



सत्यमेव जयते

MINISTRY OF RURAL DEVELOPMENT

# RURAL ROAD MAINTENANCE TRAINING MODULES FOR FIELD ENGINEERS

## Module-8 OCCUPATIONAL HEALTH & SAFETY, ENVIRONMENTAL ISSUES AND DECENT WORK







Ministry of Rural Development

# RURAL ROAD MAINTENANCE TRAINING MODULES FOR FIELD ENGINEERS

## Module-8 Occupational Health & Safety, Environmental Issues and Decent Work



This training module is produced through a collaborative effort between the International Labour Organization and the National Rural Road Development Agency under the technical assistance component of the World Bank supported Rural Roads Project-II of Pradhan Mantri Gram Sadak Yojana Project (PMGSY).

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## **Contents:**

- Occupational health and safety in rural road maintenance works
- Environmental issues relating to road works
- Some laws concerning HSE in India

## **Learning Objective:**

At the end of this Module you are expected:

- To be able to identify the occupational health issues and mitigation measures
- To be able to identify the safety issues at road maintenance worksites and mitigation measures
- Temporary road signs used during road maintenance works
- To be able to identify the environmental issues arising out of road maintenance and mitigation measures
- To be aware of laws in place in India concerning Health, Safety and Environmental issues

## **Acknowledgement**

The following publications were also used as reference materials:

- Managing Maintenance of Rural Roads in India, ILO/NRRDA, January 2015
- Building Rural Roads, Bjorn Johannessen, International labour Organization, ILO Regional Office for Asia and the Pacific, 2008
- A Practitioner's Guide to Rural Roads Improvement and Maintenance, International Labour Organization and Government of Ghana, 2014
- Ministry of Labour and Employment, Government of India National Policy on Safety, Health and Environment at Work Place. 2009
- Ministry of Rural Development, Government of India, 2014. Standard Bidding Document for PMGSY for Construction and Maintenance.
- Ministry of Rural Development, Government of India, NRRDA Environment Codes of Practice (ECoP)

## Foreword

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Pradhan Mantri Gram Sadak Yojana (PMGSY), was launched in December, 2000 as a special intervention of the Government of India with the broad objective of ensuring sustainable poverty reduction. The scheme aims to provide good quality all-weather single connectivity to every eligible habitation. Rural roads are a state subject under the Constitution and as such are the basic responsibility of the states. However under the PMGSY, the construction of good quality and well-engineered roads are fully funded by the central government. Maintenance of these roads is the responsibility of the states. The year 2013 saw the launch of PMGSY-II with the objectives of consolidating the existing rural road network and upgrading existing rural roads that provide connectivity to rural growth centres. PMGSY-II envisages sharing of construction costs between the Centre and the states with maintenance costs continuing to be funded fully by the states.

Over the last 14 years, the PMGSY has carved out a place for itself as a programme characterised by creation of good quality assets, effective management and technical proficiency by the National Rural Road Development Agency (NRRDA), along with capable state road agencies. For implementation and operations, the involved agencies have been supported with detailed documentation in the form of programme guidelines, an operations manual, standard bidding documents, specifications, a standard data book, a procurement and contracts management manual and the Quality Assurance Hand Book with support from the Indian Roads Congress. These documents have also contributed significantly towards effective implementation of PMGSY and even for mainstreaming good practices in other rural roads programmes being executed by the states from their own resources.

An area of concern has been lack of regular maintenance as per the “Programme Guidelines”. However, in recent years, there has been increased awareness and commitment to maintenance by the states. The tempo needs to be sustained and further accelerated.

Under the technical assistance component of the World Bank supported Rural Roads Project-II, the International Labour Organization (ILO), in collaboration with NRRDA has prepared a manual “Managing Maintenance of Rural Roads in India”. This initiated the execution of maintenance works and the development of these training modules for engineers and contractors associated with rural road maintenance works. To strengthen such activities in the participating states of RRP-II, a series of training of trainers workshops were arranged at national and state level based on the course material developed.

The training modules broadly cover the principles for maintenance management of rural roads, planning and execution of common maintenance interventions to ensure reliable transport services and safety to users and the local communities served by the rural roads, and arrangements for monitoring the performance of contractors engaged for the task.

