



मानक सन्दर्भ नोट - २०२३

STANDARD REFERENCE NOTE - 2023

कारखाना सलाह सेवा एवं श्रम संस्थान महानिदेशालय
Directorate General Factory Advice Service & Labour Institutes

श्रम एवं रोज़गार मंत्रालय, भारत सरकार
Ministry of Labour & Employment, Government of India

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PREFACE

The Directorate General Factory Advice Service and Labour Institutes (DGFASLI), the technical arm of the Ministry of Labour and Employment, deals with matters related to Occupational Safety and Health (OSH) in factories and dock works of major ports. The organisation assists the Central Government in formulating policies in the administration of the Factories Act, 1948; enforcing the Dock Workers (Safety, Health and Welfare) Act, 1986 and the Regulations, 1990; and liaising with State Governments, Port authorities and Industries for effective implementation of these statutes.

The 'Standard Reference Note - 2023' provides comprehensive information on the objectives, functions, important activities, organisation structure, human resource and budget of the organisation. It contains details of studies/surveys, audits, support services, training programmes, promotional and other activities carried out by DGFASLI, which are aimed at preventing accidents and occupational diseases in factories and dock works of major ports.

To fulfill the requirement of qualified Safety professionals in the industry, DGFASLI regularly conducts various training programmes on Occupational Safety and Health which, among others, include One-year Diploma course for Safety Officers and Three-month Associate Fellow of Industrial Health for qualified medical practitioners. DGFASLI also conducts a number of other specialized training programmes and certificate programmes, seminars, workshops, online programmes, public training programmes, in-plant training programmes, appreciation programmes, talks, etc. of various duration, which are discussed in detail in this Standard Reference Note.

In addition, this 'Standard Reference Note - 2023' further contains the State/UT-wise information relating to OSH in factories based on the information collected by DGFASLI from the Chief Inspectors of Factories/Director of Industrial Safety and Health of States/UTs government. It also contains information on Safety and Health matters such as industrial injuries, safety inspection, investigation, etc. in respect of major ports. This compilation of data and its analysis reflects the trends, evidences and areas of concern on OSH and acts as a reliable tool in devising programmes for preventing accidents and improving working environment in factories and dock works of major ports.

DGFASLI, Mumbai

22 October 2024

ABBREVIATIONS AND ACRONYMS

ADIS	Advance Diploma in Industrial Safety
AFIH	Associate Fellow of Industrial Health
AKAM	<i>Azadi Ka Amrit Mahotsav</i>
BE	Budget Estimate
BOCW	Building and Construction Workers
CAS	Construction Advisory Service
CGHS	Central Government Health Scheme
CIF	Chief Inspector of Factories
CLI	Central Labour Institute
CPWD	Central Public Works Department
DG	Director General
DGFASLI	Directorate General Factory Advice Service and Labour Institutes
DIS	Diploma in Industrial Safety
DISH	Directorate of Industrial Safety and Health
FAS	Factory Advisory Service
FR	Frequency Rate
HAZOP	Hazard & Operability
IDS	Inspectorates of Dock Safety
IH	Industrial Hygiene
IM	Industrial Medicine
IR	Incidence Rate
L & E	Labour & Employment
MAHCA	Major Accident Hazards Control Advisory
MoLE	Ministry of Labour & Employment
NDUW	National Database of Unorganized Workers
NRTL	Non-respiratory PPE testing Laboratory
NSA	National Safety Awards
OSH	Occupational Safety & Health
OSH & WC	Occupational Safety Health & Working Conditions
PAO	Pay and Accounts Office
PDIS	Post Diploma in Industrial Safety
PMSA	Prime Minister's Shram Awards
PPE	Personal Protective Equipment
RLI	Regional Labour Institute
RTL	Respiratory PPE testing Laboratory
SHE	Safety, Health & Environment
SHW	Safety, Health & Welfare
SRN	Standard Reference Note
TAC	Technical Advisory Committee
VRP	Vishwakarma Rashtriya Puraskar
WEED	Work Environment Engineering Division

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1

General Information

1.1 DGFASLI- A Brief Introduction

The Directorate General Factory Advice Service & Labour Institutes (DGFASLI), formerly known as the office of Chief Adviser of Factories, was set up in 1945 in Delhi with the objective of advising the Central and State Governments on the administration of the Factories Act, 1948 and liaising with factories inspection services in the States and Union Territories. The office was subsequently shifted to Mumbai in 1966.

DGFASLI achieved significant importance as an attached office of the Ministry of Labour & Employment, Government of India serving as a technical arm to assist the Ministry in the formulation of national policies on Occupational Safety and Health in Factories and Docks.

The Dock Workers (Safety, Health and Welfare) Act, 1986 and the Regulations, 1990 framed thereunder provide for safety, health and welfare of dock workers. These are enforced by DGFASLI through the Inspectorates of Dock Safety set up in all the major ports in India.

1.2 Functions of DGFASLI

- Administration of Factories Act, 1948 by rendering advice and carrying out support activities
- Administration of the Dock Workers (Safety, Health & Welfare) Act, 1986 and the Regulations, 1990 framed thereunder and enforcing these in the major ports of the country.
- Providing service to the Central and the State Governments, industries, ports, organisations etc. on matters related to Occupational Safety and Health (OSH).
- Coordinating technical and legal activities to facilitate uniform standards of enforcement of safety and health in manufacturing and port sectors.
- Educating and training employers and employees on matters relating to safety and health.
- Conducting promotional activities for recognition of:
 - good suggestions under Vishwakarma Rashtriya Puraskar
 - safety performance under National Safety Awards; and
 - workers' outstanding contribution under Prime Minister's Shram Awards
- Co-operating with International agencies like UN, ILO, WHO, G-20 etc. and advising Central Government with regards to international standards concerning safety and health.
- Building competence of enforcement agencies.
- Encouraging and providing best practices in the field of OSH.
- Collecting and disseminating information and material related to Occupational Safety and Health.

1.3 Organization Structure of DGFASLI

DGFASLI organization comprises of the Headquarters, Central Labour Institute, 5 Regional Labour Institutes and 11 Inspectorates of Dock Safety.

- Headquarters situated in Mumbai
- Central Labour Institute situated in Mumbai
- Regional Labour Institutes at Chennai, Faridabad, Kanpur and Kolkata. A new Regional Labour Institute at Shillong has been set up.
- Inspectorates of Dock Safety at Mumbai, Jawaharlal Nehru Port, Kandla, Mormugao, Kolkata, Paradip, Visakhapatnam, Chennai, Kochi, New Mangalore, and Tuticorin.

In 1959, the Central Labour Institute, Mumbai was established under United Nations Development Programme (UNDP) Project as a socio-economic laboratory and as a national institute dealing with the scientific study of human aspects of industrial development. Subsequently, Regional Labour Institutes were established at Kolkata, Kanpur, Chennai and Faridabad as Regional Centers to serve east, central, south and north India respectively. Later, a Regional Labour Institute at Shillong was established to serve north east India.

The Central Labour Institute and Regional Labour Institutes are fully equipped with necessary laboratory facilities for conducting studies and surveys in the field of safety and health. The Institutes also have conference facilities fully equipped with modern audio-visual aids. Industrial Safety, Health and Welfare Centers are also established at these Labour Institutes.

The contact addresses of DGFASLI and its subordinate offices are given in the **Appendix**.

1.4 Developments and activities – DGFASLI

1. Memorandum of Understanding (MoU) with International Agencies

The Memorandum of Understanding between DGFASLI, Ministry of Labour and Employment, Govt. of India and DGUV, Germany has been renewed for a time period of three (3) years w.e.f. 27th April 2022. The said MoU deals with an objective to establish a mutual collaboration that seeks to enhance safety and health at work, to reduce the occurrence of work related accidents and diseases and to promote social protection, to build up technical competency and to update the technical skills of the officers in line with the international standards and technological advancements of the developed countries.

As a part of the collaboration, an “International Vision Zero Conference on Construction Safety” was organized on 8th February, 2023 at IIT Madras, by DGFASLI in collaboration with DGUV, Germany. The objective of the conference was to provide the necessary important technical inputs to the participants who are required to ensure safety and health of the workers engaged in construction sites.

The other MoU signed includes:

- i. An MoU was signed between CLI, Mumbai and JSW Steel.

- ii. An MoU was signed between RLI, Kolkata and All India Institute of Hygiene & Public Health, Kolkata.

2. **Study on using Drone Technology for undertaking regulatory Occupational Safety and Health inspections in Factories, Dock Works and Building and Other Construction Works**

DGFASLI has taken up 'Pilot Study' on using Drone Technology for undertaking regulatory Occupational Safety and Health inspections in Factories, Dock Works and Building and Other Construction Works as per directives from the Ministry. The report of the study on the use of Drone technology in Occupational Safety and Health inspections at Factories, Dock Works and Building and Other Construction Works has been submitted to Ministry on 4th January, 2023.

3. **Celebration of Azadi Ka Amrit Mahotsav (AKAM)**

DGFASLI is conducting a number of awareness programmes on Occupational Safety, Health and Productivity under the *Azadi ka Amrit Mahotsav*. This is an initiative of the Government of India to celebrate and commemorate 75 glorious years of progressive India and the glorious history of its people, culture and achievements.

The awareness programmes are conducted for workers, employed in factories, ports and construction sites, with a view to promote occupational safety and health and prevent occurrence of occupational injuries and diseases. The objective of the programme is to create awareness amongst the workers on Occupational Safety and Health, so that the workers can understand the importance of safety and following standard operating procedures for preventing occupational injuries and diseases.

The awareness campaign commenced from 1st July, 2021. Various awareness programmes are conducted through the Central Labour Institute, the five Regional Labour Institutes and the 11 IDS offices spread in different parts of the country.

The awareness programmes are organised free of cost and at workplaces, i.e. in steel, engineering, atomic energy, power, port, manufacturing sector, port premises and at construction sites, in local languages so that workers can easily understand the concept of Occupational Safety and Health and the importance of anticipation and prevention of occupational injuries and diseases. Special emphasis is laid to reach out to the women and casual workers. Further, contract/casual workers working in Hazardous factories and Construction work have also been covered under the *Amrit Mahotsav*.

4. **Special Campaign 3.0 conducted successfully at DGFASLI**

The Special Campaign 3.0 was successfully conducted at the Directorate General Factory Advice Service & Labour Institutes (DGFASLI) organization during the month of October 2023. The Campaign aimed to liquidate the pendencies with a primary focus on reducing pending matters, optimizing space utilization, and enhancing the overall workplace environment. During this period a

total of 491 files were reviewed and 332 files were weeded out. A total of 120 sites in all field offices were cleaned and about 6600 sq. ft space was freed.

5. **Swachhata Campaign**

The *Swachhata* Campaign was successfully conducted at the Directorate General Factory Advice Service & Labour Institutes (DGFASLI) organization during the month of September and October 2023. The *Swachhata Hi Seva Pakhwada* was celebrated from 15th September to 2nd October 2023 across the offices of DGFASLI. Various cleanliness activities were carried out during this period. As part of this *Swachhata Abhiyan*, a one-hour cleaning operation, under the '*Ek Taarikh, Ek Ghanta, Ek Saath*' was conducted in the campuses of DGFASLI offices. The '*Shramdaan*' was preceded by the '*Swachhata Shapath*', pledge to dedicate regular time to cleanliness activities, administered at each office of DGFASLI. Additionally, a cleanliness drive was carried out inside the office buildings across DGFASLI offices and in the locality/areas surrounding the DGFASLI offices. Digital posters on *Swachhata Hi Seva* were prepared, along with posters addressing various aspects of *Swachhata* and OSH at the workplace. The campaign witnessed the active participation of both DGFASLI officials and students at CLI and RLIs.

6. **e-Shram Portal registration**

The Ministry of Labour & Employment has developed e-Shram portal for creating a National Database of Unorganized Workers (NDUW), which will be seeded with Aadhaar. It is the first-ever national database of unorganised workers including migrant workers, construction workers, gig and platform workers, etc. DGFASLI has been organising awareness camps in coordination with all the major ports trust for registration of unorganised workers in the e-Shram Portal. So far, more than 8000 registration were made in the e-Shram portal through IDS offices of DGFASLI.

7. **ISO 9001:2015 Certification (Quality Management Systems) of CLI Mumbai and RLI Chennai, Faridabad, Kanpur and Kolkata**

ISO 9001:2015 Certificate has been granted to Central Labour Institute, Mumbai and Regional Labour Institute, Chennai, Faridabad, Kanpur and Kolkata under DGFASLI organisation on 25 March 2023 for 3 years.

8. **Convergence of DGFASLI with other verticals of MoL&E**

A meeting on "Convergence of Field Offices" under the Ministry of Labour & Employment was held on 31st October 2023 at *Bharat Mandapam*, New Delhi. The Officers of all vertical under the Ministry of Labour & Employment attended this meeting. A Director from DGFASLI made a presentation in the meeting about the various activities undertaken in DGFASLI. This meeting was successor to the meeting on 'Action Plan for Convergence' organised by the Ministry of Labour & Employment during May 16-17, 2023 at the V V Giri National Labour Institute, Noida.

9. DGFASLI maintains statistics related to administration of the Factories Act, 1948 and Rules framed thereunder; and administration of Dock Workers (Safety, Health & Welfare) Act, 1986 and the Regulations, 1990 framed thereunder. This information base is used in planning and implementation of national policies concerning Occupational Safety and Health as well as preparing replies to various parliament questions related to administration of the aforesaid Acts and Regulations. The statistics related to the administration of the Factories Act, 1948 are discussed in Chapter no. 8.
10. During the period January, 2023 to December, 2023, DGFASLI provided information/answers to 59 Parliament Questions and provided information on 210 Right to Information (RTI) queries, the details of which are discussed in Chapter no. 4.
11. During the period January, 2023 to December, 2023 a number of training programmes on Occupational Safety and Health were conducted by DGFASLI. The details of these training programmes are discussed in Chapter no. 4.
12. Enforcement activities (various inspections, investigations, prosecutions, promotional activities, etc.) were carried out by the Dock Safety Inspectorates at all major ports for the administration and enforcement of the Dock Safety statutes. The details of these enforcement activities are discussed in Chapter no. 9.
13. *Swachhata Abhiyaan*, *Hindi Pakhwada* etc. were held across DGFASLI (Headquarters), Central Labour Institute at Mumbai, Regional Labour Institutes at Chennai, Faridabad, Kanpur, Kolkata, and Shillong; and IDS offices.

1.5 Human Resource

The human-resource in the organization comprises of Engineers, Medical Doctors, Industrial Hygienists, Statisticians, etc. The manpower strength of the organization is as given in Table 1.1 & Table 1.2.

Table 1.1: Manpower strength of DGFASLI organization as on 31.12.2023

Units	Technical		Administrative		Total	
	Sanctioned	In Position	Sanctioned	In Position	Sanctioned	In Position
Headquarters	10	6	45	22	55	28
CLI, Mumbai	36	22	72	46	108	68
All RLIs	53	28	77	33	130	61
All IDss	25	14	31	8	56	22
Total	124	70	225	109	349	179

Chart 1.1: Manpower strength of DGFASLI organization as on 31.12.2023

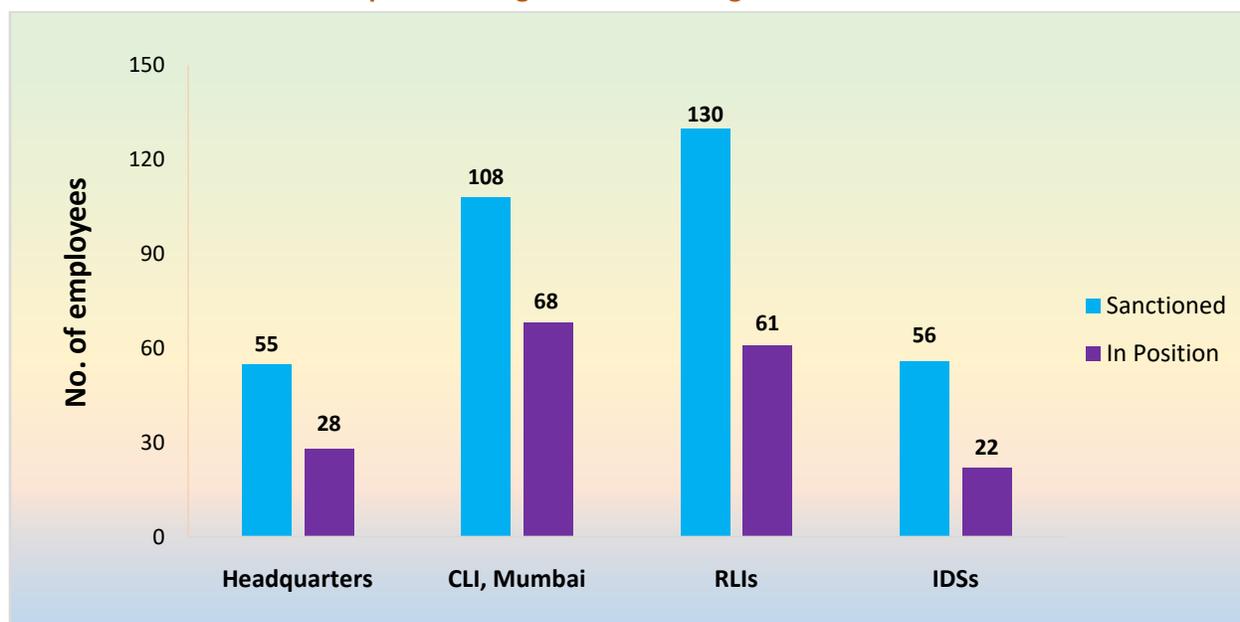
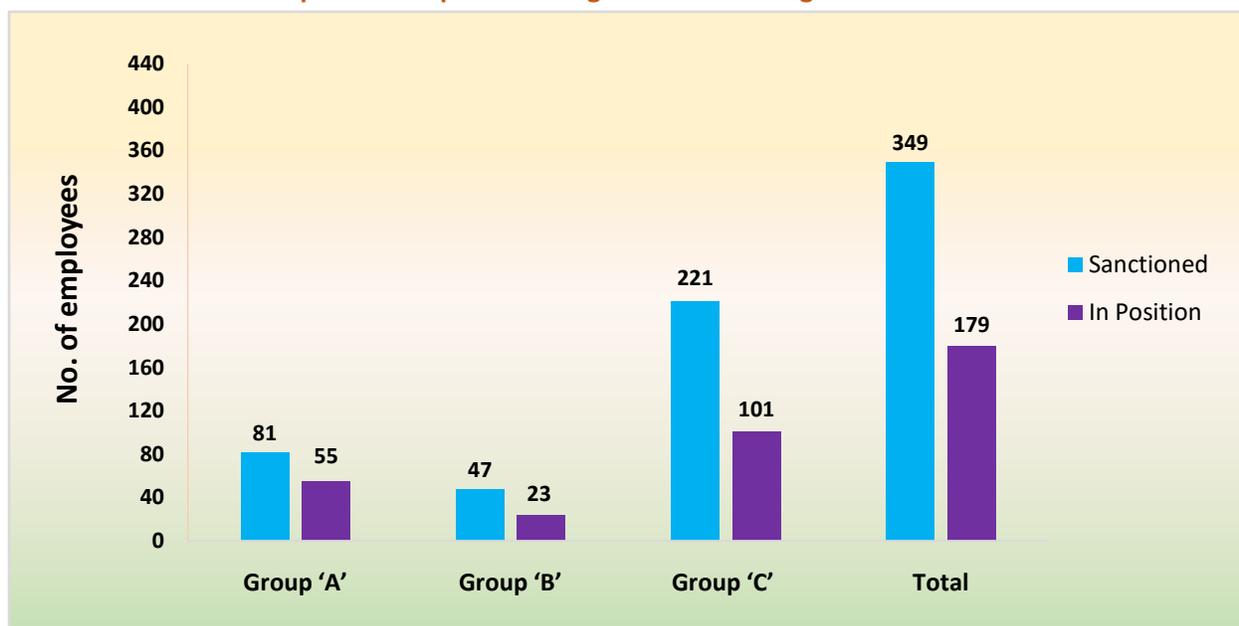
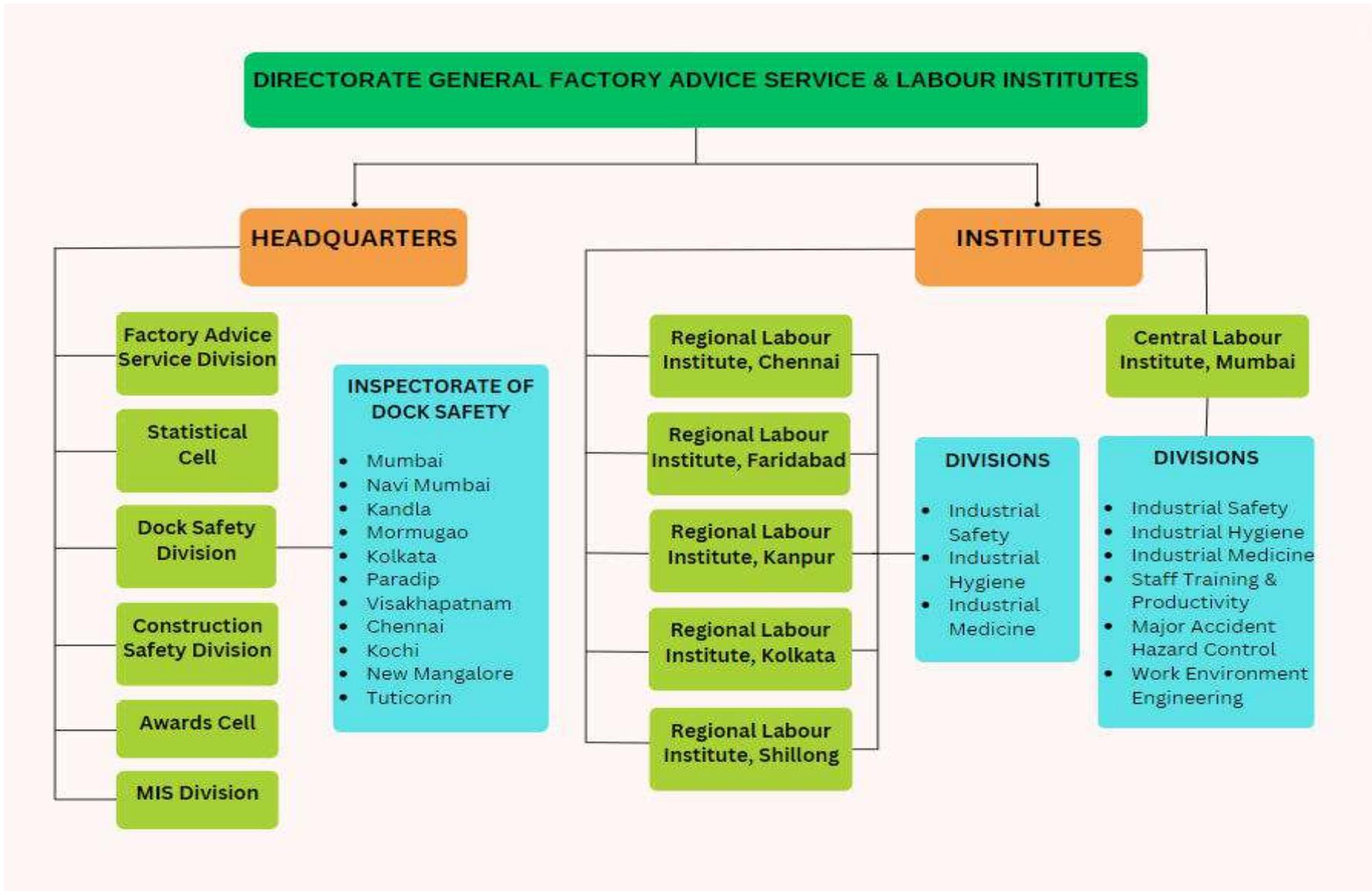


Table 1.2: Group-wise Manpower strength of DGFASLI organization as on 31.12.2023

Group	Sanctioned	In Position
Group 'A'	81	55
Group 'B'	47	23
Group 'C'	221	101
Total	349	179

Chart 1.2: Group wise Manpower strength of DGFASLI organisation as on 31.12.2023



2

About DGFASLI

The DGFASLI organization comprises of the Headquarters, Central Labour Institute (CLI), Regional Labour Institutes (RLI), and Inspectorates of Dock Safety (IDS).

- Headquarters situated in Mumbai
- Central Labour Institute situated in Mumbai
- Regional Labour Institutes at Chennai, Faridabad, Kanpur, and Kolkata. A new Regional Labour Institute at Shillong is set up.
- Inspectorates of Dock Safety at Mumbai, Jawaharlal Nehru Port, Kandla, Mormugao, Kolkata, Paradip, Visakhapatnam, Chennai, Kochi, New Mangalore, and Tuticorin.

I. The Headquarters

The Directorate General Factory Advice Service & Labour Institutes (DGFASLI) headquarters assists the Ministry of Labour & Employment, Government of India, in framing of policies and planning of programmes pertaining to Occupational Safety and Health (OSH) and implements them through its Labour Institutes and Dock Safety Inspectorates. It also implements technical projects and liaises with national and international organisations working in the area of Occupational Safety and Health.

In addition to the overall administrative control of the entire Directorate consisting of its subordinate offices viz. CLI, RLIs and IDSs, the Headquarters carries out its technical activities through the following divisions:

1. Factory Advice Service (FAS) Division
2. Management Information Service (MIS) Division
3. Construction Advisory Service (CAS) Division
4. Awards Division
5. Dock Safety Division

1. Factory Advice Service Division

The Factory Advice Service (FAS) division coordinates the administration of the Factories Act, 1948 in the States/UT and advises the Central and State Governments on related matters including interpretation, formulating and recommending amendments of the provisions of the Factories Act, 1948 and framing of Model Rules.

A conference of the Chief Inspectors of Factories of the States is convened annually for the purpose of enlisting the cooperation and involvement of the State Governments in the matters relating to the administration of the Act as well as to discuss proposed amendments relating to it. Besides, this conference also serves as a forum for discussion on the latest developments in the field of Occupational Safety and Health.

The Division also organizes training for Inspector of Factories, advises on policy documents on safety and health from the International Labour Organisation and other international agencies.

The **Statistical Cell**, under the FAS division, collects and compiles Occupational Safety and Health (OSH) statistics and other information from the Chief Inspector of Factories and the Director of Industrial Safety and Health of State/UT governments, relating to the administration of the Factories Act, 1948 and rules framed thereunder. This database is used in planning and implementation of national policies concerning OSH. The OSH Data maintained by the Cell is crucial for preparing answers/responses to questions discussed in the Lok Sabha and Rajya Sabha.

The Statistical Cell also provides OSH information as sought for publication of various reports of the Ministry of Labour and Employment, other ministries, Labour Bureau, research institutes, national organizations like Labour Bureau, and international organizations like UN on MDG/SDG Targets and Indicators, ILO on ILO Stats etc. Statistical findings based on the OSH Data are regularly published by the Cell as articles and reports in the bi-annual magazine, INDOSHNEWS of this Directorate. Also, the OSH data is integrated into the OSH Profile of India, providing a comprehensive overview of the country's safety and health landscape.

Additionally, the Statistical Cell prepares and publishes the Standard Reference Note, the annual document of DGFASLI containing comprehensive information on the objectives, functions, important activities, organisation structure, human resource, budget etc. of the organisation.

2. Management Information Service (MIS) Division

The objective of the Management Information Service (MIS) division is to provide information services on occupational safety and health, function as a reference source and also as a center for dissemination of information, which will contribute to the prevention of occupational accidents and diseases. The division comprises of an INDOSHNET centre, CIS National Centre for India and a Library-cum-Information Centre.

3. Construction Advisory Service Division

The Construction Advisory Service (CAS) division coordinates and assists the Ministry of Labour and Employment, Government of India on matters connected with the regulatory aspects pertaining to Construction Safety as under the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996; Central Rules, 1998 and State Rules as well as the Occupational Safety, Health and Working Conditions Code, 2020.

