction of 'refuge chamber' equipped with telephones, etc., where workmen can gather in the event of an emergency, to mitigate the hazards associated with extensive workings and steep gradient in coal mines.

(c) The component on "Human Resource Development" as an effective tool in addressing the "Occupational Safety & Health" issues of persons employed in the mines is very vital and specially pertinent to present day dynamics in mining sector. Persons employed in mines are exposed to a number of occupational hazards at work due to dust, noise, toxic metals, heat, humidity vibration etc., which adversely affect their health and cause occupational diseases like pneumoconiosis, silicosis, manganese poisoning, hearing impairment, etc. Almost all such occupational diseases are known to cause permanent disability and there is no effective treatment. For addressing these problems, numbers of recommendations have been made by the National Conferences on Safety in Mines in the past. For meeting the desired objective, these recommendations shall be strictly implemented after being integrated with suitable compensation and mitigation programmes formulated with the help of all stake holders. For long-term sustenance of such initiatives, suitable awareness programmes need to be devised and implemented - coupled with commensurate training and re-training schedules of all stake holders. Against this backdrop, the following are the major areas of studies/activities under this component.

- Conduct occupational safety and health surveillance in cluster mining pockets in unorganized mining sector for identifying affected persons/groups, and for designing suitable redressal mechanism for compensation and mitigation/rehabilitation of such affected persons.
- Conduct different types of surveys in mines on safety perception, understanding workload and risks associated with face operations, etc. with a view to designing suitable mitigative measures through risk management processes.
- Investigate the ergonomical impact of mining on person operating machinery etc., and conduct ergonomic analysis involving objective measurements and evaluation of external stress (task-organization-environment) internal stress (physiological measurements-posture analysis-behavior) and a subjective assessment by the workers involved.

- Establish Mine Safety & Health Academy (MSHA) in various zones/regions of DGMS to impart structured training to DGMS officers and key personnel of the mining industry.
- Develop basic training aids and safety manuals/monographs with animated real-time occurrences in mines, for use in MSHA.
- Establishing fully equipped 'virtual reality facility' at the Mine Safety & Health Academy (MSHA) centers as an effective tool for training of all stake holders on various mining subjects.

(B) SSEX Component of the Scheme: (Strengthening of Statutory Examination)

This component caters to the needs of modernizing the statutory examination system of DGMS to be in tune with the e-Governance policies of the Government of India. The various important issues connected therewith are as follows.

- Developing a quick and transparent system of examination with the aid of computer and associated information technology.
- Review of the existing examination system in order to eliminate redundancy and standardize procedures.
- Developing computerized application processing system, issue of certificate and maintenance of records connected therewith.
- Connecting examination centres with the Board of Mining Examinations at Headquarters, Dhanbad by computer Network and State of the Art information technology.

(C) PIF Component: (Providing Infrastructure Facility)

This component caters to providing various infrastructure and related logistics connected to all the identified activities.

- Construction of Offices & Residential complexes and major renovation of old buildings.
- Furnishing of new offices for running the Scheme and renovation of existing ones.
- Provision for hiring vehicles for movement for running the Scheme.
- Establishing modern communication network system across different offices of DGMS, Mining companies and concerned Ministries.

Details of achievement during January to December, 2015:

SN	Activity	Achievement
A. S&T Division		
1.	Mine Environment Studies i) Coal Mines ii) Non Coal Mines iii) Oil and Gas Mines	15 12 --
2.	Mine Ventilation Studies i) Coal Mines ii) Non Coal Mines iii) Oil and Gas Mines	04 02 --
3.	Strata Control Studies i) Coal Mines ii) Non Coal Mines	04 01
4.	Development of Standards i) Coal Mines ii) Non Coal Mines iii) Oil and Gas Mines	09 -- --
5.	R&D Studies(Projects) i) Coal Mines ii) Non Coal Mines iii) Oil and Gas Mines	-- 01(ongoing) --
6.	Development of Disasters i) Coal Mines ii) Non Coal Mines iii) Oil and Gas Mines	01(ongoing) -- --
7.	National and International Workshop and Seminars	03
8.	Training of Personnel from Industry at MSHA	145
9.	National and International Visits and Training i) Offshore and On-Land ii) Coal Mining, CBM, CTL, UGC and other new Technology iii) Non-Coal Sector iv) Silicosis and Pneumoconiosis v) Disaster Control and Management vi) Training of newly appointed officers of DGMS. vii) DGMS officers training in Oil Mines at IPSHEM, Goa	04 32 24 -- -- 48 20

10.	Civil Works: Construction of Office and/ or Residential Complexes at Bilaspur, Sitarampur, Jabalpur, Raigarh, Dhanbad, Bellary, Chaibasa, Ajmer, Nellore, Parasia, Udaipur & Goa	Work completed at Goa & Bilaspur Work ongoing at Sitarampur, Jabalpur, Raigarh, Dhanbad, Bellary, & Udaipur
11.	Civil Works: Repairs and Renovations of Old Buildings, Water and Electricity Lines at Dhanbad, Sitarampur, Ajmer, Udaipur and Other Regional Offices.	Work ongoing at Sitarampur, Dhanbad, & Udaipur
12.	Completion of Library cum Auditorium Building and associated Work at Dhanbad	Completed.
13.	Conduct of online First Class & Second Class Mine Manager's Certificate of Competency (Coal)	Conducted successfully

7. Accident Experience

- 7.1** During the year 2015, there were 68, 40 and 4 fatal accidents involving 69, 41 and 5 fatalities in coal, metal and oil mines, respectively. The number of fatal accidents during the previous year 2014 were 70, 35 and 5 for coal, metal and oil mines respectively.
- 7.2** Table 8 indicates the trend in 10-yearly average number of fatal accidents and that of fatality rates per thousand persons employed from 1901 to 2015 for coal and non-coal mines. For coal mines, a consistent decline is observed in the 10-yearly average number of accidents per year since the 1950s and in the 10-yearly average number of fatalities since the 1970s. The same trend continued for the last 10-yearly period 2011-2015. For non-coal mines, the average number of accidents and fatalities have remained more or less at the same level during the period from 1971-80 to 1991-2000. While the last ten yearly average during the period 2001-10 have slightly decreased in number of accidents and fatalities and the last five-yearly average have fallen significantly during the period 2015.
- 7.3** Table 9 shows the variation over the last ten years in the number of fatal and serious accidents separately for coal, metal and oil mines. It is seen that the number of accidents (fatal and serious taken together) in coal mines has decreased in 2015 in comparison to 2014.
- 7.4** Mineral-wise trends in annual death rates per 1000 persons employed during the last decade are shown in Table 10 for major minerals. The rate has decreased or almost same during 2015 for all the minerals (coal, metal & oil) as compared to 2014. Table 11 shows the mineral-wise break-up of accidents and casualties during the year 2015. From Table 11 it is seen that out of 41 deaths reported from metalliferous mines, 12 occurred in Iron ore mines, 4 in Stone, 2 in Limestone and Galena & Sphalerite each, 1 each in Copper, Gold and Manganese mines and 18 in others. In oil mines only 4 fatal accidents occurred during the year 2015 causing 5 fatalities.
- 7.5** Trends in serious injury rates, as well as death rates, appear in Tables 12, 14 & 16 for coal, metal and oil mines respectively. Place wise trends in death and serious injury rates are shown for coal mines in Table 13 and for metalliferous mines in Table 15.
- 7.6** Tables 17 to 20 give cause-wise and place-wise figures of fatal and serious accidents in coal and non-coal mines during the years 2013 to 2015. The observations from these tables are given below.

In coal mines:

- ✓ Number of fatal accidents due to ground movement involving roof fall and side fall accidents are 10, 12 and 9 for the year 2013, 2014 and 2015 respectively. Roof fall and side fall accidents accounted for about 13% of all fatal accidents during the year 2015.
- ✓ About 7% of all fatal accidents in 2015 were due to Roof-fall alone.
- ✓ The number of fatal accidents due to dumper has decreased from 14 in 2014 to 12 in 2015 which accounted for about 18% of the total accidents. Truck, tanker etc. accounted for about 9%, rope haulage 3%, Other machinery 15% and other causes 23% during the year 2015.
- ✓ Fall of persons, the dominant cause of serious accidents, accounted for about 33% followed by other causes 25% and Fall of object 16% during the year 2015.

Figures 1 and 2 below show cause-wise fatal and serious accidents in coal mines during the year 2015.

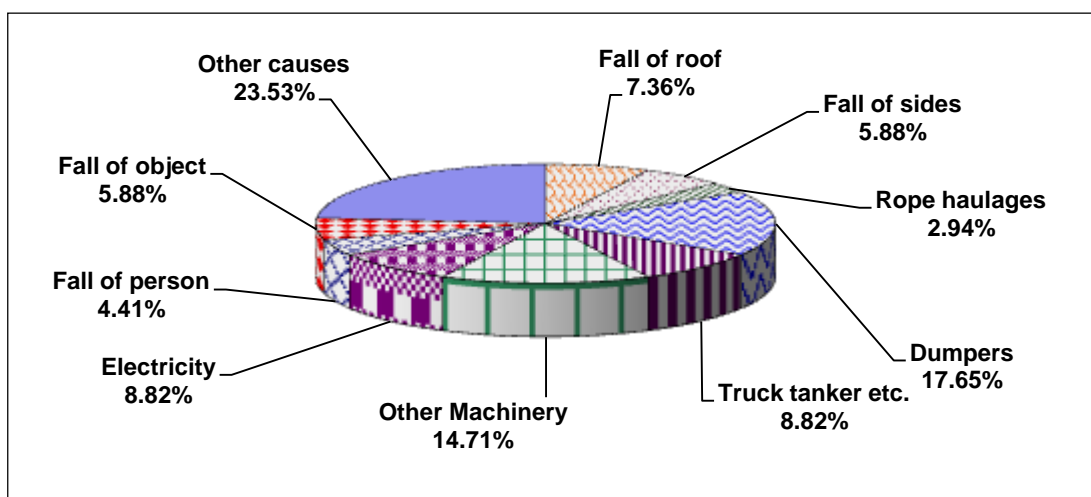


Fig.1 Cause-wise distribution of fatal accidents in coal mines during 2015

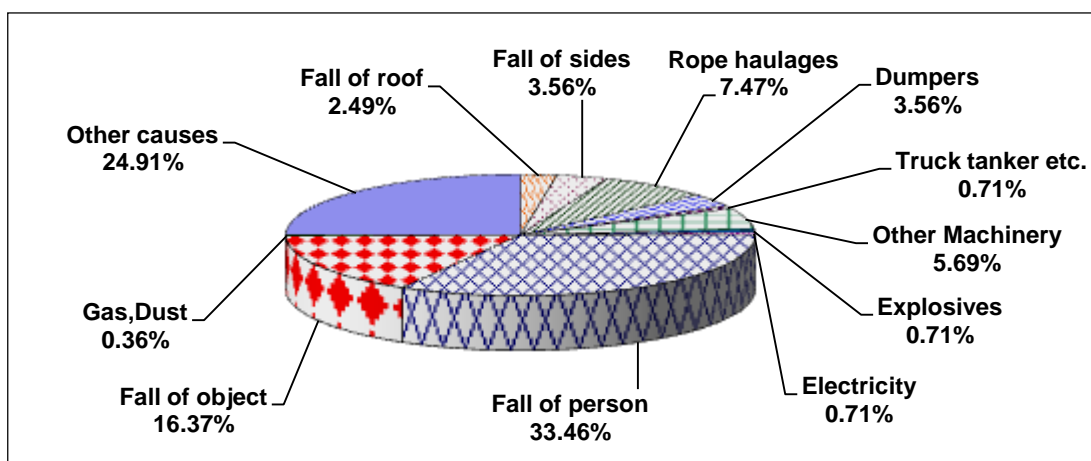


Fig.2 Cause-wise distribution of serious accidents in coal mines during 2015

In non-coal mines:

- ✓ During 2015, highest percentage of fatal accidents was due to Fall of Persons and it was about 27%. It was followed by Dumpers and Other about 18% each, fall of sides 11%, Fall of object 9%, Truck tanker etc. 7% and other machinery, Fall of roof, Gas, dust etc and Electricity each 2%
- ✓ The main frequent causes of serious accidents in non-coal mines in 2015 was Fall of object about 23% followed by Other machinery and Fall of persons about 14% each, Fall of roof 9%, Fall of sides about 6% and Gas-dust etc 3%. Other causes contributed about 31% of total serious injuries.

Figures 3 and 4 below show cause-wise fatal and serious accidents in non-coal mines in 2015.

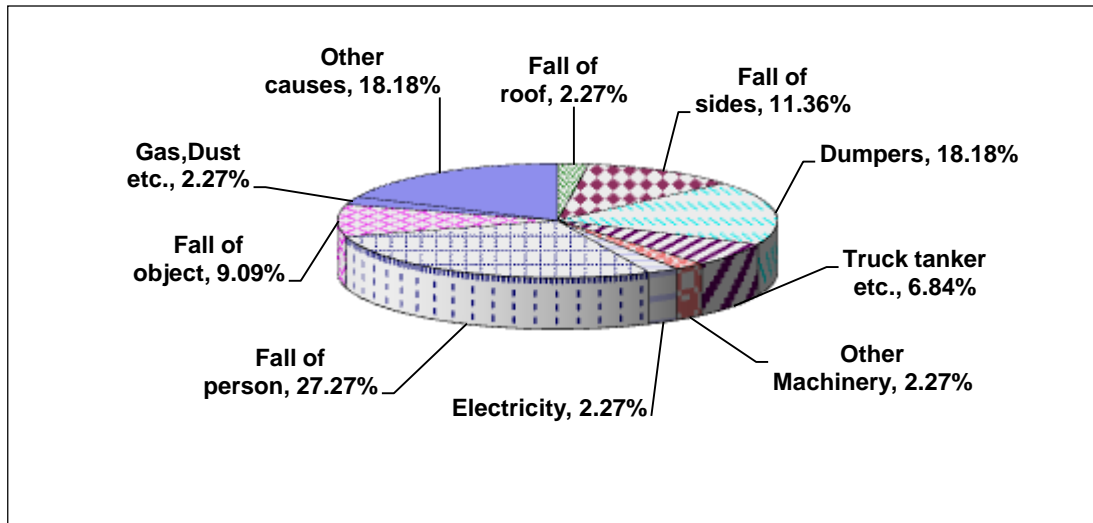


Fig. 3 Cause-wise distribution of fatal accidents in non-coal mines during 2015

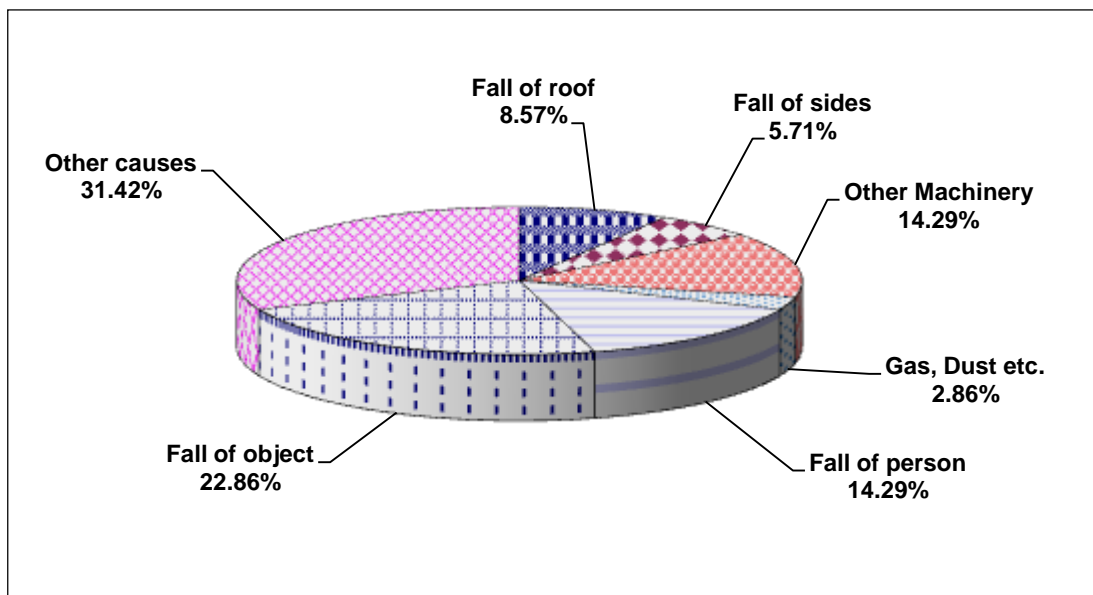


Fig.4 Cause-wise distribution of serious accidents in non-coal mines during 2015

7.7 Tables 21 to 23 give state-wise details of accident statistics for coal, metal and oil mines.

Table 1		Trend in Output of Important Minerals									
Year	Coal	Oil & Natural Gas		Other Minerals							
		Oil	Gas	Copper Ore	Lead & Zinc	Gold Ore	Iron Ore	Mang. Ore	Lime stone	Bauxite	Stone
	Million tonnes	Million tonnes	Million Cu. Mtr.	Million tonnes	Million tonnes	Million tonnes	Million tonnes	Million tonnes	Million tonnes	Million tonnes	Million tonnes
1961	55.71	n.a.	n.a.	0.42	0.15	n.a.	12.27	1.23	14.35	0.48	1.68
1971	75.64	7.19	720	0.68	0.30	0.6	32.97	1.61	25.26	1.45	3.81
1981	127.32	7.92	2220	2.01	0.96	0.50	42.78	1.55	32.56	1.75	4.10
1991	237.76	9.51	3543	5.05	1.82	0.47	60.03	1.68	75.02	3.86	11.64
1992	249.94	10.75	3510	5.20	2.14	0.45	61.24	1.96	77.79	4.36	9.12
1993	260.60	11.81	4912	5.15	2.10	0.40	63.26	1.78	87.72	4.81	10.81
1994	267.52	11.60	4740	4.78	1.90	0.36	64.91	1.69	86.77	4.70	11.12
1995	284.59	11.66	5323	4.77	2.10	0.46	73.00	1.83	93.64	5.09	6.34
1996	304.10	11.24	5451	4.75	2.06	0.47	71.59	2.01	120.87	5.35	4.78
1997	316.68	13.71	7068	4.26	2.01	0.46	78.36	2.29	123.56	5.17	10.43
1998	319.90	18.28	7289	4.38	2.23	0.51	77.34	1.92	116.61	5.91	12.03
1999	315.19	13.68	7548	3.29	3.21	0.64	75.89	1.65	131.70	5.81	10.63
2000	334.32	14.24	7821	3.20	3.32	0.58	84.77	1.99	148.80	6.39	15.62
2001	341.51	14.56	8203	3.53	1.76	0.48	90.47	1.93	147.34	7.02	15.15
2002	363.31	14.56	8024	3.19	3.18	0.62	99.81	1.91	158.59	8.96	14.36
2003	379.19	18.50	8494	2.84	3.53	0.10	118.81	2.41	190.45	10.65	10.45
2004	409.30	16.64	6456	3.09	3.52	0.70	135.75	2.83	256.70	9.24	12.68
2005	420.85	16.94	6557	2.66	4.40	0.62	155.42	2.77	214.36	9.17	20.28
2006	430.33	21.13	4548	3.10	4.23	0.60	193.50	2.85	213.85	9.23	21.73
2007	481.12	14.31	7612	3.27	5.07	0.37	235.76	3.50	269.65	10.85	23.15
2008	506.29	14.70	12788	3.06	7.02	0.65	230.64	3.62	274.01	16.99	31.21
2009	558.82	17.53	15454	3.09	11.74	0.62	231.02	3.66	280.08	12.45	36.67
2010	601.88	22.80	15449	3.90	11.76	0.68	256.30	4.09	337.40	13.32	37.59
2011	607.27	18.95	18266	3.70	13.50	0.70	252.18	6.08	313.9	13.7	37.3
2012	617.96	17.60	19394	3.40	8.50	0.68	250.10	6.07	367.70	16.80	37.00
2013	634.43	19.31	13925	3.89	7.86	0.69	224.17	7.33	441.14	19.37	41.93