I would like to acknowledge the support of all those associated with the development of these training modules, especially the ILO and its technical assistance team, Mr. Htun Hlaing, Mr. Bjorn Johannessen and the project's Rural Roads Maintenance Engineers. I would also place on record the valuable suggestions of my colleagues Ms. Manju Rajpal, IAS, (ex Director – RC), Mr. R. Basavaraja, Director NRRDA, Mr. S. S. Bhatia, Deputy Director, NRRDA, Mr. A. K. Sharma, Consultant World Bank and senior engineers as well as secretaries from State Governments in bringing the document to its present shape.

I sincerely believe, the training modules would be found useful for the states in their efforts to secure adequate maintenance of all rural roads, not merely the PMGSY roads and improve maintenance practices so that benefits of access continue to remain available for our rural people on a sustainable basis.

(Rajesh Bhushan, IAS)  
JS (RC) & DG, NRRDA  
Ministry of Rural Development  
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# Introduction to Training Modules

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The purpose of this training manual is to provide technical management staff and contractors with appropriate guidelines for the effective management of road maintenance works. The training modules are based on the manual “Managing Maintenance of Rural Roads in India”. These modules broadly cover the principles for maintenance management of rural roads, planning and execution of common maintenance interventions to ensure reliable transport services and safety to users and the local communities served by the rural roads. The arrangements for monitoring the performance of contractors engaged for the task are also covered in these modules.

This manual is broken down into the following categories composed of different modules:

Module 1: INTRODUCTION

Module 2: TECHNICAL CONSIDERATIONS AND IMPLEMENTATION ARRANGEMENTS

Module 3: FINANCING RURAL ROAD MAINTENANCE

Module 4: PLANNING, INSPECTION, REPORTING AND MONITORING

Module 5: APPROPRIATE SETTING OUT TECHNIQUES

Module 6: HAND TOOLS, EQUIPMENT & CONSTRUCTION MATERIALS

Module 7: ROUTINE MAINTENANCE WORK METHODS

Module 8: OCCUPATIONAL HEALTH & SAFETY, ENVIRONMENTAL ISSUES AND DECENT WORK

Module 9: CONTRACT MANAGEMENT

The trainer may decide to conduct a full course consisting of all the nine modules or may selectively conduct specific modules depending on the needs of the target group.

As a general advice the trainer should:

- **Encourage active participation**

There is sometimes a tendency of the trainer to act like a teacher in school and to read or lecture directly from the course material. This behaviour should be avoided. Trainees remember information better if they participate actively in discussions and if there is a free exchange of views and of questions between everyone participating in the course.

- **Guiding the discussion**

There are times during a discussion when everyone wants to speak at the same time. When such situations arise, the trainer should insist that the group listen to one person at the time. If one speaker hijacks the floor too long, the trainer needs to interrupt, pointing out that other participants may also want to speak.

- **Listen attentively**

Equal attention should be paid to each speaker. Listen attentively and let the speaker understand that ideas and opinions expressed are both interesting and relevant. It is sometimes useful to take a brief note of participants' suggestions while they are speaking, noting them down on a flipchart or blackboard. A summary of these notes may prove useful for later discussions.

- **Emphasise important points**

Each time the participants make an important point or expresses an interesting opinion, the trainer should draw the group's attention to it by repeating the idea in simple terms which are understood by the majority of the trainees.

- **Preparing the sessions**

When trainees only listen to a description of how a particular job should be done, they are likely to forget what they heard. If however, they actually carry out the task concerned, they will remember how to do it. For this reason, every effort should be made to include as many practical exercises and demonstrations as possible, be they carried out on the worksite or in the training room. Practical sessions should always be carefully planned in advance.

- **Recapping**

A discussion is more than just a conversation. A subject is discussed with an aim in mind. It may occasionally be worthwhile recapping the topic considered and recalling the aim of the discussion by intervening from time to time to give a brief summary of the main points dealt with so far.

- **Questioning**

An important role of the trainer is to ensure that the atmosphere during training is sufficiently relaxed to allow participants to feel at ease to speak freely. Questions set by the trainer should not be regarded by the trainees as tests. Often there is no strict "right or wrong" answer to a question, except for mathematics. Questions should simply give your trainees the opportunity to put forward their individual points of view.