The division also provides Construction Advisory to CLC (Central Government), State Government and Construction Industry as enumerated under the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996; Central Rules, 1998 as well as Occupational Safety, Health and Working Conditions Code, 2020.

The division will help in building competence of the technical officers of the enforcement agencies of the Central and State Government by imparting training on Occupational Safety and Health (OSH) in Construction Industry. It also cooperates with National and International agencies with regards

to Occupational Safety and Health (OSH) in Construction Sector. The division will collect and publish national data on Occupational Safety and Health (OSH) in construction industry by creating a digital portal aligned with Shram Suvidha Portal.

4. Awards Division

The Awards Division located at Regional Labour Institute Campus Faridabad, operates two national level award schemes namely National Safety Awards (NSA) & Vishwakarma Rashtriya Puraskar (VRP). These two schemes were instituted in the year 1965 by the Ministry of Labour & Employment, Government of India.

The '**National Safety Awards**' scheme is instituted to give recognition to outstanding performance on the part of industrial establishments and ports to stimulate and maintain the interest of both the management and the workers in accident prevention and safety promotion.

The '**Vishwakarma Rashtriya Puraskar**' scheme is instituted to recognize workers employed in factories, docks and construction sites at the national level for their outstanding suggestions that result in increased efficiency, productivity, quality, safety and working conditions including import substitution at the plant level.

The Awards Division provides technical support in scrutinizing applications for '**Prime Minister's Shram Awards**' being operated by the Ministry of Labour & Employment. The objective of the Prime Minister's Shram Awards Scheme is to recognize the workmen both from public and private sector organizations at the national level for their outstanding contributions, distinguished record of performance and devotion to duty of a high order towards their organization.

5. Dock Safety Division

The DGFASLI through the Inspectorates of Dock Safety set up in the major ports in India enforces the Dock Workers (Safety, Health and Welfare) Act, 1986 and the Regulations, 1990 and strives to ensure Safety, Health and Welfare of dock workers. The Division also enforces the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 framed under the Environment (Protection) Act, 1986.

The Division is responsible for carrying out the following activities:

- Providing Advisory services to the Port Authorities, Dock Labour Boards, Stevedores and other employers of dock workers and Port users.
- Publication of Annual Reports on the administration of the Dock Workers (Safety, Health and Welfare) Act and the Regulations framed thereunder.
- Carrying out Inspection of ships, docks, loose gear, lifting appliances, transport equipment etc., investigation of accidents and initiation of prosecutions.
- Carrying out safety studies and surveys through a multi-disciplinary approach and organizing and conducting training courses on occupational safety and health for the Dock workers.

II. The Central Labour Institute (CLI), Mumbai

The Central Labour Institute (CLI), Mumbai was conceived by the Government of India during the first Five-year plan as a centre for research, training and consultancy on the various aspects of industrial work related to the human factor.

The Institute commenced its activities in a rented building in 1961. The foundation stone of the Institute building was laid by the first Prime Minister of India, Pandit Jawaharlal Nehru on 7th October, 1954. It was shifted to its present premises in 1966 when the building was inaugurated on 9th February, 1966 by Dr. Sarvapalli Radhakrishnan, the then President of India.

The Institute aims to improve work methods and working conditions so as to enhance the safety, health, working environment and productivity of the industrial workers leading to improved quality of work life. In this endeavour, CLI interacts with the state factories Inspectorates, employers' associations, trade unions, professional bodies, organizations and institutes concerned with OSH at work place. The divisions of the CLI, Mumbai are:

1. Industrial Safety Division
2. Industrial Hygiene Division
3. Industrial Medicine Division
4. Staff Training and Productivity Division
5. Major Accident Hazards Control Advisory Division
6. Work Environment Engineering Division

1. Industrial Safety Division

The Industrial Safety division aims at achieving improvement in working conditions and safety standards of factories and docks through training, consultancy, field studies, surveys and other promotional activities. It has contributed to the following achievements:

- Evolution of a safety movement in the country
- Creation of national awareness on safety
- Development of infrastructure on safety at national level through competence building
- Better administration of the Factories Act through training of Inspectors of Factories and technical support.

National studies and surveys are conducted for ascertaining the status of working conditions and standards of safety in particular industries and operations.

Unit level studies are carried out with the objective of assessing the safety related problems and formulating recommendations for improvements. These studies also help the management to take necessary measures towards setting up safety systems, instituting safety programmes and achieving the goal of better safety in their organisations.

Consultancy studies are undertaken at the request of the management or govt. agencies like the Factory Inspectorates for studying specific problems and rendering advice for corrective measures.

The findings of national surveys and unit level consultancy studies become the source of technical inputs while drafting Rules & Regulations and designing various occupational safety and health intervention modules for target groups. Safety audits are conducted on request from Factories and Ports.

In keeping with its pioneering role in the field of industrial safety, the division has been conducting training for the benefit of industries, Factory Inspectors, Labour Administrators and Trade Unions. In view of the need of inspection of specific industries and major hazards control, specialized courses are also conducted to impart necessary technical knowledge and skill to the Inspectors appointed under the provisions of the Factories Act, 1948. In order to provide industries and docks sector with qualified safety officers, the division conducts one-year Advanced Diploma in Industrial Safety (ADIS) affiliated to Maharashtra State Board of Technical Examination. Specialized training courses are conducted for identified target groups such as Senior managers, Safety officers, Supervisors, Trade Union officials, and Safety Committee members from the industry. Some of these courses are:

- Testing and examination of lifting machinery, lifting tackles and pressure vessels
- Safety audit
- Safety in chemical industry
- Safety management techniques
- Accident prevention

2. Industrial Hygiene Division

The Industrial Hygiene division is concerned with the improvement of industrial work environment and comprises Industrial Hygiene Laboratory, Respiratory Equipment Testing Laboratory and Non-Respiratory Equipment Testing Laboratory.

The division undertakes various studies/surveys, national projects and training courses to protect the health of industrial workers through identification, evaluation and control of occupational health hazards and advises the management on ways to meet the requirements prescribed in the Second Schedule (under Section 41F) of the Factories Act, 1948.

The Respiratory Equipment Testing Laboratory tests the performance and efficiency of indigenous respiratory personal protective equipment such as dust respirators and canisters/cartridge gas respirators etc. and advises manufacturers on improvements required to meet prescribed standards.

The Non-Respiratory Equipment Testing Laboratory carries out the testing of indigenous non-respiratory personal protective equipment such as safety shoes, safety helmets, safety goggles, eye protectors, etc. This personal protective equipment is tested as per the specifications set by the Bureau of Indian Standards (BIS). Based on the test reports, technical advice and guidance on quality improvement are suggested to the entrepreneurs and manufacturers. User industries are also advised on proper selection, use, care and maintenance of various personal protective equipment.

The division also organizes training courses in the areas of industrial hygiene for the specific group of industries given in the First Schedule, Section 2 (cb) of the Factories Act, 1948. These training

courses are meant to help safety officers, chemists, supervisors and middle level managers in the identification, assessment and control of occupational hazards in their factories.

3. Industrial Medicine Division

The Industrial Medicine division aims to prevent and contain health hazards at the workplace brought in by industrialization. The hazards may arise from chemicals or from physical factors such as noise, heat, dust, vibration and radiation.

Occupational Health studies and surveys on industries manufacturing asbestos products, dyestuff, cement, chemical, engineering and ports handling such products are carried out to assess the incidence of occupational diseases by the division. Suitable recommendations such as medical surveillance, use of personal protective equipment, facilities for personal hygiene and first-aid are made to prevent and control health hazards.

The division also carries out training programmes for factory medical officers and workers on occupational health hazards and first-aid. The division conducts a three-month certificate course “Associate Fellow of Industrial Health (AFIH)” for factory medical officers every year since 1993 as per statutory requirement of Factories Act, 1948. The laboratory attached to the division has facilities for medical investigation, including ILO radiography, visual acuity tests, Audiometric evaluation, and Pulmonary Function Tests.

4. Staff Training and Productivity Division

A pilot project on supervisory training was organized in India by the International Labour Organisation (ILO) in 1952. Encouraged by the results of the pilot project and realizing that such training is an essential requirement for the successful implementation of the plans for the industrialization of the country the Ministry of Labour, Government of India set up the Training Within Industry (TWI) Centre in Mumbai in 1955 with the assistance of the ILO. In keeping with the changing trend of manpower training and development activities, the centre was later renamed as the Staff Training Division.

The division conducts the following activities:

- conducts comprehensive supervisory trainer development projects
- helps industry to setup training and development cells with persons trained by the division
- assists industry in institutionalizing their manpower training and development efforts by helping them formulate their training and development plans

Productivity: Over a period of time the activities have expanded to cover the training of management and trade union representatives to help organisations create a climate conducive for the development of collaborative leadership and bring about improvement in working conditions and productivity. Towards this end, new courses for managers, supervisors, trade union representatives and bipartite forums covering socio-psychological and team building aspects have been developed and conducted.

The division has embarked upon the training of supervisory trainers in chemical industries and trainers of dock workers to help organisations discharge their training responsibility on safety and health aspects under the amended Factories Act and the Dock Workers (Safety, Health and Welfare)

Regulations, respectively. These trainers, in turn, undertake the training of supervisors/workers on safety and health aspects in their organisations.

The aim of the Productivity division is to improve the productivity vis-a-vis working conditions and promote co-operation between labour and management in industrial units. The above objectives are sought to be achieved through training courses and consultancy projects. In consultancy projects, a management and labour project team is formed and the experts of the division act as technical consultants and catalyst to the team.

Some of the courses conducted by the division are:

- Productivity techniques for effective employee participation
- Work study and wage incentives
- Wage & Salary Administration
- Office management

Man-power planning, job evaluation, productivity improvement, organisation and methods and wage incentives are some of the consultancy areas.

5. Major Accident Hazards Control Advisory Division

Major Accident Hazards Control Advisory Division is the outcome of the ILO project “Establishment and Initial Operation of Major Accident Hazards Control System”. The project was executed by DGFASLI in collaboration with Factory Inspectorates of the various States and Union Territories. Although the project was completed in December, 1990, the division continues to provide important services for the control of major accident hazards in the country. The activities of the division were gradually enlarged to include other aspects of chemical safety.

The important achievements of the division are:

1. Setting up of technical organisation on Major Accident Hazards Control (MAHC) at the national, regional and state levels.
2. Training of Inspectors of Factories in the inspection of major accident hazards installations.
3. Development and publication of training manuals and checklists.
4. Preparation of guidelines for inspection of chemical plants and on-site emergency plans.

Major Accident Hazards Control Advisory division offers the following services:

1. Conducting institutional & in-plant training programmes and workshops in specialized areas viz. Major Accident Hazards Control, On-Site Emergency Preparedness, Off-Site Emergency Preparedness, Hazard & Operability (HAZOP) Study and Management of Hazardous Chemicals for Major Accident Hazards Installations.
2. Conducting studies and surveys on specialized areas of Risk Assessment, HAZOP and Emergency Preparedness in Major Accident Hazards Installations.

6. Work Environment Engineering Division

The Work Environment Engineering Division (WEED) of Central Labour Institute, Mumbai is a combination of engineering and industrial hygiene branches dealing with identification, assessment and control of physical hazards in industries. Although the emphasis is placed on the engineering control of the working environment, it is important to recognize the potential health hazards identified by the industrial hygienist. The WEED identifies the cause and effect relationship of physical hazards to exercise the engineering control to eliminate the work environmental hazards for protecting workers from occupational diseases. The WEED also deals with logical and systematic approach toward recognizing and defining the potential exposures that exist within the occupational work environment which cannot be underestimated. The WEED helps the industries for solving a problem of physical hazards and concludes with adequate data to support that conclusion. The WEED presents an outline of procedural method that can be used to recognize and evaluate physical hazard exposures that may be present within the work environment to provide a logical method of controlling the exposure.

The Division is well-equipped with Environmental Engineering Parameters and sophisticated monitoring equipment for industrial research, study and consultancy services including In-plant and In-house training programmes in the following areas:

- Evaluation and control of industrial noise
- Evaluation and control of industrial vibration
- Evaluation and control of illumination levels in the work places
- Evaluation and control of industrial ventilation system and thermal comfort

Facilities

The Central Labour Institute has models and exhibits regarding safety, health and welfare in the form of properly guarded machines, personal protective equipment, safe methods of material handling, light and colour schemes and other arrangements, for propagating the message of safety and other health of workplaces. This centre is open to organised groups from industry and educational institutions.

The Industrial Safety, Health and Welfare Exhibition Centre have exhibits to demonstrate methods, arrangements and appliances for promoting safety and health of workers. CLI, Mumbai has air-conditioned conference rooms, fully equipped with audiovisual aids, and a fully furnished classroom with a capacity for 60 students. The institute also has hostel facilities.

III. Regional Labour Institutes

- The five Regional Labour Institutes are:
 1. Regional Labour Institute, Chennai
 2. Regional Labour Institute, Faridabad
 3. Regional Labour Institute, Kanpur
 4. Regional Labour Institute, Kolkata
 5. Regional Labour Institute, Shillong

- All Regional Labour Institutes have each of the following divisions:
 1. Industrial Hygiene Division
 2. Industrial Medicine Division
 3. Industrial Safety Division
- A new Regional Labour Institute at Shillong has been recently set up to cater to the needs of the North-East states.

1. Regional Labour Institute, Chennai

The Regional Labour Institute, Chennai was formally inaugurated in the year 1965 by the then Hon'ble Chief Minister of Tamil Nadu Shri M. Bhaktavatsalam in the presence of the then Hon'ble Union Labour Minister Shri D. Sanjivayya. It serves the southern states and union territories of the country viz. Tamil Nadu, Karnataka, Andhra Pradesh, Telangana, Kerala, Puducherry, Lakshadweep and Andaman & Nicobar Islands. Regional Labour Institute, Chennai has been declared as a Centre of Excellence in Safety in Construction and Automobile Industries.

2. Regional Labour Institute, Faridabad

The Regional Labour Institute, Faridabad, was inaugurated on 10th February, 2009 by the then Hon'ble Union Minister of State for Labour & Employment (Independent Charge) Shri Oscar Fernandes to serve the northern states and union territories of the country viz. Jammu & Kashmir, Ladakh, Haryana, Punjab, Himachal Pradesh, Chandigarh and Delhi. Regional Labour Institute, Faridabad has been declared as a Centre of Excellence in Safety in MSME and Chemical Process Industries.

3. Regional Labour Institute, Kanpur

The Regional Labour Institute, Kanpur was inaugurated on 6th July, 1966 by the then Hon'ble Chief Minister of Uttar Pradesh Shrimati Sucheta Kripalani. The institute serves the northern states of the country viz. Rajasthan, Uttar Pradesh, Uttarakhand, Madhya Pradesh, and Chhattisgarh. Regional Labour Institute, Kanpur has been declared as a Centre of Excellence in Sugar and Power Generating Industries.

4. Regional Labour Institute, Kolkata

The Regional Labour Institute, Kolkata was inaugurated in the year 1965 by the then Hon'ble Union Labour Minister Shri D. Sanjivayya at a function presided over by Shri P.C. Sen, the then Hon'ble Chief Minister of West Bengal. The institute serves the eastern states of the country viz. West Bengal, Bihar, Jharkhand, and Odisha. Regional Labour Institute, Kolkata has been declared as a Centre for Excellence in Safety in Ferrous & Non-Ferrous Metals and Paper Industries.

5. Regional Labour Institute, Shillong

The Regional Labour Institute, Shillong was inaugurated in the year 2017 by the then Hon'ble Union Minister of State (Independent Charge) Labour & Employment, Shri Bandaru Dattatreya. The Regional Labour Institute, Shillong has been developed with the objective of providing technical services for improvement of Safety, health and well-being of workers employed in factories & other industries. This institute will cater the needs of the industries and promote occupational safety, health and work

environment in the North Eastern states of Sikkim, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram, and Tripura.

IV. Inspectorates of Dock Safety

The Dock Workers (Safety, Health and Welfare) Act, 1986 was enacted on 14th April, 1987 and the Dock Workers (Safety, Health and Welfare) Rules, 1989 and Regulations, 1990 were framed under this Act. The Act and Regulations cover the safety, health & welfare aspects of dock worker engaged in loading, unloading & transportation of cargo, including the work incidental to dock work. In addition, the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 framed under the Environment (Protection) Act, 1986 are also enforced by DGFASLI in the major ports of India through the Inspectorates of Dock Safety.

Administration of the Act and the Regulations in major ports is carried out by the Ministry of Labour & Employment, through DGFASLI, Mumbai. The Director General is the Chief Inspector of Dock Safety. The Chief Inspector of Dock Safety is also an authority for enforcement of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 framed under the Environment (Protection) Act, 1986 in the major ports.

The above statutes are enforced by the Inspectors posted at Inspectorate of Dock Safety at all the major ports:

1. Inspectorates of Dock Safety, Mumbai
2. Inspectorates of Dock Safety, Kolkata
3. Inspectorates of Dock Safety, Chennai
4. Inspectorates of Dock Safety, Kandla
5. Inspectorates of Dock Safety, Jawaharlal Nehru Port
6. Inspectorates of Dock Safety, Mormugao
7. Inspectorates of Dock Safety, Tuticorin
8. Inspectorates of Dock Safety, New Mangalore
9. Inspectorates of Dock Safety, Cochin
10. Inspectorates of Dock Safety, Visakhapatnam
11. Inspectorates of Dock Safety, Paradip

The primary function of the Inspectorates is to ensure compliance with the provisions outlined in the statutes. The statutory responsibilities of an Inspector include:

1. Inspecting ships, tankers, loose gears, container-handling equipment, docks, container yards, and terminals.
2. Examining hazardous installations and isolated storages, as well as tanks.
3. Conducting investigations of accidents, both fatal and serious, and dangerous occurrences.
4. Initiating prosecutions against employers.
5. Addressing complaints.
6. Providing advisory services.

7. Organizing safety promotional activities such as training programmes, workshops, and safety week celebrations.
8. Prosecuting agencies that violate any provision of the Act and Regulations established under it.

3 Budget

The allocation and expenditure of funds for various constituents of the DGFASLI organization for the year 2023-24 is given below:

Revenue: Directorate General Factory Advice Service & Labour Institutes (DGFASLI) (in ₹)			
Sl.	Minor head	BE (2023-24)	Total Expenditure
1.	Salary	131000000	125977137
2.	Rewards	1800000	786361
3.	Medical Treatment	6100000	5603423
4.	Allowances	100000000	88669181
5.	Leave Travel Concession	3500000	2343007
6.	Training Expenses	200000	69695
7.	Domestic Travel Expenses	12700000	11779676
8.	Office Expenses	35000000	29168761
9.	Rents, rates and taxes	2800000	2597677
10.	Printing & Publication	-	44390
11.	Digital Equipment	500000	425604
12.	Materials and Supplies	200000	-
13.	Fuels and Lubricants	100000	42975
14.	Advertising and Publicity	100000	99922
15.	Minor Civil and Electric works	17400000	14516000
16.	Professional Services	1200000	963110
17.	Repair and Maintenance	1000000	733848
18.	Awards and Prize	-	-
19.	Other Revenue Expenditure	700000	509822
	Total	314300000	284330589

Capital: DGFASLI and Inspectorates of Dock Safety (in ₹)			
Sl.	Minor head	BE (2023-24)	Total Expenditure
1.	Machinery and Equipment	1800000	1623901
2.	ICT equipment	8400000	3658823
3.	Buildings and Structures	69900000	46900000
4.	Furniture & Fixtures	2500000	2483381
5.	Other Fixed Assets	300000	198526
	Total	82900000	54864631
	Grand Total	397200000	339195220

4

Safety & Health Improvement in Factories and Dock Works of Major Ports

4.1 Co-ordination in the Administration of the Factories Act, 1948

The Factories Act, 1948 is the principal and comprehensive legislation of the Parliament, which provides for the requirements concerning safety, health and welfare amenities needed by workers employed in factories. The provisions of the Act are applicable to the factories as defined under Section 2m (i), 2m (ii) or notified under Section 85 of the Act by the State Governments.

The Ministry of Labour & Employment is accountable to the Parliament for proper enforcement of the Act. Uniformity in the application of the provisions of the Act in the State/Union Territories is achieved by circulating the Model Rules prepared by DGFASLI, which are incorporated by states in their State Factories Rules with necessary modifications to suit local needs. In the task of framing of the Model Rules, the DGFASLI, on behalf of the Ministry of Labour & Employment, enlists the cooperation and involvement of the State Governments by convening annually a Conference of Chief Inspectors of Factories. Matters relating to the administration of the Act as well as proposed amendments are discussed in this conference. Besides, this conference also serves as a forum for discussion on latest developments in the field of Occupational Safety and Health.

4.2 During the year 2023, comments/clarifications/replies/materials were prepared on the following matters:

Table 4.1: comments/clarifications/replies/materials prepared

Sl.	Comments/ Clarifications / Replies/ Materials	Nos.
1.	Matters regarding the Factories Act, 1948	18
2.	Matters regarding ILO Conventions/ILO meetings	4
3.	Matters relating to Parliament Questions and Parliamentary Standing Committee on Labour Meetings	59
4.	Matters regarding Court Cases	10
5.	Other Important Matters	54

4.3 Implementation of the Right to Information Act, 2005

- The enactment of Right to Information Act, 2005, is a gateway for citizens to seek information under the control of Public Authority and promote transparency and accountability.
- DGFASLI being one of the Public Authorities, the Central Public Information Officer (CPIO) of the organization received 210 applications during the period January to December, 2023. Of these 210 applications, 130 applications were received as transferred under Section 6(3) of the RTI Act, 70 applications were received directly and 10 applications were brought forward from the year 2022.
- All the 210 applications were considered for providing the sought information. Information was provided within the stipulated time frame to 188 applications and 4 applications were transferred to other public authorities under section 6(3) of the RTI Act. Among the total applications received, 18 applications were carried forward to next year.
- An amount of ₹ 80/- was received during the period as application fees and cost of providing information in material form.
- The Appellate Authority of DGFASLI received 22 appeals during the period, disposing off 18 within the stipulated time frame while 4 were carried forward to the next year.

4.4 Administration of the Dock Workers (Safety, Health and Welfare) Act, 1986 and Regulations, 1990 framed there under and enforcing the MSIHC Rules, 1989 framed under the Environment (Protection) Act, 1986

The Dock Workers (Safety, Health and Welfare) Act, 1986 and the Regulations 1990 framed there under cover safety, health and welfare aspects of all the workers engaged in dock work, whether in loading or unloading of cargo on board the ship, alongside it or in transit sheds, warehouses or yard etc., within the port premises including those engaged in chipping and painting of ships. These statutes are in line with the ILO Convention No. 152 on Occupational Safety and Health (Dock Work).

Administration of the Act and the Regulations in major ports is carried out by the Ministry of Labour & Employment, through DGFASLI, Mumbai. The Director General is the Chief Inspector of Dock Safety appointed under the Act. The Chief Inspector of Dock Safety is also an authority for enforcement of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 framed under the Environment (Protection) Act, 1986 in the major ports.

The above statutes are enforced by the Inspectors posted at Inspectorate of Dock Safety at all the major ports viz. Mumbai, Kolkata, Chennai, Kandla, Mormugao, New Mangalore, Cochin, Tuticorin, Visakhapatnam, Paradip and Jawaharlal Nehru Port.

The main function of the Inspectorates is to ensure the compliance with the provisions under the statutes. The statutory responsibilities of Inspector include inspection of ships, tankers, loose-gears, container-handling equipment, docks, container-yard and terminal, hazardous installations and isolated storages, tanks; carrying out the investigation of accidents (fatal and serious) and dangerous occurrences; prosecution of employers, attending to complaints, providing advisory services and

conducting safety promotional activities like training programmes, workshops, celebration of safety week etc. The Inspectorate also prosecutes the agency responsible for violation of any provision of the Act and Regulations framed there under.

4.5 Safety Week Celebrations and Dock Safety Committee Meetings

During 2023, a series of Safety Week Celebrations were conducted across major ports in India, including Mumbai, Kolkata, Paradip, Visakhapatnam, Kochi, New Mangalore, Jawaharlal Nehru Port, and Tuticorin. A total of 35 Safety Weeks were organized, featuring a variety of safety-focused activities such as poster competitions, quizzes, first-aid and firefighting demonstrations, and appreciation programmes designed to benefit dock workers and their families.

In addition to the Safety Week events, 63 Dock Safety Committee Meetings were held at 11 major ports—Mumbai, Kolkata, Chennai, Kandla, Mormugao, Tuticorin, New Mangalore, Cochin, Visakhapatnam, Paradip, and Jawaharlal Nehru Port. These meetings and celebrations underscore the commitment to promoting a culture of safety in the ports. Detailed port-wise information on these activities can be found in Chapter no. 9 - Table 9.8.

4.6 Studies and Surveys

National and state level Studies and Surveys are conducted by DGFASLI in its efforts towards helping the Government to ascertain the status of working conditions, safety and health in factories and docks, and to formulate the appropriate standards for inclusion in statutes. During 2023, the two national studies that were under progress are National Study on Health Issues of Textile Workers and Major Accident Hazards Control System in Factories.

Unit Level Consultancy Studies, Surveys and Audits are undertaken at the request of the management and reports are submitted for implementation of the recommendations for further improvement in factories concerned. The details of Unit level consultancy studies and audits undertaken during the year 2023 are given in Table 4.2.

Table 4.2-Unit-level Consultancy Studies, Surveys and Audits undertaken during 2023

Sl.	Title	Conducting Institute
1.	Work Environment Study at Fiat Ltd., Ranjangaon	CLI, Mumbai
2.	Breathing Air Study for Compressor at Solas Marine Co. Ltd.	CLI, Mumbai
3.	Safety Audit at VOC Port Authority, Tuticorin	RLI, Chennai
4.	Safety Audit at Jindal Power Ltd., Tamnagar CG	RLI, Kanpur

Sl.	Title	Conducting Institute
5.	Safety Audit at Haldia Port Trust, WB	RLI, Kolkata
6.	Work Environment Monitoring at Godrej Astek Life Science Ind. Pvt. Ltd., Mahad, Mah.	CLI, Mumbai
7.	Work Environment Study at Fleetguard filters Pvt. Ltd, Pune	CLI, Mumbai
8.	Safety Audit at Central Railway Loco Workshop, Parel Mumbai	CLI, Mumbai
9.	Safety Audit at J K Paper Mill Jayakapur Raigada, Odisha	RLI, Kolkata
10.	HAZOP Study at J K Paper Mill Jayakapur Raigada, Odisha	RLI, Kolkata
11.	Safety Audit at RSPL Rania, U.P.	RLI, Kanpur
12.	Ventilation Study at Godrej Industries Ltd. Ambernath, Mumbai	CLI, Mumbai
13.	Safety Audit at RSPL Sahibabad U.P.	RLI, Kanpur
14.	Industrial Hygiene Study at Rail Wheel Factory, Bangalore.	RLI, Chennai
15.	Safety Audit at Marathon Electric India Pvt. Limited Faridabad, Haryana	RLI, Faridabad
16.	Safety Audit at RSPL, Kasna, U.P.	RLI, Kanpur
17.	Safety Audit at FIAPL Pune, Maharashtra	CLI, Mumbai
18.	Work Environment Monitoring Study at RSPL, Bhognipur, U.P.	RLI, Kanpur
19.	HAZOP Study at HIL Muri Works, Aditya Birla Group, Muri Ranchi, Jharkhand	RLI, Kolkata
20.	Safety Audit at Rajiv Gandhi Thermal Power Station, Hissar	RLI, Faridabad
21.	Safety Audit at Aravalli Power Co. Pvt. Ltd., Jhajjar	RLI, Faridabad
22.	Safety Audit at Salem Steel Plant	RLI, Chennai
23.	Safety Audit at Thermax Bio Energy Solutions Pvt. Ltd., Prayagraj	RLI, Kanpur

Sl.	Title	Conducting Institute
24.	Work Environment Study at Fiat Pvt. Ltd., Ranjangaon, Pune	CLI, Mumbai

Abstract of some of the OSH Studies, Audits & Surveys conducted by DGFASLI

National Study on Major Accident Hazards Control System in Factories

National study on 'Major Accident Hazards Control System in Factories' is being conducted by the DGFASLI for the first time in India as per approved terms of reference. Details of Major Accident Hazard factories are being collected from respective Chief Inspector of Factories (CIF)/Directorate of Industrial Safety and Health (DISH) of all States/UTs of the country. So far, details of MAH factories from 25 States/UTs have been received.