Year	No of reporting mines			Value of minerals (in Million Rupees)			Aggregate H.P. (in 1000s)			Explosives used (in 1000 tonnes)	
	Coal	Metal	Oil	Coal	Metal	Oil	Coal	Metal	Oil	Coal	Non-coal
1951	893	1810	-	505	235	N.A.	188	83	N.A.	1.5	1.0
1961	848	2323	-	1141	487	N.A.	438	159	N.A.	4.5	3.8
1971	781	1995	13	2543	1080	756	732	282	25	12.3	9.4
1981	496	1768	8	18114	3620	2748	1841	925	35	46.3	15.3
1991	561	1787	24	79794	19076	18533	4292	1519	507	124.2	40.3
1992	567	1810	27	96377	21700	23104	4653	1644	583	140.0	44.1
1993	570	1845	27	107467	23392	31777	3942	1853	541	155.6	44.1
1994	576	1869	29	122216	24648	34302	4690	1891	548	156.9	43.3
1995	579	1930	32	133314	33611	37065	5218	1735	579	189.6	46.2
1996	576	1872	32	157474	36521	37388	5300	1877	523	207.8	47.2
1997	580	1834	34	193877	43758	32608	5314	2016	570	232.7	43.4
1998	594	1864	37	205307	45286	42851	5399	2020	602	247.0	47.1
1999	598	1957	44	219101	46415	72824	5660	2147	769	267.6	49.8
2000	595	2022	45	234531	53111	92954	5561	2371	757	290.5	57.0
2001	568	1907	43	261082	54032	106747	5586	2087	712	318.8	55.8
2002	567	1870	42	286390	64964	123326	5432	2175	757	315.3	55.6
2003	562	1716	49	299954	77605	131897	5527	2129	621	304.8	63.7
2004	567	1764	47	348898	104283	166083	5409	2336	685	334.0	70.6
2005	569	1835	50	371391	133417	230586	5415	2495	701	297.2	70.8
2006	568	1720	44	374671	162160	370657	5953	2666	468	345.3	95.1
2007	567	1770	49	419279	235351	256944	5843	2646	457	352.7	97.8
2008	569	1904	67	481635	289354	294290	6109	3034	711	395.3	121.0
2009	583	2002	74	581240	325453	351652	6248	3309	842	461.0	101.7
2010	592	1961	82	618357	366829	404801	6362	3310	851	493.2	97.2
2011	601	1956	85	666415	419109	399397	6809	3801	937	503.5	98.2
2012	582	2148	86	744934	448843	492060	6936	4101	854	474.6	102.2
2013	605	2230	88	1085239	423740	565656	7557	4104	1014	523.6	100.2

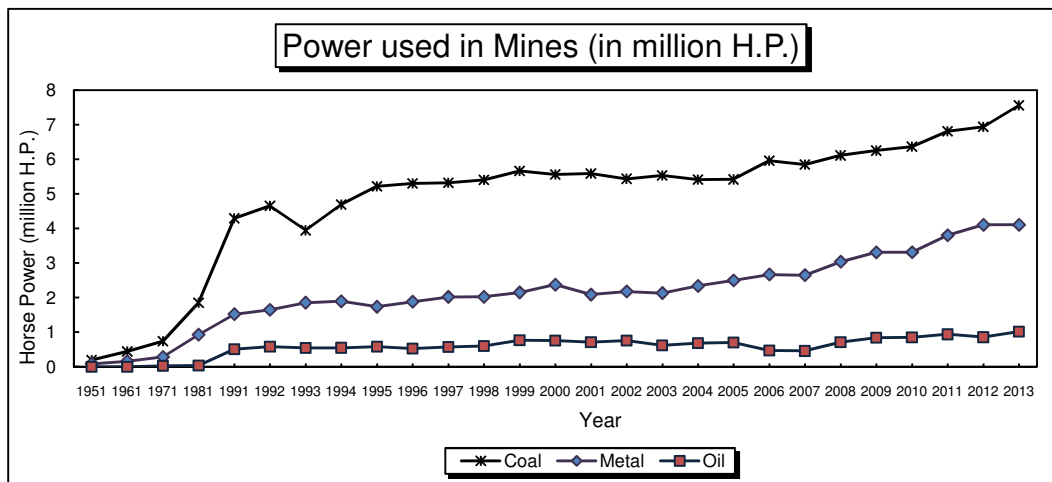
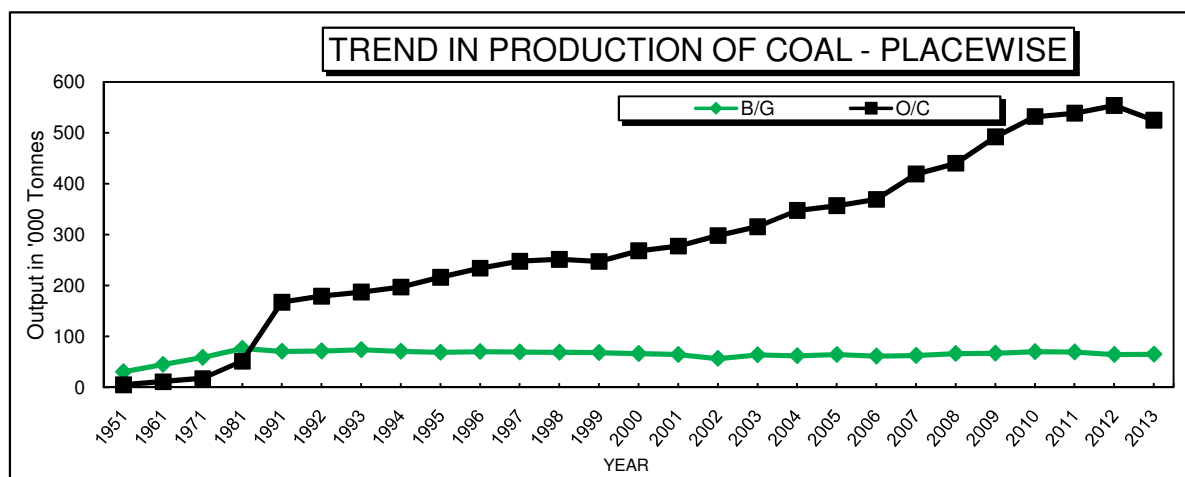


Table 3		Average Daily Employment in Mines (in '000)									
Year	Coal	Oil	Copper Ore	Gold Ore	Iron Ore	Lime Stone	Mang. Ore	Mica	Stone	Others	Total Metals
1951	351.9	N.A.	3.7	21.7	20.2	16.0	55.5	52.2	5.1	22.7	197.1
1961	411.2	N.A.	4.2	21.7	54.5	54.7	47.0	29.6	8.5	39.5	259.7
1971	382.3	13.6	7.6	12.4	52.8	53.2	30.4	12.2	8.8	57.5	234.9
1981	513.4	14.5	13.4	12.3	44.9	49.8	26.5	6.7	7.7	60.6	221.9
1991	554.1	35.5	12.8	9.3	40.0	43.5	17.9	2.2	11.2	63.3	200.2
1992	552.0	35.7	12.7	9.4	42.0	43.0	18.4	1.6	8.9	67.2	203.2
1993	546.3	33.5	12.2	7.9	39.8	41.6	18.5	1.5	9.2	68.9	199.6
1994	523.7	34.3	11.2	7.4	38.5	39.8	18.2	1.7	9.4	65.2	191.4
1995	513.3	34.0	10.5	7.1	39.6	39.8	18.1	1.8	7.5	64.4	188.8
1996	506.4	33.4	9.9	6.9	39.2	35.7	18.1	1.2	5.2	60.1	176.3
1997	503.4	28.6	10.3	6.8	38.6	33.0	16.0	1.2	4.9	61.6	172.4
1998	491.3	29.5	8.7	6.1	37.3	31.2	15.9	1.1	5.3	59.3	164.9
1999	475.8	25.5	7.7	5.9	36.2	29.8	16.5	1.0	5.2	55.3	157.6
2000	458.4	23.4	6.9	5.3	35.3	31.1	16.1	1.0	6.4	54.8	156.9
2001	438.2	24.4	3.9	3.6	32.3	24.2	17.8	1.0	6.3	47.5	136.6
2002	422.6	22.3	3.3	3.3	33.6	25.1	13.7	1.0	7.8	49.2	137.0
2003	416.7	18.6	2.5	2.7	35.8	24.2	13.2	0.6	8.0	50.0	137.0
2004	405.2	19.1	2.0	2.7	38.6	24.8	14.6	0.6	7.9	52.2	143.5
2005	399.0	19.2	1.9	3.1	37.4	25.8	14.7	0.6	7.0	50.5	141.0
2006	385.7	13.9	2.0	3.1	41.6	25.6	13.2	0.6	6.5	50.8	143.4
2007	379.5	19.2	2.5	3.1	41.8	27.7	13.4	0.6	8.8	53.8	151.7
2008	369.4	23.6	2.6	3.1	44.8	28.1	13.5	0.7	7.0	56.3	156.1
2009	373.9	24.9	3.1	2.0	47.2	28.5	13.4	0.6	7.2	58.1	160.1
2010	370.1	29.4	3.0	3.0	47.3	28.2	13.9	0.7	7.2	59.5	162.8
2011	366.0	27.4	3.3	3.1	52.6	28.6	15.8	0.7	7.1	61.6	172.8
2012	359.0	22.8	3.7	3.1	55.2	30.1	16.4	0.6	7.2	41.0	180.1
2013	357.9	25.9	3.7	3.4	52.9	33.7	17.4	0.5	7.4	40.4	185.3

Table 4**Average Daily Employment in All Mines****by Place of Work**

Year	Belowground	Opencast		Aboveground		Total
		Men	Women	Men	Women	
1951	220312	89467	54107	129662	55500	549048
1961	261703	157033	67927	145944	38380	670987
1971	255297	142911	52916	157295	22316	630735
1981	331613	144729	45883	198580	28998	749803
1991	339781	154422	29225	240621	25831	789880
1992	334805	158717	28302	244902	24245	790971
1993	330697	159905	26069	205460	23829	745960
1994	313923	155413	24793	231058	24303	749490
1995	307356	154611	23358	193457	23323	702105
1996	300196	148676	20609	224192	22510	716183
1997	298329	144590	19533	220144	21941	704537
1998	288075	144807	17273	213822	21696	685673
1999	273966	144457	16145	204584	19749	658901
2000	263217	144701	15593	197300	17930	638741
2001	250416	137661	12032	183758	15436	599303
2002	234954	139506	12349	179897	15174	581880
2003	223377	141746	11643	179952	15608	572327
2004	218320	147162	12275	174545	15609	567911
2005	213090	146305	11988	173559	14153	559095
2006	203656	154391	10157	158762	16043	543009
2007	196695	165833	9437	143339	15875	531179
2008	195738	164224	10203	164084	14826	549075
2009	194194	168550	11947	170327	13954	558972
2010	191193	172616	11140	173686	13742	562377
2011	187759	179344	11127	174833	13096	566159
2012	182524	187104	9971	169171	13426	562196
2013	177337	185567	10730	181108	13721	568463

Table 5 Placewise Distribution of Average Daily Employment and Production in Coal Mines							
Year	Belowground		Opencast		Aboveground	Total	
	Output (in '000 tonnes)	Employment (in '000 number)	Output (in '000 tonnes)	Employment (in '000 number)	Employment (in '000 number)	Output (in '000 tonnes)	Employment (in '000 number)
1951	30199	178	4784	36	138	34983	352
1961	44887	230	10822	60	121	55709	411
1971	58552	228	17090	43	111	75642	382
1981	76205	302	51120	55	156	127325	513
1991	70731	316	167026	67	171	237757	554
1992	71062	311	178879	67	174	249941	552
1993	73672	308	186935	68	170	260607	546
1994	70644	293	196878	67	164	267522	524
1995	68512	287	216074	68	158	284586	513
1996	70128	281	233969	68	157	304097	506
1997	69062	279	247619	69	156	316681	504
1998	68571	270	251324	69	152	319895	491
1999	68101	258	247088	71	147	315189	476
2000	66225	249	268092	69	140	334317	458
2001	64134	239	277379	69	130	341513	438
2002	56330	225	297982	69	129	363312	423
2003	63632	216	315556	69	132	379188	417
2004	61921	211	347347	70	122	409268	405
2005	64087	205	356758	70	124	420845	399
2006	61213	196	369120	76	114	430333	386
2007	62302	188	418822	80	111	481124	349
2008	66290	187	440004	77	106	506294	370
2009	66835	186	491982	80	108	558817	374
2010	69998	182	531880	83	105	601878	370
2011	69032	178	538240	86	102	607272	366
2012	64341	172	553628	88	98	617969	358
2013	64746	168	524767	87	103	589513	358



Year	Number of Inspections and Enquiries								Grand Total
	No. of inspections				No. of Enquiries				
	Coal	Metal	Oil	Total	Coal	Metal	Oil	Total	
2002	5667	2856	269	8792	1022	402	30	1454	10246
2003	5574	3247	246	9067	966	427	13	1406	10473
2004	5214	2983	228	8425	834	436	8	1278	9703
2005	5247	3107	295	8649	933	372	30	1335	9984
2006	4192	2630	219	7041	951	338	27	1316	8357
2007	4330	2309	183	6822	796	380	24	1200	8022
2008	4614	2838	216	7668	840	417	24	1281	8949
2009	4404	3325	250	7979	899	372	52	1323	9302
2010	3486	3297	243	7026	911	462	52	1425	8451
2011	3216	3688	321	7225	956	452	68	1476	8701
2012	3811	3635	292	7738	933	537	40	1510	9248
2013	4038	3898	329	8265	890	449	60	1399	9664
2014	4664	4694	588	9946	1035	540	111	1686	11632
2015	6047	5889	786	12722	1280	653	36	1969	14691