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# Occupational Health & Safety, Environmental Issues and Decent Work

## 8.1 INTRODUCTION

While optimizing the productivity, it is also important that the employers have a responsibility towards the employees to provide for their well-being and safety and towards the society to protect the environment. The Directive Principles of State Policy as laid down by the Constitution of India provide for securing the health and strength of employees, men and women, just and humane conditions of work and maternity relief are provided (Ministry of Labour and Employment, 2009). Health, Safety and Environment (HSE) policies are aimed at promoting occupational health, safety at work and environmental protection. The World Health Organization (WHO) defines the occupational health as that deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards, in which health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

As per the International Labour Organization (ILO) and the World Health Organization (WHO) adaptation, occupational health should aim at:

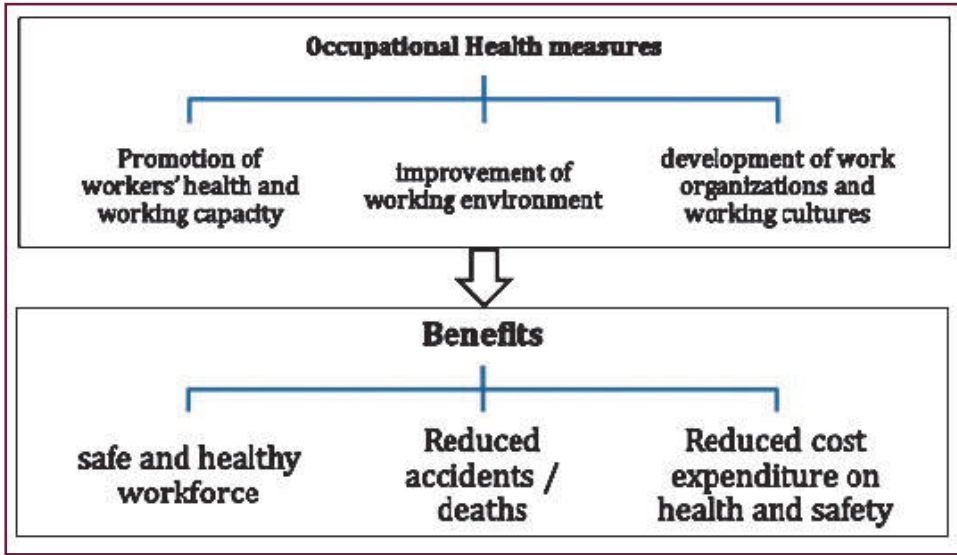
- The promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations;
- The prevention amongst workers of departures from health caused by their working conditions;
- The protection of workers in their employment from risks resulting from factors adverse to health;
- The placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities; and, to summarize,
- The adaptation of work to man and of each man to his job.

Occupational health can be achieved through three different objectives with benefits as given in Figure 1.

Environmental impacts can be reduced by identifying the activities that cause environmental degradation and adopting sustained strategies to reduce them. This is the collective responsibility of each individual and each organization towards the society as well as future generations.



Figure 1: Objectives of occupational health and resultant benefits



## 8.2 HSE IN RURAL ROAD MAINTENANCE WORKS

Road maintenance, particularly off-carriageway maintenance of rural road works, being labour-intensive, provide employment to large number of people, and thus the emphasis on safety and well-being is far more important. Also, the road construction and maintenance works have considerable environmental impacts and it is the duty of the agencies concerned to ensure these impacts are minimized lest the social costs of environmental degradation offset the benefits accrued by the connectivity.

Occupational health and safety are not separable as both have a substantive domain which is common to both. However, an effort has been made to separate these two by identifying the occupational health as that dealing with the general well-being of the workers while safety is seen as that preventing the hazards at workplace. To that extent, the environmental conservation retains a large degree of autonomy from these two aspects, viz. occupational health and safety, and deals more with the preservation of the surroundings.

## 8.3 OCCUPATIONAL HEALTH OF ROAD MAINTENANCE WORKERS

Occupational health deals with not only the health of the workers but also the overall well-being of the workers and their families. Managed well, the occupational health will nurture an efficient workforce and reduce overhead expenditure on accidents. Occupational health may not be viewed as a mere management technique but it is also a legal obligation the employer has

towards the workers based on several legislations in force by the Government of India. There are several indicators that help gauge the level of occupational health such as: -

- **General countenance of the workers** – happy, enthusiastic, grim or sad
- **Attendance of workers** – irregularity indicates poor wages, poor working conditions
- **Quality of work sites** – poor environment at working sites such as haphazard site layout, dusty, noisy conditions etc. indicate poor occupational health
- **Quality of tools, plants and equipment** – well maintained hand tools, plants and equipment indicate good standard of occupational health
- **Amenities to workers** – toilets for workers, spaces for keeping and feeding children, resting areas show good standard of occupational health

Some of the occupational health issues and their mitigation measures are given at Table 1. Most of these measures are relatively cheap compared to the benefits reaped due to the increased efficiency and reduced incidents that not only cost a lot but also have a demoralizing effect on the workers.