The objectives of the said National Study are given below:

- i. To understand, collect and analyze data pertaining to Major Accident Hazards Control System in Factories
- ii. To ensure legal compliance with respect to major components of Major Accident Hazards Control System in Factories
- iii. To conduct gap analysis and to suggest measures for removing gaps and ensuring compliance
- iv. To ensure best practices of safety and health at workplace in MAH factories

Safety Audit at a Port in Tamil Nadu

A safety audit was carried out at the port in Tamil Nadu in accordance with IS 14489:2018. The scope of this safety audit was to assess the safety, health, and welfare of dock workers employed in the storage, handling, and transportation of cargo. The audit also aimed to evaluate the safety of the equipment used in these processes in relation to existing standards, statutes, and the Dock Workers (Safety, Health & Welfare) Regulations 1990. The audit covered various elements, such as the safety management system in the port, existing practices and procedures in cargo handling, accident reporting and investigation procedures, fire prevention plans, and welfare facilities like canteens.

It was recommended that the safety and health policy be reviewed periodically, with management commitment also being a part of the policy. Condition assessment tests of the civil structures of transit sheds, traffic and electrical offices, and first aid centers at the wharf need to be conducted. Hazard identification and communication should be made more effective. Vehicles entering the port should be thoroughly checked for sound construction and condition. Transport drivers (with valid licenses) employed for cargo transportation should be medically examined and trained in transport and material safety. Separate guidelines and cargo-specific SOPs should be in place, and the usage of PPEs in cargo handling areas should be made more stringent.

Safety Audit at an Electrical Machines Manufacturing Factory in Haryana

A safety audit was carried out at an electrical machines manufacturing factory in Haryana as per IS 14489:2018. Various areas, including internal policies, company standards and guidelines, facility procedures and practices, and compliance with legal requirements and accepted practices, were audited. Based on observations and discussions, recommendations were given to the management to improve safety, health, and working conditions in the factory. The plant was also recommended to conduct a work environment study for further improvement.

Safety Audit at a Coal Handling Plant of a Thermal Power Plant in Haryana

A safety audit was conducted at the coal handling plant of a thermal power plant in Haryana. The audit aimed to assess the safety and health of workers employed in the coal handling plant (CHP) and the safety of the CHP area and equipment used in the process as per IS 14489:2018 requirements. Observations were noted on various management and technical elements of the plant. Recommendations were made to the management regarding the safety policy, safety management system, first aid boxes, and the work environment. The plant was also recommended to conduct studies on work noise, vibration, and illumination to improve safety, health, and working conditions in the CHP.

Assessment of Breathing Air Quality at a Compressor Manufacturing Factory in Maharashtra

A assessment of breathing air quality at a compressor manufacturing factory in Maharashtra was conducted in accordance with IS 9623:2008 Annex A Clause 8.1.2.2(a). The objective was to assess the concentration levels of carbon dioxide, carbon monoxide, oil mist, and odor, and to recommend measures to control these levels within prescribed limits. The factory manufactures compressor air for breathing purposes and other PPEs for marine workers. The concentration levels of carbon dioxide and carbon monoxide were measured using an IAQ monitor by ISI, USA, through direct reading. It was observed that the concentration levels of carbon dioxide, carbon monoxide, oil mist, and odor were within prescribed limits. Suitable recommendations were given in the report.

Ventilation Study at a Chemical Factory in Maharashtra

A ventilation study was conducted at a chemical factory in Maharashtra in accordance with the Factories Act, 1948, Maharashtra Factory Rules, 1963, and BIS standard IS:3103 (Code of Practice for Industrial Ventilation). The objective was to identify the degree of ventilation at different locations in the factory and suggest ways to improve ventilation and thermal conditions. The factory manufactures various chemicals such as fatty acids, stearic acid, and industrial monocarboxylic acid. Samples were collected from selected locations using equipment like a sling psychrometer, globe thermometer, and Kata thermometer. It was noted that general ventilation and thermal conditions met standards, but at a few locations, ventilation was low and RH was above limits. Recommendations included the provision of exhaust fans and wall-mounted air circulators.

Safety Audit at a Soap, Detergent, and Scrubber Manufacturing Unit in Uttar Pradesh

A safety audit aimed to assess the safety and health of workers by planning, conducting, and documenting observations on occupational health and safety systems at the workplace. The audit

evaluated the effectiveness of health and safety programs, verified the availability and implementation of occupational health and safety system elements, and assessed the system's ability to achieve defined safety objectives as per IS 14489:2018 guidelines. Suggestions for improvement included housekeeping by following 5S and more effective implementation of requirements like fire fighter training.

Safety Audit at a Soap and Detergent Industry in Uttar Pradesh

A safety audit was conducted to assess the safety and health of workers as per IS 14489:2018 guidelines. The objectives included carrying out a systematic, critical appraisal of all potential hazards involving personnel, plant, services, and operation methods, ensuring that the OH&S system fully satisfies legal and company policy requirements. Suggestions for improvement were made based on observations and discussions, covering areas like static electricity, chemical transportation, fire protection, and work environment monitoring.

Safety Audit at a Packaging Unit in Uttar Pradesh

A safety audit was conducted to assess the safety and health of workers as per IS 14489:2018 guidelines. The audit goals were to assess whether the existing OHS system complies with safety system standards as per BIS and relevant statutory and legal requirements. Recommendations were made based on observations and discussions, including fire load calculations in the storage area, installation of fire detectors, fire alarms, and fire protection systems, and more effective implementation of specified system requirements.

Safety Audit at a Sanitary Napkin Unit in Uttar Pradesh

A safety audit aimed to assess the safety and health of workers as per IS 14489:2018 guidelines was carried out at a sanitary napkin unit in Uttar Pradesh. The audit aimed to ensure that OHS standards were properly followed, necessary training was given to the workforce in OSH areas, and to identify non-conformities against IS 14489:2018. Suggestions for improvement were made based on observations and discussions for more effective implementation of specified system requirements.

Workzone Monitoring Study at a Detergent Manufacturing Industry in Uttar Pradesh

A study was conducted to evaluate airborne concentrations of total particulate matter and sulphuric acid in various plants of a detergent manufacturing industry. It was found that airborne concentrations were within permissible exposure limits except in a few locations like the feeder area. Recommendations included practical engineering control measures such as enclosures at feeding points and the use of industrial vacuum cleaners to control airborne particulate matter, displaying hazard information in the form of MSDS, and providing need-based health and safety training to employees.

Safety Audit at a Packaging Unit in Uttar Pradesh

A safety audit aimed to assess the safety and health of workers and evaluate the effectiveness of health and safety programs as per IS 14489:2018 guidelines. The audit provided the auditee with a clear assessment of its OH&S system against the OH&S system standard and identified areas for improvement to meet regulatory requirements. Suggestions for improvement included proper stacking height in the

raw material storage area, maintenance of lifting appliances, manual material handling in the dyeing area, and strengthening PPE usage.

Safety Audit at a Port in West Bengal

A safety audit at the port in West Bengal was conducted as per IS 14489:2018. The objective was to verify whether the organization's procedures and practices comply with legal requirements, internal policies, company standards and guidelines, and accepted practices. The audit assessed whether procedures and practices were adequate and followed. Corrective actions were recommended in response to recognized safety deficiencies.

Safety Audit at a Paper Mill in Odisha

A safety audit at a paper mill in Odisha was conducted to highlight the strengths and weaknesses of the system in both management and technical aspects of safety and health administration. The plant management promoted its safety and health policy widely to ensure employees understood management's intentions towards safety and health. The paper mill management constituted a safety committee that conducted meetings to address safety issues and implement control measures. Recommendations included strictly following operation permits, maintaining occupational health centers, first aid boxes, and welfare facilities like canteens, drinking water, washing areas, and toilets to maintain hygienic conditions.

Safety Audit at an Aluminum Company in Odisha

A safety audit at an aluminum company in Odisha was conducted as per IS 14489:2018. The audit aimed to highlight the strengths and weaknesses of the system in both management and technical aspects of safety and health administration. Based on observations and discussions, suggestions for improvement were made, such as ensuring the plant hospital sends details to the safety department about workers' absence due to disability. The captive power plant has a separate department with the necessary infrastructure to conduct training programs. Regular refresher training and trainer training programs for top functional heads on safety and health should be conducted periodically. Regular inspection and maintenance should be ensured. High housekeeping standards are essential in various plant areas. Maintenance of occupational health centers, first aid boxes, and welfare facilities like canteens, drinking water, washing areas, and toilets should be given periodic attention to maintain hygienic conditions.

HAZOP Study at a Paper Mill in Odisha

A HAZOP study was conducted at a paper mill in Odisha. The focus was on recommending and improving the safety system as per safety statutes, codes, standards, and norms. The HAZOP study is a recognized method of identifying hazards and problems that may prevent efficient operation and lead to hazards. The method enables the prediction of possible hazards or operating problems and recommends necessary changes. The HAZOP study was carried out for all major equipment and pipelines joining the equipment in a process through a series of guide words to identify possible deviations. Valves, instrumentation, the nature of chemical processes, and unit operations involved were closely examined.

The probable causes and consequences of deviations were listed, and necessary corrective actions were suggested.

HAZOP Study at an aluminum Company in Odisha

A HAZOP study was conducted at an aluminum company in Odisha (Chemical Division) in Jharkhand. The plant covers an area of 334.2 acres and produces standard and special grades of alumina and alumina hydrate for customers in various industries. The plant incorporates Bayer's process for alumina production from bauxite ore and has a captive cogeneration power plant for power and steam. The plant has two parts: Red Area and White Area. The main objective of the HAZOP study was to critically examine the safety system in the plant. The focus was on recommending and improving the safety system as per safety statutes, codes, standards, and norms. A team of officers from RLI Kolkata assessed P&I diagrams of working areas, followed by discussions with plant officials on observations and recommendations, and analysis of HAZOP worksheets using guide words.

4.7 Education and Training

DGFASLI organizes professional programmes, short duration (1 or 2 days) training programmes, long duration (3 or more days) training programmes, seminars, workshops, in-plant training programmes, appreciation & promotional programmes etc. for the benefit of industries, ports, enforcement officials, etc.

4.7.1 Professional Programmes: To fulfill the need of qualified Safety Officers, and Factory Medical Officers in the industry, DGFASLI organization conducts a number of Professional programmes in the field of Occupational Safety and Health. DGFASLI conducts one-year “Advanced Diploma in Industrial Safety” (ADIS) Course, for Safety Officers, under section 40-B of the Factories Act, 1948 and a three-month “Associate Fellow of Industrial Health” (AFIH) Certificate Course for Medical Officers in factories. DGFASLI also conducts Four-Week Specialized Certificate Course in Safety & Health for Supervisory Personnel to be employed in Hazardous Process Industries under section 41 C (b) of the Factories Act, 1948; Three-week Basic course for the freshly recruited Inspectors of Factories and a Two-week Refresher course for the experienced Senior Inspector of Factories and other specialized courses in the field of Occupational Safety and Health. The details of Professional Programmes conducted by DGFASLI during the year 2023 are as given in Table 4.3

Table 4.3: Professional Programmes conducted during 2023

Programme	Institute	No. of Participants	No. of Organizations
I. Advanced Diploma in Industrial Safety			
1. Advanced Diploma in Industrial Safety	CLI, Mumbai	26	24
2. Advanced Diploma in Industrial Safety	RLI, Chennai	46	43

Programme	Institute	No. of Participants	No. of Organizations
3. Advanced Diploma in Industrial Safety	RLI, Faridabad	51	25
4. Advanced Diploma in Industrial Safety	RLI, Kanpur	45	36
5. Advanced Diploma in Industrial Safety	RLI, Kolkata	47	35
Total		215	163
II. Associate Fellow of Industrial Health			
1. Associate Fellow of Industrial Health	CLI, Mumbai	72	72
2. Associate Fellow of Industrial Health	RLI, Chennai	49	49
3. Associate Fellow of Industrial Health	RLI, Faridabad	34	31
4. Associate Fellow of Industrial Health	RLI, Kanpur	40	40
5. Associate Fellow of Industrial Health	RLI, Kolkata	29	29
Total		224	221
III. One-month Certificate Course in Safety & Health for Supervisors employed in Hazardous Process Industries u/s 41C (b) of the Factories Act, 1948			
1. One-month Certificate Course in Safety & Health for Supervisors employed in Hazardous Process Industries u/s 41C (b) of the Factories Act, 1948	RLI, Kanpur	6	6
2. One-month Certificate Course in Safety & Health for Supervisors employed in Hazardous Process Industries u/s 41C (b) of the Factories Act, 1948	RLI, Faridabad	11	5
Total		17	11

4.7.2 Specialized Training Programmes are conducted for identified target groups such as Inspectors of Factories, Senior Managers, Safety Officers, Factory Medical Officers, Supervisors, Trade Union Officials and Safety Committee members from Industry. Basic Course for newly recruited inspectors of factories is conducted to impart technical knowledge and skills in the field of safety and health. In view of the need for inspection of specific industries and Major Accident Hazards units, specialized courses are also conducted for Senior Inspectors. Some of the programmes are exclusively conducted for the union-leaders where joint participation of management personnel and union representatives from industries are the special features of some programmes.

Table 4.4: Long duration (3 or more days) programmes conducted during 2023

Sl.	Title	Coordinating body	No. of Participants
1.	Effective Education & Training on Participative Safety & Health in Hazardous process industries	CLI, Mumbai	26
2.	Industrial Safety Management	CLI, Mumbai	20
3.	Management of Hazardous substances in Factories	CLI, Mumbai	25
4.	Safety & Health Awareness to Safety Committee Members	RLI, Kolkata	36
5.	Basic Life support and recent updates in first-aid procedure in occupational health	RLI, Kanpur	25
6.	Role of Effective Employee Participation in improving Occupational Safety and Health in Hazardous Process Industries (4 prog.)	CLI, Mumbai	60
7.	Major Accident Hazards Control in Factories	CLI, Mumbai	35
8.	Occupational Safety & Health Audit	RLI, Kanpur	16
9.	Effective Communication - A tool for improving Safety and Health at Workplace	CLI, Mumbai	18
10.	Safety of Pressure Vessel (Fired & Unfired)	DGFASLI (HQ)	41
11.	Occupational Health Practice for Nurses Pharmacists, Allied Healthcare Professionals and Medical Assistants	RLI, Kanpur	10
12.	Risk Assessment for Hazardous Process Industries	DGFASLI (HQ)	22
13.	Importance of Occupational Hygiene and Its Application & Implementation for Worker's Health Risk Assessments	CLI, Mumbai	25
14.	Management of Hazardous Substances in Factories	CLI, Mumbai	15
15.	Process Safety Management & its elements	RLI, Chennai	19
16.	Occupational Safety and Health Audit	RLI, Faridabad	28
17.	Accident Investigation, Analysis and Reporting	RLI, Kolkata	9
18.	Recent Advancement in Occupational Health & ILO Radiography	RLI, Kanpur	11

Sl.	Title	Coordinating body	No. of Participants
19.	Construction Safety	RLI, Kanpur	5
20.	Safety Management System in industry	RLI, Kolkata	3
21.	Safety in Working at Height & Scaffolding	CLI, Mumbai	5
22.	Occupational health Practice for Qualified Nurses and Para-medicals	CLI, Mumbai	12
23.	Effective Safety Communication and Commitment for improving OSH in Chemical Factories at their work place (2 prog.)	CLI, Mumbai	67
24.	Management of Workplace Contaminants in Industry	RLI, Chennai	4
25.	Building Safety Culture and Safety Leadership	CLI, Mumbai	22
26.	Basic Life Support and First-Aid Procedures	RLI, Kanpur	9
27.	Work Permit System at Workplace	RLI, Kanpur	5
28.	Safe use of Lifting Equipments and Accessories	RLI, Kanpur	11
29.	Ambient Factors in the Workplace	RLI, Kolkata	1
30.	Application of Ergonomics in Industries	CLI, Mumbai	5
31.	Emergency Preparedness and Hands on First Aid Training	RLI, Chennai	8
32.	Occupational Safety and Health Audit	RLI, Kolkata	17
33.	Statutory requirements and Design of Humanizing Works and Work Environment Study	CLI, Mumbai	20
34.	3-day Refresher Training Programme on OSH	RLI, Kanpur	10
35.	Testing and examination of Lifting Machines and Lifting Tackles (for competent persons)	DGFASLI (HQ)	23
Total (39 programmes)			668

4.7.3 Seminars and Workshops

Seminars and Workshops are organized on the basis of findings and recommendations of various national studies; unit level studies and surveys; and issues and priorities of national concern. They are organized to enhance the skills of the participants in dealing with matters connected to safety, health, productivity and environment etc. These seminars & workshops provide platform for discussing various issues related to safety and health; and recommend National level/State level/Unit level action plan in respective area of concern. The details of seminar and workshops conducted by DGFASLI during the year 2023 are given in table 4.5.

Table 4.5 – Seminars and Workshops conducted in 2023

Sl.	Title	Coordinating body	No. of Participants
1.	International Vision Zero Conference on Construction Safety organized & conducted at IIT Madras, Chennai by RLI Chennai and CAS Div, DGFASLI	RLI, Chennai	75
2.	Workshop On Medical Surveillance And Bio Monitoring For Prevention Of Occupational Diseases	RLI, Kanpur	8
3.	Workshop for Safety Officers	RLI, Faridabad	9
4.	Workshop on Hazard and Operability Study (HAZOP)	RLI, Chennai	21
5.	Workshop on Hazard and Operability Study (HAZOP)	CLI, Mumbai	59
Total (5 programmes)			172

Details of some of the seminar/workshop/conference/training programme organised by DGFASLI:

Basic course for Inspectors of Factories

The Basic course is organized for the newly joined Inspectors of Factories to familiarize them with the rules and regulations specified under the Factories Act, 1948. The Basic Course is designed to provide the Inspectors with a comprehensive understanding of the provisions and requirements of the Act. During the training, the Inspectors are educated on various aspects of the Factories Act, such as the safety measures that need to be implemented in factories, the working conditions that must be ensured for the workers, and the measures to be taken in case of accidents or mishaps in the factory premises. Additionally, they are also given insights into the legal procedures and documentation that must be followed in the process of factory inspections. The training programme is a crucial step in ensuring that the newly recruited Inspectors are equipped with the knowledge and skills necessary to enforce the provisions of the Factories Act effectively. The aim is to ensure the safety and well-being of workers

employed in factories and to ensure that the factories are in compliance with the various requirements specified under the Factories Act, 1948. During the year 2023, the 10-days basic course for Inspector of Factories was conducted by the Factory Advice Service (FAS) Division, DGFASLI at CLI, Mumbai from 31.07.2023 to 11.08.2023 which saw participation of 7 Inspectors of Factories from 3 States/UTs.

International Vision Zero Conference on Construction Safety

The Regional Labour Institute, Chennai organised an International Vision Zero Conference on Construction Safety. The conference was held on 2 February 2023 at AMM Arunachalam Auditorium, IIT Madras, in association with DGUV - Deutsche Gesetzliche Unfall Versicherung (German Social Accident Insurance). The conference was inaugurated by the Chief Guest Prof. Karl-Heinz Noetel, President ISSA Construction, Germany. The other dignitaries present on this occasion were Prof. V. Kamakoti, Director, IIT Madras, Dr Seven Timm, Vice President, IISA Information, Director of Central Prevention Division, DGUV, Germany, Shri Michaela Küchler, Consul General of the Federal Republic of Germany to the Republic of India, Chennai, Shri G.P. Nijalingappa, Deputy Director General, DGFASLI, Mumbai and Dr Venkatesh Balsubramanian, Professor, IIT Madras. The dignitaries emphasized and highlighted on the importance of Occupational Safety and Health in Construction Industries and application of knowledge at workplace to attain the highest productivity preserving human life and environment. The conference was attended by 75 delegates.



Left to Right: Shri G.P. Nijalingappa, Deputy Director General, DGFASLI, Mumbai, Dr.Sven Timm, Director of Central Prevention Division, DGUV, Germany, Ms. Michaela Küchler, Consul General of the Federal Republic of Germany to the Republic of India, Chennai, Prof. Venkatesh Balsubramanian, Department of Engineering Design, IIT Madras, Prof. Karl-Heinz Noetel, President ISSA Construction, Germany

4.7.4 Short duration (1 or 2 days) Training Programmes: DGFASLI organizes 1 or 2 days training programmes for the benefit of supervisors, workers, and workers' representatives from factories. Such programmes are organized in the field of Safety, Health, Hygiene, Psychology, etc. The details of these training programmes conducted during the year 2023 are given in Table 4.5

Table 4.5: Short duration Training Programmes conducted during 2023

Sl.	Title	Coordinating body	No. of Participants
1.	One-day Training Programme on Occupational Safety, Health and Working Conditions Code, 2020	DGFASLI (HQ)	37
2.	Role & Responsibilities of Safety Supervisors	RLI, Faridabad	28
3.	Ways for Effective Safety Committee Meetings	RLI, Faridabad	21
4.	One Day Training Programme on Machine Safety	RLI, Kanpur	23
5.	One Day Training Programme on Effectiveness Of Safety Committee National Policy On Occupational Health.	RLI, Kanpur	6
6.	Industrial Hygiene Techniques	RLI, Kanpur	6
7.	One day Training programme on Hazard Identification Techniques and Risk Assessment	RLI, Kanpur	14
Total (7 programmes)			135

4.7.5 Need Based In-Plant Training Programmes: On the request of management, CLI and RLIs conduct in-plant need based training programmes for the benefit of cross-section of personnel from respective units. These programmes are designed after proper identification of needs of the defined target groups through preliminary discussions with the management. The details of need based in-plant Training Programmes conducted during the year 2023 are as given in Table 4.6

Table 4.6: Need based in-plant Training Programmes conducted during 2023

Sl.	Title	Coordinating body	No. of Participants
1.	Safety Aspects in Scaffolding erection and dismantling at Rohtak for M/s. Rohan Builders Pvt. Ltd., Pune	RLI, Faridabad	17

2.	Training Programme on Safety & Health at M/S Vardhaman Special Steels Limited, Ludhiana (Punjab)	RLI, Faridabad	31
3.	Safety and health Awareness at M/s MahaKaran Station under Kolkata Metro	RLI, Kolkata	19
4.	Behavioural Based Safety a tool to improve safety	CLI, Mumbai	47
5.	Safety in Scaffold Erection and Dismantling	DGFASLI (HQ)	25
6.	Safety in Scaffold Erection and Dismantling	DGFASLI (HQ)	26
7.	M/s Voith Paper Fabrics Ltd., Faridabad	RLI, Faridabad	71
8.	M/s Oriental Carbon & Chemicals Ltd., Dharuhera, Rewari, Haryana	RLI, Faridabad	48
9.	In-Plant training on Safety Audit	RLI, Kanpur	23
10.	Behaviour Based Safety (BBS) conducted at M/s. Daicel Safety Systems India Pvt. Ltd., Thiruporur, Chengalpattu.	RLI, Chennai	27
11.	Basic Course on Occupational Health for Railway Medical Doctors at Baroda	CLI, Mumbai	47
12.	CPR and use of AED and Basic Safety at Johnson Matthey Chemicals India Pvt. Ltd., Kanpur	RLI, Kanpur	50
13.	In-plant Training Programme at Oriental carbon & Chemicals Limited Mundra (Gujarat)	CLI, Mumbai	15
14.	In-plant Training Programme on Electrical Safety at Escorts Kubota Ltd., Faridabad	RLI, Faridabad	27
Total (14 programmes)			473

4.7.6 Appreciation and Promotional Programmes: Each of the Labour Institutes at Mumbai, Chennai, Faridabad, Kanpur, Kolkata and Shillong has an Industrial Safety Health and Welfare Centre, where half-day appreciation programmes are conducted. Appreciation Programmes are also conducted at various laboratories and divisions of the organization. The details of the appreciation and promotional programmes conducted during the year 2023 are given in Table 4.7

Table 4.7: Appreciation and Promotional Programmes conducted during 2023

Sl.	Title	Coordinating body	No. of Participants
1.	Appreciation Programme for students of J.J. Hospital Navi Mumbai	CLI, Mumbai	7
2.	Appreciation Programme for students of National Institute of Public Health Training and Research, Panvel	CLI, Mumbai	37
3.	Appreciation Programme for ADIS students of CLI Mumbai	CLI, Mumbai	26
4.	Appreciation Programme for personnel of Kirloskar Brothers Ltd, Sangli, Maharashtra	CLI, Mumbai	6
5.	Appreciation Programme for students of Industrial Training Institute, Mumbai	CLI, Mumbai	32
6.	Appreciation Programme on Occupational Safety & Health	RLI, Chennai	54
7.	Visit to OSH centre for participants of National Institute of Family Welfare and Training & Research Centre	CLI, Mumbai	25
8.	Visit to OSH centre for participants of three-days training programme on "Management of Chemical substances in Industries"	CLI, Mumbai	20
9.	IHL Visit and Demonstration for the students of National Institute of Public Health	CLI, Mumbai	30
10.	Visit to NRTL lab for the Participants of training programme on "Management of Hazardous Substances"	CLI, Mumbai	25
11.	Appreciation Programme for participants of National Institute of Family Welfare and Training Research Centre	CLI, Mumbai	25
12.	Visit to Safety Centre cum Museum by 15 students pursuing 1-year Advance Diploma in Construction Safety from State Labour Institute, Kolkata	RLI, Kolkata	15
13.	Appreciation Programme for students of Institute of Chemical Technology Tharamani, Chennai	RLI, Chennai	28
14.	Appreciation Programme for students of Institute of Chemical Technology Tharamani, Chennai	RLI, Chennai	29
15.	Centre/Lab visit to Students of DGPG College, Kanpur	RLI, Kanpur	19
16.	Industrial Hygiene Lab visit	RLI, Kolkata	15
17.	SHE awareness for Safety committee members	RLI, Kolkata	33

Sl.	Title	Coordinating body	No. of Participants
18.	Appreciation Programme for personnel of M/s. AVAADA Green Energy Construction Industries	RLI, Chennai	150
19.	Appreciation Programme for personnel of M/s. Sasan Power Plant, Singaurali, MP	RLI, Chennai	67
20.	Appreciation Programme for personnel of M/s. AVAADA Green Energy Construction Industries	RLI, Chennai	120
21.	ADIS 2023-23 batch (Practical and demonstration, discussion on PPEs and IH Laboratory)	CLI, Mumbai	26
22.	Appreciation Programme for AFIH students of CLI, Mumbai	CLI, Mumbai	72
23.	Appreciation Programme for personnel of M/s. BHEL, Trichy	RLI, Chennai	100
24.	Appreciation Programme for personnel of M/s. AVAADA Green Energy Construction Industries (especially for women employees)	RLI, Chennai	40
25.	Appreciation Programme for personnel of M/s. AVAADA Green Energy Construction Industries	RLI, Chennai	82
26.	Appreciation Programme for personnel of M/s Sasan Power Plant, Madhya Pradesh	RLI, Chennai	65
27.	Appreciation Programme for personnel of M/s. AVAADA Green Energy Construction Industries	RLI, Chennai	110
28.	Visit to Occupational Safety Centre for AIIMS PG students	RLI, Faridabad	7
29.	Appreciation Programme at Vizag Steel Plant	RLI, Kanpur	4
30.	Appreciation Programme at Visakhapatnam	RLI, Kanpur	2
31.	Appreciation Programme at Cooper Hospital, Andheri, Mumbai for Nurses	CLI, Mumbai	45
32.	Somaiya College of Nursing, Sion, Mumbai	CLI, Mumbai	38
33.	Online OSH Training program for Casual workers / Contract workers employed in Hazardous Process Industries and Construction Sector (4 Nos.)	RLI, Chennai	413
34.	Basics of Safety, Use of PPEs, Accident Prevention, e-Shram Awareness (2 Nos.)	DGFASLI (HQ)	30
35.	Safety Awareness Programme	DGFASLI (HQ)	40

Sl.	Title	Coordinating body	No. of Participants
36.	Awareness about e-Shram Portal	DGFASLI (HQ)	40
37.	Appreciation programme for the nurses of Cooper Hospital, Mumbai	CLI, Mumbai	40
38.	Appreciation programme for the students of Somaiya College of Physiotherapy	CLI, Mumbai	12
39.	Appreciation programme for the students of ADIS students of CLI, Mumbai	CLI, Mumbai	29
40.	Appreciation programme for the students of II year B.Sc. & M.Sc.(Nursing) from Sree Balaji College of Nursing, Chennai	RLI, Chennai	52
41.	Appreciation programme for the students of B.Sc. (Nursing) II year, M.Sc.(Nursing) I year from Mohamed Sathak A. J. College of Nursing, Chennai	RLI, Chennai	39
42.	Appreciation programme for the ECE students of II & III year from Dr. Dharmambal Government Polytechnic College for Women, Tharamani, Chennai	RLI, Chennai	30
43.	Appreciation program for the students of III year DGNM from Apollo School of Nursing Chennai.	RLI, Chennai	32
44.	Conducted free off-line programme at M/s. Supreme Petro Chemical Limited, Manali, Chennai.	RLI, Chennai	23
45.	Appreciation programme for PG MD Community Medicine students from SRM Medical College Hospital & Research Centre, Kattankulathur	RLI, Chennai	9
46.	Visit to Safety Centre by students of One-month Certificate Course	RLI, Faridabad	11
47.	Appreciation Programme at Thermax Bio Energy Solutions Pvt. Ltd., Prayagraj	RLI, Kanpur	194
48.	Outreach Programme for Public Health Awareness among Industries for OSH with ESIC and EPFO at Kanpur	RLI, Kanpur	10
Total (52 programmes)			2358

4.8 Technical Advice

Technical advice and guidance are provided to organisations, factories, ports, etc. on various aspects relating to control of hazards, prevention of accidents and occupational diseases, work environment, productivity etc.