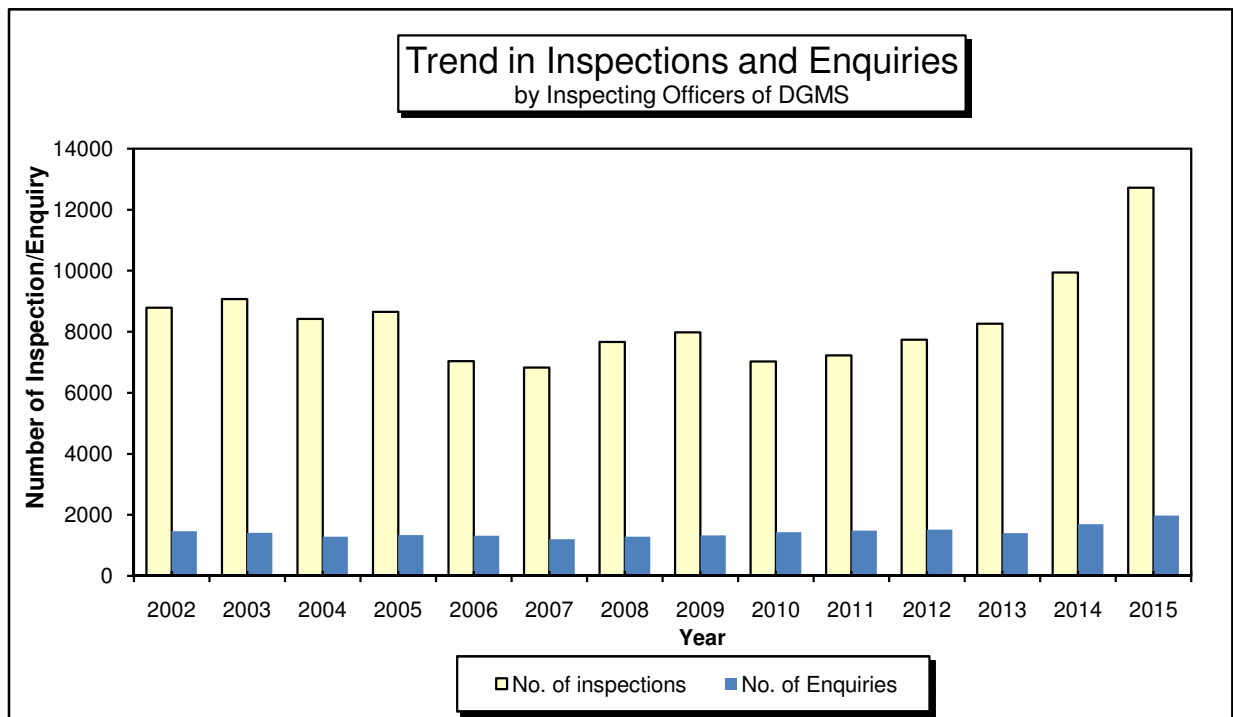


Table.7 IMPROVEMENT NOTICES AND PROHIBITORY ORDERS									
(Under Section 22 of Mines Act and under Reg. 103/108 of Coal/Metalliferous Mines Regulations)									
YEAR	COAL MINES				NON-COAL MINES				
	Notices	Issued	Orders	Issued	Notices	Issued	Orders	Issued	
	Section 22(1) or 22A(1)	Reg. 103	Section 22(1A) or 22(3)	Reg. 103	Section 22(1A) or 22(3)	Reg. 108	Section 22(1A) or 22(3)	Reg. 108	
2001	126	18	69	Nil	44	5	63	6	
2002	36	Nil	30	Nil	32	2	80	3	
2003	127	Nil	65	Nil	38	2	185	2	
2004	147	Nil	62	Nil	56	Nil	251	1	
2005	124	Nil	36	Nil	130	1	136	Nil	
2006	103	Nil	72	Nil	38	1	160	1	
2007	122	Nil	49	Nil	85	Nil	174	Nil	
2008	85	1	36	1	88	Nil	161	Nil	
2009	99	Nil	25	Nil	56	Nil	106	Nil	
2010	97	Nil	27	Nil	83	Nil	168	Nil	
2011	49	3	25	8	374	1	440	7	
2012	78	1	30	Nil	151	Nil	214	Nil	
2013	106	2	38	4	207	17	472	1	
2014	127	0	46	0	445	4	670	0	
2015	106	0	42	0	85	3	106	7	

TABLE-8	Trend in fatal accidents and fatality rates per 1000 persons employed (Ten yearly average)							
	COAL MINES				NON-COAL MINES			
	Av. No. of Acc.	Acc. rate	Av. No. of Fatalities	Fatality rate	Av. No. of Acc.	Acc. rate	Av. No. of Fatalities	Fatality rate
1901-10	74	0.76	92	0.93	16	0.47	23	0.67
1911-20	139	0.94	176	1.29	29	0.57	37	0.73
1921-30	174	0.99	219	1.24	43	0.54	50	0.66
1931-40	172	0.98	228	1.33	35	0.41	43	0.51
1941-50	226	0.87	273	1.01	26	0.24	31	0.29
1951-60	223	0.61	295	0.82	64	0.27	81	0.34
1961-70	202	0.49	259	0.62	72	0.28	85	0.33
1971-80	187	0.40	264	0.55	66	0.27	74	0.30
1981-90	162	0.30	185	0.34	65	0.27	73	0.31
1991-00	140	0.27	170	0.33	65	0.31	77	0.36
2001-10	87	0.22	108	0.27	54	0.32	67	0.40
2011-15	72	0.20	75	0.21	44	0.21	51	0.25

N.B. Data for the period 2014-2015 are provisional and figures for 2015 are upto 31.12.2015.

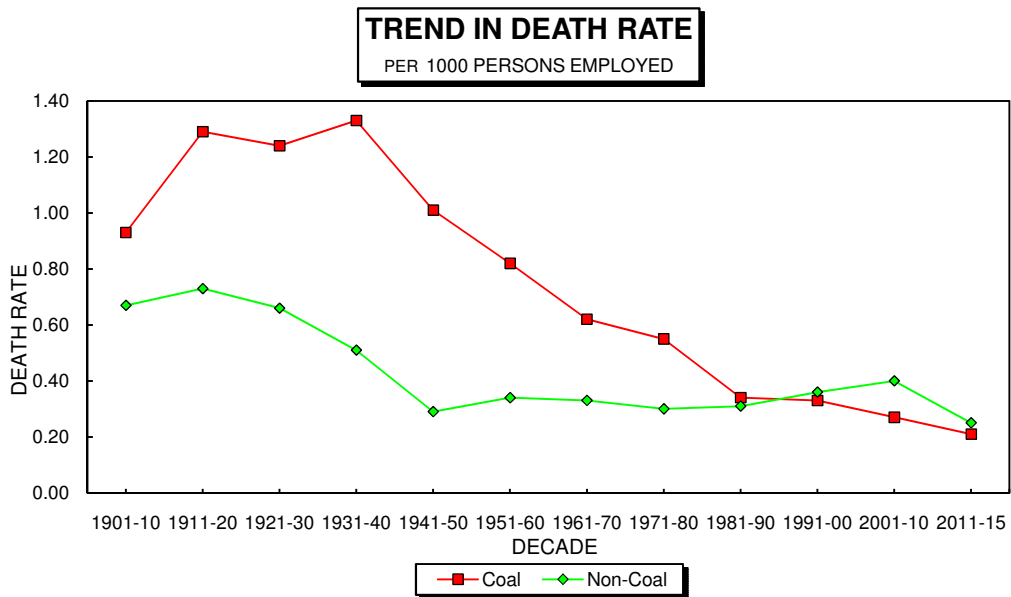


TABLE- 9		Trend in Incidence of Accidents in Mines								
Year	COAL			METAL			OIL			
	Number of accidents			Number of accidents			Number of accidents			
	Fatal	Serious	Total	Fatal	Serious	Total	Fatal	Serious	Total	
2003	83	563	646	51	147	198	1	21	22	
2004	87	962	1049	55	150	205	2	38	40	
2005	96	1106	1202	47	93	140	1	15	16	
2006	78	861	939	54	63	117	4	15	19	
2007	76	923	999	53	63	116	3	16	19	
2008	80	686	766	49	63	112	5	20	25	
2009	83	636	719	33	76	109	3	18	21	
2010	97	480	577	50	45	95	4	16	20	
2011	65	533	598	41	65	106	3	17	20	
2012	79	536	615	34	35	69	2	10	12	
2013	77	456	533	54	37	91	4	15	19	
2014	70	381	451	35	36	71	5	13	18	
2015	68	268	336	40	22	62	4	13	17	

N.B. Figures for the years 2014 to 2015 are provisional and figures for 2015 are upto 31.12.2015.

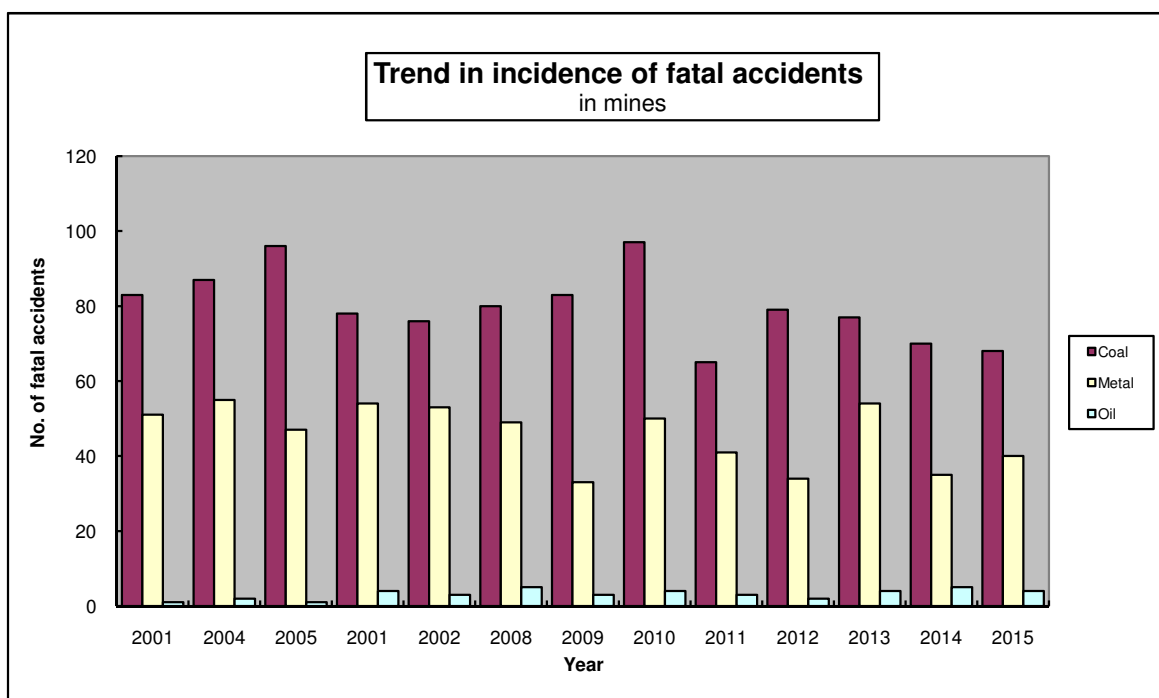


Table - 10			Trend in death rate per thousand persons employed							
Year	Coal	Oil	Copper Ore	Gold Ore	Iron Ore	Lime Stone	Mang. Ore	Galena & Sphl.	Total Metals	All Mineral
2003	0.27	0.05	0.00	0.00	0.39	0.33	0.08	0.00	0.45	0.31
2004	0.24	0.10	0.00	0.00	0.34	0.52	0.21	0.79	0.43	0.28
2005	0.29	0.05	0.00	0.00	0.43	0.27	0.00	0.31	0.36	0.30
2006	0.36	0.29	0.00	0.32	0.51	0.59	0.15	0.31	0.47	0.38
2007	0.21	0.16	0.00	0.33	0.34	0.47	0.07	0.30	0.40	0.26
2008	0.25	0.25	0.38	0.00	0.25	0.32	0.30	1.22	0.43	0.30
2009	0.25	0.12	0.33	0.49	0.17	0.07	0.00	0.00	0.26	0.25
2010	0.32	0.14	0.00	0.00	0.23	0.18	0.14	0.29	0.53	0.37
2011	0.18	0.11	0.27	0.00	0.08	0.14	0.19	1.00	0.27	0.21
2012	0.23	0.09	0.26	0.00	0.05	0.13	0.24	0.00	0.20	0.22
2013	0.23	0.19	0.00	0.29	0.09	0.09	0.11	0.67	0.37	0.27
2014	0.20	0.19	0.27	0.00	0.06	0.12	0.06	0.67	0.22	0.21
2015	0.19	0.19	0.27	0.29	0.23	0.06	0.06	0.45	0.22	0.20

N.B. Rates for the years 2014 to 2015 are provisional and figures for 2015 are upto 31.12.2015.

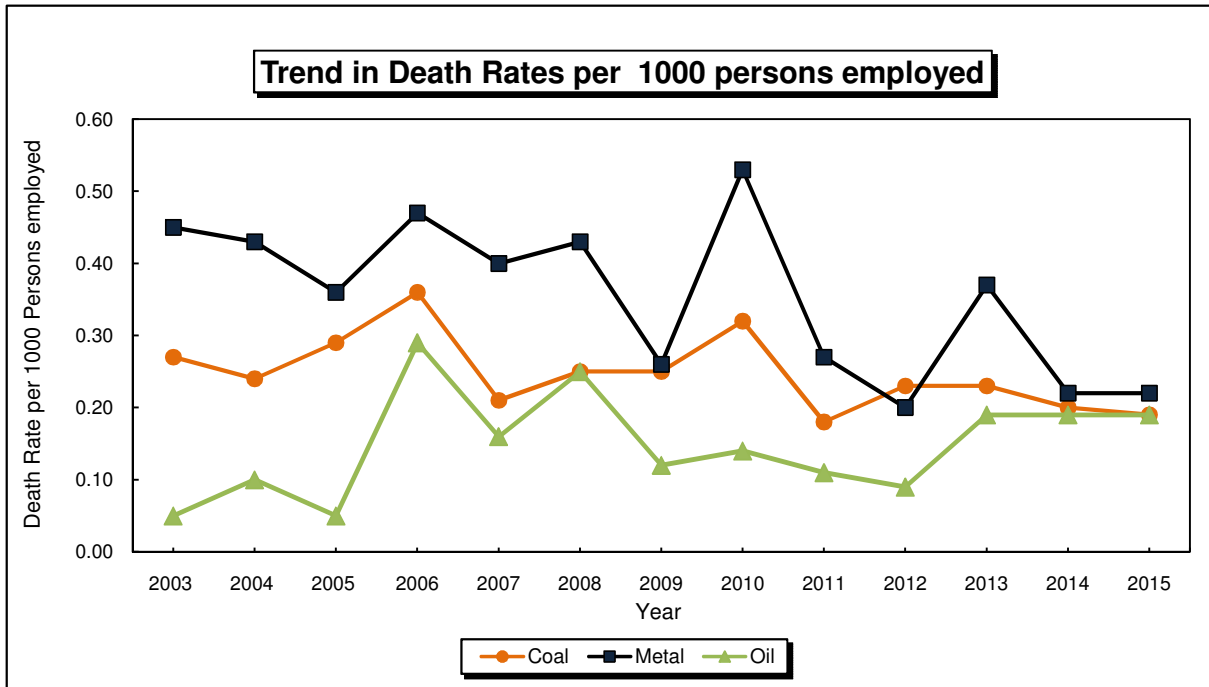


TABLE- 11		Accidents and Casualties in 2015 by Major Minerals			
Mineral	Number of Accidents		Number of persons		
	Fatal	Serious	Killed	Seriously injured*	
Coal	68	268	69	281	
Oil	4	13	5	25	
Copper	1	2	1	2	
Galena & Sphalerite	2	4	2	4	
Gold	1	4	1	4	
Iron Ore	12	7	12	8	
Lime Stone	2	1	2	1	
Manganese	1	1	1	1	
Stone	4	0	4	0	
Others	17	3	18	5	
Total Metalliferous	40	22	41	25	
All Minerals	112	303	115	331	

Figures are provisional and upto 31.12.2015.

* Includes seriously injureds from fatal accidents also.

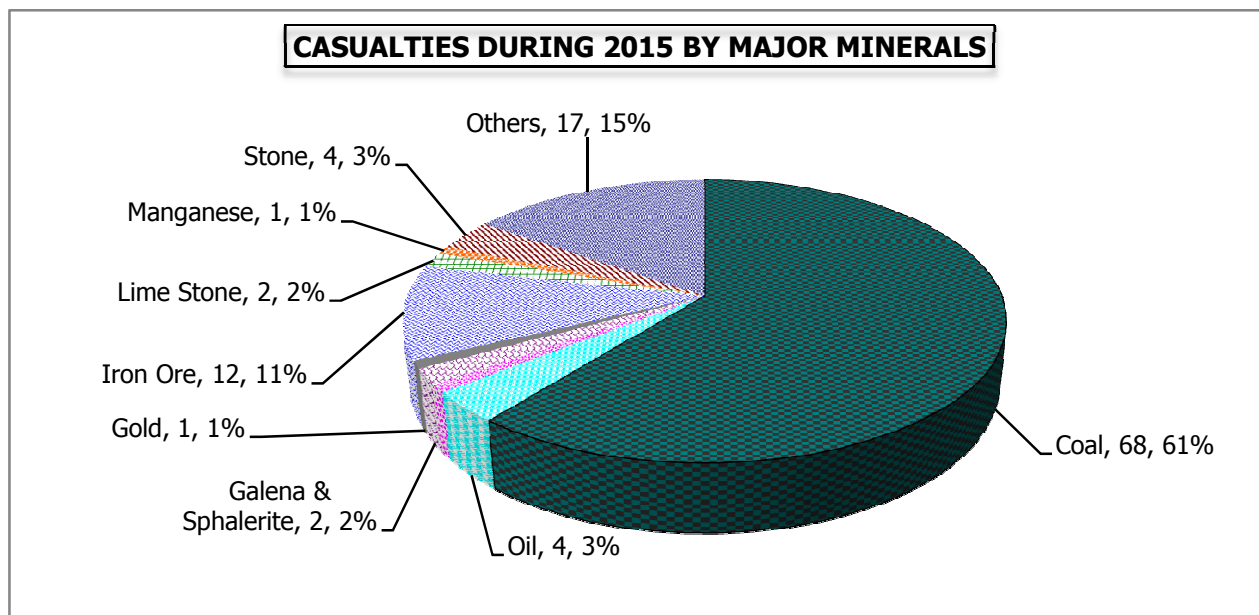


TABLE-12		Trend in Fatal & Serious Accidents and Death Rates & Serious Injury Rates in Coal Mines							
Year	Number of Accidents			Accident Frequency Rate/Lakh Manshifts	Number of Persons		Rate per 1000 Persons Employed		Death Rate per Million Tonnes
	Fatal	Serious	Total		Killed	S/Injured*	Death Rate	S/Inj. Rate	
2006	78	861	939	0.76	137	891	0.36	2.31	0.32
2007	76	923	999	0.82	78	951	0.21	2.51	0.16
2008	80	686	766	0.64	93	709	0.25	1.92	0.18
2009	83	636	719	0.60	93	660	0.25	1.76	0.17
2010	97	480	577	0.48	118	511	0.32	1.39	0.20
2011	65	533	598	0.51	67	556	0.18	1.52	0.11
2012	79	536	615	0.53	83	548	0.23	1.53	0.13
2013	77	456	533	0.47	82	468	0.23	1.31	0.13
2014	70	381	451	0.39	73	395	0.20	1.10	0.12
2015	68	268	336	0.29	69	281	0.19	0.79	0.11

Note : Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

* Includes seriously injureds from fatal accidents also.