As it can be seen from Table 1 below, the mitigation measures need careful blend of contractual obligations put in place by the concerned construction agency and care taken for the workers on the part of the contractor which will go a long way in developing a healthy workforce in the state.

**Table 1:** *Some of the occupational health issues and mitigation measures*

Occupational Health Issue	Mitigation Measure
The exclusion of occupational health and safety issues in contract documents	Occupational health issues shall be noted and included in contract documents to make them obligatory/mandatory.
Engagement of workers in road repair activities with defective, damaged or inappropriate tools for a particular and specific task.	Contractors/supervisors should carefully plan and provide for their workers the appropriate and quality hand tools as are necessary for the execution of specific activities or tasks.
Engagement of workers to use machines and tools for which they have not been trained.	Contractors/supervisors shall provide on-the-job training to workers on how to handle and use available tools and machinery before engaging them.
Involvement of workers in activities without the provision of the appropriate protective wear.	Contractors/supervisors should provide appropriate protective wear to workers for specific activities/tasks. (Gumboots, gloves, overalls, helmets, etc.)
The exposure of workers to harsh environment such as prolonged heat from sunshine or heavy rains.	Temporary/makeshift shades/shelters shall be erected for purposes of avoiding rain, excessive sunshine and shade for breast feeding mothers and babies to sleep in.

Exposure to difficult working situations/ conditions such as quarry sites and thick forests among others.	Site assessment for potential risks involved and institution of possible accident prevention measures will be done prior to the commencement of work.
Non provision of First Aid Kits (FAKs), safe drinking water and food for workers by contractors/supervisors.	FAKs and trained personnel in administering first aid must always be available on the site for purposes of minor injuries.  Contractors should provide safe drinking water and food (either in kind or cash) to their workers and these should be spelt out very clearly in the terms of engagement.
Exposure to excessive noise from equipment that might affect the hearing ability of workers.	Provision of ear muffs to workers on such equipment should be done.
The exposure of workers to dust and other toxins from petroleum products during implementation of works.	Workers handling petroleum products must do so while wearing the right protective gear. Watering of dusty areas must be done with a water bowser at least three times a day to reduce dust levels to the barest minimum.
Non-provision of sanitary shelters for workers at work site or campsites.	Campsites should have shelters with provision for clean and safe sanitary facilities.
Lack of resting places for pregnant women and breastfeeding mothers.	Worksites should have childcare facilities (crèches) as well as breastfeeding arrangement for women workers.
Lack of informatory signposts indicating that work is in progress.	During execution of work especially at a site open to traffic, informatory signposts must be posted so as to lessen the risks of accidents to workers.
Carelessness and recklessness on the part of workers in relation to occupational health and safety issues.	Checks must be done by the department and contractors to ensure that workers are vigilant and alert at all times for their own safety.  Workers must see to it that they put to use their Personal Protective Equipment (PPE). These include appropriate foot wear, hand gloves, helmets and gumboots among others.

Source: ILO 2012

#### 8.4 SAFETY OF WORKSITE

Maintenance works essentially need to adhere to the same safety regulations as are observed while carrying out construction works. This applies to both equipment and workers on site as also in relation to third parties such as traffic passing on the road and people and property in the vicinity of the work sites. Workers on site need to be instructed about potential hazards and be issued necessary protective gear, thereby reducing the risks of accidents.

Many road maintenance operations are potentially dangerous both to the maintenance workers and to the road users. There is clear a evidence that

the accident rates increase on the road sections where works are taking place - as compared to where the roads are in good condition and free from any obstructing activities of construction / maintenance. To reduce the risk of accidents where road works take place, it is necessary to install adequate safety measures.

A few safety issues concerning the road repair worksites are given in Table 2. It may be noted that the list is, by no means, comprehensive and the site engineers and contractors are the best judges of the safety measures that should be put in place to prevent any incidents.