4.9 Testing of Personal Protective Equipment (PPE)

The respiratory and non-respiratory Personal Protective Equipment (PPE) testing laboratories at the Central Labour Institute, Mumbai undertake performance tests of canisters, masks, helmets, safety shoes, safety goggles, safety belts, welding glasses etc. The details of Personal Protective Equipment tested during the year 2023 are given in Table 4.8

Table 4.8: Personnel Protective Equipment tested in 2023

Equipment	No. of Equipment tested
NRTL PPEs	
1. Safety Helmet	-
2. Eye Protector	11
3. Safety Hand Glove	4
4. Safety Shoe	8
5. Safety Belt	-
6. Safety Clothing	1
Total	24
RTL PPEs	
1. Dust Mask (RTL)	9
2. Breathing Air Cylinder (RTL)	98
Total	107
Grand Total	131

4.10 Talks

The officers of the organization deliver talks on special topics in programmes organized by external organisations to disseminate latest technical information with specific reference to national studies, unit level studies, surveys conducted, etc. Institute-wise details of talks delivered during the year 2023 are given in Table 4.9

Table 4.9: Institute-wise Talks delivered during 2023

Sl.	Title	Coordinating body	No. of Participants
1.	Discussion on Occupational Health in a National Seminar at National Sugar Institute, Govt. of India, Kanpur by Dr. Arkaprabha Sau, Deputy Director (Medical)	RLI, Kanpur	50
2.	Online Talk delivered on "Prevention of accident at dock area" for participants at IDS New Mangalore by Dock Safety Division, DGFASLI.	DGFASLI (HQ)	64
3.	Online Talk delivered on "Basics of Safety and use of PPEs and eShram" for participants at IDS Tuticorin by Dock Safety Division, DGFASLI.	DGFASLI (HQ)	64
4.	"Safety culture in an organisation" at JNPT	DGFASLI (HQ)	36
5.	Hazard Identification and Risk Assessment at JNPT	DGFASLI (HQ)	36
6.	Accident Cause and Prevention at JNPT	DGFASLI (HQ)	36
7.	Behaviour based Safety (BBS) at JNPT	DGFASLI (HQ)	36
8.	Talk Delivered at M/S Godrej Industries (Chemical), Ambarnath, Mumbai by DIC, WEED Div, CLI Mumbai	CLI, Mumbai	10
9.	Talk Delivered at Material organization (Naval Stores) Ghatkoper, Mumbai	CLI, Mumbai	23
10.	Talk delivered on "Dock Workers Safety, Health and Welfare Regulations, 1990" by IDS Kolkata at Kolkata Port to 8 participants from 3 organisations.	DGFASLI (HQ)	8
11.	ILO Conventions on Industrial Safety and Industrial Hygiene & the functions of DGFASLI & RLIs at DISH, Govt. of TN	RLI, Chennai	10
12.	An officer of RLI, Faridabad on 01.03.2023, delivered a guest lecture on statutory compliances under the Factories Act, 1948 as per invitation from Indian Oil, Pipelines Division Headquarter, Noida.	RLI, Faridabad	20
13.	An officer of RLI, Faridabad on 06.03.2023, delivered a lecture online during the national safety week celebration organised by DRDO (HQ) on 'regulatory framework on OSH'.	RLI, Faridabad	20
14.	An officer of RLI, Kolkata delivered a lecture on "Safety and Health on at workplace" at Ordinance Factory Board, DumDum, Kolkata during "National Safety Week".	RLI, Kolkata	10
15.	A talk was delivered by Dock Safety Division on "Dock Workers Safety, Health and Welfare Regulations, 1990" at IDS Kolkata (Syama Prasad Mookerjee Port, Kolkata)	DGFASLI (HQ)	6

Sl.	Title	Coordinating body	No. of Participants
16.	A talk was delivered by Dock Safety Division on "E-shram Campaign" at NMPA	DGFASLI (HQ)	17
17.	A talk was delivered by Dock Safety Division on Safety during "52 nd National Safety Week Ceremony" at IMC Ltd, Mangalore	DGFASLI (HQ)	32
18.	A talk was delivered by Dock Safety Division on Safety during "52 nd National Safety Week Ceremony" at JSW Terminal, Mangalore	DGFASLI (HQ)	13
19.	A talk was delivered by Dock Safety Division on Safety during "52 nd National Safety Week Ceremony" at NMPA	DGFASLI (HQ)	13
20.	An officer of RLI, Faridabad conducted a talk on 'Approach to inspection in informal sector on OSH' for South African participants during a program organised by VVGNI, Noida.	RLI, Faridabad	25
21.	IDS JNPT conducted talk on 'Basic Fire Safety' at Operation Centre, JNPT attended by 15 participants from 1 organisation	DGFASLI (HQ)	15
22.	IDS Kolkata conducted Talk on 'Dock Workers Safety, Health and Welfare Regulations, 1990' attended by 11 participants from 3 organisations	DGFASLI (HQ)	11
23.	Dock Workers Safety, Health and Welfare Regulations, 1990	DGFASLI (HQ)	11
24.	The Dock Worker (Safety, Health & Welfare) Regulation, 1990	DGFASLI (HQ)	4
25.	Bench Mark in Safety Practices through Online Mode	DGFASLI (HQ)	105
26.	Use of technology in enhancing safety through Online Mode (2 prog.)	DGFASLI (HQ)	192
27.	Safety in Cargo Handling and basic training on safety	DGFASLI (HQ)	27
28.	International Training Programme on Social Security & Health Protection at VVGNI Noida	RLI, Faridabad	27
29.	Machinery Safety and Statutory Provisions thereon under the Factories Act, 1948 with references to IS 17277(Part1):2019	CLI, Mumbai	231
30.	Safety Talk on The Dock Worker (Safety, Health & Welfare) Regulation, 1990	DGFASLI (HQ)	7
31.	The Safety Management	DGFASLI (HQ)	20
32.	General Safety and Ventilation requirements	CLI, Mumbai	15

Sl.	Title	Coordinating body	No. of Participants
33.	Various Statutory Provisions and Standards on Industrial Ventilation	CLI, Mumbai	15
34.	Talks were delivered on Safety (2 prog.)	DGFASLI (HQ)	26
35.	Safety talk delivered on The Dock Worker (Safety, Health & Welfare) Regulation, 1990	DGFASLI (HQ)	14
36.	Chemical Disaster Management in HBNI BARC CBRNE Course	RLI, Faridabad	20
37.	Regulatory aspects of Fire & Safety pertaining to Educational Institutes	CLI, Mumbai	45
38.	A talk was delivered by Dock Safety Division on "Dock Workers Safety, Health and Welfare Regulations, 1990"	DGFASLI (HQ)	14
Total (40 programmes)			1328

4.11 DGFASLI website

The DGFASLI website www.dgfasli.gov.in is a source of information on various safety and health related matters. The website contains database on abstract of OSH studies, reports, information on advisory services rendered by DGFASLI in the area of testing of respiratory and non-respiratory personal protective equipment etc. The training programme calendar for all the Labour Institutes, announcement on National Safety Awards & Vishwakarma Rashtriya Puraskar awards, application forms for Associate Fellow of Industrial Health course and Diploma Course in Industrial Safety are available on the website. The website enables users to access other useful websites related to safety and health and get the national directory of organization and profile of agencies engaged in the field of safety and health. The website also contains the text of the Factories Act, 1948 and the Model Rules framed there under and also the Dock Workers (Safety, Health and Welfare) Act, 1986 and Regulations, 1990 etc. Statistics of Factories, Docks, list of Chief Inspectors of Factories and list of Dock Safety Inspectorates are also available on the portal.

5 Safety Awards

To appreciate the contribution made by the factories and docks towards producing quality goods and providing efficient services in safe and healthy conditions, the following awards are given.

5.1 Prime Minister's Shram Awards (PMSA)

The Prime Minister's Shram Awards (PMSA) were instituted in 1985, for the workers (as defined in Industrial Disputes Act, 1947) in recognition of their outstanding contributions in organizations both in public and private sector and who have distinguished record of performance, devotion to duty of a high order, specific contribution in the field of productivity, proven innovative abilities, presence of mind and exceptional courage; and also to the workmen who have made supreme sacrifice of laying down their lives in the conscientious discharge of their duties.

It has been decided from the year 2004 onwards that the private sectors shall also be included within the ambit of Prime Minister's Shram Awards and the workers in the private sector units employing 500 or more workers and engaged in manufacturing and productive processes will be eligible to apply for these awards. The number of awards has been increased from 17 to 33. The awards, in order of sequence are Shram Ratna, Shram Bhushan, Shram Vir/Veerangana and Shram Shri/Devi. The recognition consists of a Sanad and cash award of Rs. Two lakh (1 award), Rs. One lakh (4 awards), Rs. 60,000 (12 awards) and Rs. 40,000 (16 awards) respectively.

5.2 Vishwakarma Rashtriya Puraskar & National Safety Awards

The DGFASLI on behalf of the Ministry of Labour & Employment has been implementing the Vishwakarma Rashtriya Puraskar (earlier known as Shram Vir National Awards) and the National Safety Awards scheme since 1965. These schemes were modified in 1971, 1978 and 2007. The schemes presently in operation are as follows:

- **Vishwakarma Rashtriya Puraskar (VRP):** VRP is awarded in recognition of outstanding suggestions given by a worker or group of workers and implemented by the management during the previous calendar year resulting in improvement in quality, productivity and working conditions such as safety, health and environmental conservation in the industrial undertakings where "Suggestion Schemes" are in operation.

It is designed to give recognition at the national level to outstanding suggestions resulting in

- (I) Higher Productivity
- (II) Improvement in safety and working conditions
- (III) Savings in foreign exchange (import substitution as well as quality and safety of products)

(IV) Improvement in overall efficiency of the establishments.

The prizes are grouped in three classes:

- (a) Applications ranked 1 to 5 (5 Awards) - Class "A" Awards of Rs.75, 000/- each.
- (b) Applications ranked 6 to 13 (8 Awards) - Class "B" Awards of Rs.50, 000/- each.
- (c) Applications ranked 14 to 28 (15 Awards) - Class "C" Awards of Rs. 25, 000/- each.

These awards are applicable to the workers of Industrial establishments covered under the Factories Act, 1948, the employees covered under the Dock Workers (Safety, Health and Welfare) Act 1986, the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and Installations under Atomic Energy Regulatory Board (AERB).

- **National Safety Awards (NSA):** National Safety Awards are given in recognition of outstanding safety performance on the part of the industrial establishments covered under the Factories Act, 1948, the employers covered under the Dock Workers (Safety, Health and Welfare) Act 1986, the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and Installations under Atomic Energy Regulatory Board (AERB). The National Safety Awards are given to stimulate and maintain the interest of both the management and the workers in accident prevention programmes.

The awards are given under twelve schemes. Schemes I to X are meant for factories, construction sites and nuclear Installations whereas Schemes XI and XII are for Ports. Shields and Citation Certificates are awarded to Winners and Runners Up.

The details of awards held in the previous years are given in the below tables:

Table 5.1 - Applications received for Vishwakarma Rashtriya Puraskar and the number of awards given:

Performance Year	Applications Received	Awards
2012	142	28
2013	193	28
2014	199	28
2015	212	28
2016	175	28
2017	197	28
2018	227	28

Table 5.2 - Estimated annual savings resulting from the suggestions

Performance Year	Savings in Indian Currency		Savings in Foreign Exchange	
	Recurring	Non-Recurring	Recurring	Non-Recurring
2012	8,37,70,16,690	5,61,15,000	2,22,69,000	-
2013	6,43,77,70,600	35,48,73,900	68,80,96,665	2,66,01,55,248
2014	57,71,27,000	2,29,14,000	2,27,85,894	2,92,00,830
2015	7,32,29,75,801	8,19,27,26,452	3,03,90,34,983	2,94,12,883
2016	66,97,43,925	1,03,33,184	79,21,842	2,72,22,720
2017	32,84,30,074	74,91,39,521	54,21,772	13,90,496
2018	217,16,24,663	75,72,048	3,13,54,070	1,00,339

Table 5.3 - National Safety Awards under different schemes

Performance Year	National Safety Awards	SCHEMES											
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2012	Applications	30	31	10	12	9	12	8	9	2	2	-	-
	Awards	20	19	10	10	5	7	6	8	2	2	-	-
2013	Applications	48	39	12	19	18	21	13	13	8	8	-	-
	Awards	23	20	10	12	6	6	8	9	2	2	-	-
2014	Applications	42	34	18	20	14	17	9	14	1	1	-	-
	Awards	27	17	13	13	8	6	8	9	1	1	-	-
2015	Applications	68	54	32	37	38	42	38	38	3	3	1	1
	Awards	28	24	11	13	10	10	12	12	2	2	1	1
2016	Applications	54	44	31	35	18	22	17	16	7	7	2	2
	Awards	25	24	11	14	10	12	10	11	3	4	2	2
2017	Applications	72	60	32	34	15	19	14	15	5	6	2	1
	Awards	24	25	15	15	9	10	9	10	5	5	2	1
2018	Applications	114	91	39	37	22	22	21	22	11	8	8	13
	Awards	26	26	16	16	11	10	8	9	6	6	4	3

N.B.: The scrutiny of applications for Awards for the performance years 2019 and 2020 is in progress; while the performance year 2021 is declared as "NIL Year" vide MoL&E letter No. 13011/20/2022-ISH-I dated 07.12.2022.

6

Human Resource Development

The officers and staff of the Organization are deputed to the programmes organized by various agencies within the country and abroad; and training programmes are held for their exposure to the latest technical developments that are taking place in the field of Industrial Safety and Health.

Mission Karmayogi: (National Programme for Civil Services Capacity Building) and DGFASLI, Mumbai

The Government of India launched the National Programme for Civil Services Capacity Building (NPCSCB) – Mission Karmayogi in 2020 with the aim of creating a competent and future-ready civil service focused on effective public service delivery and an Atmanirbhar Bharat. Apart from being a dedicated programme on capacity building for civil servants, one of the objectives of the Mission Karmayogi is to encourage civil servants to maintain high standards of conduct and behavior, so they earn the trust of the people and serve as role models for their peers and subordinates. Envisioned as one of the largest capacity-building initiatives in government organizations globally, Mission Karmayogi will initially cover about 46 lakh government officials at the Centre and eventually aim to transform approximately 1.5 crore government officials across the Centre, the States, and local bodies.

NPCSCB-Mission Karmayogi is based on six identified pillars:

- I. Policy Framework
A robust policy framework and institutional structure for implementation, aligned with national priorities.
- II. Digital Learning Framework
iGOT Karmayogi, i.e., Integrated Government Online Training Karmayogi Platform – Its objective is to provide anytime-anywhere learning opportunities for all civil servants, with content modeled on the Framework for Roles, Activities, and Competencies (FRACs).
- III. Competency Framework
Each Ministry/Department/Organization (MDO) is to define the FRACs and integrate them with the iGOT Karmayogi Platform.
- IV. The electronic Human Resource Management System (e-HRMS)
To facilitate a digital working environment in the Central Government.
- V. Monitoring and Evaluation Framework
To enable the monitoring and evaluation of the performances of all providers and users on the iGOT Karmayogi platform, based on a Key Performance Indicators framework.

VI. Institutional Framework:

- a. The Prime Minister's Public Human Resource Council (PMHRC) serves as the apex body for driving and providing strategic direction to civil services reforms and capacity building;
- b. The Cabinet Secretariat Coordination Unit (CSCU) monitors the implementation of NPCSCB;
- c. Functional institutions such as the Capacity Building Commission (CBC) and Special Purpose Vehicle (SPV) - Karmayogi Bharat.

The following initiatives/activities have been undertaken by the Labour Institutes under the DGFASLI organization, as per the instructions/guidelines issued by the Ministry of Labour & Employment, Karmayogi Guidelines 2023 dated 28 July 2023, and the Capacity Building Commission (CBC):

- Accreditation: The process of registration on the digital platform, guided by the National Standards for Civil Service Training Institutions (NSCSTI) developed by the CBC, has already started, with an aim to enhance quality and standards.
- The Staff Training & Productivity (ST&P) Division has been entrusted with the responsibility of serving as the Single Point of Contact (SPoC) with the Capacity Building Commission.
- An officer has been assigned as the DGFASLI representative for the Karmayogi Bharat iGoT Platform and the MDO Portal.
- Eight officers attended the Sensitization Programme on developing a Disaster Management Plan (DMP) for all organizations under the Ministry at NIDM, New Delhi, in March 2023.
- Fourteen officers attended the National Training Conclave 2023 in New Delhi in June 2023.
- Ten officers attended the Annual Capacity Building Plan (ACBP) Implementation Workshop with CBUs in New Delhi in July 2023.
- Seventy officials have completed or are in the process of completing the mandatory training of 7 courses on the iGOT Karmayogi Platform.
- Seven SOs/ASOs attended the Half-Day Training Workshop held at DGFASLI, Mumbai, for the mandatory training of 11 courses under DAKSHTA on the iGOT Karmayogi Platform.

Celebration of Hindi Pakhwara

"Hindi Pakhwara" was celebrated in this Directorate and across Regional Labour Institutes at Chennai, Faridabad, Kanpur and Kolkata and Central Labour Institute, Mumbai in the month of September, 2023. During this period various competition like *Nibandh Lekhan*, *Bhashan*, *Anuvaad*, *Nara Lekhan* etc. were organized in Hindi language all through the pakhwara.



International Yoga Day Celebration at Central Labour Institute, Mumbai

International Yoga Day was celebrated at Central Labour Institute, Mumbai on 21.06.2023. The participants include employees from industries, CPWD workers, casual labours and contractual employees. Further, employees of DGFASLI, CLI, CPWD, CGHS, PAO and family members of employees also took part in the celebration.



7

Statistics on Occupational Safety and Health in Factories

The statistics of factories are collected and compiled by the Labour Bureau on the basis of the Annual Returns/Reports in respect of the Factories Act, 1948, furnished by various States and Union Territories. Under the Factories Act, 1948, injuries resulting from industrial accidents, by reasons of which the person injured is prevented from attending to work for a period of 48 hours or more immediately following the accident, are recorded. The important indices on injuries are Frequency Rate (FR) and Incidence Rate (IR). The Frequency Rate is defined as number of total injuries per 1,00,000 man-days worked. The Incidence Rate is the number of injuries per 1,000 workers employed in the factories.

The latest information relating to occupational injuries in factories are given in this chapter in tables 7.1 to 7.7, which are based on the statistics provided by Labour Bureau, Chandigarh up to the year 2020.

Table: 7.1-Statistics of Employment, Industrial Injuries, etc. in Factories for the year 2013-2020

Year	No. of Working Factories	Estimated Average daily Employment (in thousands)	Industrial Injuries		Frequency Rate of injuries per lakh man-days worked		Incidence Rate of injuries per thousand Workers Employed in Factories Submitting Return	
			Fatal	Total	Fatal	Total	Fatal	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2013	87493	3659	494	1951	0.08	0.37	0.14	0.53
2014	135971	6367	515	3984	0.06	0.49	0.08	0.71
2015	167726	8660	789	5500	0.05	0.33	0.09	0.64
2016	167025	9335	777	3906	0.1	0.51	0.08	0.42
2017	158046	7999	668	3149	0.07	0.33	0.08	0.39
2018	138735	7381	636	2661	0.08	0.35	0.09	0.36
2019	192761	10182	661	2540	0.03	0.12	0.06	0.25
2020	183020	10418	652	2365	0.1	0.37	0.06	0.23

Source: (i) Data received from Labour Bureau through correspondence.

(ii) Data for the year 2021 and beyond is yet to be updated by the Labour Bureau.

Note: Limitations of the data received from Labour Bureau: The Number of injuries has been given on the basis of notices of accidents whereas the rates have been worked out on the basis of Annual Return.

Table 7.2- State-Wise Total Number of Industrial Injuries in Factories

Sl.	State / UT	2016	2017	2018	2019	2020
1.	Andaman & Nicobar	58(-)	89(-)	57(-)	40(-)	58(-)
2.	Andhra Pradesh	220(77)	184(55)	118(41)	135(53)	NA
3.	Arunachal Pradesh	NA	NA	NA	NA	NA
4.	Assam	53(12)	64(10)	47(12)	25(4)	28(9)
5.	Bihar	198(11)	97(17)	88(21)	8(2)	31(1)
6.	Chandigarh	1(1)	8(1)	3(-)	1(-)	7(-)
7.	Chhattisgarh	120(67)	NA	158(91)	151(86)	201(84)
8.	Daman & Diu and DNH	54(15)	46(16)	75(25)	74(1)	83(3)
9.	Delhi	NA	NA	NA	NA	NA
10.	Goa	58(3)	57(5)	40(3)	30(3)	NA
11.	Gujarat	1412(243)	1257(250)	1273(236)	934(216)	772(212)
12.	Haryana	132(62)	132(62)	79(37)	69(26)	56(30)
13.	Himachal Pradesh	15(2)	9(5)	13(7)	14(1)	5(-)
14.	Jammu & Kashmir	NA	NA	6(3)	6(3)	4(2)
15.	Jharkhand	91(21)	78(18)	70(18)	63(21)	54(16)
16.	Karnataka	NA	NA	NA	NA	NA
17.	Kerala	NA	NA	NA	159(27)	77(14)
18.	Lakshadweep	NA	NA	NA	NA	NA
19.	Madhya Pradesh	422(30)	NA	NA	NA	281(26)
20.	Maharashtra	NA	NA	NA	NA	NA
21.	Manipur	NA	-	-	-	-
22.	Meghalaya	2(1)	3(2)	7(3)	1(1)	2(1)
23.	Mizoram	NA	NA	-	NA	-
24.	Nagaland	-	-	-	-	-
25.	Odisha	222(47)	197(52)	91(42)	NA	96(47)
26.	Puducherry	22(2)	38(3)	58(5)	37(5)	27(1)
27.	Punjab	NA	NA	NA	NA	NA
28.	Rajasthan	125(15)	374(31)	291(32)	220(32)	104(23)
29.	Sikkim	NA	NA	NA	NA	NA
30.	Tamil Nadu	476(104)	290(72)	NA	342(123)	245(114)
31.	Telangana	164(52)	193(59)	128(45)	166(39)	176(54)
32.	Tripura	6(2)	4(1)	1(-)	-	-
33.	Uttar Pradesh	NA	NA	NA	NA	NA
34.	Uttarakhand	55(10)	29(9)	58(15)	65(18)	58(15)
35.	West Bengal	NA	NA	NA	NA	NA
	Total	3906(777)	3149(668)	2661(636)	2540(661)	2365(652)

Note: (i)NA = Not Available (ii) - = Nil
 (iii) Figures in brackets pertain to "Fatalities" and are included in the total.
 (iv) For limitations of the data, refer note under table 7.1
 (v) Data for the year 2021 and beyond is yet to be updated by the Labour Bureau.

Source: Data received from Labour Bureau through correspondence.

Table 7.3- State-wise Frequency Rates of Industrial Injuries in Factories

Sl.	State / UT	2016	2017	2018	2019	2020
1.	Andaman & Nicobar	3.75(-)	5.87(-)	3.74(-)	3.38(-)	3.4(-)
2.	Andhra Pradesh	0.16(0.06)	0.14(0.04)	0.1(0.04)	0.15(0.06)	NA
3.	Arunachal Pradesh	NA	NA	NA	NA	NA
4.	Assam	0.4(0.09)	0.39(0.06)	0.41(0.11)	0.19(0.03)	0.22(0.07)
5.	Bihar	4.95(0.27)	1.5(0.26)	1.52(0.36)	0.26(0.07)	0.63(0.02)
6.	Chandigarh	0.07(0.07)	0.53(0.07)	0.28(-)	0.1(-)	0.2(-)
7.	Chhattisgarh	0.79(0.44)	NA	0.64(0.37)	1.37(0.78)	1.69(0.71)
8.	Daman & Diu and DNH	0.14(0.04)	0.12(0.04)	0.19(0.06)	0.36(-)	0.45(0.02)
9.	Delhi	NA	NA	NA	NA	NA
10.	Goa	0.25(0.01)	0.23(0.02)	0.17(0.01)	0.14(0.01)	NA
11.	Gujarat	1.01(0.17)	0.34(0.07)	0.86(0.16)	0.06(0.01)	0.48(0.13)
12.	Haryana	0.18(0.08)	0.16(0.07)	0.1(0.05)	0.08(0.03)	0.11(0.06)
13.	Himachal Pradesh	0.05(0.01)	0.03(0.02)	0.03(0.02)	0.03(-)	0.01(-)
14.	Jammu & Kashmir	NA	NA	0.07(0.03)	0.08(0.04)	0.05(0.03)
15.	Jharkhand	0.58(0.13)	0.37(0.09)	0.28(0.07)	0.24(0.08)	0.21(0.06)
16.	Karnataka	NA	NA	NA	NA	NA
17.	Kerala	NA	NA	NA	6.33(1.07)	6.8(1.24)
18.	Lakshadweep	NA	NA	NA	NA	NA
19.	Madhya Pradesh	2.03(0.14)	NA	NA	NA	1.91(0.18)
20.	Maharashtra	NA	NA	NA	NA	NA
21.	Manipur	NA	-	-	-	-
22.	Meghalaya	0.22(0.11)	0.39(0.26)	0.9(0.39)	0.14(0.14)	0.2(0.1)
23.	Mizoram	NA	NA	-	NA	-
24.	Nagaland	-	-	-	-	-
25.	Odisha	0.39(0.08)	0.32(0.08)	0.14(0.07)	NA	0.18(0.09)
26.	Puducherry	0.25(0.02)	0.49(0.04)	0.6(0.05)	0.45(0.06)	0.35(0.01)
27.	Punjab	NA	NA	NA	NA	NA
28.	Rajasthan	0.27(0.03)	0.99(0.08)	0.55(0.06)	0.3(0.04)	0.12(0.03)
29.	Sikkim	NA	NA	NA	NA	NA
30.	Tamil Nadu	4.36(0.95)	2.48(0.62)	NA	3.42(1.23)	2.49(1.16)
31.	Telangana	0.17(0.05)	0.24(0.07)	0.16(0.06)	0.21(0.05)	0.22(0.07)
32.	Tripura	0.22(0.07)	0.34(0.09)	0.04(-)	-	-
33.	Uttar Pradesh	NA	NA	NA	NA	NA
34.	Uttarakhand	0.19(0.03)	0.1(0.03)	0.2(0.05)	0.23(0.06)	0.2(0.05)
35.	West Bengal	NA	NA	NA	NA	NA
Total		0.51(0.1)	0.33(0.07)	0.35(0.08)	0.12(0.03)	0.37(0.1)

Note: (i) F.R. = Frequency Rate per lakh man-days worked (ii) NA = Not Available (iii) (-) = Nil/Negligible (iv) Figures in bracket pertain to "Fatalities" and are included in the total (v) For limitations of the data, refer note under table 7.1 (vi) Data for the year 2020 and beyond is yet to be updated by the Labour Bureau.