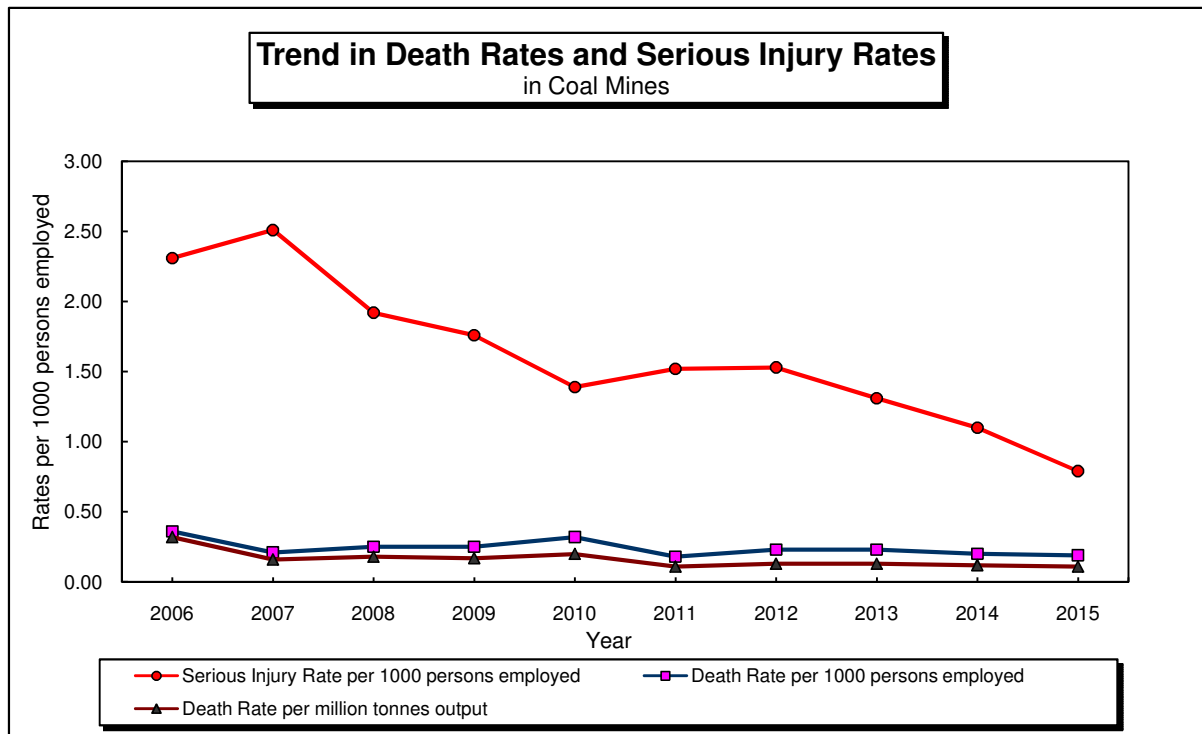


Table - 13		Trend in Fatal & Serious Accidents and Death & Serious Injury Rates in Coal Mines - Placewise														
Year	Number of Fatal Accidents				Number of Serious Accidents				Death Rate per 1000 Persons				Serious Injury Rate per 1000 Persons			
	Below Ground	Open-Cast	Above Ground	Overall	Below Ground	Open-Cast	Above Ground	Overall	Below Ground	Open-Cast	Above Ground	Overall	Below Ground	Open-Cast	Above Ground	Overall
2006	44	24	10	78	646	88	127	861	0.52	0.33	0.09	0.36	3.40	1.30	1.11	2.31
2007	25	35	16	76	717	83	123	923	0.13	0.46	0.14	0.21	3.91	1.10	1.15	2.51
2008	32	29	19	80	516	74	96	686	0.21	0.45	0.18	0.25	2.87	0.98	0.92	1.92
2009	39	29	15	83	490	50	96	636	0.25	0.40	0.14	0.25	2.72	0.67	0.93	1.76
2010	41	40	16	97	348	62	70	480	0.33	0.51	0.15	0.32	2.03	0.83	0.68	1.38
2011	23	29	13	65	379	73	81	533	0.13	0.35	0.13	0.18	2.23	0.91	0.79	1.52
2012	25	37	17	79	374	61	101	536	0.16	0.43	0.17	0.23	2.22	0.74	1.03	1.53
2013	19	40	18	77	336	56	64	456	0.14	0.46	0.17	0.23	2.03	0.68	0.66	1.31
2014	27	34	9	70	251	64	66	381	0.17	0.41	0.09	0.20	1.57	0.76	0.63	1.10
2015	24	30	14	68	161	60	47	268	0.14	0.36	0.14	0.19	0.99	0.77	0.47	0.79

Note : Data for the years 2014 to 2015 are provisional. Rates for the years 2012 to 2014 are provisional. Figures for 2015 are upto 31.12.2015.
Serious injuries from fatal accidents are also considered for computation of serious injury rates.

TABLE-14		Trend in Fatal & Serious Accidents and Death Rates & Serious Injury Rates in Metalliferous Mines						
Year	No. of accidents			Accident frequency rate per 1000 persons employed	Number of persons		Rate per 1000 persons employed	
	Fatal	Serious	Total		Killed	Seriously injured*	Death rate	Serious injr. rate
2006	54	63	117	0.82	67	73	0.47	0.51
2007	53	63	116	0.76	61	89	0.40	0.59
2008	49	63	112	0.72	67	98	0.43	0.63
2009	33	76	109	0.68	41	86	0.26	0.54
2010	50	45	95	0.58	87	51	0.53	0.31
2011	41	65	106	0.61	47	76	0.27	0.44
2012	34	35	69	0.38	36	40	0.20	0.22
2013	54	37	91	0.49	69	50	0.37	0.27
2014	35	36	71	0.38	41	51	0.22	0.28
2015	40	22	62	0.33	41	25	0.22	0.13

Note : Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

* Includes seriously injureds from fatal accidents also.

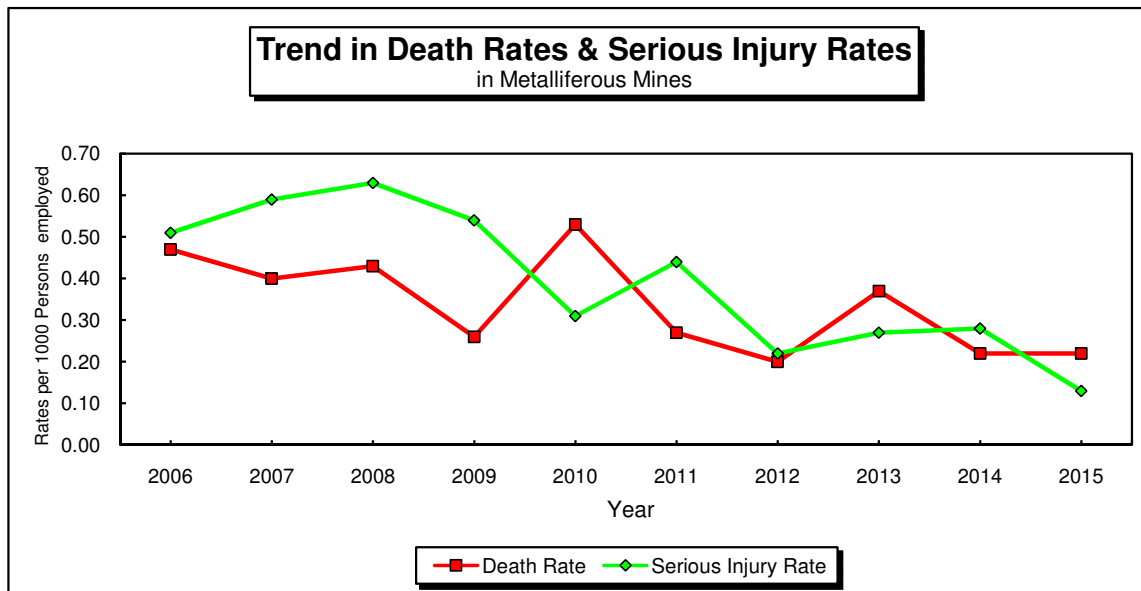


TABLE-15		Trend in Fatal & Serious Accidents and Death & Serious Injury Rates in Metalliferous Mines - Placewise															
Year	Number of Fatal Accidents				Number of Serious Accidents				Death Rate per 1000 Persons				Serious Injury Rate per 1000 Persons				
	Below Ground	Open- Cast	Above Ground	Overall	Below Ground	Open- Cast	Above Ground	Overall	Below Ground	Open- Cast	Above Ground	Overall	Below Ground	Open- Cast	Above Ground	Overall	
2006	3	42	9	54	24	13	26	63	0.38	0.62	0.19	0.47	3.20	0.25	0.55	0.51	
2007	3	38	12	53	19	14	30	63	0.35	0.48	0.25	0.40	3.51	0.29	0.64	0.59	
2008	3	35	11	49	14	13	36	63	0.44	0.43	0.42	0.43	1.65	0.24	1.21	0.63	
2009	4	25	4	33	33	13	30	76	0.61	0.32	0.08	0.26	4.36	0.19	0.60	0.54	
2010	4	35	11	50	12	16	17	45	0.44	0.71	0.21	0.53	1.44	0.21	0.32	0.31	
2011	2	32	7	41	20	30	15	65	0.20	0.34	0.15	0.27	2.15	0.32	0.36	0.44	
2012	5	26	3	34	16	14	5	35	0.52	0.26	0.05	0.20	1.67	0.17	0.08	0.22	
2013	4	45	5	54	15	11	11	37	0.39	0.55	0.08	0.37	1.45	0.21	0.18	0.27	
2014	4	26	5	35	13	17	6	36	0.39	0.29	0.08	0.22	1.35	0.26	0.14	0.28	
2015	2	29	9	40	10	6	6	22	0.19	0.27	0.14	0.22	0.96	0.08	0.09	0.13	

Note : Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

Serious injuries from fatal accidents are also considered for computation of serious injury rates.

TABLE-16		Trend in Fatal & Serious Accidents and Death Rates & Serious Injury Rates in Oil Mines						
Year	No. of accidents			Accident frequency rate per 1000 persons employed	Number of persons		Rate per 1000 persons employed	
	Fatal	Serious	Total		Killed	Seriously injured*	Death rate	Serious injury rate
2006	4	15	19	1.36	4	15	0.29	1.08
2007	3	16	19	0.99	3	16	0.16	0.83
2008	5	20	25	1.06	6	22	0.25	0.93
2009	3	18	21	0.84	3	18	0.12	0.72
2010	4	16	20	0.68	4	17	0.14	0.58
2011	3	17	20	0.73	3	17	0.11	0.62
2012	2	10	12	0.53	2	10	0.09	0.44
2013	4	15	19	0.73	5	18	0.19	0.69
2014	5	13	18	0.69	5	13	0.19	0.50
2015	4	13	17	0.65	5	25	0.19	0.96

Note : Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

* Includes seriously injureds from fatal accidents also.

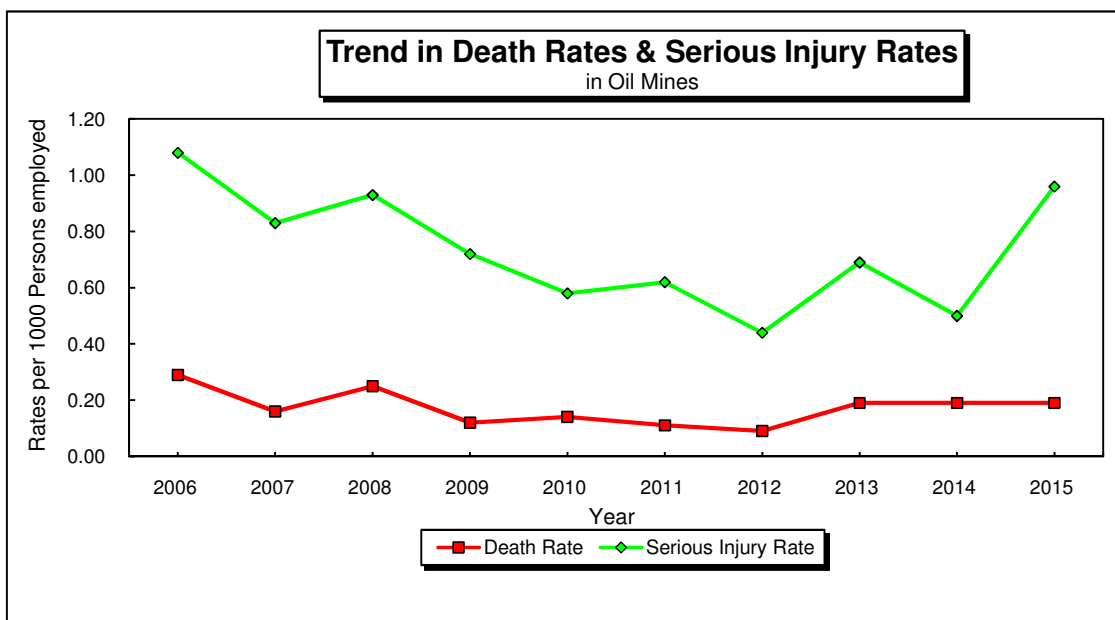


TABLE-17		Cause wise & Place wise Fatal Accidents in Coal Mines														
Cause	Year	BCCL	CCL	ECL	MCL	NCL	NECL	SECL	WCL	CIL	SCCL	IISCo	NLC	TISCo	Other	Total
Fall of roof	13	2	0	1	0	0	0	2	1	6	1	1	0	0	0	8
	14	0	0	2	0	0	0	5	1	8	2	0	0	0	0	10
	15	0	0	2	0	0	0	1	0	3	1	0	0	0	1	5
Fall of sides	13	0	1	1	0	0	0	0	0	2	0	0	0	0	0	2
	14	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
	15	1	0	0	0	0	0	2	0	3	1	0	0	0	0	4
Rope haulages	13	0	0	1	0	0	0	1	0	2	0	0	0	0	1	3
	14	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	15	0	0	2	0	0	0	0	0	2	0	0	0	0	0	2
Dumpers	13	2	3	3	0	4	0	2	2	16	3	0	0	0	4	23
	14	1	1	0	1	4	0	0	4	11	2	0	0	0	1	14
	15	2	1	2	1	0	0	2	0	8	1	0	0	0	3	12
Truck tanker etc.	13	0	1	0	0	0	0	1	3	5	1	0	0	0	0	6
	14	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
	15	0	0	0	0	0	0	0	2	2	3	0	0	0	1	6
Other Machinery	13	2	0	1	0	1	0	3	1	8	1	0	0	2	2	13
	14	5	1	1	0	0	0	0	3	10	2	0	1	1	2	16
	15	0	2	1	1	0	0	3	4	11	0	0	0	0	0	11
Explosives	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	14	1	0	0	0	0	0	1	0	2	0	0	0	0	0	2
	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fall of person	13	3	0	0	0	0	0	1	0	4	3	1	0	0	0	8
	14	0	0	0	0	0	0	2	0	2	1	0	0	0	0	3
	15	1	0	1	0	0	0	0	1	3	0	0	0	0	0	3
Fall of object	13	0	0	1	0	1	0	1	0	3	0	0	0	0	0	3
	14	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
	15	1	0	0	0	0	0	1	1	3	1	0	0	0	0	4
Other causes	13	1	4	0	1	0	0	2	1	9	1	0	0	0	1	11
	14	1	0	3	0	0	0	2	1	7	9	1	1	1	0	19
	15	4	1	2	0	0	0	5	3	15	4	0	1	0	1	21
Below-ground	13	3	0	4	0	0	0	7	1	15	1	1	0	1	1	19
	14	1	1	5	0	0	0	7	1	15	11	0	0	1	0	27
	15	2	0	5	0	0	0	7	4	18	5	0	0	0	1	24
Open-cast	13	3	6	3	1	4	0	6	4	27	5	1	0	1	6	40
	14	6	2	1	0	4	0	4	7	24	3	1	2	1	3	34
	15	6	3	4	2	0	0	4	4	23	2	0	1	0	4	30
Above-ground	13	4	3	1	0	2	0	0	3	13	4	0	0	0	1	18
	14	2	0	0	1	2	0	0	1	6	3	0	0	0	0	9
	15	1	1	1	0	0	0	3	3	9	4	0	0	0	1	14
Total	13	10	9	8	1	6	0	13	8	55	10	2	0	2	8	77
	14	9	3	6	1	6	0	11	9	45	17	1	2	2	3	70
	15	9	4	10	2	0	0	14	11	50	11	0	1	0	6	68

N.B. Figures are number of accidents. Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