**Table 2:** *Some safety issues at road repair worksites and mitigation measures*

Occupational Safety Issue	Mitigation Measure
<b>Quarry sites</b>	
Possible injuries during blasting	Standard procedures of communication and posting of sentries/ look-out men for early-warning with trained and rehearsed communication methods.
Injury due to falling loose rocks/ stones	Posting of sentries in hazardous work sites and compulsory wearing of helmets on the worksites.
Splinters during stone breaking / jackhammering	Compulsory wearing of helmets and goggles by personnel involved in such activities.
Accidents involving vehicles	Properly marked paths to loading and unloading sites, guides for directing the vehicles to unloading sites / waiting areas.
	Vehicles driven only by trained drivers.
	Compulsory co-drivers for guidance during vehicle backing operations.
Accidents involving plants/ equipment	Only properly trained men for operation.
<b>Road maintenance sites</b>	
Safety of and from traffic	Providing adequate traffic signs and protection at locations where works are taking place. Where necessary, traffic should be stopped during the placement or removal of temporary signs.
	Guides to be placed where traffic is heavy and necessity is felt.
	This aspect is further discussed in the next sub-section.
Injuries due to falling loose stones (in hilly terrains)	Arranging for safety vests and appropriate protective gear such as helmets to be worn by the workers.
	Where probability is more, posting of look-out men for early-warning with trained and rehearsed communication methods.
Injuries due to hot bitumen	Taking proper precautions when handling dangerous substances (e.g. hot bitumen, corrosive or poisonous substances), such as wearing protective boots, gloves etc.



Miscellaneous hazards	Ensuring that no materials are left in a dangerous location and that the road adjacent to the worksite is kept clean and swept of any debris arising from the maintenance work.
	Placing proper warning signs and taking appropriate measures to protect unfinished work on the carriageway or shoulders ensuring that all sites are left tidy and cleared of debris when the work is complete.
	Protecting all excavations for the benefit of all road users, equipment and workers.
	Ensure that inconvenience caused to road users is minimized.
Accidents involving vehicles/ plants	Ensuring that all plant and vehicles are parked off the carriage-way or behind protective barriers and signs, when not in use.
	Properly trained operators.
	Informing operators and workers of the potential risks and putting in place procedures for working on or close to the machinery.
Injuries involving tools/ implements	Careful handling of tools / implements.
	Issue of tools / implements in good condition.
	Suitable personnel for handling of tools / implements
	Development of skill through training.
<b>Sites of cross-drainage works and protection works</b>	
Falls from heights	Insistence on proper protection gear such as harnessing, belaying, wearing of helmets etc.
	Buddy system while working at heights ensuring all ladders or scaffolding used in bridge maintenance are securely fixed
Flooding	Insistence on safety lines, life jackets and posting of look-out men for early warning
Traffic accidents	Proper markings for diversions and guides where necessary
<b>Safety related to transport, plants and equipment</b>	
Accident during commute to work sites	Avoid over-crowding of labour in the vehicles
	Proper rest for drivers
	Compulsory co-drivers
	Driver sensitization
Noise and dust related impairments	Compulsory wearing of protection gear such as hearing muffs, goggles etc.
	Watering of worksites periodically to avoid dust
	Issue out jaggery for personnel working in dusty work sites

There is considerable scope for improving safety practices on road worksites and this also applies when maintenance is carried out on rural roads. Most measures to improve safety at worksites are inexpensive to implement and

are often a matter of setting minimum standards and enforcing these. A key to improving safety, therefore, lies with the clients and its supervisory staff and introducing appropriate procedures for enforcing standard safety measures as part of the regular inspection routines.

The costs of ensuring safety of worksites are very less compared to the costs it saves on the count of direct costs such as loss of equipment, compensations to workers, time lost during work etc. as well as indirect costs such as distress, sagging morale of workers, deterioration of employer-employee relationship etc.

## 8.5 SIGNS AND SAFETY EQUIPMENT

When working on the roadside or carriageway, traffic from both directions must be alerted. The following signs and barriers are useful for this purpose:

- Reversible 'Stop/Go' signs
- Speed limit signs (30 km/hr)
- 'Work in Progress' signs
- 'No Overtaking' signs
- 'Road Narrows' signs
- 'End of Restriction' signs
- Lane closure barriers and
- Traffic cones, as many as required.

In addition to reflective vests, workers should be issued with various personal protective equipment depending on the work being undertaken, such as gloves, helmets, boots, overalls, dust masks, goggles and ear muffs.