Source: Data received from Labour Bureau through correspondence.

Table 7.4- State-wise Incidence Rates of Industrial Injuries in Factories

Sl.	State / UT	2016	2017	2018	2019	2020
1.	Andaman & Nicobar	10.32(-)	16.22(-)	10.43(-)	7.24(-)	7.57(-)
2.	Andhra Pradesh	0.3(0.1)	0.24(0.07)	0.16(0.05)	0.17(0.07)	NA
3.	Arunachal Pradesh	NA	NA	NA	NA	NA
4.	Assam	0.22(0.05)	0.24(0.04)	0.17(0.04)	0.09(0.01)	0.1(0.03)
5.	Bihar	1.11(0.06)	0.51(0.09)	0.45(0.11)	0.04(0.01)	0.15(-)
6.	Chandigarh	0.08(0.08)	0.61(0.08)	0.24(-)	0.09(-)	0.78(-)
7.	Chhattisgarh	0.44(0.24)	NA	0.44(0.25)	0.42(0.24)	0.57(0.24)
8.	Daman & Diu and DNH	0.28(0.08)	0.23(0.08)	0.39(0.13)	0.59(0.01)	0.47(0.02)
9.	Delhi	NA	NA	NA	NA	NA
10.	Goa	0.64(0.03)	0.62(0.05)	0.39(0.03)	0.3(0.03)	NA
11.	Gujarat	0.86(0.15)	1.06(0.21)	0.74(0.14)	0.51(0.12)	0.41(0.11)
12.	Haryana	0.15(0.07)	0.14(0.07)	0.08(0.04)	0.07(0.03)	0.05(0.03)
13.	Himachal Pradesh	0.05(0.01)	0.03(0.01)	0.04(0.02)	0.04(-)	0.01(-)
14.	Jammu & Kashmir	NA	NA	0.09(0.04)	0.09(0.04)	0.06(0.03)
15.	Jharkhand	0.37(0.08)	0.28(0.07)	0.24(0.06)	0.2(0.07)	0.18(0.05)
16.	Karnataka	NA	NA	NA	NA	NA
17.	Kerala	NA	NA	NA	0.45(0.08)	0.24(0.04)
18.	Lakshadweep	NA	NA	NA	NA	NA
19.	Madhya Pradesh	0.68(0.05)	NA	NA	NA	0.5(0.05)
20.	Maharashtra	NA	NA	NA	NA	NA
21.	Manipur	NA	-	-	-	-
22.	Meghalaya	0.21(0.11)	0.3(0.2)	0.65(0.28)	0.07(0.07)	0.15(0.07)
23.	Mizoram	NA	NA	-	NA	-
24.	Nagaland	-	-	-	-	-
25.	Odisha	0.78(0.17)	0.66(0.17)	0.27(0.12)	NA	0.38(0.18)
26.	Puducherry	0.25(0.02)	0.44(0.03)	0.67(0.06)	0.45(0.06)	0.33(0.01)
27.	Punjab	NA	NA	NA	NA	NA
28.	Rajasthan	0.23(0.03)	0.73(0.06)	0.55(0.06)	0.4(0.06)	0.17(0.04)
29.	Sikkim	NA	NA	NA	NA	NA
30.	Tamil Nadu	0.26(0.06)	0.17(0.04)	NA	0.15(0.05)	0.1(0.05)
31.	Telangana	0.26(0.08)	0.3(0.09)	0.2(0.07)	0.24(0.06)	0.28(0.09)
32.	Tripura	0.09(0.03)	0.06(0.02)	0.01(-)	-	-
33.	Uttar Pradesh	NA	NA	NA	NA	NA
34.	Uttarakhand	0.14(0.03)	0.08(0.02)	0.16(0.04)	0.1(0.03)	0.08(0.02)
35.	West Bengal	NA	NA	NA	NA	NA
Total		0.42(0.08)	0.39(0.08)	0.36(0.09)	0.25(0.06)	0.23(0.06)

Note: (i) F.R. = Frequency Rate per lakh man-days worked

(ii) NA = Not Available

(iii) (-) = Nil or Negligible

(iv) Figures in bracket pertain to "Fatalities" and are included in the total

(v) For limitations of the data, refer note under table 7.1

(vi) Data for the year 2021 and beyond is yet to be updated by the Labour Bureau.

Source: Data received from Labour Bureau through correspondence.

Table 7.5- Industrial Injuries and their Incidence Rate (IR) per Thousand Workers Employed by Important Industries

Sl.	Industry	NIC Code 2008	2016		2017		2018		2019		2020	
			Total Injuries	IR								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	All Textiles	13,14	709 (64)	0.56 (0.05)	694 (94)	0.57 (0.08)	480 (52)	0.61 (0.07)	358 (60)	0.24 (0.04)	291 (69)	0.21 (0.05)
2.	Manufacture of Paper & paper products & printing, publishing & allied products	17,18	119 (33)	0.38 (0.11)	82 (23)	0.21 (0.06)	38 (18)	0.14 (0.07)	50 (18)	0.12 (0.04)	105 (30)	0.22 (0.06)
3.	Manufacture of Chemicals & Chemical products (Except Petroleum and coal products)	20	546 (146)	0.81 (0.22)	331 (73)	0.53 (0.12)	267 (53)	0.67 (0.13)	335 (93)	0.42 (0.12)	331 (128)	0.42 (0.16)
4.	Manufacture of Non-metallic mineral products	23	134 (56)	0.16 (0.07)	132 (48)	0.2 (0.07)	137 (59)	0.20 (0.09)	117 (46)	0.15 (0.06)	80 (34)	0.09 (0.04)
5.	Basic metal and alloys Industries	24	377 (144)	0.45 (0.17)	233 (91)	0.36 (0.14)	251 (111)	0.33 (0.15)	271 (111)	0.36 (0.15)	381 (118)	0.49 (0.15)
6.	Manufacture of metal products & Parts (except machinery & transport equipment)	25	313 (30)	0.53 (0.05)	174 (20)	0.41 (0.05)	157 (34)	0.37 (0.08)	189 (39)	0.29 (0.06)	192 (21)	0.26 (0.03)
7.	Manufacture of machinery, machine tools & parts tools (except electrical machinery)	28	139 (21)	0.35 (0.05)	137 (23)	0.39 (0.07)	73 (14)	0.24 (0.05)	66 (16)	0.16 (0.04)	75 (14)	0.18 (0.03)
8.	Manufacture of transport equipment and parts	30	134 (5)	0.75 (0.03)	164 (13)	1.42 (0.11)	74 (7)	0.85 (0.08)	49 (9)	0.33 (0.06)	56 (4)	0.37 (0.03)
9.	Electricity, Gas and Steam	35	167 (40)	0.57 (0.14)	101 (29)	0.74 (0.21)	109 (41)	0.55 (0.21)	88 (15)	0.47 (0.08)	76 (17)	0.27 (0.06)
Total of (Sl. 1 to 9 Industries)			2638 (539)	0.49 (0.1)	2048 (414)	0.45 (0.09)	1586 (389)	0.41 (0.10)	1523 (407)	0.27 (0.07)	1587 (435)	0.27 (0.07)
*Total of All Industries			3906 (777)	0.42 (0.08)	3149 (668)	0.39 (0.08)	2661 (636)	0.36 (0.09)	2540 (661)	0.25 (0.06)	2365 (652)	0.23 (0.06)

Note: (i) Figures in brackets indicate "Fatalities" and are included in the Total Injuries.

(ii)* The figures for All Industries include the figures of other industries apart from above Industries shown.

(iii) For limitations of data, refer note under table 7.1

(iv) Data for the year 2021 and beyond is yet to be updated by the Labour Bureau.

Source: Data received from Labour Bureau through correspondence.

Table 7.6- Frequency Rate of Total Injuries by Important Industries

Sl.	Industry	NIC Code 2008	2016	2017	2018	2019	2020
1.	All Textiles	13, 14	0.65	0.55	0.41	0.41	0.38
2.	Manufacture of Paper & paper products & printing, publishing & allied products	17, 18	0.39	0.34	0.13	0.27	0.5
3.	Manufacture of Chemicals & Chemical products (Except products of Petroleum and coal)	20	1.04	0.49	0.38	0.02	0.63
4.	Manufacture of Non-metallic mineral products	23	0.3	0.17	0.32	0.26	0.21
5.	Basic metal and alloys Industries	24	0.49	0.16	0.26	0.33	0.52
6.	Manufacture of metal products & Parts(except machinery & transport equipment)	25	1.06	0.88	0.54	0.77	0.55
7.	Manufacture of machinery, machine tools & parts (except electrical machinery)	28	0.48	0.44	0.25	0.23	0.32
8.	Manufacture of transport equipment and parts	30	0.99	1.00	0.6	0.39	0.44
9.	Electricity, Gas and Steam	35	0.61	0.42	0.36	0.44	0.28
Total of (Sl. 1 to 9 Industries)			0.64	0.38	0.35	0.09	0.44
* Total of All Industries			0.51	0.33	0.35	0.12	0.37

Note:(i) *: The figures for All Industries include the figures of other industries apart from above industries shown.

(ii) For limitations of the data, refer note under table 7.1

(iii) Data for the year 2021 and beyond is yet to be updated by the Labour Bureau.

Source: Data received from Labour Bureau through correspondence.

Table 7.7- Industrial injuries in Factories by causes

Sl.	Causation	2016		2017		2018		2019		2020	
		Total	Fatal								
1.	Prime movers	67	17	48	14	45	17	49	16	46	15
2.	Machinery moved by Mechanical Power	583	95	800	101	786	110	687	110	467	93
3.	Machinery not moved by Mechanical Power	170	24	135	19	206	20	93	14	101	15
4.	Transport whether moved by Power or not	112	29	43	21	74	44	54	20	40	10
5.	Electricity	185	91	106	51	77	51	113	60	79	49
6.	Explosions	118	44	81	40	56	28	130	68	86	45
7.	Fires	179	39	154	37	143	41	166	42	158	56
8.	Gassing	68	19	30	13	34	11	39	14	43	16
9.	Molten Metals & other Hot or Corrosive Substances	127	37	58	15	68	34	58	29	69	25
10.	Hand Tools	131	5	54	4	95	20	62	6	92	2
11.	Falling Bodies	229	52	129	29	64	12	93	31	121	41
12.	Persons Falling	324	89	413	116	274	104	242	95	254	110
13.	Stepping on or Striking against Objects	158	18	121	21	147	17	114	20	89	20
14.	Handling Goods or Articles	289	22	189	9	106	6	69	8	95	18
15.	Others	934	115	656	116	407	84	502	102	569	107
Total		3674	696	3017	606	2582	599	2471	635	2309	622

Note: (i) For limitations of the data, refer note under table 7.1

(ii) The Total in table 7.7 may not tally with the corresponding tables 7.1, 7.2 and 7.4 due to non-availability of cause-wise data of industrial injuries.

(iii) Data for the year 2021 and beyond is yet to be updated by the Labour Bureau.

Source: Data received from Labour Bureau through correspondence.

8

Statistics on Status of compliance with statutory provisions of the Factories Act, 1948

DGFASLI receives information relating to factories covered under the provisions of the Factories Act, 1948 from States and Union Territories from time to time. This information is mainly collected through Factory Advice Service (FAS) Forms as well as through correspondence as and when required from the CIFs of the States/UTs. This information can be used to know the state-wise status of safety and health as well as compliance level with statutory standards in factories. The information can be used for estimation of various trends. It is emphasized here that for ascertaining the correctness or the updated information given in the following pages/tables, the State Governments/Union Territory Administration concerned may be contacted.

Statistics of Factories at a Glance: 2022

1. No. of registered factories		329317
2. No. of working factories		268747
3. Employment	Total	17767088
	Women	2682470
4. No. of Safety Officers		6244
5. No. of Welfare Officers		5657
6. No. of Medical Officers		4238
7. No. of factories having Safety Policy		35222
8. No. of factories having Safety Committees		25340
9. No. of Hazardous Process factories		71583
10. No. of factories having On-site Emergency Plan		2033
11. No. of factories having Canteens Facility		11542
12. No. of factories having Crèche Facility		9335
13. Total Injuries		4036
14. Fatal Injuries		1053

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

N.B.: The above numbers does not include data pertaining to the State/UT of Daman and Diu & Dadra and Nagar Haveli, Himachal Pradesh, Mizoram, Punjab, Uttar Pradesh and West Bengal as it's not provided to DGFASLI.

Table 8(a): Fatal Injuries and Non-Fatal Injuries in registered factories (2013-2017)

Sl.	State/UT	2013	2014	2015	2016	2017
		FI/N-FI	FI/N-FI	FI/N-FI	FI/N-FI	FI/N-FI
1	Andaman & Nicobar	#/46	#/48	#/46	#/70	#/69
2	Andhra Pradesh	97/472	82/147	68/78	68/247	68/103
3	Arunachal Pradesh	*/*	*/*	*/*	*/*	*/*
4	Assam	8/57	13/58	8/40	12/41	10/54
5	Bihar	4/156	2/7	10/188	11/184	17/80
6	Chandigarh	#/2	#/#	#/#	1/#	1/4
7	Chhattisgarh	97/43	113/75	74/50	81/56	72/84
8	DD & DNH	12/57	21/47	12/58	15/39	16/30
9	Delhi	13/14	1/9	6/20	10/26	37/37
10	Goa	10/44	5/81	8/71	3/56	5/52
11	Gujarat	250/1611	209/1334	206/1516	272/1169	229/1189
12	Haryana	51/46	35/58	41/39	67/40	49/38
13	Himachal Pradesh	11/23	13/23	4/23	9/31	14/27
14	Jammu & Kashmir	Data not provided	3/18	#/14	1/2	#/1
15	Jharkhand	37/92	32/96	29/115	21/69	17/59
16	Karnataka	82/588	84/665	72/612	54/464	49/358
17	Kerala	27/386	24/234	20/326	18/158	16/236
18	Lakshadweep	*/*	*/*	*/*	*/*	*/*
19	Madhya Pradesh	48/465	41/383	44/348	30/358	30/268
20	Maharashtra	199/2013	187/1687	145/1471	150/1352	137/1167
21	Manipur	#/#	#/#	#/#	#/#	#/#
22	Meghalaya	3/3	1/1	#/1	2/1	3/3
23	Mizoram	#/#	#/#	#/#	#/#	#/#
24	Nagaland	#/#	#/#	#/#	#/#	#/#
25	Odisha	58/196	46/165	55/167	46/169	52/136
26	Puducherry	3/25	6/12	5/16	2/20	3/35
27	Punjab	29/103	16/98	21/100	23/115	20/117
28	Rajasthan	55/706	39/624	33/571	15/133	31/343
29	Sikkim	*/*	*/*	*/*	*/*	*/*
30	Tamil Nadu	109/415	105/293	87/327	104/344	71/192
31	Telangana	*/*	71/60	57/39	63/56	70/117
32	Tripura	2/4	2/8	4/3	1/3	#/#
33	Uttar Pradesh	Data not provided	45/47	39/57	46/63	58/52
34	Uttarakhand	11/35	7/42	21/21	10/44	9/15
35	West Bengal	96/19250	63/19180	38/13940	54/57	Data not provided
Total		1312/26852	1266/25500	1107/20257	1189/5367	1084/4866

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/ UTs.

N.B.: (i) FI – Fatal injuries and N-FI – Non-Fatal Injuries
(ii) *: There are no registered factories in this State/UT
(iii) #: NIL Data

Table 8(b): Fatal Injuries and Non-Fatal Injuries in registered factories (2018-2022)

Sl.	State/UT	2018	2019	2020	2021	2022
		FI/N-FI	FI/N-FI	FI/N-FI	FI/N-FI	FI/N-FI
1	Andaman & Nicobar	#/39	#/43	#/57	#/41	#/39
2	Andhra Pradesh	61/182	72/154	66/62	65/60	76/95
3	Arunachal Pradesh	#/#	#/#	#/#	#/#	#/#
4	Assam	12/35	4/21	10/19	4/40	8/38
5	Bihar	21/67	8/52	12/22	17/14	4/14
6	Chandigarh	#/2	#/1	#/#	#/#	#/#
7	Chhattisgarh	91/67	86/65	84/117	82/117	78/77
8	DD & DNH	25/50	9/49	5/29	Data not provided	Data not provided
9	Delhi	5/26	6/23	9/4	6/19	36/47
10	Goa	3/36	3/26	6/32	2/29	5/33
11	Gujarat	263/1036	216/718	212/560	235/621	240/653
12	Haryana	45/27	26/47	35/33	14/24	22/48
13	Himachal Pradesh	9/13	9/23	8/18	2/15	Data not provided
14	Jammu & Kashmir	#/1	2/5	2/1	2/3	3/20
15	Jharkhand	18/52	21/42	16/38	26/35	23/41
16	Karnataka	85/363	69/414	45/215	46/27	43/254
17	Kerala	22/145	29/122	14/79	12/117	9/67
18	Lakshadweep	*/*	*/*	*/*	*/*	*/*
19	Madhya Pradesh	22/265	44/299	26/242	30/258	36/269
20	Maharashtra	142/1292	145/1089	154/778	180/793	178/819
21	Manipur	#/#	#/#	#/#	#/#	#/#
22	Meghalaya	4/5	1/2	1/3	1/#	3/3
23	Mizoram	#/#	#/#	#/#	#/#	Data not provided
24	Nagaland	#/#	#/#	#/#	#/#	#/#
25	Odisha	42/46	32/40	47/48	36/35	54/47
26	Puducherry	5/53	5/32	1/26	4/30	5/22
27	Punjab	16/85	64/83	28/40	Data not provided	Data not provided
28	Rajasthan	32/259	32/188	23/81	19/141	32/91
29	Sikkim	*/*	*/*	*/*	*/*	*/*
30	Tamil Nadu	84/205	122/206	114/120	147/288	117/205
31	Telangana	43/45	56/57	51/98	50/65	60/51
32	Tripura	2/6	#/#	#/#	2/#	2/1
33	Uttar Pradesh	48/62	46/79	66/69	Data not provided	Data not provided
34	Uttarakhand	15/41	20/47	15/41	6/31	19/49
35	West Bengal	39/23	Data not provided	Data not provided	Data not provided	Data not provided
Total		1154/4528	1127/3927	1050/2832	988/2803	1053/2983

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/ UTs.

N.B.: (i) FI – Fatal injuries and N-FI – Non-Fatal Injuries
(ii) *: There are no registered factories in this State/UT
(iii) #: NIL Data

Table 8(c): OSH Data of registered factories (2013-2022)

Year	No. of Registered Factories	Total Employment	Dangerous Occurrences	Fatal Injuries	Non-fatal injuries	Total Injuries	Fatal injuries per lakh workers	Non-fatal injuries per lakh workers	Total injuries per lakh workers	Fatal injuries per thousand registered factories	Non-fatal injuries per thousand registered factories	Total injuries per thousand registered factories
2013	340226 (-3.81%)	14042410 (-5.82%)	1343 (2.52%)	1312 (-0.38%)	26852 (-6.44%)	28164 (-6.17%)	9.34 (5.78%)	191.22 (-0.65%)	200.56 (-0.37%)	3.86 (3.56%)	78.92 (-2.74%)	82.78 (-2.46%)
2014	361994 (6.4%)	20034859 (42.67%)	1534 (14.22%)	1266 (-3.51%)	25500 (-5.04%)	26766 (-4.96%)	6.32 (-32.33%)	127.28 (-33.44%)	133.60 (-33.39%)	3.50 (-9.33%)	70.44 (-10.75%)	73.94 (-10.68%)
2015	348429 (-3.75%)	16374546 (-18.27%)	1091 (-28.88%)	1107 (-12.56%)	20257 (-20.56%)	21364 (-20.18%)	6.76 (6.96%)	123.71 (-2.8%)	130.47 (-2.34%)	3.18 (-9.14%)	58.14 (-17.47%)	61.32 (-17.07%)
2016	360949 (3.59%)	17376854 (6.12%)	700 (-35.84%)	1189 (7.41%)	5367 (-73.51%)	6556 (-69.31%)	6.84 (1.18%)	30.89 (-75.03%)	37.73 (-71.08%)	3.29 (3.46%)	14.87 (-74.42%)	18.16 (-70.38%)
2017	339931 (-5.82%)	16409493 (-5.57%)	1382 (97.43%)	1084 (-8.83%)	4866 (-9.33%)	5950 (-9.24%)	6.61 (-3.36%)	29.65 (-4.01%)	36.26 (-3.90%)	3.19 (-3.04%)	14.31 (-3.76%)	17.50 (-3.63%)
2018	364268 (7.16%)	18724733 (14.11%)	1124 (-18.67%)	1154 (6.46%)	4528 (-6.95%)	5682 (-4.50%)	6.16 (-6.81%)	24.18 (-18.45%)	30.34 (-16.33%)	3.17 (-0.63%)	12.43 (-13.13%)	15.60 (-10.86%)
2019	355478 (-2.41%)	18552909 (-0.92%)	1371 (21.98%)	1127 (-2.34%)	3927 (-13.27%)	5054 (-11.05%)	6.07 (-1.46%)	21.17 (-12.44%)	27.24 (-10.22%)	3.17 (0.00%)	11.05 (-11.10%)	14.22 (-8.85%)
2020	363442 (2.24%)	20298387 (9.41%)	634 (-53.76%)	1050 (-6.83)	2832 (-27.88%)	3882 (-23.19%)	5.17 (-14.83%)	13.95 (-34.10%)	19.12 (-29.81%)	2.89 (-8.83%)	7.79 (-29.50)	10.68 (-24.89%)
2021	321578 (-11.52%)	17414912 (-14.21%)	1058 (66.88%)	988 (-5.90%)	2803 (-1.02%)	3791 (-2.34%)	5.67 (9.73%)	16.09 (15.38%)	21.76 (13.85%)	3.07 (6.31%)	8.71 (11.89%)	11.78 (10.38%)
2022	329317 (2.41%)	17767088 (2.02%)	1014 (-4.16%)	1053 (6.58%)	2983 (6.42%)	4036 (6.46%)	5.93 (4.59%)	16.79 (4.35%)	22.72 (4.41%)	3.20 (4.23%)	9.06 (4.02%)	12.26 (4.07%)

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

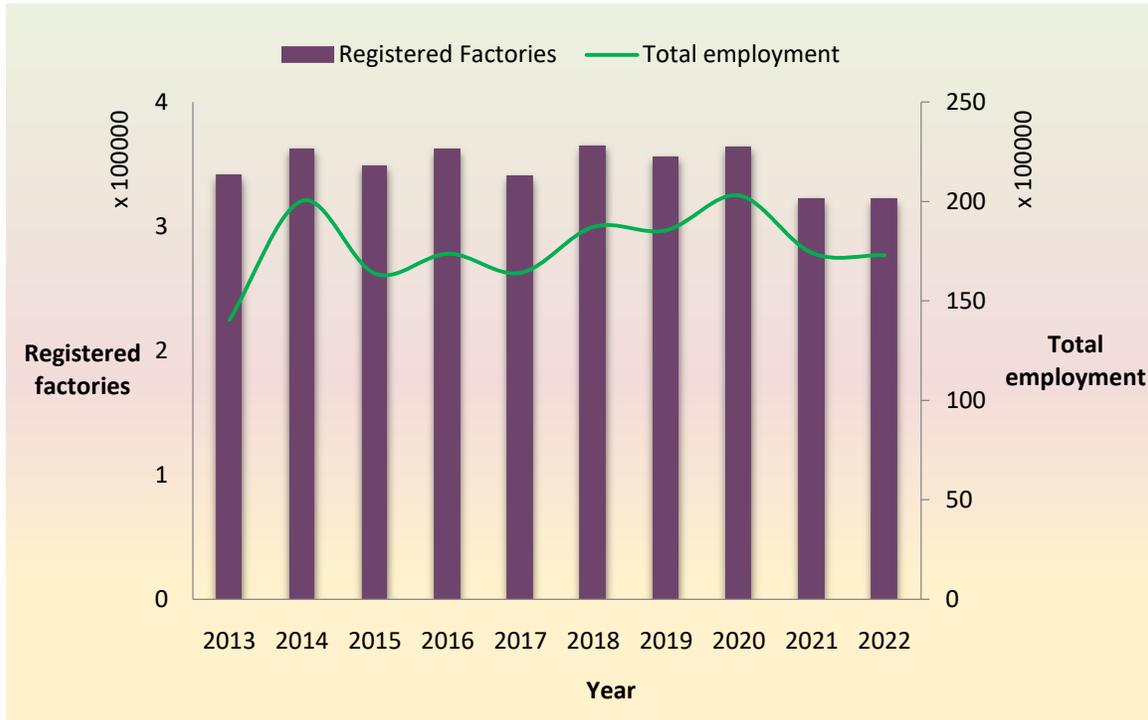
N.B.: (i) Figures in the bracket represent yearly percentage change. (ii) The data in the table for the following years does not include data from the States/UTs mentioned against them, as they did not provide data to DGFASLI during that year: 2022- Daman and Diu & Dadra and Nagar Haveli, Himachal Pradesh, Mizoram, Punjab, Uttar Pradesh and West Bengal, 2021 - Daman and Diu & Dadra and Nagar Haveli, Punjab, Uttar Pradesh and West Bengal, 2020 West Bengal, 2019 - West Bengal, 2017 - West Bengal, 2013 - Jammu & Kashmir and Uttar Pradesh.