TABLE-18		Cause wise & Place wise Serious Accidents in Coal Mines														
Cause	Yr.	BCCL	CCL	ECL	MCL	NCL	NECL	SECL	WCL	CIL	SCCL	IISCo	NLC	TISCo	Other	Total
Fall of roof	13	0	0	0	0	0	0	4	2	6	10	0	0	1	0	17
	14	2	0	1	1	0	0	4	0	8	9	0	0	1	0	18
	15	0	0	1	0	0	0	1	0	2	4	0	0	1	0	7
Fall of sides	13	1	0	0	1	0	0	7	3	12	7	0	0	0	0	19
	14	1	0	1	0	0	0	2	2	6	10	0	0	1	0	17
	15	1	0	1	0	0	0	1	1	4	5	0	0	1	0	10
Rope haul-ages	13	0	0	3	0	0	0	2	1	6	36	0	0	0	0	42
	14	0	0	5	0	0	0	2	1	8	25	0	0	0	0	33
	15	1	1	1	0	0	0	0	1	4	17	0	0	0	0	21
Dum-pers	13	0	1	0	2	0	0	0	4	7	7	0	0	0	0	14
	14	0	0	0	1	1	0	0	2	4	2	0	0	0	1	7
	15	0	0	0	1	5	0	1	2	9	1	0	0	0	0	10
Truck tanker etc.	13	0	0	0	0	3	0	1	2	6	0	0	2	0	0	8
	14	2	0	0	3	0	0	0	1	6	3	0	0	0	0	9
	15	0	0	0	0	0	0	0	1	1	1	0	0	0	0	2
Other Machi-nery	13	3	0	3	1	0	0	4	6	17	20	0	1	1	0	39
	14	4	0	5	4	0	0	3	6	22	9	0	1	0	0	32
	15	0	2	3	0	0	0	4	1	10	10	0	2	0	0	22
Explo sives	13	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	14	0	0	0	0	0	0	0	1	1	2	0	0	0	0	3
	15	1	0	0	0	0	0	1	0	2	0	0	0	0	0	2
Fall of per-son	13	4	3	18	3	0	0	7	9	44	90	0	0	0	1	135
	14	3	3	17	2	1	0	10	9	45	82	0	1	0	1	129
	15	3	1	9	2	6	0	2	5	28	64	0	2	0	0	94
Fall of obj-ect	13	1	0	7	2	0	0	2	6	18	70	0	0	0	0	88
	14	3	0	7	0	2	0	6	3	21	37	0	0	1	0	59
	15	3	1	2	0	0	0	1	3	10	36	0	0	0	0	46
Other causes	13	4	2	5	0	0	0	3	5	19	72	1	0	1	0	93
	14	6	1	6	0	0	1	7	6	27	44	0	0	2	1	74
	15	1	3	5	0	0	0	2	2	13	39	0	0	1	1	54
Below-grou-nd	13	10	2	32	3	0	0	23	21	91	242	0	0	2	1	336
	14	6	1	32	1	0	0	20	14	74	173	0	0	3	2	252
	15	5	2	17	1	0	0	6	4	35	124	0	0	3	0	162
Open-cast	13	1	3	1	4	3	0	5	10	27	25	1	3	0	0	56
	14	8	0	4	7	4	0	4	11	38	23	0	2	0	1	64
	15	4	3	0	2	8	0	6	8	31	28	0	1	0	0	60
Above-grou-nd	13	2	1	3	2	0	0	2	7	17	46	0	0	1	0	64
	14	7	3	6	3	0	1	10	6	36	27	0	0	2	0	65
	15	1	3	5	0	3	0	1	4	17	25	0	3	0	1	46
Total	13	13	6	36	9	3	0	30	38	135	313	1	3	3	1	456
	14	21	4	42	11	4	1	34	31	148	223	0	2	5	3	381
	15	10	8	22	3	11	0	13	16	83	177	0	4	3	1	268

N.B. Figures are number of accidents. Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

TABLE-19		Cause wise & Place wise Fatal Accidents in Non-Coal Mines									
Cause	Year	Oil	Copper	Galena	Gold	Iron Ore	Lime Stone	Manga-nese	Stone	Others	Total
Fall of roof	13	0	0	1	0	0	0	1	0	0	2
	14	0	0	3	0	0	0	1	0	0	4
	15	0	1	0	0	0	0	0	0	0	1
Fall of sides	13	0	0	0	0	0	0	0	6	7	13
	14	0	0	0	0	0	1	0	2	2	5
	15	0	0	0	0	2	0	1	0	2	5
Rope Haulage	13	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0
Dumpers	13	0	0	1	0	0	1	0	2	1	5
	14	0	0	0	0	1	1	0	1	1	4
	15	0	0	1	0	2	2	0	0	3	8
Truck tanker	13	0	0	0	0	0	0	1	2	0	3
	14	0	0	0	0	0	0	0	1	2	3
	15	0	0	0	0	1	0	0	0	2	3
Other Machinery	13	0	0	0	0	3	0	0	0	5	8
	14	1	0	0	0	2	0	0	0	3	6
	15	0	0	1	0	3	0	0	1	0	5
Explosives	13	0	0	1	0	0	0	0	0	1	2
	14	0	0	0	0	0	0	0	2	0	2
	15	0	0	0	0	0	0	0	0	0	0
Fall of person	13	0	0	0	1	1	1	0	2	4	9
	14	2	0	0	0	0	0	0	1	5	8
	15	2	0	0	1	2	0	0	2	5	12
Fall of object	13	1	0	0	0	0	0	0	0	7	8
	14	1	0	0	0	0	0	0	0	1	2
	15	1	0	0	0	0	0	0	1	2	4
Other cause	13	3	0	0	0	0	1	0	0	4	8
	14	1	1	0	0	0	2	0	0	2	6
	15	1	0	0	0	2	0	0	0	3	6
Below ground	13	0	0	2	1	0	0	1	0	0	4
	14	0	1	2	0	0	0	1	0	0	4
	15	0	1	0	0	0	0	1	0	0	2
Open cast	13	0	0	0	0	2	3	1	12	27	45
	14	0	0	1	0	0	4	0	7	14	26
	15	0	0	2	0	7	2	0	4	15	30
Above ground	13	4	0	1	0	2	0	0	0	2	9
	14	5	0	0	0	3	0	0	0	2	10
	15	4	0	0	1	5	0	0	0	2	12
Total	13	4	0	3	1	4	3	2	12	29	58
	14	5	1	3	0	3	4	1	7	16	40
	15	4	1	2	1	12	2	1	4	17	44

N.B. Figures are number of accidents. Data for the years 2014 to 2015 are provisional.

Figures for 2015 are upto 31.12.2015.

TABLE-20		Cause wise & Place wise Serious Accidents in Non-Coal Mines									
Cause	Year	Oil	Copper	Galena	Gold	Iron Ore	Lime Stone	Manga-nese	Stone	Others	Total
Fall of roof	13	0	0	1	1	0	0	0	0	0	2
	14	0	0	0	0	0	0	0	0	0	0
	15	0	0	1	1	0	0	1	0	0	3
Fall of sides	13	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0
	15	0	1	0	1	0	0	0	0	0	2
Rope Haulage	13	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0
Dumpers	13	0	0	1	0	1	0	0	0	0	2
	14	0	0	0	0	1	0	0	0	1	2
	15	0	0	0	0	0	0	0	0	0	0
Truck tanker etc.	13	0	1	2	0	0	1	0	0	0	4
	14	0	0	2	0	0	0	0	0	0	2
	15	0	0	0	0	0	0	0	0	0	0
Other Machinery	13	3	3	2	1	0	0	0	0	3	12
	14	3	1	5	1	2	2	0	0	2	16
	15	1	0	1	0	3	0	0	0	2	7
Explosives	13	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0
Fall of person	13	5	1	1	0	3	0	0	0	1	11
	14	3	0	1	0	5	1	0	0	1	11
	15	4	0	0	0	1	0	0	0	0	5
Fall of object	13	4	1	3	0	2	2	0	0	4	16
	14	2	0	3	1	1	0	1	0	1	9
	15	2	1	2	2	1	0	0	0	0	8
Other cause	13	3	1	0	0	0	0	0	0	1	5
	14	5	0	2	0	1	0	0	0	1	9
	15	6	0	0	0	2	1	0	0	1	10
Below ground	13	0	5	6	2	0	0	0	0	2	15
	14	0	0	9	2	0	0	1	0	1	13
	15	2	2	3	3	0	0	1	0	1	12
Open cast	13	0	0	0	0	5	2	0	0	4	11
	14	2	1	3	0	7	3	0	0	3	19
	15	1	0	0	0	4	1	0	0	1	7
Above ground	13	15	2	4	0	1	1	0	0	3	26
	14	11	0	1	0	3	0	0	0	2	17
	15	10	0	1	1	3	0	0	0	1	16
Total	13	15	7	10	2	6	3	0	0	9	52
	14	13	1	13	2	10	3	1	0	6	49
	15	13	2	4	4	7	1	1	0	3	35

N.B. Figures are number of accidents. Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

TABLE - 21**State wise details of accident statistics for Coal Mines during the year 2007-2015**

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Andhra Pradesh	2007	11	11	0.20	566	574	10.27
	2008	13	14	0.24	401	405	6.99
	2009	17	20	0.32	375	384	6.11
	2010	11	13	0.19	281	292	4.19
	2011	8	8	0.12	293	297	4.54
	2012	13	14	0.23	318	320	5.24
	2013	10	11	0.19	313	319	5.40
	2014	17	18	0.26	223	233	3.34
	2015	11	11	0.16	177	177	2.54
Arunachal Pradesh	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	1	1	2.78	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	0	0	0.00
Assam	2007	0	0	0.00	0	0	0.00
	2008	2	7	2.89	0	14	5.78
	2009	0	0	0.00	0	0	0.00
	2010	1	1	0.47	0	0	0.00
	2011	2	2	0.96	0	0	0.00
	2012	1	1	0.51	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	1	1	0.47
	2015	0	0	0.00	0	0	0.00
Chhattisgarh	2007	11	11	0.33	40	43	1.29
	2008	9	9	0.28	27	27	0.84
	2009	10	10	0.31	30	34	1.06
	2010	12	26	0.82	24	30	0.95
	2011	10	10	0.31	22	23	0.71
	2012	9	10	0.29	22	23	0.68
	2013	9	9	0.26	19	20	0.58
	2014	8	8	0.25	30	31	0.98
	2015	8	8	0.25	9	9	0.29
Gujarat	2007	1	1	0.53	0	0	0.00
	2008	3	3	1.75	1	1	0.58
	2009	1	1	0.48	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	3	3	0.92	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	2	2	0.71	1	2	0.71

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Jharkhand	2007	20	22	0.19	105	107	0.94
	2008	16	16	0.16	89	91	0.90
	2009	24	28	0.28	58	63	0.62
	2010	26	28	0.29	42	47	0.49
	2011	16	17	0.18	61	70	0.74
	2012	22	23	0.26	48	51	0.57
	2013	24	27	0.30	25	27	0.30
	2014	16	16	0.17	32	33	0.35
	2015	14	14	0.15	22	26	0.28
Jammu & Kashmir	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	1	1	1.74	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	0	0	0.00
Madhya Pradesh	2007	11	11	0.24	60	62	1.37
	2008	11	18	0.38	41	42	0.89
	2009	9	9	0.20	33	36	0.81
	2010	18	20	0.46	39	45	1.03
	2011	5	5	0.11	31	33	0.73
	2012	8	8	0.17	30	30	0.62
	2013	10	11	0.24	25	26	0.56
	2014	8	9	0.21	18	19	0.43
	2015	11	12	0.27	19	23	0.52
Maharashtra	2007	8	8	0.29	34	35	1.27
	2008	8	8	0.27	21	21	0.71
	2009	5	7	0.24	24	24	0.82
	2010	8	9	0.34	27	29	1.10
	2011	7	8	0.29	34	39	1.42
	2012	6	7	0.26	20	22	0.81
	2013	6	6	0.22	27	27	0.97
	2014	8	9	0.34	24	25	0.95
	2015	8	8	0.30	12	15	0.57
Orissa	2007	4	4	0.24	8	8	0.48
	2008	4	4	0.24	5	5	0.30
	2009	3	3	0.16	6	6	0.33
	2010	2	2	0.11	6	6	0.32
	2011	4	4	0.21	10	10	0.52
	2012	2	2	0.10	9	9	0.45
	2013	1	1	0.05	9	10	0.47
	2014	1	1	0.05	11	11	0.58
	2015	2	2	0.11	3	3	0.16

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Rajasthan	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	1	1	2.03	2	2	4.06
	2011	0	0	0.00	0	0	0.00
	2012	1	1	0.61	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	2	2	4.06	0	0	0.00
	2015	1	1	2.03	0	0	0.00
Tamil Nadu	2007	2	2	0.19	1	1	0.09
	2008	2	2	0.19	2	3	0.29
	2009	3	3	0.28	8	9	0.83
	2010	2	2	0.18	3	4	0.36
	2011	2	2	0.22	4	4	0.44
	2012	3	3	0.33	5	5	0.55
	2013	0	0	0.00	3	3	0.33
	2014	2	2	0.18	2	2	0.18
	2015	1	1	0.09	4	4	0.36
Uttar Pradesh	2007	3	3	0.45	2	2	0.30
	2008	2	2	0.30	2	2	0.30
	2009	3	3	0.42	1	1	0.14
	2010	6	6	0.77	4	4	0.51
	2011	3	3	0.35	1	1	0.12
	2012	4	4	0.46	2	2	0.23
	2013	4	4	0.48	1	1	0.12
	2014	3	3	0.38	0	0	0.00
	2015	0	0	0.00	0	0	0.00
West Bengal	2007	5	5	0.08	107	119	1.88
	2008	10	10	0.16	97	98	1.54
	2009	7	8	0.13	101	103	1.65
	2010	10	10	0.17	52	52	0.88
	2011	8	8	0.14	77	79	1.40
	2012	10	10	0.19	82	86	1.62
	2013	9	9	0.17	34	35	0.66
	2014	5	5	0.08	40	40	0.68
	2015	10	10	0.17	21	22	0.37
All India	2007	76	78	0.21	923	951	2.51
	2008	80	93	0.25	686	709	1.92
	2009	83	93	0.25	636	660	1.76
	2010	97	118	0.32	480	511	1.38
	2011	65	67	0.18	533	556	1.52
	2012	79	83	0.23	536	548	1.53
	2013	77	82	0.23	456	468	1.31
	2014	70	73	0.20	381	395	1.10
	2015	68	69	0.19	268	281	0.79

* Includes seriously injureds from fatal accidents also.

Note : Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

TABLE - 22**Statewise details of accident statistics for Metalliferous Mines during the year 2007-2015**

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Andhra Pradesh	2007	6	10	1.10	3	5	0.55
	2008	6	8	0.78	1	2	0.20
	2009	3	3	0.27	0	0	0.00
	2010	13	27	2.37	5	7	0.61
	2011	10	11	0.88	6	9	0.72
	2012	9	9	0.62	4	7	0.48
	2013	10	12	0.69	2	2	0.12
	2014	3	4	0.23	2	6	0.35
	2015	5	5	0.29	0	1	0.06
Bihar	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	1	2	4.41
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	2	5	13.37	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	0	0	0.00
Chhattisgarh	2007	2	2	0.19	19	19	1.78
	2008	4	4	0.39	11	11	1.07
	2009	0	0	0.00	14	14	1.36
	2010	1	1	0.09	5	5	0.46
	2011	1	1	0.10	7	7	0.71
	2012	2	2	0.20	1	1	0.10
	2013	0	0	0.00	4	4	0.44
	2014	0	0	0.00	3	6	0.66
	2015	1	1	0.11	3	4	0.44
Goa	2007	2	2	0.38	2	2	0.38
	2008	1	1	0.16	1	1	0.16
	2009	4	4	0.60	0	0	0.00
	2010	1	1	0.14	0	0	0.00
	2011	1	1	0.12	1	1	0.12
	2012	1	1	0.12	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	1	1	0.15	0	0	0.00
Gujarat	2007	0	0	0.00	2	2	0.49
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	1	1	0.28	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	2	2	0.51	0	0	0.00
	2015	0	0	0.00	0	0	0.00

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Himachal Pradesh	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	1	1	0.86
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	1	1	0.81
Haryana	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	2	2	0.45	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	0	0	0.00
Jharkhand	2007	5	5	0.35	2	3	0.21
	2008	4	5	0.37	9	11	0.82
	2009	5	7	0.47	6	6	0.41
	2010	3	3	0.20	7	8	0.53
	2011	2	4	0.22	9	9	0.50
	2012	2	2	0.11	9	9	0.49
	2013	2	3	0.17	4	5	0.28
	2014	4	7	0.39	1	1	0.06
	2015	4	4	0.22	3	3	0.17
Jammu & Kashmir	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	1	2	12.82	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	0	0	0.00
Karnataka	2007	2	2	0.14	6	17	1.16
	2008	3	3	0.18	10	10	0.62
	2009	2	2	0.13	22	22	1.41
	2010	4	5	0.31	13	13	0.80
	2011	3	3	0.18	1	1	0.06
	2012	1	1	0.06	2	2	0.13
	2013	3	3	0.18	3	3	0.18
	2014	1	1	0.06	4	5	0.30
	2015	4	4	0.24	5	6	0.35
Kerala	2007	0	0	0.00	1	1	0.53
	2008	3	3	1.62	0	3	1.62
	2009	2	4	2.06	0	1	0.51
	2010	0	0	0.00	1	1	0.53
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	1	4	2.06	0	1	0.52
	2014	1	1	0.52	0	0	0.00
	2015	0	0	0.00	1	1	0.52

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Madhya Pradesh	2007	4	5	0.52	4	5	0.52
	2008	3	4	0.45	1	1	0.11
	2009	0	0	0.00	2	5	0.54
	2010	2	2	0.22	1	1	0.11
	2011	2	2	0.19	2	2	0.19
	2012	2	2	0.18	3	3	0.27
	2013	3	3	0.28	1	2	0.19
	2014	3	3	0.28	2	3	0.28
	2015	0	0	0.00	1	1	0.09
Maharashtra	2007	0	0	0.00	2	2	0.37
	2008	2	10	1.71	1	21	3.59
	2009	0	0	0.00	1	1	0.16
	2010	1	1	0.15	0	0	0.00
	2011	3	3	0.46	1	2	0.31
	2012	1	1	0.14	2	2	0.27
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	2	2	0.24
	2015	1	1	0.12	0	0	0.00
Orissa	2007	10	10	0.30	6	11	0.33
	2008	6	6	0.16	6	9	0.25
	2009	2	2	0.05	5	5	0.13
	2010	5	5	0.14	2	2	0.05
	2011	1	1	0.03	11	11	0.28
	2012	1	1	0.02	4	4	0.09
	2013	3	4	0.09	5	5	0.11
	2014	1	1	0.02	8	10	0.23
	2015	3	3	0.07	1	1	0.02
Rajasthan	2007	19	21	0.96	16	21	0.96
	2008	14	20	0.93	23	29	1.35
	2009	9	11	0.49	25	29	1.28
	2010	17	38	1.65	9	10	0.43
	2011	15	16	0.68	26	32	1.35
	2012	8	10	0.41	9	10	0.41
	2013	20	23	0.89	15	24	0.93
	2014	14	16	0.62	14	17	0.66
	2015	15	16	0.62	7	7	0.27
Tamil Nadu	2007	3	4	0.45	0	1	0.11
	2008	1	1	0.10	0	0	0.00
	2009	3	5	0.51	0	2	0.20
	2010	3	4	0.39	1	2	0.20
	2011	2	3	0.29	1	1	0.10
	2012	3	3	0.28	1	1	0.09
	2013	6	7	0.64	3	4	0.36
	2014	2	2	0.18	0	0	0.00
	2015	1	1	0.09	0	0	0.00

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Uttaranchal	2007	0	0	0.00	0	0	0.00
	2008	2	2	1.06	0	0	0.00
	2009	1	1	0.52	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	2	2	1.03	0	1	0.52
	2013	0	0	0.00	0	0	0.00
	2014	2	2	1.04	0	0	0.00
	2015	1	1	0.52	0	0	0.00
Uttar Pradesh	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	1	1	1.29	0	0	0.00
	2013	1	1	1.18	0	0	0.00
	2014	2	2	2.36	0	1	1.18
	2015	4	4	4.73	0	0	0.00
West Bengal	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	1	2	1.50	0	1	0.75
	2012	0	0	0.00	0	0	0.00
	2013	2	2	1.38	0	0	0.00
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	0	0	0.00
All India	2007	53	61	0.40	63	89	0.59
	2008	49	67	0.43	63	98	0.63
	2009	33	41	0.26	76	86	0.54
	2010	50	87	0.53	45	51	0.31
	2011	41	47	0.27	65	76	0.44
	2012	34	36	0.20	35	40	0.22
	2013	54	69	0.37	37	50	0.27
	2014	35	41	0.22	36	51	0.28
	2015	40	41	0.22	22	25	0.13

* Includes seriously injureds from fatal accidents also.

Note : Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

TABLE - 23

State wise details of accident statistics for Oil Mines during the year 2007-2015

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Andhra Pradesh	2007	0	0	0.00	2	2	2.63
	2008	1	1	1.33	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	1	1	0.50	2	2	0.99
	2015	0	0	0.00	1	1	0.50
Assam	2007	2	2	0.27	12	12	1.59
	2008	1	2	0.24	17	17	2.04
	2009	0	0	0.00	15	15	1.78
	2010	2	2	0.21	13	13	1.33
	2011	1	1	0.11	12	12	1.27
	2012	1	1	0.18	6	6	1.06
	2013	2	3	0.46	8	8	1.23
	2014	2	2	0.31	5	5	0.77
	2015	2	2	0.31	6	6	0.92
Gujarat	2007	1	1	0.11	1	1	0.11
	2008	3	3	0.26	3	5	0.43
	2009	2	2	0.16	0	0	0.00
	2010	2	2	0.13	1	2	0.13
	2011	2	2	0.16	2	2	0.16
	2012	1	1	0.10	0	0	0.00
	2013	2	2	0.19	4	7	0.68
	2014	0	0	0.00	3	3	0.29
	2015	1	2	0.19	6	18	1.75
Madhya Pradesh	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	0	0	0.00
	2013	0	0	0.00	1	1	4.15
	2014	0	0	0.00	0	0	0.00
	2015	0	0	0.00	0	0	0.00
Rajasthan	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	1	1	1.83	3	3	5.48
	2010	0	0	0.00	2	2	2.21
	2011	0	0	0.00	1	1	1.10
	2012	0	0	0.00	0	0	0.00
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	1	1	0.39
	2015	0	0	0.00	0	0	0.00

State	Year	Fatal		Fatality rate per 1000 persons	No. of serious accidents	Persons seriously injured*	Serious injury rate per 1000 persons
		No. of Accidents	Persons Killed				
Tamil Nadu	2007	0	0	0.00	1	1	2.62
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	1	1	1.17
	2012	0	0	0.00	1	1	1.68
	2013	0	0	0.00	2	2	2.71
	2014	1	1	1.36	1	1	1.36
	2015	0	0	0.00	0	0	0.00
Tripura	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	1	1	0.94
	2012	0	0	0.00	2	2	14.39
	2013	0	0	0.00	0	0	0.00
	2014	0	0	0.00	1	1	13.51
	2015	1	1	13.51	0	0	0.00
West Bengal	2007	0	0	0.00	0	0	0.00
	2008	0	0	0.00	0	0	0.00
	2009	0	0	0.00	0	0	0.00
	2010	0	0	0.00	0	0	0.00
	2011	0	0	0.00	0	0	0.00
	2012	0	0	0.00	1	1	0.73
	2013	0	0	0.00	0	0	0.00
	2014	1	1	0.48	0	0	0.00
	2015	0	0	0.00	0	0	0.00
All India	2007	3	3	0.16	16	16	0.83
	2008	5	6	0.25	20	22	0.93
	2009	3	3	0.12	18	18	0.72
	2010	4	4	0.14	16	17	0.58
	2011	3	3	0.11	17	17	0.62
	2012	2	2	0.09	10	10	0.44
	2013	4	5	0.19	15	18	0.69
	2014	5	5	0.19	13	13	0.50
	2015	4	5	0.19	13	25	0.96

* Includes seriously injureds from fatal accidents also.

Note : Data for the years 2014 to 2015 are provisional. Figures for 2015 are upto 31.12.2015.

SAFETY, HEALTH & WELFARE LEGISLATION FOR MINES ADMINISTERED BY DGMS

□ MINES ACT, 1952

- ↗ Coal Mines Regulations, 1957
- ↗ Metalliferous Mines Regulations, 1961
- ↗ Oil Mines Regulations, 1984
- ↗ Mines Rules, 1955
- ↗ Mines Vocational Training Rules, 1966
- ↗ Mines Rescue Rules, 1985
- ↗ Mines Creche Rules, 1966

□ ELECTRICITY ACT, 2003

- Central Electricity Authority (Measure relating to Safety and electric Supply) Regulation, 2010

□ ALLIED LEGISLATION

- Explosive Rules, 2008
- Factories Act, 1948 : Chapter III & IV
- Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989 – under Environmental Protection Act, 1986
- Land Acquisition (Mines) Act, 1885
- The Coal Mines (Conservation & Development) Act, 1974

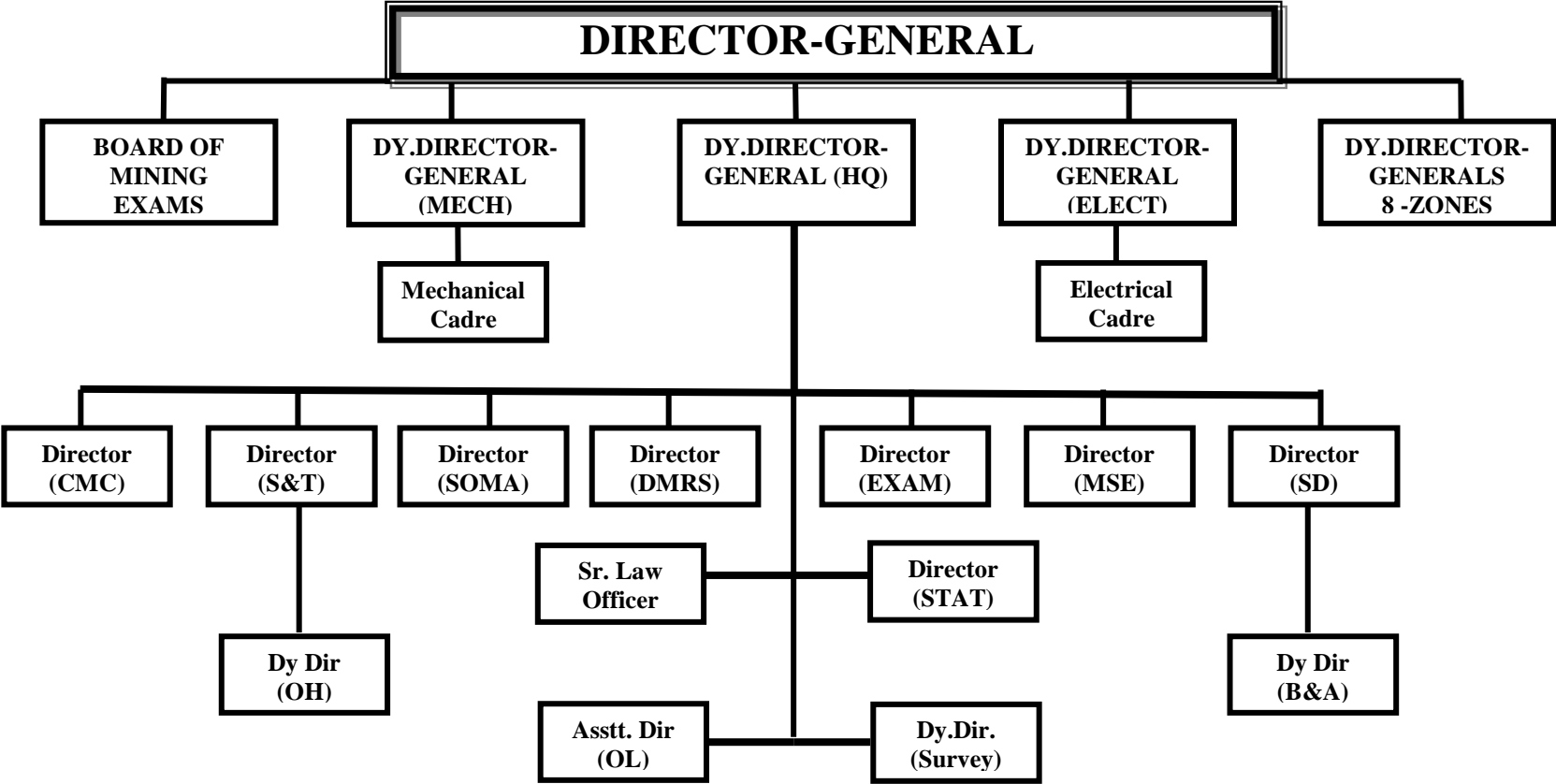
ANNEXURE-IA

STATUS OF ILO CONVENTIONS RELATED TO MINES

Sl.No.	Convention No.	Subject	Status
1.	1	Hours of work	Ratified by Government
2.	14	Weekly rest	-do-
3.	45	Underground work (women)	-do-
4.	89	Night work (women)	-do-
5.	90	Night work (young persons)	Provided in the Mines Act
6.	123	Minimum age for employment in underground	-do-
7.	127	Maximum permissible weight for carrying	Not ratified
8.	132	Holidays with pay (revised)	Not ratified
9.	139	OH hazards from carcinogens	Not ratified
10.	142	VT in development of human resources	Many aspects provided in the Mines Act
11.	148	Working environment	Not ratified. Many aspects provided in the Mines Act.
12.	150	Labour administration	Not ratified. Many aspects provided in the Mines Act.
13.	155	Occupational Health Services	Not ratified. Many aspects provided in the Mines Act.
14.	174	Major Industrial Accidents	Not ratified. Limited application in mining.
15.	175	Part time work	Not ratified
16.	176	OSH in mines	-do-

ANNEXURE-IIA

ORGANISATION STRUCTURE
DIRECTORATE-GENERAL OF MINES SAFETY
HEAD QUARTERS, DHANBAD



ANNEXURE-IIB

**Field Organisation of
Directorate General of Mines Safety**

SN	Zone	Region	Sub-Region
1.	Eastern Zone Sitarampur West Bengal	1. Sitarampur Region No.I 2. Sitarampur Region No.II 3. Sitarampur Region No.III 4. Guwahati	
2.	Central Zone Dhanbad Jharkhand	1. Dhanbad Region No.I 2. Dhanbad Region No.II 3. Dhanbad Region No.III 4. Koderma	
3.	South Eastern Zone Ranchi Jharkhand	1. Ranchi 2. Bhubaneshwar 3. Chaibasa 4. Raigarh	Ramgarh
4.	North Western Zone Udaipur Rajasthan	1. Ahmedabad 2. Udaipur 3. Surat	
5.	Northern Zone Ghaziabad Uttar Pradesh	1. Ghaziabad 2. Ajmer 3. Gwalior 4. Varanasi	
6.	Southern Central Zone Hyderabad Andhra Pradesh	1. Hyderabad Region No.I 2. Hyderabad Region No.II 3. Goa	Nellore
7.	Southern Zone Bengaluru Karnataka	1. Bengaluru 2. Bellary 3. Chennai	
8.	Western Zone Nagpur Maharashtra	1. Nagpur Region No.I 2. Nagpur Region No.II 3. Jabalpur 4. Bilaspur	Parasia

DETAILS OF EXAMINATIONS CONDUCTED IN THE YEAR 2015 UPTO DECEMBER

Sl. No.	Type of Examination	No. of Candidates		Remarks
		Appeared	Successful	
Under Coal Mines Regulations, 1957				
1.	First Class Manager's Certificate Examination held in December, 2014	-	-	No Examination
	First Class Manager's Certificate Examination in 2015	5526	708	Result declared on 21.12.2015
2.	Second Class Manager's Certificate Examination held in December, 2014	-	-	No Examination
	Second Class Manager's Certificate Examination in 2015	4325	490	Result declared on 21.12.2015
3.	Mine Surveyor's Certificate Examination held in December, 2014	363	55	Result declared on 16.7.2015
	Mine Surveyor's Certificate Examination in 2015	-	-	No Examination
4.	Overman's Certificate Examination held in December, 2014	1110	180	Result declared on 16.7.2015
	Overman's Certificate Examination held in December, 2015	-	-	No Examination
5.	Medical Examinations (a) 5 yearly under Reg. 27(1)			Medical Examinations information indicated here is of HQ Dhanbad only.
	(i) Overman	181	175	
	(ii) Mining Sirdar	190	189	
	(iii) Shotfirer	2	2	
	(iv) Winding Engine Driver 1 st Class	34	33	
	(v) Winding Engine Driver 2 nd Class	2	2	
	(b) Senior Medical Board under Reg. 28			
	(i) First Class Manager's	96	96	
	(ii) Second Class manager's	46	46	
	(iii) Surveyor's	15	15	
	(c) Junior Medical Board under Reg.28			
	(i) Overman	7	7	
	(ii) Mining Sirdar	11	11	
	(iii) Shotfirer	1	1	
	(iv) Winding Engine Driver 1 st Class	6	5	
(v) Winding Engine Driver 2 nd Class	1	1		
6.	Exchange cases	2	2	
		Application received	Certificate/ auth. issued	
7.	Exemption cases	1042	1771	
Under Metalliferous Mines Regulations, 1961				
I. Un-Restricted				
1.	First Class manager's Certificate Examination held in September, 2014	221	43	Result declared on 28.4.2015
	First Class manager's Certificate Examination held in September, 2015	-	-	No Examination
2.	Second Class Manager's Certificate Examination held in September, 2014	174	32	Result declared on 28.4.2015
	Second Class Manager's Certificate Examination held in September, 2015	-	-	No Examination
3.	Surveyor's Certificate Examination held in September, 2014	29	4	Result declared on 28.4.2015
	Surveyor's Certificate Examination held in September, 2015	-	-	No Examination

Sl. No.	Type of Examination	No. of Candidates		Remarks
		Appeared	Successful	
4.	Foreman's Certificate Examination held in September, 2014	99	12	Result declared on 28.4.2015
	Foreman's Certificate Examination held in September, 2015	-	-	No Examination
II. Restricted to Opencast Workings only				
1.	First Class Manager's Certificate Examination held in September, 2014	1311	158	Result declared on 28.4.2015
	First Class Manager's Certificate Examination held in September, 2015	-	-	No Examination
2.	Second Class Manager's Certificate Examination held in September, 2014	907	92	Result declared on 28.4.2015
	Second Class Manager's Certificate Examination held in September, 2014	-	-	No Examination
3.	Surveyor's Certificate Examination held in September, 2014	98	7	Result declared on 28.4.2015
	Surveyor's Certificate Examination held in September, 2015	-	-	No Examination
4.	Foreman's Certificate Examination held in September, 2014	877	136	Result declared on 28.4.2015
	Foreman's Certificate Examination held in September, 2015	-	-	No Examination
III. Medical Examinations				
	(a) 5 yearly under Reg. 30(1)			
	(i) Foreman, Un-restricted	15	14	
	(ii) Foreman, Restricted	10	10	
	(iii) Mining Mate, Un-restricted	19	18	
	(iv) Mining Mate, Restricted	7	7	
	(v) Blaster, Un-restricted	3	3	
	(vi) Blaster, Restricted	2	2	
	(vii) Winding Engine Driver 1 st Class	1	1	
	(viii) Winding Engine Driver 2 nd Class	0	0	
	(b) Senior Medical Board			
	(i) First Class Manager's	0	0	
	(ii) Second Class manager's	0	0	
	(iii) Surveyor's	0	0	
	(c) Junior Medical Board			
	(i) Foreman	10	10	
	(ii) Mining Mate	7	7	
	(iii) Blaster	4	4	
IV.	Exchange cases	13	13	
V.	Exemption cases	Application received	Certificate/ authorization issued	
		700	336	

ANNEXURE-III A

DETAILS OF JUNIOR EXAMINATION CONDUCTED DURING – 2015

Under CMR 1957						Under MMR 1961								Winding engine Driver 1 st & 2 nd class	
Med exam (Jr/Sr)		Mining Sirdar		Gas Testing		Med exam (Jr/Sr)		Mining Mate		Gas Testing		Blaster			
App.	Succ.	App.	Succ.	App.	Succ.	App.	Succ.	App.	Succ.	App.	Succ.	App.	Succ.	App.	Succ.
592	581	1169	290	5250	1838	88	76	1712	413	729	251	931	163	69	48

LIST OF VARIOUS SEMINARS, SYMPOSIUMS, CONFERENCE, WORKSHOP ETC. ATTENDED BY DGMS OFFICERS DURING 2015.