The above table shows Occupational Safety and Health data of last 10 years (2013-2022) of factories registered under Factories Act, 1948. The following observations can be made from the data:

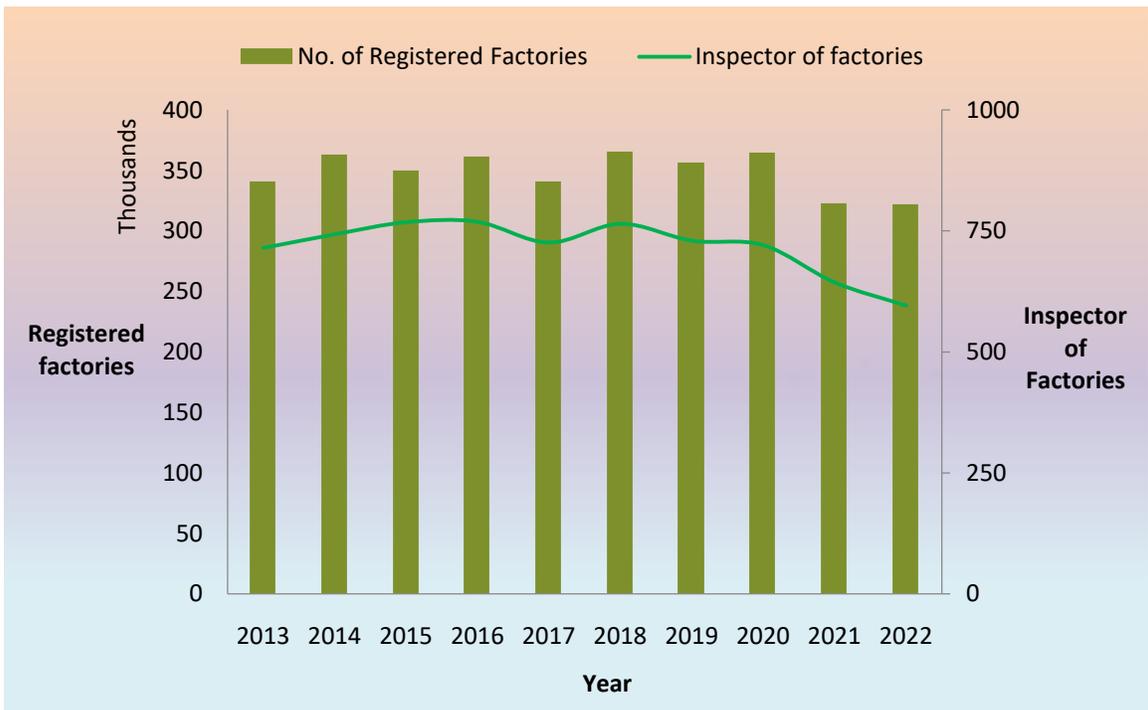
- The number of registered factories saw fluctuations over the years, with a peak in 2018 (3,64,268) and a noticeable decline in 2021 (3,21,578). There is an overall decline of 3.21% between 2013 and 2022. The percentage changes show notable increases in 2014 (6.40%) and 2018 (7.16%), while 2021 saw a significant decline (-11.52%).
- Total employment witnessed significant growth (44%) from 2013 to 2020. It peaked in 2020 (2,02,98,387) and generally increased from 2013 to 2022 with a few fluctuations. The largest increase was in year 2014 (42.67%) and significant drop in year 2015 and 2021 i.e.18% and 14% respectively.
- Dangerous occurrences varied significantly, with a sharp decline in 2016 (700) i.e. about 36% and in 2020 (634) i.e. about 54%, and a steep rise in 2017 (1,382) i.e. about 97%.The percentage changes indicate large fluctuations, especially a significant decrease in 2016 (35.84%) and 2020 (53.76%) while increase in year 2021 (1058) about 66.88%.
- Though the fatal injuries show a general downward trend, there are fluctuations. The most significant increase occurred in 2016 (7.41%) and decrease in 2015 (12.56%). Fatal injuries show a declining trend from 2018 (1154) to 2021 (988), with a slight increase in 2022 (1,053).
- Non-fatal injuries show consistent decline every year till 2022. There is a sharp decline from 2013 (26,852) to 2021 (2,803), with the most significant decline in 2016 i.e. about 73.51%. The percentage changes indicate substantial improvements, particularly the sharp decline in 2016 (73.51%). It is worth noting here that the state of West Bengal reported a large decline in the no. of non-fatal injuries in the year 2016 as compared to the previous years.
- Total injuries followed the trend of non-fatal injuries i.e. declining each year till the year 2022. Total injuries decreased from 28,164 in 2013 to 4,036 in 2022. This is a significant decrease (85%) between 2013 and 2022.
- The rate of fatal injuries per lakh workers was notably high at 9.34 in 2013, which then decreased significantly by 32.33% to 6.32 in 2014. This decline continued with some fluctuations, reaching its lowest in 2020 at 5.17, a decrease of 14.83% from the previous year. However, the rate rose again in subsequent years, peaking at 5.93 in 2022, marking a 4.59% increase from 2021.
- Non-fatal injuries per lakh workers displayed a marked decrease over the years. Starting at 191.22 in 2013, it plummeted by 33.44% to 127.28 in 2014. The figure for the year is 16.79 seeing an increase

of 4.35% over the last year. The total injuries per lakh workers followed a similar pattern, decreasing from 200.56 in 2013 to 22.72 in 2022, illustrating a steady reduction in workplace injuries.

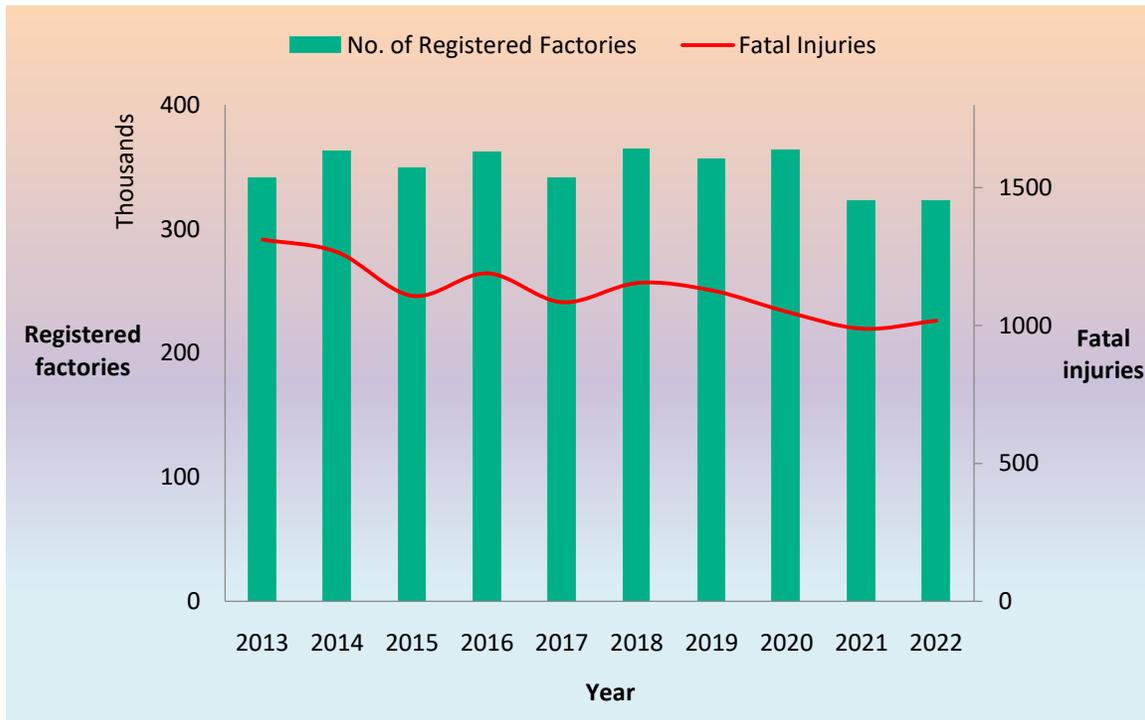
- Examining the fatal injuries data per thousand registered factories reveals a similar trajectory. Fatal injuries per thousand registered factories dropped from 3.86 in 2013 to 3.20 in 2022, despite some fluctuations. Non-fatal injuries per thousand registered factories significantly decreased from 78.92 in 2013 to 9.06 in 2022. This consistent decline highlights improvements in workplace safety and regulations. Consequently, total injuries per thousand registered factories also saw a substantial reduction from 82.78 in 2013 to 12.2 in 2022.
- The year 2021 represents a special case. Despite a consistent decline in the rate of fatal and non-fatal injuries from 2013, an increasing trend is observed starting from 2021.
- In summary, the data indicates a general downward trend in both fatal and non-fatal injuries across various metrics, reflecting enhanced safety measures and possibly more stringent regulations in workplaces. While there are occasional increases in certain years, the overall trend suggests a positive movement towards reducing occupational injuries.



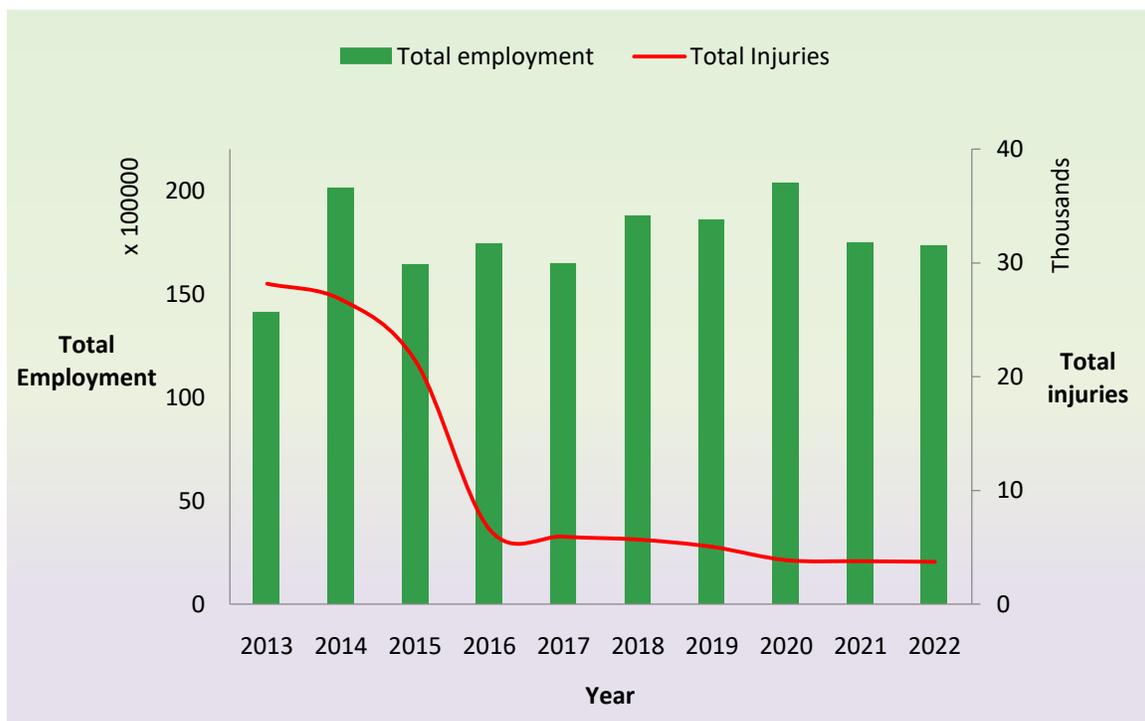
Graph 1: Registered factories and total employment in registered factories (2013-2022)



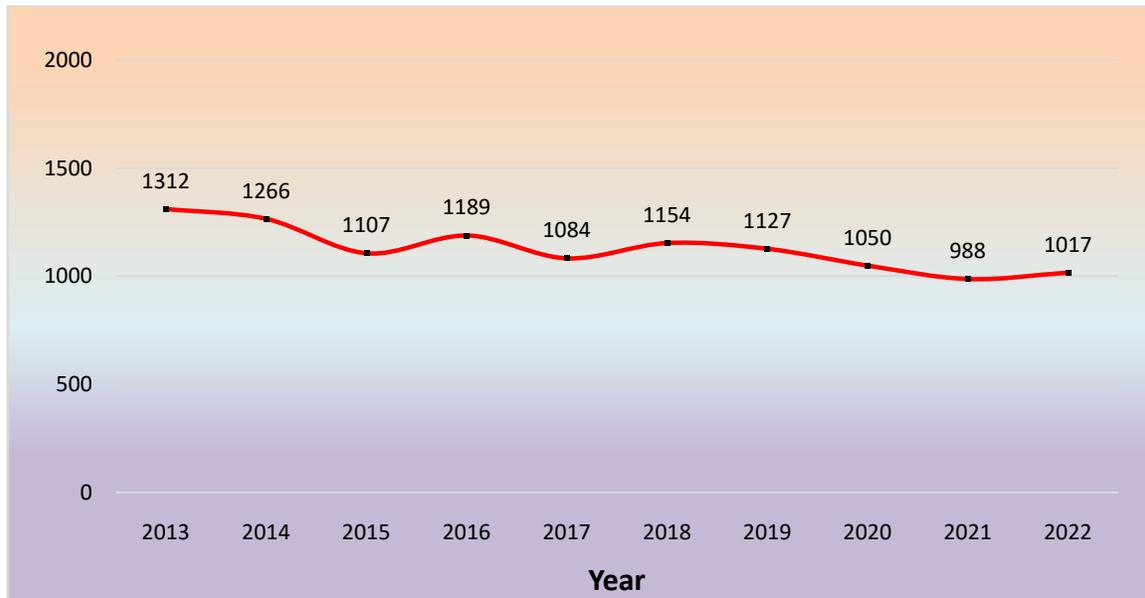
Graph 2: Registered factories and Inspector of factories (2013-2022)



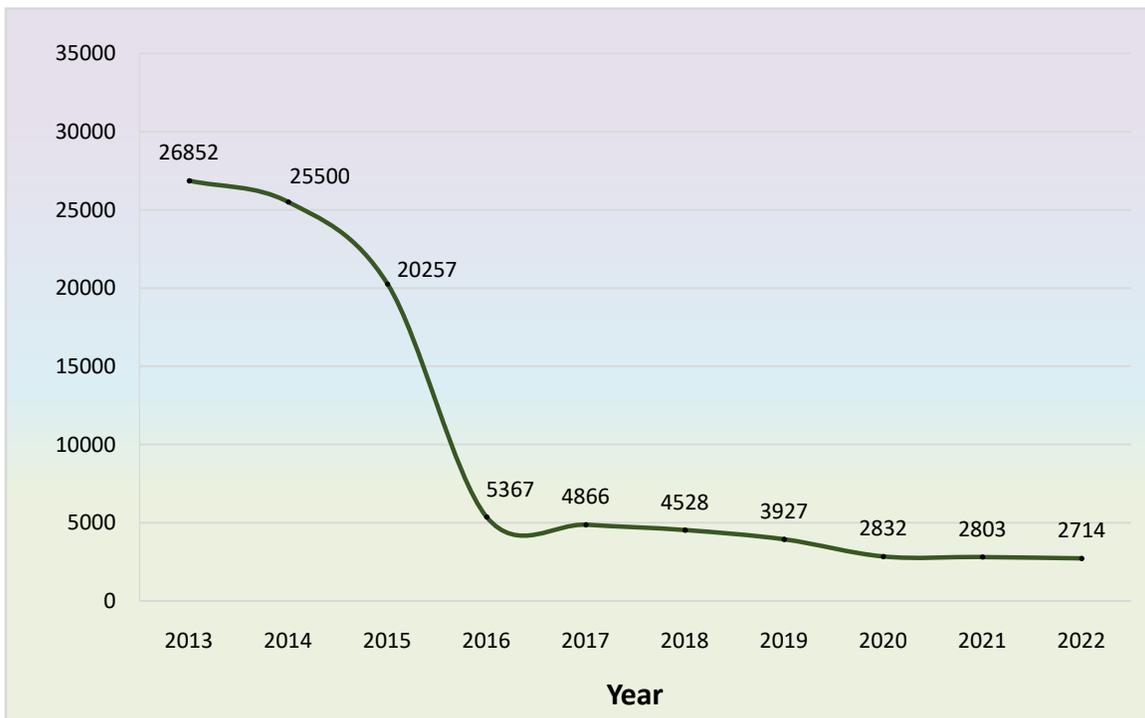
Graph 3: Registered factories and Fatal injuries in registered factories (2013-2022)



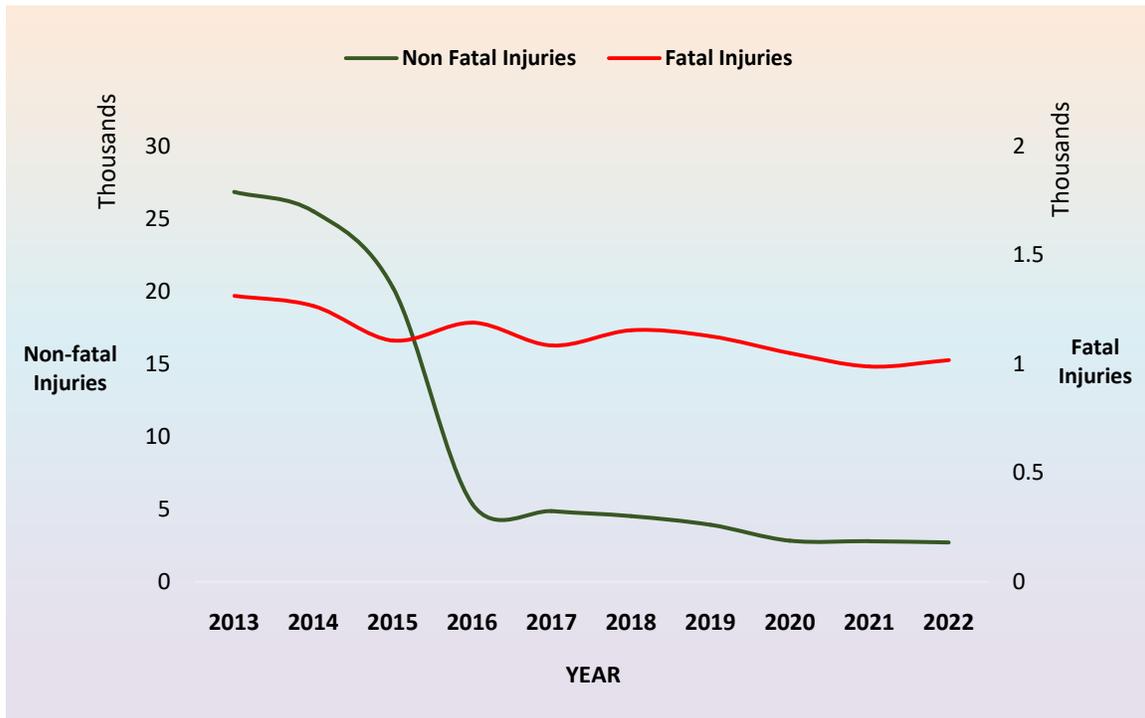
Graph 4: Total employment and Total injuries in registered factories (2013-2022)



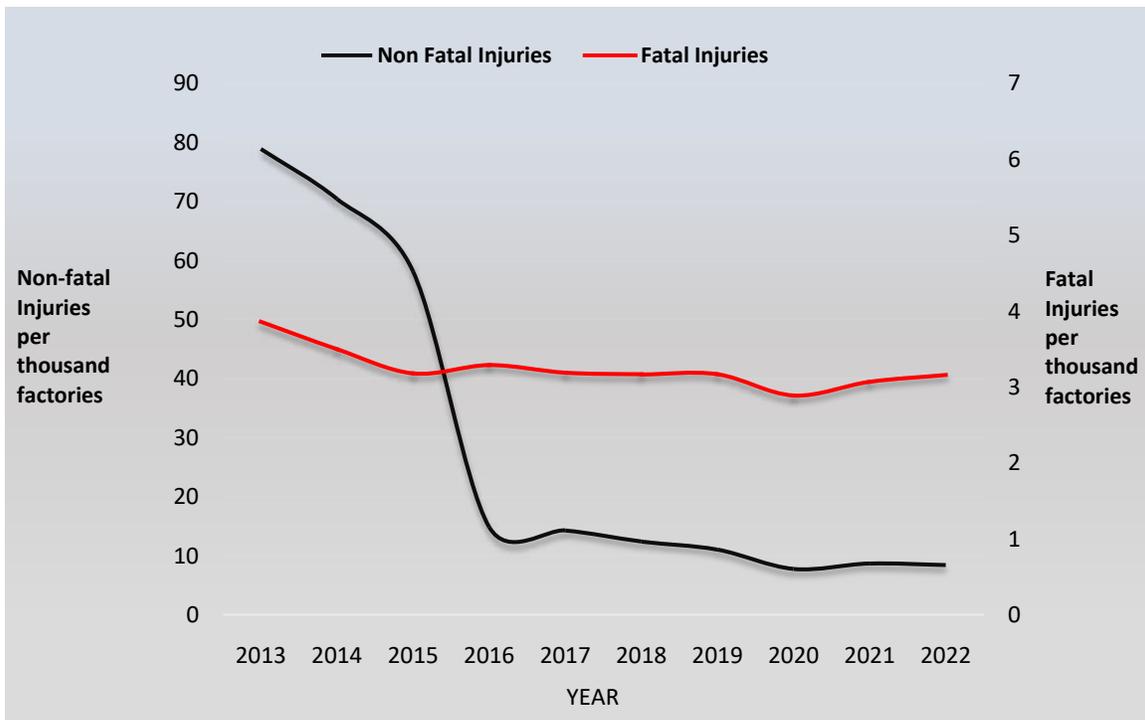
Graph 5: Fatal injuries in registered factories (2013-2022)



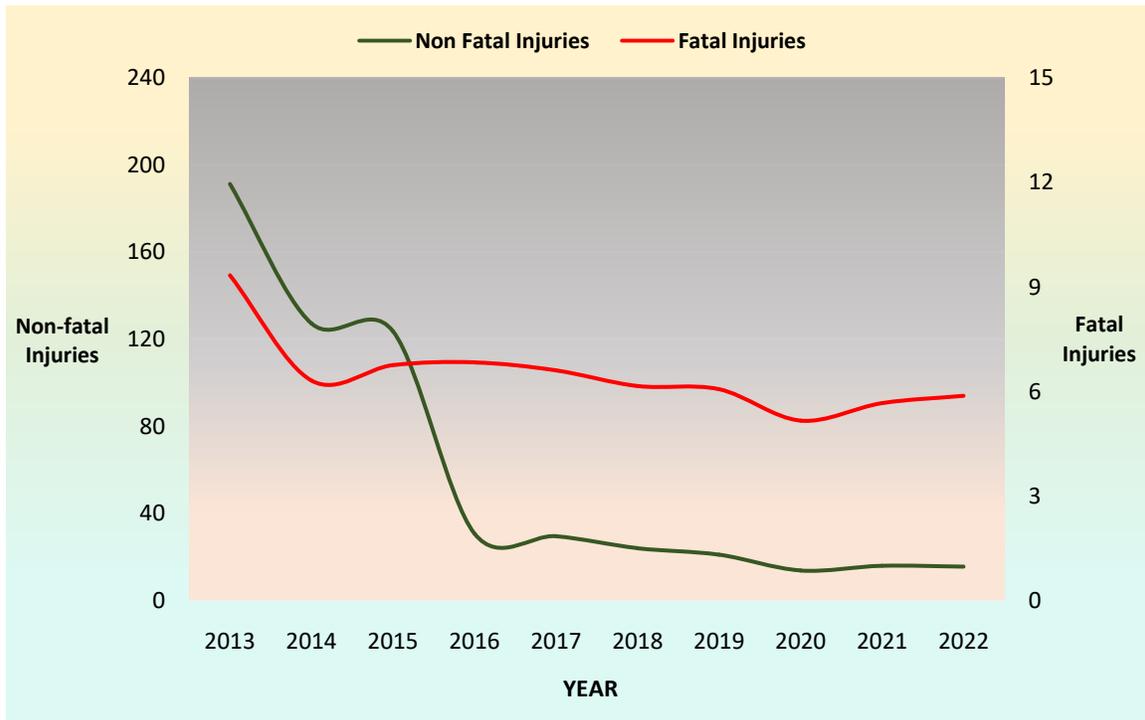
Graph 6: Non-fatal injuries in registered factories (2013-2022)



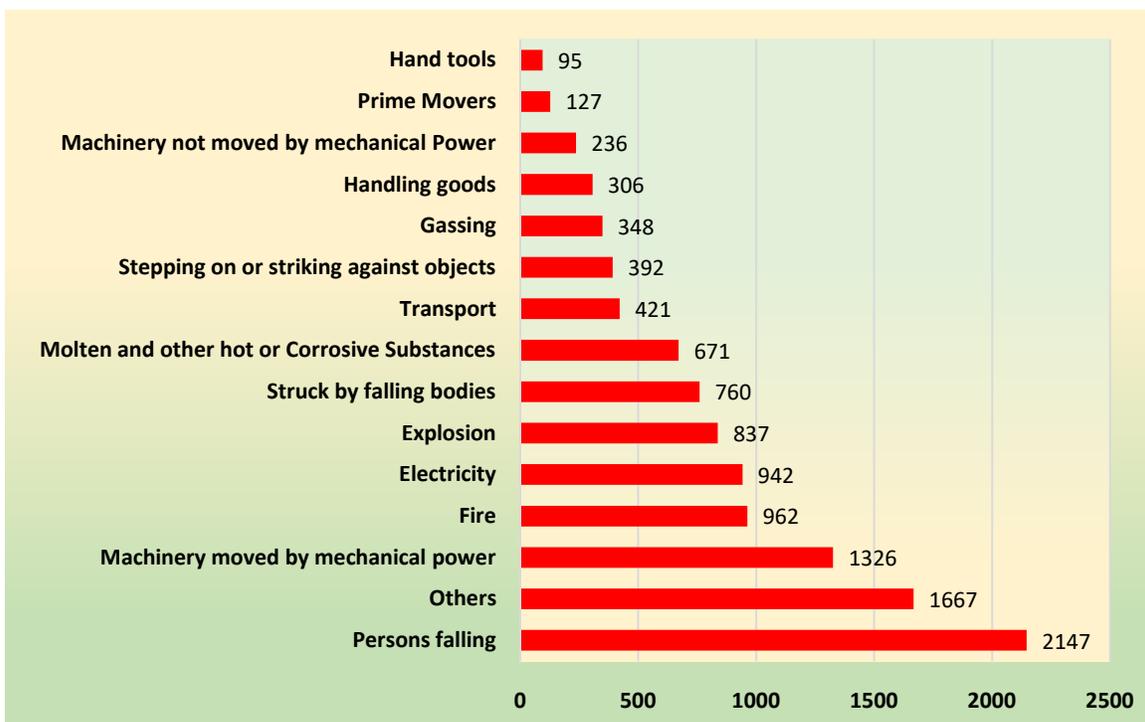
Graph 7: Fatal and Non-fatal injuries in registered factories (2013-2022)



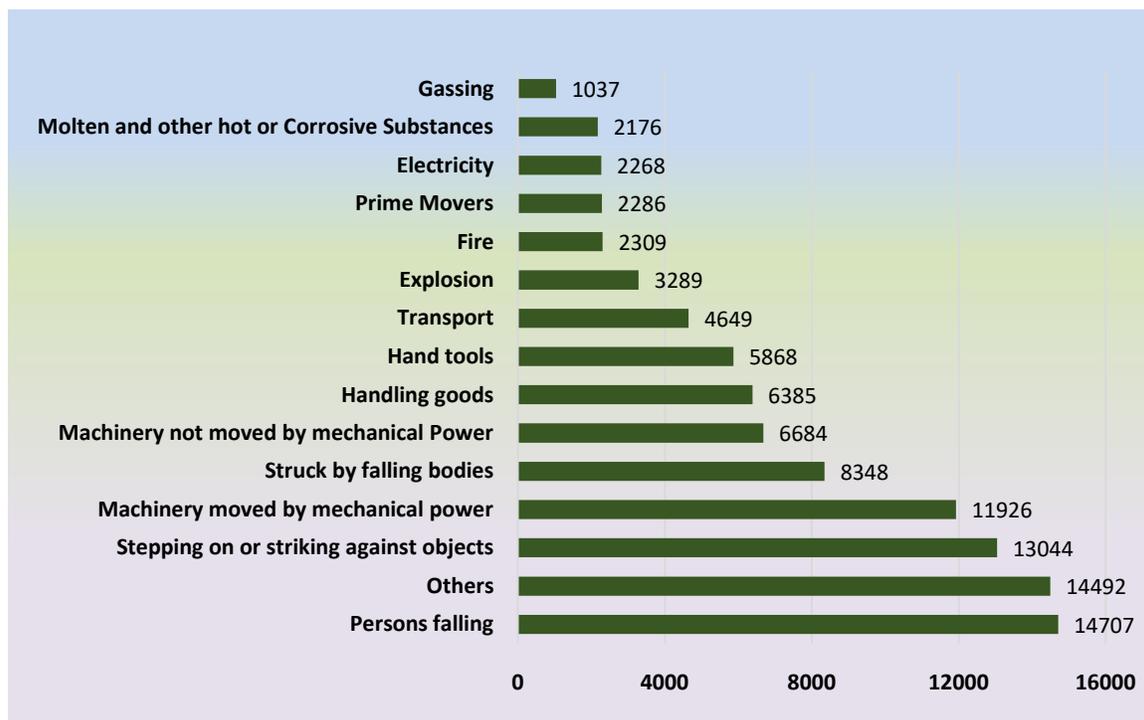
Graph 8: Fatal and Non-fatal injuries per thousand registered factories (2013-2022)



Graph 9: Fatal and Non-fatal injuries per lakh workers in registered factories (2013-2022)



Graph 10: Fatal injuries in registered factories: cause-wise (2013-2022)



Graph 11: Non-fatal injuries in registered factories: cause-wise (2013-2022)

Table 8.1- Inspectors of Factories (2022)

Sl.	State/UT	2022	
		Sanctioned	Working
1	Andaman and Nicobar Islands	2	2
2	Andhra Pradesh	53	41
3	Arunachal Pradesh	1	3
4	Assam	29	24
5	Bihar	21	11
6	Chandigarh	#	6
7	Chhattisgarh	29	23
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	16	9
10	Goa	7	7
11	Gujarat	153	79
12	Haryana	36	31
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	5	5
15	Jharkhand	25	25
16	Karnataka	43	30
17	Kerala	58	54
18	Lakshadweep	*	*
19	Madhya Pradesh	42	15
20	Maharashtra	122	46
21	Manipur	4	2
22	Meghalaya	4	4
23	Mizoram	Data not provided	Data not provided
24	Nagaland	2	2
25	Odisha	35	23
26	Puducherry	9	3
27	Punjab	Data not provided	Data not provided
28	Rajasthan	39	27
29	Sikkim	*	*
30	Tamil Nadu	168	108
31	Telangana	35	27
32	Tripura	5	3
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	7	1
35	West Bengal	Data not provided	Data not provided
Total		950	611

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.