Sl. No	Name of the Seminar, Workshop, Symposium etc	Venue	Date	No. of officers attended
1.	Induction training Programme by MSHA	Vikas Bhawan, Dhanbad	05.01.2015 to 09.01.2015	1
2.	Induction training Programme of DGMS officials	Nagpur	05.01.2015 to 09.01.2015	5
3.	Induction training Programme	DGMS, Nagpur	07.01.2015 to 08.01.2015	1
4.	“Specialized Interactive Training Course on Oil Mining” at the Institute of Petroleum Safety Health and Environment Management (IPSHEM), Betul, ONGC	Goa	12.01.2015 to 17.01.2015	20
5.	“Specialized Interactive Training Course on Oil Mining” at the Institute of Petroleum Safety Health and Environment Management (IPSHEM), Betul, ONGC	Ankleshwar	20.01.2015 to 21.01.2015	20
6.	International Conference on ‘Health & Safety Management in Mining Industry	Hotel Taz Bengal, Kolkata	29.01.2015 to 31.01.2015	15
7.	7 th Indian Mineral Congress & Exhibition “Technology and Innovation Management in Indian Mineral Industry” (IMC 2015)	ISM, Dhanbad	07.02.2015	10
8.	Formation of standards for mechanical equipment	Dhanbad	23.02.2015	3
9.	Induction training Programme	Dhanbad	09.03.2015 to 14.03.2015	2
10.	Tata Institute of Social Science, Mumbai	Tata Institute of Social Science, Mumbai	26.03.2015	1
11.	International conference on “Global Challengers, Sposlssicy Framework and Sustainable Development for Mining of Mineral and Fossil Energy Resources.	Surathkal, Mangalore	17.04.2015 to 18.04.2015	5
12.	Certificate Course on “Safety Management”	Bhubaneswar	11.05.2015 to 23.05.2015	2
13.	Managerial Awareness Programme for Management Trainee (MM & E&M) of CIL	Kanke, Ranchi	15.06.2015 to 26.06.2015	1
14.	Explosives Conclave, 2015	Kolkata	03.07.2015	1
15.	Short term Course on Mines Safety and legislation	Kharagpur	20.07.2015 to 22.07.2015	1
16.	National Conference on ‘Safety and Health Management Systems to Improve Productivity in Mines’	Hotel Tuli International, Nagpur	23.07.2015 to 25.07.2015	1
17.	Seminar “Slope Stability Issues in Opencast Mining and Civil Engineering” (SSIOMCE15)	Rourkela	25.07.2015 to 26.07.2015	1
18.	Workshop on Special Recruitment Drive to fill up the vacancies for Persons with Disabilities (PWDs)	New Delhi	08.08.2015	1
19.	Seminar on Regulatory Aspects for Industrial Products in International Trade with Swedish collaboration.	New Delhi	10.08.2015 to 12.08.2015	2

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20.	2 nd National Conference on Mining Equipment: New Technology, Challenges and Applications (MENTCA'15)	ISM, Dhanbad	09.10.2015 to 10.10.2015	2
21.	2 nd World Congress on Disaster Management	Vishakhapatnam	19.11.2015 to 22.11.2015	1
22.	International Symposium on Impact of Chemical Exposures on the Health Environment.	New Delhi	16.12.2015 to 18.12.2015	1

ANNEXURE-IVB**CARRIER MANAGEMENT AND COORDINATION TRAINING FOR THE YEAR 2015 (IN COUNTRY)**

Sl. No.	Course	Venue	Period	No. of Officers attended
1.	Induction Training Programme	DGMS, WZ, Nagpur	05.01.2015 To 09.01.2015	04
2.	DGMS Industries training programme	Nagpur	05.01.2015 to 09.01.2015	30
3.	Specialized Interactive Training Course on Oil Mining	IPSHEM, Goa & Ankeleshwar (Gujrat)	12.01.2015 to 21.01.2015	03
4.	Induction Training Programme	DGMS (HQ) Dhanbad	09.03.2015 to 13.03.2015	1

ANNEXURE-IVC**CARRIER MANAGEMENT AND COORDINATION TRAINING FOR THE YEAR 2015 (ABROAD)**

Sl. No.	Course	Venue	Period	No. of Officers attended
- NIL -				

Telephone Directory of Directorate General of Mines Safety, (DGMS) containing names, designation, office address, E-mail addresses, Mobile Nos. and Telephone numbers of all officers of this Directorate as on 01-02-2016

HEAD OFFICE, DHANBAD – 826016 (Jharkhand) STD CODE – 0326 Website : www.dgms.gov.in/www.dgmsindia.in

Sl. No.	Name S/Shri	Designation	E mail	MOBILE No.	Telephone No. /Mobile		
					Office	Residence	Fax No.
1.	Rahul Guha	Director General	dq@dgms.gov.in	+919471192166	2221000/1069	2221041-42	2221027
2.	P.Ranganattheswar	Dy. Director General (HQ)	ddg.hq@dgms.gov.in	+919471192211	2221021	2221170	2221020
3.	B.N. Dhore	Dy. Director General (Mech)	ddg.mech@dgms.gov.in dbnaik74@gmail.com	+919471192475	2221002	2221166	2221039
4.	G.L.Kanta Rao	Dy. Director General (Elect)	ddg.elect@dgms.gov.in raokanta868@gmail.com	+918179177257 +919471192445	2221038	2221169	2221043
5.	S. Krishna Murthy	Director (CMC)	dir.cmc@dgms.gov.in	+919490458249	2221014	2221199	
6.	M. Tikadar	Director (SOMA)	dir.soma@dgms.gov.in	+919471192285	2221015	2221168	
7.	A. K. Sinha	Director (S&T/MSE)	dir.s&t@dgms.gov.in	+919471192281	2221037/1005	2221165	2221013
8.	P.K.Palit	Director (Exam)	dir.exam@ dgms.gov.in	+919407821197	2221036	2221176	
9.	B Papa Rao	Director (SD)	dir.sd@ dgms.gov.in	+919471191994	2221018	2221063	
10.	Subhashis Roy	Dy. Director (HQ)		+919471191457	2221022	2221180	
11.	M. K. Gupta	Dy. Director (HQ)	dd.cmc@ dgms.gov.in	+919471191879	2221019		
12.	Tom Mathew	Dy. Director (B&A)	dd.bna@ dgms.gov.in	+919471192353	2221016	2223010	
13.	S. S. Prasad	Dy. Director (S&T)	dd.snt@dgms.gov.in	+919471192156		2221172	
14.	Aftab Ahmed	Dy. Director (S & T)	dd.snt@ dgms.gov.in	+919471191086	2221198	2221163	
15.	Raghupathi Peddireddy	Dy. Director (S&T)	dd.snt@ dgms.gov.in	+919471192354			
16.	Sagesh Kumar M.R.	Dy. Director (Exam)	dd.exam@ dgms.gov.in	+919471191891	2221009	2311840	
17.	Satyanarayana Inumula	Dy. Director (SOMA)		+919471192350	2226124		
18.	N.P.Deori	Dy. Director (MSE)	dd.mse@ dgms.gov.in	+919431141420		2221164	
19.	Gyaneswar Kondabattini	Dy. Director (Survey)		+919471192357			
20.	S.Chakraborty	Dy. Director (HQ)		+919404343703		2221177	
21.	Umesh M.Sawarkar	Dy. Director (S&T)	dd.snt@ dgms.gov.in	+917870664988	2221005		
22.	Vinod Rajak	Dy. Director (Store & Purchase)	vrajak@dgms.gov.in dd1.hq@ dgms.gov.in	+919471191650	2221156	2221171	
23.	Yohan Yejerla	Dy. Director (Exam)	dd3.exam@ dgms.gov.in	+919471128794	2221182	2221174	

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Sl. No.	Name S/Shri	Designation	E mail	MOBILE No.	Telephone No. /Mobile		
					Office	Residence	Fax No.
24.	Sanjay Kumar Gimmedi	Dy. Director (Exam)		+919471192356	2226019		
25.	Rajesh Kumar Singh	Dy. Director (SD)	dd2.hq@ dgms.gov.in	+919471191342	2221007	2221161	
26.	B. Behera	Dy. Director (Elect)	bnbdgmse@gmail.com	+919471191862		2311305	
27.	Maheswara Reddy Kannala	Dy. Director (Elect)	dd1.elect.hq@ dgms.gov.in	+919471192375	2221040		
28.	Arka Somayajulu Dhulipala	Dy. Director (Elect)/SD HQs.	D3@gmail.comhulipala	+919471192352	2221007	2211166	
29.	K. Vijay Kumar	Dy. Director (Mech)	dd.mech.hq@ dgms.gov.in	+919471191645	2221008	2206760	
30.	Ratnakar Sunki	Dy. Director (Mech)		+919471192346	2221089		
31.	Dr. George John	Asstt. Director (OH)	ad.oh.hq@ dgms.gov.in	+919263611891			
32.	Ms. Monika Tudu	Asstt. Director (OL)	ad.ol.hq@ dgms.gov.in	+919431376868	2221004		
33.	T.K. Burman	Sr. Law Officer	slo.hq@ dgms.gov.in		2221024	2206742	
34.		Law Officer	lo1.hq@ dgms.gov.in		2226121		
35.	Ms. Ritu Srivastava,	Law Officer	lo2.hq@ dgms.gov.in	+919470385812			
36.	A. Tripathy	Director (Stat)	dir.stat@ dgms.gov.in	+919199722301	2221003		
37.	Sourav Chakraborty	Director (Stat)	dir.stat@ dgms.gov.in	+919471192470	2221023	2221178	
38.	Manish Anand	Dy. Director (Stat)		+919852466244			
39.	B.K. Srivastava	Asstt. Director (STAT)	ad.stat@ dgms.gov.in	+919431959914	2226118		
40.	Usha Roy	DDO	ddo.hq@ dgms.gov.in		2226087		
41.	P.K. Sinha	Jr. Scientific Officer (S&T)			2226042	-	
42.	K.D. Hansda Sr. PS to DG	Sr. PS to DG		+918298154484	2221006		
43.	Pay & Accounts Officer				2221017		

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CENTRAL ZONE, DHANBAD, DHANBAD -826001 FAX : (0326) 2221029 STD CODE -0326							
Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
1.		Dy. Director General	ddg.cz@ dgms.gov.in		2221029		2221030
2.	Ajay Singh	Director (Elect)	dir1.elect.cz@ dgms.gov.in ajaya_sccl@yahoo.co.in	+919771499979	2221031	2206731	
3.		Director (Mech)	dir.mech.cz@ dgms.gov.in			2206737	
4.	S.Puttaraju	Dy. Director (Elect)	sputtaraju75@gmail.com	+919471191851		2206768	
5.	Rajeev Omprakash Verma	Dy. Director (Elect)	rajeev.dgms@gmail.com	+917033520707			
6.	Naresh Govind Phule	Dy. Director (Mech)	ngphule@gmail.com	+919534226677			
7.	Sandeep Srivastava	Dy. Director (Mech)	ddms.mech@gmail.com	+919102992550	2221032		
8.	Rakesh Rameshwar Mishra	Dy. Director (Mining)	rakesh23.1617@rediffmail.com	+919471192368			
9.	A.S.Singh	Law Officer		+919431145341			
DHANBAD REGION No. I							
1.	S. Bagchi	Director	dir.dr1@ dgms.gov.in sbagchidgms@yahoo.com	+919471192280	2221033	2206753	2221033
2.	M.C. Jaisawal	Dy. Director	dd2.dr1@ dgms.gov.in jaiswalmanish90@yahoo.in	+910910293638			
3.	R. A. Meena	Dy. Director	dd1.dr1@ dgms.gov.in meenaramawtar@gmail.com	+919471192159		2206735	
DHANBAD REGION No. II							
1.	Sanjibon Ray	Director	dir.dr2@ dgms.gov.in sanjibonray@yahoo.com	+919471191223	2221034	2221173	2221034
2.	A.H. Ansari	Dy. Director	dd2.dr2@ dgms.gov.in altahhussainksa@gmail.com	+919471192554	2221157		
3.	Nayan Sinha	Dy. Director	nauab_snh@yahoo.co.in	+919471192304		2206747	
DHANBAD REGION No. III							
1.	C R Kumar	Director	dir.dr3@ dgms.gov.in ch_rameshkumar@rediffmail.com	+918986675278	2221035	2206733	2221035
2.	Dhananjay Kumar	Dy. Director	dhananjay0809@yahoo.in	+919471192373			
3.	V. Kalundia	Dy. Director	dd1.dr3@ dgms.gov.in v.kalundia@gmail.com	+919431964297		2221175	

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
KODERMA REGION, PO. : KARMA – 825409 (JHUMRITILAIYA) DIST. KODERMA (JHARKHAND) STD CODE : 06534							
1.	E. Jayakumar	Director	dir.kdr@ dgms.gov.com jaykumarin@yahoo.in	+919471191197	222401	222577	223483
2.	S.S. Soni	Dy. Director	dd.kdr@ dgms.gov.in sssoni@live.com	+919431120611	222579	223288	
3.	K.A. Naidu	Dy. Director	naiduuappal@gmail.com	+917321906258	222579	227554	

EASTERN ZONE, SITARAMPUR P.O. : SITARAMPUR, DIST.: BURDWAN (WB), PIN – 713359, STD CODE – 0341							
1.	Utpal Saha	Dy. Director General	ddg.ez@ dgms.gov.in ez.dgms@gmail.com	+919434052599	2510710	2510711 2510720	2510717
2.		PS to DDG			2514210	2511371	
3.	V.Laxminarayan	Director, S.O	vIn010158@gmail.com	+919481711958	2514207	2510715	
4.		Asstt. Director (OH)	dd.oh.ez@ dgms.gov.in		2514228 2510721	2254498	
5.	T. Srinivas	Dy. Director (Elect)	dd.elect.ez@ dgms.gov.in srinivas.dgms@gmail.com	+919431501422	2514223	2511375	
6.	Anil Toppo	Dy. Director (Elect)	aniltoppo1972@gmail.com	+9109434739225	2514222	2511376	
7.	S.G.Bhaisare	Dy. Director (Mech)	dd.mech.ez@ dgms.gov.in sudhirbhaisare@gmail.com	+919434346323	2514207	2511373	
8.	Suresh Kumar Pedada	Dy. director (Mech)	sureshkumar.pedada@gmail.com	+919434739149			
9.	Rupesh Kr. Srivastava	Dy. Director (Mech)	rsri_76@rediffmail.com	+919434739308			
10.	Palanimalai C	Dy. Director (Elect)	dd.elect.ez@ dgms.gov.in c.palanimalai@yahoo.com	+919434071552	2514224	2510715	
11.	V.G. Meshram	Dy. Director (Elect)					
SITARAMPUR REGION NO. I							
1.		Director	dir.sr1@ dgms.gov.in		2514203	2510712	
2.			dd1.sr1@ dgms.gov.in		2514205	2511380	
3.	K.Mandal	Dy. Director	dd2.sr1@ dgms.gov.in kmondal95@yahoo.co.in	+919434071867	2514204	2511372	
4.	Niranjan kumar	Dy. Director	nkumar.ism@gmail.com	+919434738625	2514204	2511380	

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
SITARAMPUR REGION NO. II							
1.	N. Rajak	Director	dir.sr2@ dgms.gov.in nrajak2007@rediffmail.com	+919434738250 +919434434834	2514213	2510713	
2.	M.K.Sahu	Dy. Director	dd1.sr2@ dgms.gov.in hi_2manoj@rediffmail.com	+919434343664	2514215	2510718	
3.	B.S.Nasina	Dy. Director	dd2.sr2@ dgms.gov.in nasinabalasubramanyam@gmail.com	+919434738697	2514214	2510716	
					2514208	2511341	
SITARAMPUR REGION NO. III							
1.		Director					
2.	Venugopala Swamy Kadem	Dy. Director	Kademvrnugopalaswamy@gmail.com	+919434738698	2514219		
3.	Md. Niyazi	Dy. Director	dd2.sr3@ dgms.gov.in mdniyazi@yahoo.com	+919434330669	2514218	2011374	
GUWAHATI REGION Guwahati, House of Ranjit Sharma, House No. 16, Bylane -10, Ganesh Mandir Path, New Guwahati – 781020 ASSAM STD : 0361							
1.	T. Vidyapati	Director	dir.gur@ dgms.gov.in	+919422493412	2550129	9577326686	2550129
2.	Ram Abhilash	Dy. Director	dd.gur@ dgms.gov.in	+919435700502			
3.	Ajit Kumar	Dy. Director		+919401031882			
4.	Kunapareddi Madhav Rao	Dy. Director		+919401029399			

SOUTH EASTERN ZONE, RANCHI CMPDI CAMPUS, KANKE ROAD AT. R.I.-III, OLD BUILDING, THIRD FLOOR RANCHI.-834008(Jharkhand) STD CODE – 0651; FAX : (0651) 2233049 Broad Band 2233033							
1.		Dy. Director General	ddg.sez@ dgms.gov.in		2233020	2530270	2233049
2.	M.K.Malvia	Director (Elect)	dir.elect.sez@ dgms.gov.in malvia_mk@yahoo.com	+919955693288	2233050	6999040	2233049
3.	Ujjwal Tah	Director (Mining),SO	ujjwaltah@yahoo.com dirsez@dhm.gov.in	+919425274788	2233049	6003393	2233049
4.							2233049
5.		Dy. Director (Mech)	dd.mech.sez@ dgms.gov.in		2233110	6550198	2233049