Table 8.2- Medical Inspectors of Factories (2022)

Sl.	State/UT	2022	
		Sanctioned	Working
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	2	#
3	Arunachal Pradesh	#	#
4	Assam	1	1
5	Bihar	2	#
6	Chandigarh	#	#
7	Chhattisgarh	2	#
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	1	1
10	Goa	1	1
11	Gujarat	5	#
12	Haryana	5	3
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	#	#
15	Jharkhand	#	#
16	Karnataka	1	1
17	Kerala	5	1
18	Lakshadweep	*	*
19	Madhya Pradesh	1	1
20	Maharashtra	2	#
21	Manipur	#	#
22	Meghalaya	#	#
23	Mizoram	Data not provided	Data not provided
24	Nagaland	1	1
25	Odisha	1	#
26	Puducherry	1	1
27	Punjab	Data not provided	Data not provided
28	Rajasthan	1	1
29	Sikkim	*	*
30	Tamil Nadu	#	#
31	Telangana	#	#
32	Tripura	#	#
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	#	#
35	West Bengal	Data not provided	Data not provided
Total		32	12

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.3- Chemical Inspectors of Factories (2022)

Sl.	State/UT	2022	
		Sanctioned	Working
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	1	1
3	Arunachal Pradesh	#	#
4	Assam	#	#
5	Bihar	2	1
6	Chandigarh	#	#
7	Chhattisgarh	#	#
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	1	#
10	Goa	#	#
11	Gujarat	4	1
12	Haryana	5	5
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	#	#
15	Jharkhand	#	#
16	Karnataka	#	#
17	Kerala	4	2
18	Lakshadweep	*	*
19	Madhya Pradesh	#	#
20	Maharashtra	#	#
21	Manipur	#	#
22	Meghalaya	#	#
23	Mizoram	Data not provided	Data not provided
24	Nagaland	#	#
25	Odisha	#	#
26	Puducherry	1	#
27	Punjab	Data not provided	Data not provided
28	Rajasthan	3	2
29	Sikkim	*	*
30	Tamil Nadu	#	#
31	Telangana	#	#
32	Tripura	#	#
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	#	#
35	West Bengal	Data not provided	Data not provided
Total		21	12

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.4- Hygiene Inspectors of Factories (2022)

Sl.	State/UT	2022	
		Sanctioned	Working
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	#	#
3	Arunachal Pradesh	#	#
4	Assam	#	#
5	Bihar	#	#
6	Chandigarh	#	#
7	Chhattisgarh	1	1
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	#	#
10	Goa	#	#
11	Gujarat	4	#
12	Haryana	#	#
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	#	#
15	Jharkhand	#	#
16	Karnataka	#	#
17	Kerala	#	#
18	Lakshadweep	*	*
19	Madhya Pradesh	#	#
20	Maharashtra	#	#
21	Manipur	#	#
22	Meghalaya	#	#
23	Mizoram	Data not provided	Data not provided
24	Nagaland	#	#
25	Odisha	#	#
26	Puducherry	#	#
27	Punjab	Data not provided	Data not provided
28	Rajasthan	1	1
29	Sikkim	#	#
30	Tamil Nadu	#	#
31	Telangana	#	#
32	Tripura	#	#
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	#	#
35	West Bengal	Data not provided	Data not provided
Total		6	2

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.
(ii) #: NIL Data.

Table 8.5- Other Inspectors of Factories (2022)

Sl.	State/UT	2022	
		Sanctioned	Working
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	#	#
3	Arunachal Pradesh	#	#
4	Assam	#	#
5	Bihar	#	#
6	Chandigarh	#	#
7	Chhattisgarh	#	#
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	#	#
10	Goa	#	#
11	Gujarat	21	14
12	Haryana	3	3
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	#	#
15	Jharkhand	#	#
16	Karnataka	1	1
17	Kerala	2	1
18	Lakshadweep	*	*
19	Madhya Pradesh	#	#
20	Maharashtra	#	#
21	Manipur	#	#
22	Meghalaya	#	#
23	Mizoram	Data not provided	Data not provided
24	Nagaland	#	#
25	Odisha	#	#
26	Puducherry	1	1
27	Punjab	Data not provided	Data not provided
28	Rajasthan	#	#
29	Sikkim	#	#
30	Tamil Nadu	#	#
31	Telangana	#	#
32	Tripura	#	#
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	#	#
35	West Bengal	Data not provided	Data not provided
Total		28	20

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.
(ii) #: NIL Data.

Table 8.6- Certifying Surgeons (employed) in Factories (2022)

Sl.	State/UT	2022	
		Sanctioned	Working
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	#	#
3	Arunachal Pradesh	#	#
4	Assam	3	2
5	Bihar	#	#
6	Chandigarh	#	#
7	Chhattisgarh	#	#
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	1	1
10	Goa	#	#
11	Gujarat	4	4
12	Haryana	3	3
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	#	#
15	Jharkhand	#	#
16	Karnataka	#	#
17	Kerala	#	#
18	Lakshadweep	*	*
19	Madhya Pradesh	#	#
20	Maharashtra	1	1
21	Manipur	#	#
22	Meghalaya	#	#
23	Mizoram	Data not provided	Data not provided
24	Nagaland	#	#
25	Odisha	#	#
26	Puducherry	1	1
27	Punjab	Data not provided	Data not provided
28	Rajasthan	#	#
29	Sikkim	#	#
30	Tamil Nadu	9	9
31	Telangana	#	#
32	Tripura	#	#
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	#	#
35	West Bengal	Data not provided	Data not provided
Total		23	21

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.
(ii) #: NIL Data.

Table 8.7- Certifying Surgeons (notified) in Factories (2022)

Sl.	State/UT	2022	
		Sanctioned	Working
1	Andaman and Nicobar Islands	2	2
2	Andhra Pradesh	#	#
3	Arunachal Pradesh	#	#
4	Assam	#	#
5	Bihar	#	#
6	Chandigarh	#	#
7	Chhattisgarh	#	#
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	1	1
10	Goa	1	1
11	Gujarat	#	#
12	Haryana	#	#
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	#	#
15	Jharkhand	#	#
16	Karnataka	#	#
17	Kerala	#	#
18	Lakshadweep	*	*
19	Madhya Pradesh	#	#
20	Maharashtra	#	#
21	Manipur	#	#
22	Meghalaya	#	#
23	Mizoram	Data not provided	Data not provided
24	Nagaland	#	#
25	Odisha	#	#
26	Puducherry	#	#
27	Punjab	Data not provided	Data not provided
28	Rajasthan	1	#
29	Sikkim	#	#
30	Tamil Nadu	#	#
31	Telangana	#	#
32	Tripura	20	20
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	#	#
35	West Bengal	Data not provided	Data not provided
Total		25	24

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.
(ii) #: NIL Data.

Table 8.8- State-wise Status of Registered Factories (2022)

Sl.	State/UT	2022
1	Andaman and Nicobar Islands	40
2	Andhra Pradesh	26080
3	Arunachal Pradesh	268
4	Assam	8138
5	Bihar	8886
6	Chandigarh	862
7	Chhattisgarh	5999
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided
9	Delhi	13487
10	Goa	803
11	Gujarat	47762
12	Haryana	20876
13	Himachal Pradesh	Data not provided
14	Jammu and Kashmir	1885
15	Jharkhand	6197
16	Karnataka	18149
17	Kerala	23609
18	Lakshadweep	*
19	Madhya Pradesh	7846
20	Maharashtra	39825
21	Manipur	389
22	Meghalaya	326
23	Mizoram	Data not provided
24	Nagaland	1046
25	Odisha	4853
26	Puducherry	3117
27	Punjab	Data not provided
28	Rajasthan	12551
29	Sikkim	*
30	Tamil Nadu	49174
31	Telangana	22811
32	Tripura	717
33	Uttar Pradesh	Data not provided
34	Uttarakhand	3621
35	West Bengal	Data not provided
Total		329317

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.

Table 8.9-State-wise Status of Working Factories (2022)

Sl.	State/UT	2022
1	Andaman and Nicobar Islands	39
2	Andhra Pradesh	19612
3	Arunachal Pradesh	268
4	Assam	7058
5	Bihar	6927
6	Chandigarh	413
7	Chhattisgarh	5847
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided
9	Delhi	8690
10	Goa	676
11	Gujarat	38445
12	Haryana	19003
13	Himachal Pradesh	Data not provided
14	Jammu and Kashmir	1187
15	Jharkhand	5582
16	Karnataka	17470
17	Kerala	22805
18	Lakshadweep	*
19	Madhya Pradesh	6772
20	Maharashtra	37972
21	Manipur	389
22	Meghalaya	298
23	Mizoram	Data not provided
24	Nagaland	1046
25	Odisha	2506
26	Puducherry	2172
27	Punjab	Data not provided
28	Rajasthan	12551
29	Sikkim	#
30	Tamil Nadu	30254
31	Telangana	16520
32	Tripura	645
33	Uttar Pradesh	Data not provided
34	Uttarakhand	3600
35	West Bengal	Data not provided
Total		268747

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.

Table 8.10- State-wise Status of Employment in Factories (2022)

Sl.	State/UT	2022
1	Andaman and Nicobar Islands	3232
2	Andhra Pradesh	869468
3	Arunachal Pradesh	8462
4	Assam	319938
5	Bihar	219461
6	Chandigarh	16780
7	Chhattisgarh	281101
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided
9	Delhi	417120
10	Goa	94557
11	Gujarat	2103136
12	Haryana	1571339
13	Himachal Pradesh	Data not provided
14	Jammu and Kashmir	69919
15	Jharkhand	380514
16	Karnataka	1510878
17	Kerala	582419
18	Lakshadweep	*
19	Madhya Pradesh	470200
20	Maharashtra	3043156
21	Manipur	2990
22	Meghalaya	14911
23	Mizoram	Data not provided
24	Nagaland	12202
25	Odisha	412430
26	Puducherry	85884
27	Punjab	Data not provided
28	Rajasthan	881409
29	Sikkim	*
30	Tamil Nadu	2514674
31	Telangana	1129846
32	Tripura	60193
33	Uttar Pradesh	Data not provided
34	Uttarakhand	690869
35	West Bengal	Data not provided
Total		17767088

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.

Table 8.11- State-wise Status of Women Employment in Factories (2022)

Sl.	State/UT	2022
1	Andaman and Nicobar Islands	136
2	Andhra Pradesh	89937
3	Arunachal Pradesh	1116
4	Assam	41592
5	Bihar	531
6	Chandigarh	#
7	Chhattisgarh	12862
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided
9	Delhi	29407
10	Goa	17129
11	Gujarat	155516
12	Haryana	130160
13	Himachal Pradesh	Data not provided
14	Jammu and Kashmir	7906
15	Jharkhand	31245
16	Karnataka	532484
17	Kerala	187696
18	Lakshadweep	*
19	Madhya Pradesh	52722
20	Maharashtra	249275
21	Manipur	1046
22	Meghalaya	1102
23	Mizoram	Data not provided
24	Nagaland	1608
25	Odisha	10367
26	Puducherry	6476
27	Punjab	Data not provided
28	Rajasthan	91390
29	Sikkim	*
30	Tamil Nadu	852365
31	Telangana	140605
32	Tripura	7462
33	Uttar Pradesh	Data not provided
34	Uttarakhand	30335
35	West Bengal	Data not provided
Total		2682470

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.

Table 8.12- State-wise Hazardous Process Factories under Sec. 2(cb) (2022)

Sl.	State/UT	2022
1	Andaman and Nicobar Islands	#
2	Andhra Pradesh	2097
3	Arunachal Pradesh	22
4	Assam	1578
5	Bihar	103
6	Chandigarh	#
7	Chhattisgarh	896
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided
9	Delhi	457
10	Goa	128
11	Gujarat	12431
12	Haryana	3566
13	Himachal Pradesh	Data not provided
14	Jammu and Kashmir	500
15	Jharkhand	874
16	Karnataka	1574
17	Kerala	1572
18	Lakshadweep	*
19	Madhya Pradesh	1640
20	Maharashtra	6498
21	Manipur	7
22	Meghalaya	219
23	Mizoram	Data not provided
24	Nagaland	2
25	Odisha	699
26	Puducherry	196
27	Punjab	Data not provided
28	Rajasthan	1298
29	Sikkim	*
30	Tamil Nadu	2088
31	Telangana	32130
32	Tripura	118
33	Uttar Pradesh	Data not provided
34	Uttarakhand	890
35	West Bengal	Data not provided
Total		71583

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.

Table 8.13- State-wise Status of Workers in Hazardous Factories (2022)

Sl.	State/UT	2022
1	Andaman and Nicobar Islands	#
2	Andhra Pradesh	163437
3	Arunachal Pradesh	725
4	Assam	47208
5	Bihar	44076
6	Chandigarh	#
7	Chhattisgarh	254741
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided
9	Delhi	17366
10	Goa	34720
11	Gujarat	484740
12	Haryana	251213
13	Himachal Pradesh	Data not provided
14	Jammu and Kashmir	19665
15	Jharkhand	129155
16	Karnataka	303459
17	Kerala	60323
18	Lakshadweep	*
19	Madhya Pradesh	124692
20	Maharashtra	1043222
21	Manipur	456
22	Meghalaya	13267
23	Mizoram	Data not provided
24	Nagaland	73
25	Odisha	195371
26	Puducherry	10185
27	Punjab	Data not provided
28	Rajasthan	219001
29	Sikkim	*
30	Tamil Nadu	284818
31	Telangana	745093
32	Tripura	5568
33	Uttar Pradesh	Data not provided
34	Uttarakhand	180000
35	West Bengal	Data not provided
Total		4632574

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.

Table 8.14- No. of Factories Inspected (2022)

Sl.	State/UT	2022	
		All Factories	Hazardous Factories
1	Andaman and Nicobar Islands	20	#
2	Andhra Pradesh	1611	1062
3	Arunachal Pradesh	#	#
4	Assam	1207	29
5	Bihar	147	101
6	Chandigarh	#	#
7	Chhattisgarh	724	480
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	738	38
10	Goa	84	33
11	Gujarat	17722	6440
12	Haryana	1617	228
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	739	270
15	Jharkhand	397	120
16	Karnataka	7299	1075
17	Kerala	3995	252
18	Lakshadweep	*	*
19	Madhya Pradesh	1437	568
20	Maharashtra	5086	2370
21	Manipur	92	7
22	Meghalaya	30	20
23	Mizoram	Data not provided	Data not provided
24	Nagaland	24	2
25	Odisha	1085	699
26	Puducherry	426	82
27	Punjab	Data not provided	Data not provided
28	Rajasthan	4020	1490
29	Sikkim	*	*
30	Tamil Nadu	9552	505
31	Telangana	5529	1526
32	Tripura	501	62
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	94	8
35	West Bengal	Data not provided	Data not provided
Total		64176	17467

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note:(i) *: There are no registered factories in this State/UT.(ii) #: NIL Data.

Table 8.15- Prosecution & Conviction under Section 92 & 96A (2022)

Sl.	State/UT	2022						
		No. of prosecutions			No. of convictions	Penalty imposed		
		pending from previous year	launched during the year	decided during the year		Imprisonment	Total fine imposed	
1	Andaman and Nicobar Islands	#	#	#	#	#	#	
2	Andhra Pradesh	1925	269	168	137	#	2526000	
3	Arunachal Pradesh	#	#	#	#	#	#	
4	Assam	22	26	#	#	#	#	
5	Bihar	273	34	#	#	#	#	
6	Chandigarh	#	#	#	#	#	#	
7	Chhattisgarh	457	238	238	144	#	19198000	
8	DD & DNH	Data not provided						
9	Delhi	220	30	49	49	#	614000	
10	Goa	22	2	2	1	#	50000	
11	Gujarat	14619	2806	3890	1497	#	22444000	
12	Haryana	6814	4787	3256	1946	#	10924200	
13	Himachal Pradesh	Data not provided						
14	Jammu and Kashmir	41	13	#	#	#	#	
15	Jharkhand	412	33	2	#	#	#	
16	Karnataka	613	194	155	86	10	3311100	
17	Kerala	216	22	45	37	#	811000	
18	Lakshadweep	*	*	*	*	*	*	
19	Madhya Pradesh	2267	118	44	#	#	3069000	
20	Maharashtra	2546	481	457	377	#	14526000	
21	Manipur	#	#	#	#	#	#	
22	Meghalaya	#	#	#	#	#	#	
23	Mizoram	Data not provided						
24	Nagaland	#	#	#	#	#	#	
25	Odisha	2740	80	4	#	#	#	
26	Puducherry	6	1	1	#	#	90000	
27	Punjab	Data not provided						
28	Rajasthan	325	20	13	4	#	15000	
29	Sikkim	*	*	*	*	*	*	
30	Tamil Nadu	7906	2688	1872	1858	#	23124250	
31	Telangana	2704	182	111	62	#	2605000	
32	Tripura	8	4	4	2	#	90000	
33	Uttar Pradesh	Data not provided						
34	Uttarakhand	13	19	19	#	#	#	
35	West Bengal	Data not provided						
Total		44149	1204	10330	6200	10	103397550	

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs. **Note:** (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.16- State-wise Status of Safety Officers (SO) (2022)

Sl.	State/UT	2022			
		No. of factories		No. of Safety officers	
		Requiring Safety officers	Having Safety officers	Required in factories	Working in factories
1	Andaman and Nicobar Islands	#	#	#	#
2	Andhra Pradesh	187	169	176	152
3	Arunachal Pradesh	5	1	5	1
4	Assam	15	15	72	72
5	Bihar	37	37	61	63
6	Chandigarh	#	#	#	#
7	Chhattisgarh	161	162	217	225
8	DD & DNH	Data not provided			
9	Delhi	8	9	8	9
10	Goa	30	46	48	172
11	Gujarat	860	846	1166	1236
12	Haryana	180	169	198	192
13	Himachal Pradesh	Data not provided			
14	Jammu and Kashmir	3	15	3	15
15	Jharkhand	73	69	197	164
16	Karnataka	369	384	445	527
17	Kerala	72	63	71	71
18	Lakshadweep	*	*	*	*
19	Madhya Pradesh	176	176	181	180
20	Maharashtra	1202	1118	1453	1390
21	Manipur	4	4	4	4
22	Meghalaya	1	11	1	12
23	Mizoram	Data not provided			
24	Nagaland	#	#	#	#
25	Odisha	139	132	369	341
26	Puducherry	10	9	10	9
27	Punjab	Data not provided			
28	Rajasthan	151	151	259	259
29	Sikkim	*	*	*	*
30	Tamil Nadu	881	819	915	852
31	Telangana	115	115	140	145
32	Tripura	#	3	#	3
33	Uttar Pradesh	Data not provided			
34	Uttarakhand	165	150	165	150
35	West Bengal	Data not provided			
Total		4844	4673	6164	6244

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs. **Note:** (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.17- State-wise Status of Declaration of Safety Policy (2022)

Sl.	State/UT	No. of factories	
		Requiring Safety policy	Having Safety policy
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	#	#
3	Arunachal Pradesh	3	1
4	Assam	4414	3531
5	Bihar	97	9
6	Chandigarh	#	#
7	Chhattisgarh	562	507
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	4601	#
10	Goa	146	299
11	Gujarat	11223	11406
12	Haryana	3497	2940
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	33	32
15	Jharkhand	646	434
16	Karnataka	1724	1604
17	Kerala	504	497
18	Lakshadweep	*	*
19	Madhya Pradesh	2236	2218
20	Maharashtra	3515	3174
21	Manipur	6	6
22	Meghalaya	298	298
23	Mizoram	Data not provided	Data not provided
24	Nagaland	#	#
25	Odisha	1683	1374
26	Puducherry	30	29
27	Punjab	Data not provided	Data not provided
28	Rajasthan	1113	1098
29	Sikkim	*	*
30	Tamil Nadu	4382	4252
31	Telangana	745	725
32	Tripura	140	68
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	750	720
35	West Bengal	Data not provided	Data not provided
Total		42348	35222

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: (i) *: There are no registered factories in this State/UT.
(ii) #: NIL Data.

Table 8.18 State-wise Constitution of Safety Committee (2022)

Sl.	State/UT	No. of factories	
		Requiring Safety Committee	Having Safety Committee
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	1513	1024
3	Arunachal Pradesh	3	1
4	Assam	96	96
5	Bihar	97	#
6	Chandigarh	#	#
7	Chhattisgarh	537	482
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	255	#
10	Goa	30	265
11	Gujarat	9003	9077
12	Haryana	1568	1457
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	33	28
15	Jharkhand	202	177
16	Karnataka	1546	1390
17	Kerala	209	192
18	Lakshadweep	*	*
19	Madhya Pradesh	1846	1803
20	Maharashtra	2696	2434
21	Manipur	6	6
22	Meghalaya	91	21
23	Mizoram	Data not provided	Data not provided
24	Nagaland	#	#
25	Odisha	597	461
26	Puducherry	30	29
27	Punjab	Data not provided	Data not provided
28	Rajasthan	1127	1090
29	Sikkim	*	*
30	Tamil Nadu	3622	3490
31	Telangana	1029	1029
32	Tripura	140	68
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	750	720
35	West Bengal	Data not provided	Data not provided
Total		27026	25340

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note:(i) *: There are no registered factories in this State/UT.(ii) #: NIL Data.

Table 8.19- State-wise Onsite Emergency Plan (in respect of MAH Units) (2022)

Sl.	State/UT	No. of factories	
		Required to draw Emergency plan	Having drawn Emergency plan
1	Andaman and Nicobar Islands	#	#
2	Andhra Pradesh	88	88
3	Arunachal Pradesh	4	2
4	Assam	28	28
5	Bihar	48	48
6	Chandigarh	#	#
7	Chhattisgarh	44	43
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided	Data not provided
9	Delhi	14	14
10	Goa	10	10
11	Gujarat	577	628
12	Haryana	55	54
13	Himachal Pradesh	Data not provided	Data not provided
14	Jammu and Kashmir	10	10
15	Jharkhand	21	21
16	Karnataka	85	85
17	Kerala	41	40
18	Lakshadweep	*	*
19	Madhya Pradesh	95	95
20	Maharashtra	400	386
21	Manipur	6	6
22	Meghalaya	#	#
23	Mizoram	Data not provided	Data not provided
24	Nagaland	2	2
25	Odisha	45	45
26	Puducherry	4	3
27	Punjab	Data not provided	Data not provided
28	Rajasthan	109	109
29	Sikkim	*	*
30	Tamil Nadu	211	197
31	Telangana	74	73
32	Tripura	11	10
33	Uttar Pradesh	Data not provided	Data not provided
34	Uttarakhand	36	36
35	West Bengal	Data not provided	Data not provided
Total		2018	2033

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs. **Note:** (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.20- State-wise Medical Facilities in Factories (2022)

Sl.	State/UT	2022			
		No. of Medical Officers			
		Full time basis		Retainership/part time basis	
		Required	In position	Required	In position
1	Andaman and Nicobar Islands	2	1	#	#
2	Andhra Pradesh	612	514	#	#
3	Arunachal Pradesh	6	#	#	#
4	Assam	24	17	1320	924
5	Bihar	39	39	9	9
6	Chandigarh	#	#	#	#
7	Chhattisgarh	209	130	319	220
8	Daman and Diu & Dadra and Nagar Haveli	Data not provided			
9	Delhi	5	#	450	#
10	Goa	25	30	750	106
11	Gujarat	616	594	3739	3743
12	Haryana	183	164	316	297
13	Himachal Pradesh	Data not provided			
14	Jammu and Kashmir	2	#	#	#
15	Jharkhand	100	93	139	93
16	Karnataka	619	585	560	321
17	Kerala	30	26	29	37
18	Lakshadweep	*	*	*	*
19	Madhya Pradesh	172	169	363	354
20	Maharashtra	824	612	1917	1474
21	Manipur	1	1	5	5
22	Meghalaya	10	8	74	31
23	Mizoram	Data not provided			
24	Nagaland	#	#	#	#
25	Odisha	151	157	128	79
26	Puducherry	10	9	29	23
27	Punjab	Data not provided			
28	Rajasthan	320	282	87	126
29	Sikkim	*	*	*	*
30	Tamil Nadu	536	473	806	764
31	Telangana	269	269	156	156
32	Tripura	5	5	#	#
33	Uttar Pradesh	Data not provided			
34	Uttarakhand	250	60	200	105
35	West Bengal	Data not provided			
Total		5020	4238	11396	8867

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs. **Note:** (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.21- State-wise Ambulance Van and Ambulance Room (2022)

Sl.	State/UT	2022			
		No. of factories			
		Requiring Ambulance Vans	Having Ambulance Vans	Requiring Ambulance Rooms	Having Ambulance Rooms
1	Andaman and Nicobar Islands	2	2	2	2
2	Andhra Pradesh	#	#	303	191
3	Arunachal Pradesh	5	#	#	#
4	Assam	36	36	36	85
5	Bihar	35	30	31	30
6	Chandigarh	#	#	#	#
7	Chhattisgarh	173	181	113	120
8	DD & DNH	Data not provided			
9	Delhi	5	#	6	#
10	Goa	356	88	21	14
11	Gujarat	783	796	581	591
12	Haryana	221	206	206	193
13	Himachal Pradesh	Data not provided			
14	Jammu and Kashmir	#	9	20	13
15	Jharkhand	73	67	91	79
16	Karnataka	575	519	525	503
17	Kerala	28	24	42	43
18	Lakshadweep	*	*	*	*
19	Madhya Pradesh	237	201	178	171
20	Maharashtra	743	566	670	555
21	Manipur	2	2	1	1
22	Meghalaya	15	2	1	1
23	Mizoram	Data not provided			
24	Nagaland	#	#	#	#
25	Odisha	188	221	181	183
26	Puducherry	10	9	10	9
27	Punjab	Data not provided			
28	Rajasthan	306	284	324	295
29	Sikkim	*	*	*	*
30	Tamil Nadu	459	444	929	863
31	Telangana	269	269	269	269
32	Tripura	5	4	5	4
33	Uttar Pradesh	Data not provided			
34	Uttarakhand	250	72	250	205
35	West Bengal	Data not provided			
Total		4776	4032	4795	4420

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs. **Note:** (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.22- State-wise Canteens, Shelters, Rest Rooms and Crèches (2022)

Sl.	State/UT	2022					
		Canteen		Shelter, Rest Room, Lunch Room		Crèches	
		Requiring	Having	Requiring	Having	Requiring	Having
1	Andaman and Nicobar Islands	3	2	3	1	#	#
2	Andhra Pradesh	637	538	722	673	620	502
3	Arunachal Pradesh	15	2	9	2	#	#
4	Assam	80	120	65	125	80	85
5	Bihar	43	43	101	52	1	1
6	Chandigarh	#	#	#	#	#	#
7	Chhattisgarh	197	187	258	308	25	25
8	DD and DNH	Data not provided					
9	Delhi	165	#	416	#	#	#
10	Goa	74	144	14	340	269	70
11	Gujarat	1832	1836	3649	3620	466	478
12	Haryana	935	874	1555	1687	195	181
13	Himachal Pradesh	Data not provided					
14	Jammu and Kashmir	49	49	90	90	36	26
15	Jharkhand	158	155	281	279	46	39
16	Karnataka	1193	1176	1483	1487	1697	1596
17	Kerala	300	296	993	1036	873	854
18	Lakshadweep	*	*	*	*	*	*
19	Madhya Pradesh	297	281	597	583	92	89
20	Maharashtra	1570	1475	2364	2219	701	592
21	Manipur	1	1	3	3	11	11
22	Meghalaya	15	28	11	40	8	2
23	Mizoram	Data not provided					
24	Nagaland	82	51	#	#	#	#
25	Odisha	217	204	396	382	67	58
26	Puducherry	37	30	53	39	7	5
27	Punjab	Data not provided					
28	Rajasthan	689	683	3463	3539	240	230
29	Sikkim	*	*	*	*	*	*
30	Tamil Nadu	2612	2551	4144	4057	4307	4095
31	Telangana	417	417	942	942	286	286
32	Tripura	19	19	127	110	97	45
33	Uttar Pradesh	Data not provided					
34	Uttarakhand	485	380	265	175	75	65
35	West Bengal	Data not provided					
Total		12122	11542	22004	21783	10199	9335

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs. **Note:** (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.23- State-wise Welfare Officers (2022)

Sl.	State/UT	2022			
		No. of factories		No. of welfare officers	
		Requiring welfare officers	Having welfare officers	Required in factories	Working in factories
1	Andaman and Nicobar Islands	4	3	4	3
2	Andhra Pradesh	291	278	356	263
3	Arunachal Pradesh	5	#	5	#
4	Assam	27	90	27	90
5	Bihar	31	31	46	46
6	Chandigarh	#	#	#	#
7	Chhattisgarh	137	121	136	118
8	DD & DNH	Data not provided			
9	Delhi	35	#	43	#
10	Goa	33	57	37	69
11	Gujarat	774	789	870	874
12	Haryana	328	258	340	309
13	Himachal Pradesh	Data not provided			
14	Jammu and Kashmir	12	6	12	6
15	Jharkhand	77	72	114	98
16	Karnataka	538	536	629	639
17	Kerala	79	76	79	79
18	Lakshadweep	*	*	*	*
19	Madhya Pradesh	168	165	168	165
20	Maharashtra	702	644	715	663
21	Manipur	2	2	2	2
22	Meghalaya	3	2	3	2
23	Mizoram	Data not provided			
24	Nagaland	#	#	#	#
25	Odisha	132	115	151	104
26	Puducherry	10	9	10	9
27	Punjab	Data not provided			
28	Rajasthan	441	277	280	279
29	Sikkim	*	*	*	*
30	Tamil Nadu	1150	1078	1515	1419
31	Telangana	269	260	279	270
32	Tripura	5	5	5	5
33	Uttar Pradesh	Data not provided			
34	Uttarakhand	205	145	205	145
35	West Bengal	Data not provided			
Total		5458	5019	6031	5657

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs. **Note:** (i) *: There are no registered factories in this State/UT. (ii) #: NIL Data.

Table 8.24-Dangerous occurrences, Fatal Injuries, and Non-Fatal Injuries in Factories (2022)

Sl.	State/UT	2022		
		Dangerous Occurrences	Fatal injuries	Non-fatal injuries
1	Andaman and Nicobar Islands	0	0	39
2	Andhra Pradesh	10	76	95
3	Arunachal Pradesh	0	0	0
4	Assam	0	8	38
5	Bihar	0	4	14
6	Chandigarh	0	0	0
7	Chhattisgarh	46	78	77
8	DD & DNH	Data not provided		
9	Delhi	25	36	47
10	Goa	3	5	33
11	Gujarat	503	240	653
12	Haryana	34	22	48
13	Himachal Pradesh	Data not provided		
14	Jammu and Kashmir	23	3	20
15	Jharkhand	#	23	41
16	Karnataka	69	43	254
17	Kerala	42	9	67
18	Lakshadweep	*	*	*
19	Madhya Pradesh	7	36	269
20	Maharashtra	129	178	819
21	Manipur	0	0	0
22	Meghalaya	0	3	3
23	Mizoram	Data not provided		
24	Nagaland	#	#	#
25	Odisha	6	54	47
26	Puducherry	#	5	22
27	Punjab	Data not provided		
28	Rajasthan	4	32	91
29	Sikkim	*	*	*
30	Tamil Nadu	96	117	205
31	Telangana	17	60	51
32	Tripura	0	2	1
33	Uttar Pradesh	Data not provided		
34	Uttarakhand	#	19	49
35	West Bengal	Data not provided		
Total		1014	1053	2983

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: *: There are no registered factories in this State/UT.

Table 8.25- Occupational diseases (2022)

Sl.	State	Occupational Diseases	2022
1	Andaman and Nicobar Islands	-	NIL
2	Andhra Pradesh	-	NIL
3	Arunachal Pradesh	-	NIL
4	Assam	-	NIL
5	Bihar	-	NIL
6	Chandigarh	-	NIL
7	Chhattisgarh	-	NIL
8	DD & DNH	-	Data not provided
9	Delhi	-	NIL
10	Goa	-	NIL
11	Gujarat	Noise Induced Hearing Loss	9
		Silicosis	4
		Toxic Jaundice	22
12	Haryana	Silicosis	34
13	Himachal Pradesh	-	Data not provided
14	Jammu & Kashmir	-	NIL
15	Jharkhand	-	NIL
16	Karnataka	-	NIL
17	Kerala	-	NIL
18	Lakshadweep	-	NIL
19	Madhya Pradesh	-	NIL
20	Maharashtra	-	NIL
21	Manipur	-	NIL
22	Meghalaya	-	NIL
23	Mizoram	-	Data not provided
24	Nagaland	-	NIL
25	Odisha	-	NIL
26	Puducherry	-	NIL
27	Punjab	-	Data not provided
28	Rajasthan	-	NIL
29	Sikkim	-	NIL
30	Tamil Nadu	-	NIL
31	Telangana	-	NIL
32	Tripura	-	NIL
33	Uttar Pradesh	-	Data not provided
34	Uttarakhand	-	NIL
35	West Bengal	-	Data not provided
Total			69

Source: Data collected by DGFASLI through correspondence with Chief Inspector of Factories (CIF) of States/UTs.

Note: *: There are no registered factories in this State/UT

9

Statistics on Occupational Safety and Health in Dock Works of Major Ports

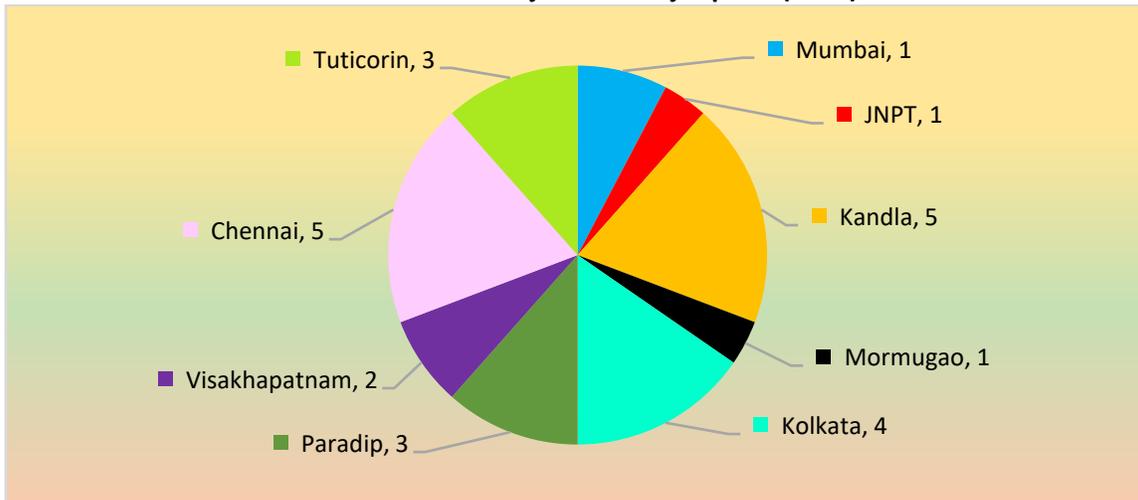
DGFASLI enforces the Dock Workers (Safety, Health & Welfare) Act, 1986 and Regulations 1990 in all the major ports of the country. The Inspectorate of Dock Safety offices located in the major ports enforce the Act and Regulations. Under Regulations 91(1) & (6) it is obligatory on the part of the Employers of the Dock Workers to report the accidents/dangerous occurrences to the Inspectorates.

Important Statistics on Occupational Safety & Health in the major Ports of the country for the year 2023 are given in the subsequent tables:

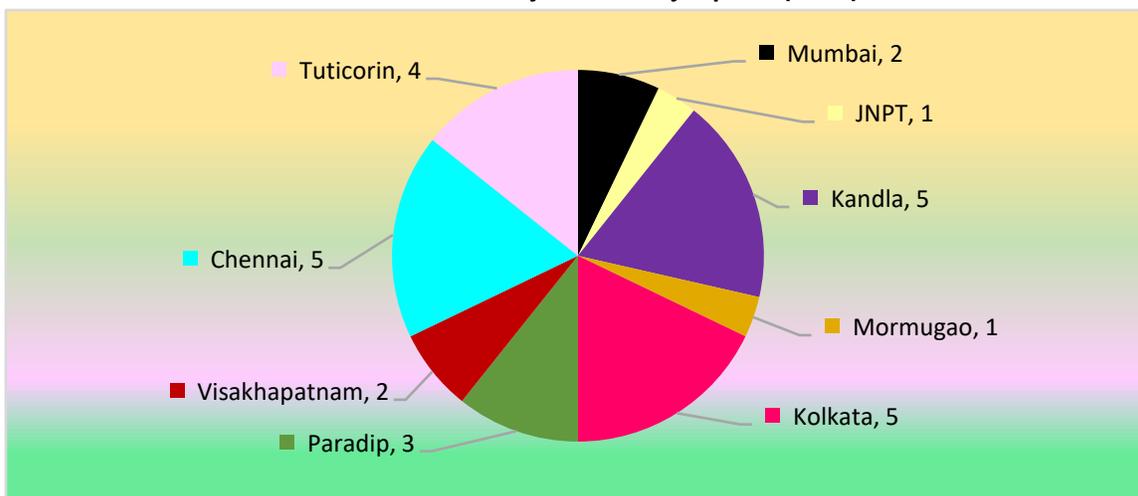
Table 9.1- Reportable Accidents & Dangerous Occurrences in major Ports during the year 2023

Sl. No.	Port	Fatal Accidents	Non-Fatal Accidents	Total Accidents	Dangerous Occurrences
1.	Mumbai	02	00	02	00
2.	J N Port	01	00	01	01
3.	Kandla	05	00	05	00
4.	Mormugao	01	00	01	00
5.	Kolkata	04	01	05	00
6.	Paradip	03	00	03	00
7.	Visakhapatnam	02	00	02	00
8.	Chennai	05	00	05	00
9.	Kochi	00	00	00	00
10.	New Mangalore	00	00	00	00
11.	Tuticorin	03	01	04	00
Total		26	02	28	01

Pie chart-1: Fatal Injuries in major ports (2023)



Pie chart-2: Total Injuries in major ports (2023)



Graph-3: Fatal Injuries and Total Injuries in major ports (2023)

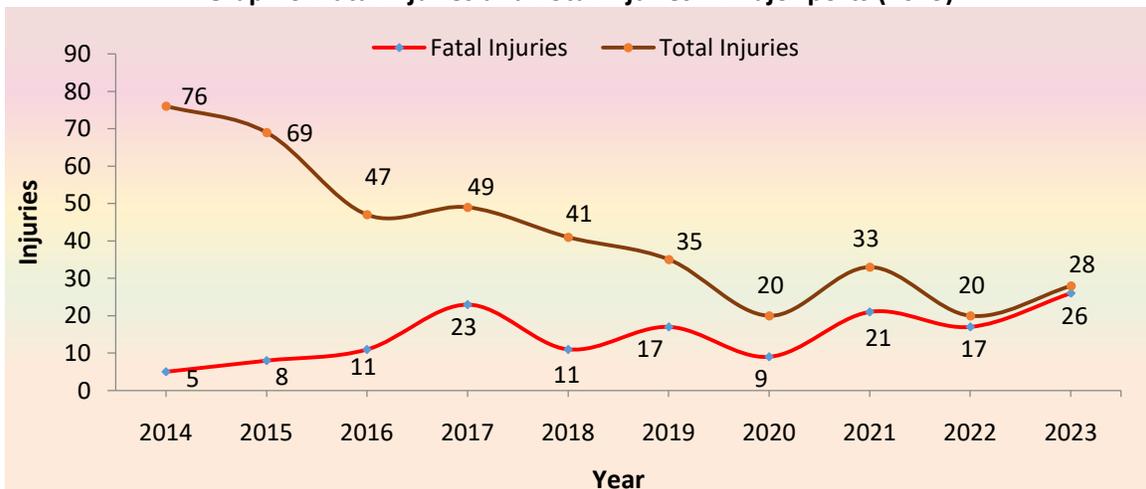


Table 9.2-Average Daily Employment & Rates of Reportable Accidents in major Ports during the year 2023

Sl. No.	Port	Average Daily Employment	*Frequency Rate		*Incidence Rate of injuries per Thousand persons employed	
			Fatal	Total	Fatal	Total
1.	Mumbai	6288	0.116	0.116	0.318	0.318
2.	J N Port	5191	0.07	0.07	0.2	0.2
3.	Kandla	7100	0.243	0.243	0.704	0.704
4.	Mormugao	1111	0.34	0.34	0.9	0.9
5.	Kolkata	6955	0.198	0.248	0.575	0.718
6.	Paradip	4114	0.019	0.019	0.5516	0.5516
7.	Visakhapatnam	993	0.70	0.70	2.01	2.01
8.	Chennai	1131	1.53	1.53	4.42	4.42
9.	Kochi	100	00	00	00	00
10.	New Mangalore	388	00	00	00	00
11.	Tuticorin	615	1.68	2.24	4.87	6.5

* Formula (As per IS: 3786 of 1983)

Frequency Rate = No. of Reportable Accidents X 1,000,000/Man-hours worked[#].

Incidence Rate = No. of Reportable Accidents X 1000/ Avg. No. of Persons Employed.

Man-hours worked are calculated on the basis of 362 working days in a year

Table 9.3-Classification of Reportable Accidents in Major Ports – According to Agency for the Year-2023

Sl.	Agency	Mumbai	J N Port	Kandla	Morm-ugao	Kolkata	Paradip	Visakha-patnam	Chennai	Kochi	New Mangalore	Tuticorin	Total
1.	Lifting appliances	0	0	0	0	0	2(2)	0	0	0	0	1(1)	3(3)
2.	Loose gear & Ropes	0	0	0	0	0	0	0	0	0	0	0	0
3.	Unitized & Break bulk cargo	2(2)	0	0	0	0	0	0	0	0	0	0	2(2)
4.	Bulk cargo	0	0	0	0	0	0	0	0	0	0	0	0
5.	Electrical equipment	0	0	0	1(1)	0	0	0	0	0	0	1(1)	2(2)
6.	Tools & Implements	0	0	1(1)	0	0	0	0	0	0	0	0	1(1)
7.	Means of Access	0	1 (1)	0	0	0	1(1)	0	0	0	0	0	2(2)
8.	Means of Transportation	0	0	3(3)	0	4(3)	0	2(2)	5(5)	0	0	1(1)	15(14)
9.	Other agencies	0	0	1(1)	0	1(1)	0	0	0	0	0	1(0)	3(2)
TOTAL		2(2)	1 (1)	5(5)	1(1)	5(4)	3(3)	2(2)	5(5)	0	0	4(3)	28(26)

Note: Figures in brackets represent Fatal Accidents.

Table 9.4- Classification of Reportable Accidents in Major Ports – According to Type for the year 2023

Sl. No.	TYPE	Mumbai	J N Port	Kandla	Morm-ugao	Kolkata	Paradip	Visakha-patnam	Chennai	Kochi	New Mangalore	Tuticorin	Total
1.	Fall of persons	0	1(1)	2(2)	0	0	1(1)	0	1(1)	0	0	0	5(5)
2.	Fall of objects	2(2)	0	0	0	0	0	0	0	0	0	2(1)	4(3)
3.	Stepping on, striking against or struck by objects excluding falling objects.	0	0	2(2)	0	4(3)	2(2)	2(2)	4(4)	0	0	0	14(13)
4.	Caught in or between	0	0	1(1)	0	0	0	0	0	0	0	1(1)	2(2)
5.	Over exertion or wrong movement	0	0	0	0	0	0	0	0	0	0	0	0
6.	Exposure to or contact with extreme temperature	0	0	0	0	0	0	0	0	0	0	0	0
7.	Exposure to or contact with electric current	0	0	0	1(1)	0	0	0	0	0	0	1(1)	2(2)
8.	Exposure to or contact with dangerous goods	0	0	0	0	0	0	0	0	0	0	0	0
9.	Explosion	0	0	0	0	0	0	0	0	0	0	0	0
10.	Others	0	0	0	0	1(1)	0	0	0	0	0	0	1(1)
TOTAL		2(2)	1 (1)	5(5)	1(1)	5(4)	3(3)	2(2)	5(5)	0	0	4(3)	28(26)

Note: Figures in brackets represent Fatal Accidents.

Table 9.5- Details of Inspections and other visits in Major Ports during the year 2023

Sl.	Port	Ship	Docks	Gear	Isolated Storage/ Pipelines	Other Visits
1.	Mumbai	07	13	25	00	64
2.	J N Port	07	34	11	07	32
3.	Kandla	66	24	75	07	07
4.	Mormugao	54	25	23	00	30
5.	Kolkata	28	58	56	00	47
6.	Paradip	45	44	47	00	76
7.	Visakhapatnam	00	05	00	00	12
8.	Chennai	69	46	10	01	70
9.	Kochi	18	33	17	07	11
10.	New Mangalore	19	88	19	00	35
11.	Tuticorin	22	45	47	01	115
Total		335	415	330	23	499

Table 9.6- Details of Prosecution in Major Ports during the year 2023

Sl.	Port	Pending From Previous Year	Launched during the year	Decided during the year	Convicted
1.	Mumbai	14	01	03	01
2.	J N Port	04	07	03	03
3.	Kandla	10	11	01	01
4.	Mormugao	04	02	00	00
5.	Kolkata	24	03	03	03
6.	Paradip	14	01	00	00
7.	Visakhapatnam	04	02	02	00
8.	Chennai	10	01	02	02
9.	Kochi	01	00	00	00
10.	New Mangalore	02	01	00	00
11.	Tuticorin	06	01	07	07
Total		93	30	21	17

Table 9.7- Investigation into Reportable Fatal Accidents/Dangerous Occurrences in 2023

Sl.	Port	Pending from Previous Year	Initiated during the year	Concluded during the year
1.	Mumbai	01	01	01
2.	J N Port	05	02	05
3.	Kandla	09	05	13
4.	Mormugao	03	01	00
5.	Kolkata	00	04	03
6.	Paradip	03	03	01
7.	Visakhapatnam	04	02	02
8.	Chennai	05	05	02
9.	Kochi	00	00	00
10.	New Mangalore	02	00	00
11.	Tuticorin	00	03	01
Total		32	26	28

Table 9.8- Dock Safety Committee Meetings conducted/Safety Weeks celebrated in 2023

Sl.	Port	Committee Meeting	Safety Weeks
1.	Mumbai	04	01
2.	J N Port	04	14
3.	Kandla	02	01
4.	Mormugao	27	05
5.	Kolkata	06	02
6.	Paradip	03	07
7.	Visakhapatnam	04	01
8.	Chennai	04	01
9.	Kochi	04	01
10.	New Mangalore	04	01
11.	Tuticorin	01	01
Total		63	35

Table 9.9- Total Number of Ships Called in the Major Ports during 2022 and 2023

Sl.	Port	Total Nos. of Ships Called			
		Oil Tankers		Others	
		2022	2023	2022	2023
1.	Mumbai	1019	1031	5864	6792
2.	J N Port	616	656	2103	2916
3.	Kandla	1615	1746	1710	1626
4.	Mormugao	78	70	327	369
5.	Kolkata	1088	1055	1928	2246
6.	Paradip	413	438	1814	2237
7.	Visakhapatnam	427	439	1564	1739
8.	Chennai	310	310	1264	1337
9.	Kochi	462	527	995	1212
10.	New Mangalore	793	850	495	616
11.	Tuticorin	155	64	1224	1527
Total		6976	7186	19288	22617

Table 9.10- Cargo Handled in Major Ports during 2021 and 2022

Sl.	Port	Cargo Handled					
		Container in TEUs		POL (Tons)		Others (Tons)	
		2022	2023	2022	2023	2022	2023
1.	Mumbai	21044	18081	37672945	39827092	25128174	26694397
2.	J N Port	5684559	6354323	3156734	3384280	3746759	4327566
3.	Kandla	491251	501570	71263891	63278680	64146289	68503745
4.	Mormugao	4121	61	581399	593892	16658836	19152260
5.	Kolkata	683456	738952	10350404	15164000	53396985	40851000
6.	Paradip	11610	11239	37,189,264	37941677	92,152,545	105940667
7.	Visakhapatnam	501854	660093	16022546	17702914	48973929	50130903
8.	Chennai	1495311	1560220	14256217	14432904	34984339	36601494
9.	Kochi	700644	718291	21321265	22963551	3168075	3950028
10.	New Mangalore	163500	191378	27223843	25966888	14547103	18649395
11.	Tuticorin	741477	724696	308734	436334	20645057	25707306
Total		10498827	11478904	239347242	241692212	377548091	400508761

Table 9.11- Safety Facilities in Major Ports during the year 2023

Sl.	Port	Safety Facilities		
		No. of Safety Officers	No. of Visits to Safety Exhibition Centers	No. of Competent persons
1.	Mumbai	02	01	18
2.	J N Port	30	06	06
3.	Kandla	01	02	06
4.	Mormugao	04	00	02
5.	Kolkata	09	02	07
6.	Paradip	18	06	05
7.	Visakhapatnam	01	00	10
8.	Chennai	02	00	07
9.	Kochi	01	00	03
10.	New Mangalore	01	00	03
11.	Tuticorin	01	00	05
Total		70	17	72

Table 9.12- Health Facilities in Major Ports during the year 2023

Sl.	Port	Health Facilities			
		OSH Centers	Ambulance Rooms	First Aid Centers	Empanelled Doctors
1.	Mumbai	01	01	100	04
2.	J N Port	04	06	62	02
3.	Kandla	01	01	03	00
4.	Mormugao	02	03	03	01
5.	Kolkata	02	03	66	01
6.	Paradip	01	02	03	00
7.	Visakhapatnam	01	02	04	01
8.	Chennai	01	01	01	00
9.	Kochi	01	01	02	01
10.	New Mangalore	01	01	01	00
11.	Tuticorin	01	03	03	00
Total		16	24	248	10

Table 9.13 Welfare Facilities in Major Ports during the year 2023

Sl.	Port	Welfare Facilities				
		No. of Welfare Officers	Canteens	Drinking Water	Washing	Urinals
1.	Mumbai	02	12	47	152	166
2.	J N Port	09	10	113	235	295
3.	Kandla	02	03	40	92	92
4.	Mormugao	03	07	52	60	71
5.	Kolkata	02	07	216	168	235
6.	Paradip	05	10	59	90	95
7.	Visakhapatnam	01	09	09	31	48
8.	Chennai	01	04	96	30	42
9.	Kochi	01	01	10	41	36
10.	New Mangalore	00	01	18	54	100
11.	Tuticorin	00	01	05	10	10
Total		26	65	665	963	1190

APPENDIX

Address of DGFASLI and its subordinate offices:

HEADQUARTERS
<p>Directorate General Factory Advice Service & Labour Institutes, Mumbai N. S. Mankikar Marg, Sion (East), Mumbai-400 022 PBX No. 91-22-24060501, 502 e-mail: fasli@dglasli.nic.in</p>
CENTRAL LABOUR INSTITUTE
<p>Central Labour Institute, Mumbai N. S. Mankikar Marg, Sion (East), Mumbai-400 022 PBX No. 91-22-24060539 e-mail: cli@dglasli.nic.in</p>
REGIONAL LABOUR INSTITUTES
<p>Regional Labour Institute, Chennai Sardar Patel Road, Adyar, TTTI PO, Chennai-600 113 Tel: 044-22350737, 22351569, 22355690 e-mail: rlichennai@dglasli.nic.in</p>
<p>Regional Labour Institute, Faridabad Sector 47, Faridabad-121 003, Haryana Tel: 0129-2468022 e-mail: rlifaridabad@dglasli.nic.in</p>
<p>Regional Labour Institute, Kanpur Sarvoday Nagar, Kanpur-208 005 Tel: 0512-2218691, 2218692, 2218745 e-mail: rli-kanpur@dglasli.nic.in</p>
<p>Regional Labour Institute, Kolkata Lake Town, Patipukur, Kolkata-700 089 Tel: 033-25342732, 25342735, 25343254, e-mail: rli.kolkata@dglasli.nic.in</p>
<p>Regional Labour Institute, Shillong Rynjah, Near GSI New Premises, Behind Rynjah Police Station, Shillong-793006 Tel: 03642914829 e-mail: rli-shillong@dglasli.nic.in</p>

THE INSPECTORATES OF DOCK SAFETY
<p>Inspectorate Dock Safety, Mumbai MbPT OSC Bldg., 3rd floor, Opp. GPO, P. D'Mello Road, Mumbai- 400 038 Office Tel.: 22692180 / 66565558 Email : idsmumbai@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, Mormugao Civil Maintenance Office Building, Mormugao Port Trust, Headland Sada, Mormugao, Goa- 403 804 Office Tel.: 0832-2520752 Email : idsmormugao@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, Kolkata Nizam Palace, 1st floor, 2nd M.S.O.Bldg. 234/4 A.J.C. Bose Road, Kolkata-700 020 Office Tel.: 033-22830718 / 22830719 Email : idskolkata@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, Visakhapatnam Ex. D.L.B. Bldg., 5th floor, Visakhapatnam Port Area, Visakhapatnam-530 035 Office Tel.: 0891-2563857 Email : idsvizag@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, Tuticorin Tuticorin Port Trust, Admn. Office Bldg. Harbour Estate, Tuticorin-628 004 Office Tel.: 0461-2352372 Email : dstuticorin@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, New Mangalore New Mangalore Port, Panambur, New Mangalore-575 010 Office Tel.: 0824-2407781 E-mail: idsmangalore@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, Kandla Near Bunder Gate, Kandla Port, New Kandla, Post Box No.18, Dist Kutch, Pin-370 210, Gujarat Office Tel.: 02836 – 270249 Email : idskandla@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, Navi Mumbai Jawaharlal Nehru Port, P.O.C. Canteen Bldg., Ground Floor, Sheva, Navi Mumbai-400 707 Office Tel.: 022-27245099 Email : idsjnpt@dglasli.nic.in</p>
<p>Inspectorate Dock Safety, Paradip Badapadia, Post Box no.126, Paradip-754 142, Odisha Office Tel.:06722-222413 Email : idsparadip@dglasli.nic.in</p>

Inspectorate Dock Safety, Chennai

3rd floor, Anchor Gate Bldg., Rajaji Salai, Chennai-600 001

Office Tel.: 044- 25220888, 044 - 25246419

Email : idschennai@dglasli.nic.in

Inspectorate Dock Safety, Cochin

C.D.L.B. Dispensary Bldg., G. V. Ayyar Road, Willington Island, Cochin-682 003

Office Tel.: 0484-2666532

Email : idscochin@dglasli.nic.in

Location map of DGFASLI (HQ) & its subordinate offices



N.B.: i) This pictorial Map of India does not purport to be the Political Map of India.
ii) Map not to scale. The map shows offices of DGFASLI/CLI/RLI/IDS as on 31.12.2023.