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
6.	Ajay Kumar Ramnaresh Yadav	Dy. Director (Mech)	akyajay@rediffmail.com	+917544017999			2233049
7.	Prakash Kumar	Dy. Director (Elec)	dd.elect.sez@ dgms.gov.in verma.pk71@gmail.com	+918102297501	2233110	2552028	2233049
8.	P. Damodar	Dy. Director (Elect)	pathumudidamodar@gmail.com	917763800034	2233110		2233049
RANCHI REGION, RANCHI CMPDI CAMPUS, KANKE ROAD AT. R.I.-III, OLD BUILDING, THIRD FLOOR RANCHI.-834008(Jharkhand) STD CODE – 0651							
1.		Director	dir.rnr@ dgms.gov.in k20022004@yahoo.com		2233022		2233049
2.	Mihir Choudhury	Dy. Director	dd1.rnr@ dgms.gov.in mihir_choudhary_kumar@yahoo.com	+919470520346	2233102	2563150	2233049
3.	Shyam Mishra	Dy. Director (Mining)	shyamisp_sail@yahoo.com dd2rnr@dgms.gov.in	+919431106445	2233102	2552072	2233049
4.	Arun Kumar	Dy. Director (Mining)	arunkumar653853@gmail.com	+919602492565			
RAMGRAH SUB-REGION, PO. RAMGRAH CANTT. - 829112, DIST: HAZARIBAGH (JHARKHAND). STD CODE : 06553							
1.	Deo Kumar	Dy. Director	dd.rgh@ dgms.gov.in deo.kumar64@yahoo.com	+919431191273	222248	222168	
RAIGARH REGION, RAIGARH (CHATTISHGARH) SECL Guest House, Chhote Attarmuda, Raigarh – 496001. STD – 07762							
1.	S.K. Mandal	Director	dir.rgr@ dgms.gov.in mandalsk.dgms@yahoo.com	+919472700692	220114	215379	222114
2.	Raj Kishor Singh	Dy. Director	dd.rgr@ dgms.gov.in rajksbit@gmail.com	+919424300587	222116		
3.	Murli Dhar Mishra	Dy. Director		+919434070719			
BHUBANESWAR REGION, PLOT No. L-1, NAYAPALLI; (Near Swosti Plaza Hotel), P.O. RRL CAMPUS, BHUBANESWAR: 751013. STD CODE : 0674							
1.	R. Subramanian	Director	dir.bbr@ dgms.gov.in dmsbbsr_2013@gmail.com	+919437493390	2302561	2300458	2302561
2.		Dy. Director	dd1.bbr@ dgms.gov.in				
3.	Nagendra Kumar Sriram	Dy. Director	vrnagendra@gmail.com	+918895521016	2301452		

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
CHAIBASA REGION, P.O. : CHAIBASA – 833201; DIST. SINGHBHUM (WEST), JHARKHAND STD CODE : 06582							
1.	Satish Kumar	Director	dir.chr@ dgms.gov.in Satish_ddms@yahoo.com or Satish_2306@rediffmail.com	+919472713873 +919472713033	256480	256283	
2.	B.B. Satiar	Dy. Director	dd1.chr@ dgms.gov.in bipul_satiar@yahoo.com	+918521831670			
3.	Saket Bharti	Dy. Director	dd2.chr@ dgms.gov.in saketbharti@yahoo.com	+918002664463			

WESTERN ZONE, NAGPUR. CGO COMPLEX, A-BLOCK, 6TH FLOOR, SEMINARY HILLS, NAGPUR – 440006. STD CODE: 0712 EPBX :2511026							
	DG's Camp Office				2513085		2511021
1.		Dy. Director General	ddg.wz@ dgms.gov.in		2511020	2512901	2511021
2.	B.P.Singh	Director(S.O)		+919431122207			
3.	T. K. MONDAL	Director(SOMA)	dir.soma.wz@ dgms.gov.in	+919470194796	2511025	2511027	2513133
4.							
5.		Director(Exam))					
6.	Venkata Subbarao Ankalagalla	Dy.Director(Elect)	Bsubbaraoddms@gmail.com	+919422101071			
7.		Director (Elect)	dir1.elect.wz@ dgms.gov.in		2511023		
8.	M.Armugam	Dy.Director (Mech)	dd.mech.wz@ dgms.gov.in magumura@yahoo.com	+919422027758 +919406333313	2511024		
9.	Jagdish Prasad Verma	Dy.Directro(Mech)	jagdish12373@gmail.com	+919413174833			
10	Rajkumar	Dy.Director (Elech)	dd.elect.wz@ dgms.gov.in nj_kumar501@gmail.com	+919422028676 +919425594384			

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
NAGPUR REGION – I							
CGO COMPLEX, A-BLOCK, 6TH FLOOR, SEMINARY HILLS, NAGPUR – 440006. STD CODE : 0712							
1.	Prabhat Kumar	Director	dir.ng1@ dgms.gov.in	+919470194781	2513133	2034220	
2.	B.Dayasagar	Dy. Director (Mining)	bdayasagar@gmail.com	+918275045884			
3.	Saifullah Ansari	Dy. Director	dd1.ng1@ dgms.gov.in saifullah68@gmail.com	+919471191152	2513134	2590036	
PARASIA SUB-REGION,							
PO : PARASIA – 480441, DIST.: CHHINDWARA (MP) STD CODE: 07161							
1.	M. Rafiq Sayeed	Dy. Director	dd.prs@ dgms.gov.in syedrafique61@gmail.com	+919422304552	220048	220007	
NAGPUR REGION – II							
CGO COMPLEX, A-BLOCK, 6TH FLOOR, SEMINARY HILLS, NAGPUR – 440006. STD CODE : 0712							
1.	D.K.Sahu	Director	dir.ng2@ dgms.gov.in	+919435674412	2513085	2513111	2513084
2.	T.R. Kannan	Dy. Director	dd1.ng2@ dgms.gov.in tkanan@hotmail.com	+919470983550 +919422083691	2513084	2592280	
3.	Ashok Kumar	Dy. Director (Mining)	ashokdgms@gmail.com	+919960722085	2513087	2511634	
4.							
JABALPUR REGION, PLOT No.1936 to 1949, JDA SCHEME No.5							
Behind Joy Higher Secondary School. Vijay Nagar, JABALPUR – 482002, STD CODE : 0761							
1.		Director	dir.jbr@ dgms.gov.in	+919407821197	2640365		2640160
2.	R.T. Mandekar	Dy. Director	dd1.jbr@ dgms.gov.in rtmandekar@yahoo.co.in	+91940782119 +919926533617	2640414	2407636	
3.	Venkanna Banothu	Dy. Director	dd2.jbr@ dgms.gov.in venku_bonuthu@yahoo.co.in	+917024988955	2640160	2429767	

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
BILASPUR REGION, SECL CAMPUS, SEEPAT ROAD; BILASPUR – 495001. STD CODE : 07752							
1.	M.R.Mandave	Director	dir.bpr@ dgms.gov.in mrmandve@yahoo.com	+919431110958	246493		246493
2.	S.D. Chiddarwar	Dy. Director	dd1.bpr@ dgms.gov.in Satish_2306@rediffmail.com	+919407667981	246494		
3.	Tikeshwar Mahto	Dy. Director	dd2.bpr@ dgms.gov.in tikeshwarmeheto@yahoo.co.in	+917898033693	246494		
4.	M.Bidari	Dy. Director		+919425531972	246494		
5.	Avnoorie R. Rao	Dy. Director		+919425534474	246494		
SOUTH CENTRAL ZONE, HYDERABAD Room No. – 704, 7th Floor, CGO Tower, Old Praga Tools Premises, Kavadiguda,Secunderabad – 500 080; STD CODE : 040 EPABX Nos.-040-27534504, 27534505,27534507							
1.	Sayed Imtiaz Hussain	Dy. Director General	ddg.scz@ dgms.gov.in	+918008889232	27532502	23300879	27532504
2.	G. Vijay Kumar	Director		+919493911063	27534503	20049840	
3.	K. Nageswara Rao	Director(S.O)		+919404343717			
3.	M. Narsaiah	Director		+919449008549			
4.	B.S.Nim	Director (Elect)	dir.elect.scz@ dgms.gov.in	+919414027749	27534502	27500367	
5.		Dy. Director (Mech)				23320188	
6.	Anand Agarwal	Dy.Director (Elect)	dd.elect.scz@ dgms.gov.in	+917382632072		27667743	
7.	Kaushik Sarkar	Asstt. Director (OH)	ad.oh.scz@ dgms.gov.in	+919492822478			
8.	Narasimha Rao Gullapalli	Dy.Director(Elect)		+919440206966			
9.	Balakrishna Padarathi	Dy.Ddirector(Mech)		+919866325112			
HYDERABAD REGION No. I Room No. – 701, 7th Floor, CGO Tower, Old Praga Tools Premises, Kavadiguda,Secunderabad – 500 080; STD CODE : 040							
1.	S.K. Gangopadhyay	Director	dir.hr1@ dgms.gov.in	+918985306453	27534501	27800227	
2.	Aderla Rambabu	Dy.Director(Mining)	dd1.hr1@ dgms.gov.in	+919491017777		27631445	
3.	Mukesh Kumar Sinha	Dy.Director (Mining)	dd2.hr2@ dgms.gov.in	+917382620532		27662566	

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
HYDERABAD REGION NO. II							
ROOM NO. – 701, 7TH FLOOR, CGO TOWER, OLD PRAGA TOOLS PREMISES, KAVADIGUDA, SECUNDERABAD – 500 080; STD CODE : 040							
1.	S.K.Dutta	Director	dir.hr2@ dgms.gov.in	+919474695355	27534500	20030068	
2.	Karmdeo Ram	Dy. Director	dd1.hr2@ dgms.gov.in	+919470108445			
3.	Surjit Katewa	Dy. Director (Mining)	dd2.hr1@ dgms.gov.in	+917382632073		27662166	
4.	Kumar Rajiva Krishna Kumar	Dy. Director (Mining)		+919441417004			
NELLORE SUB-REGION,							
OPP.SP.BUNGLow, PODALAKUR ROAD, PO : DARGAMITTA, NELLORE – 524003 (AP); STD CODE : 0861							
1.	Neeraj Kumar	Dy. Director	dd.nir@ dgms.gov.in	+919490458288	2327363	2318288	
GOA REGION, GOA							
AGALI, PO.-FATORDA, MARGAO : 403602; STD CODE : 0832 –FAX NO.2749223							
1.	Munna Tandi	Director	dir.gor@ dgms.gov.in	+919934891349	2740645	2749200	2749223
2.	B.L. Meena	Dy. Director (Mining)	dd1.gor@ dgms.gov.in	+918805007473			
3.	Kishore Kumar Dokuparth	Dy. Director (Mining)		+919503066665			

SOUTHERN ZONE, BENGALURU (KARNATAKA)							
NO.5, 14TH MAIN (100FT) ROAD, 4TH B BLOCK, KORAMANGLA, BENGALURU – 560034; STD CODE : 080							
1.	P. K. Sarkar	Dy. Director General	ddg.sz@ dgms.gov.in pksgms@gmail.com prasanta_ks2003@yahoo.com	+919650017999	25535971		25535972
2.	P. C. Rajak	Director	premchand.rajak@yahoo.co.in	+919449025065	25535973	22581916	25535972
3.	R.N. Singh	Director (Mech)	rajnarayan_dgms@rediffmail.com	+919430337987			
4.	K.S.Yadav	Director (Elect)	dir.elect.sz@ dgms.gov.in ksyadav1@gmail.com	+918277182540	25533368	25520626	25535972
5.	Ramesh Waliker	Dy. Director	waliker.2001@rediffmail.com	+918762021593			25535972
6.						23387857	
7.	Raghu Merugu	Dy. Director (Elect.)	raguemail@yahoo.com	+919481321753			

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
BANGALURU REGION, BENGALURU							
NO.5, 14TH MAIN (100FT) ROAD, 4TH B BLOCK, KORAMANGLA, BENGALURU – 560034 STD CODE : 080							
1.	S.K. Das	Director	dir.bgr@ dgms.gov.in	+919422419122	25535975		25535972
2.	Ravinder Kandekatla	Dy. Director (Mining)	dd1.bgr@ dgms.gov.in kandikatla_ravi@yahoo.co.in	+919483506296	25535974		25535972
BELLARY REGION,							
BELLARY – 583110 (Karnataka)							
STD : 08392							
1.	M.E. Murkute	Director	dgmsbellary@gmail.com	+918966888777	240614	244777	240064
2.	N.N.Rao	Dy. Director	namavarapunr@gmail.com	+919483543925	240614	240491	240064
3.	K. Thirupathi	Dy.Director	Kamera.thirupathi6@gmail.com	+919482069676	240614	-----	240064
CHENNAI REGION, CHENNAI							
NO. 46 (OLD)/5(NEW), 2ND STREET, BLOCK 'AA', ANNA NAGAR, CHENNAI – 600040 (T.N)							
STD CODE : 044							
1.	A.K. Meghraj	Director	dir.cnr@ dgms.gov.in akmegharaj@yahoo.com	+919445441957	26206771	26263716	26206770
2.		Dy. Director	dd1.cnr@ dgms.gov.in		26206772	26153716	
3.	H.C. Yadav	Dy. Director	dd2.cnr@ dgms.gov.in hcyadav58@gmail.com	+919403214391	26206772	26154117	26206770
4.	Dayanand Cherku	Dy.Director	cherukudayanand@yahoo.co.in	+919445154869			
NORTH WESTERN ZONE, UDAIPUR							
JHAMARKOTRA MAIN ROAD, HIRANMAGRI, SECTOR -6, UDAIPUR – 313002 (RAJASTHAN); STD CODE : 0294							
1.	B.P.Ahuja	Dy. Director General	ddg.nwz@ dgms.gov.in	+919414023755	2465516 2465517	2460517	2461925
2.		Director (Elect)	dir.elect.nwz@ dgms.gov.in		2465515	2461773	
3.		SO/DMS			2461927	2464694	
4.	Anil Kumar Das	Dy.Director(Mining)		+918769095454	2461926		
5.	Sanjeev Kumar Nomula	Dy.Director(Mining)		+918290723377	2461926		
6.	T.Arun	Dy.Director(Elect)		+919828019633	2461926		
7.	Sankarsana Behera	Dy.Director(Mech)		+919414087617	2461926		

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
					Office	Residence	Fax No.
UDAIPUR REGION, UDAIPUR							
JHAMARKOTRA MAIN ROAD, HIRANMAGRI, SECTOR -6, UDAIPUR – 313002 (RAJASTHAN); STD CODE : 0294							
1.	S.M. Suthar	Director	dir.udr@ dgms.gov.in	+918003377377	2465513		2461925
2.	P. K. Maheswari	Dy. Director	dd1.udr@ dgms.gov.in	+919414155725	2461926	2465508	
3.	Irfan Ahmed Ansari	Dy. Director (Mining)	dd2.udr@ dgms.gov.in	+917597466813	2465514	2470094	
AHMEDABAD REGION, AHMEDABD							
NO.30, SAHAJANAND VILL –II, NEAR ONGC COMPLEX, NEW C.G.ROAD; CHANDKHERA, AHMEDABAD – 882424; STD CODE : 079							
1.	Niranjan Sharma	Director	dir.abr@ dgms.gov.in	+919724773679	23290661	23290470	23290661
2.	Durga Shanker Salvi	Dy. Director		+917874218519			
SURAT REGION, SURAT							
3RD FLOOR, CROSS CORNER BUILDING, OPPOSITE SILICON SHOPERS, UDHANA, UDYOGNAGAR, UDHANA MAIN ROAD, DIST: SURAT – 394210 (GUJARAT)							
STD CODE : 0261							
1.	D.D. Saha	Director	dir.sur@ dgms.gov.in	+919426484522	2274652		2274651
2.	Vir Pratap	Dy. Director	dd.sur@ dgms.gov.in	+918000805175	2274652		

NORTHERN ZONE, GHAZIABAD – 201002 TEL. NO. 0120-2705366, FAX NO. 0120-2705365							
ROOM NO. 201 & 203, CGO COMPLEX, HAPUR ROAD, GAZIABAD							
1.	R.L. Kulshrestha	Dy. Director General	ddg.nz@ dgms.gov.in	+918826946688	2766287	2705365	
2.		Director(SOMA)	rakeshdgms@gmail.com		2705364		
3.	S.S. Mishra	Director(Mining), SO			2705368		
4.	Madhukar Sahay	Director (Elect.)	dir1.elect.nz@ dgms.gov.in	+919818814158	2705367		
5.	B.P. Singh	Dy. Director (Mining)	bpsingh064@gmail.com	+918373912664	2721894		
6.	S.Anandvel	Dy. Director(Elect)		+917042308855	2783230		
7.	Pankaj Kumar Jain	Dy.director(Mech)		+919412218121	2787814		

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Sl. No.	Name S/Shri	Designation	E mail	Mobile No.	Telephone No./ Mobile		
GHAZIABAD REGION							
ROOM NO. 201 & 203, CGO COMPLEX, HAPUR RD, STD CODE : 0120							
					Office	Residence	Fax No.
1.	M. Satyamurthy	Director	dir1.gzr@ dgms.gov.in m.satyamurty@nic.in	+919891452528	2711597	28033331	2711597
2.	A.K. Porwal	Dy. Director	dd2.gzr@ dgms.gov.in porash_ashok@yahoo.com	+919868205612	2789433	2761781	
3.	P.K. Kundu	Dy. Director	dd1.gzr@ dgms.gov.in probhatkundu@yahoo.com	+919412718244		2986480	
4.	P.K. Singh	Director (Mech)	pk Singh hddmsm69@gmail.com	+919162476958			
AJMER REGION							
ANNA SAGAR LINK ROAD, AJMER -305001 (RAJASTHAN); STD CODE : 0145							
1.	U.P. Singh	Director	dir.vnr@ dgms.gov.in		2284911	2280093	2284911
2.	N. Murawat	Dy. Director	dd.vnr@ dgms.gov.in nmurawat27@gmail.com	+919580992425	2284912	2284004	
3.	Praful Ranjan Thakur	Dy. Director	prthakur22@gmail.com	+919621658999	2284913	2280044	
GWALIOR REGION. GWALIOR							
HOUSE NO. 23-A, NEHRU COLONY, THATIPUR, GWALIOR – 474011 (MP); STD 0751							
1.	S.Haldar	Director(Mining),In charge	dir.gwr@ dgms.gov.in		2239656		2239656