Figure 2: Some road safety signs



## 8.6 TEMPORARY SIGNPOSTING

Temporary signs should be placed well ahead of the site from both directions to warn traffic and reduce the speed, both for work off-carriageway and on the carriageway. It is important to install sufficient measures to ensure that the speed of traffic is reduced before it arrives at the work site.

At the work site, all damages to the road which pose a danger to the traffic should be properly marked so that the traffic is guided away at a safe distance. Equally, the traffic should be properly separated from where works take place. The work site needs to be protected so that the traffic does not pose any danger to the workers, materials or equipment.





**Table 3:** Some of the environmental issues arising out of road maintenance and mitigation measures

Environmental issue	Mitigation Measures
Indiscreet deforestation	Tree cutting to be permitted only under extremely necessary conditions
	Only fallen twigs to be used as firewood
Inappropriate stone / sand quarry sites	Stone quarry sites should be so chosen as not to cause landslides/ avalanches
	No stone/sand quarrying on the upstream side of river bed of a habitat / on the banks that are vulnerable to flooding
	No stone/sand quarrying on the upstream side of bridges/causeways
Air and noise pollution to habitats	No plant / equipment to be placed close to villages / habitats
	When compulsory, the work planned in such a way that least nuisance is caused to local population due to plant / equipment
	Placement of plant and equipment must take in to consideration the possible disasters like landslides and avalanches due to noise and vibrations

With the growing concerns of global warming and its adverse effects, witnessed mostly in developing countries, the importance of the road maintenance agencies to conform to the environmental protection norms needs no emphasis. It is the responsibility of road construction agencies as well as contractors to give a high priority to environmental protection over cost-savings and conveniences.

## 8.8 SOME LAWS CONCERNING HSE IN INDIA

There are several legislations made in the country to make sure that the employees are treated justly and their safety and wellbeing are taken care of as also that the environment is protected. It is important that the road construction agencies and contractors are aware of their obligations towards HSE. Some of the prevailing laws in the country that have a direct impact on the HSE in the country are as given in the following sub-sections.

### 8.8.1 Constitutional Rights

- Article 14** states everyone should be equal before the law.
- Article 16** extends a right of “equality of opportunity” for employment or appointment under the state.
- Article 19(1)(c)** gives everyone a specific right “to form associations or unions”.
- Article 23** prohibits all trafficking and forced labour.

**Article 24** prohibits child labour under 14 years old in a factory, mine or “any other hazardous employment”.

**Article 38(1)** says that in general the state should “strive to promote the welfare of the people” with a “social order in which justice, social, economic and political, shall inform all the institutions of national life.

## 8.8.2 Wage Regulations

### ***The Payment of Wages Act 1936***

Employees receive wages, on time, and without any unauthorized deductions. Section 6 requires that people are paid in money rather than in kind.

### ***The Minimum Wages Act 1948***

Sets wages for different economic sectors.

Central and state governments have discretion to set wages according to kind of work and location.

State governments have their own minimum wage schedules.

### ***The Payment of Gratuity Act 1972***

Gratuity is a payment by the employer given to service personnel on retirement, discharge etc.

Applies to establishments with 10 or more workers

Gratuity is payable to the employee with continuous service of five years or more, if he or she resigns or retires

The Indian government mandates that this payment be at the rate of 15 days salary of the employee for each completed year of service subject to a maximum of ₹ 100,000.

### ***The Payment of Bonus Act 1965***

Applies to enterprises with over 20 people.

Requires bonus paid out of profits based on productivity.

The minimum bonus is currently 8.33% of salary.

### ***Employees P.F. and Miscellaneous Provision Act 1952***

The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:

- (i) Pension or family pension on retirement or death as the case may be.
- (ii) Deposit linked insurance on the death in harness of the worker.
- (iii) Payment of P.F. accumulation on retirement/death etc.

### ***Maternity Benefit Act 1951***

The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

### ***Equal Remuneration Act 1976***

Duty of employer to pay equal remuneration to men and women workers for same work or work of similar nature.

No discrimination to be made while recruiting men and women workers.

Power of appropriate Government to appoint authorities for hearing and deciding claims and complaints.

## **8.8.3 Health and Safety**

### ***The Workmen's Compensation Act 1923***

Requires that compensation is paid if workers are injured in the course of employment for injuries, or benefits to dependents.

### ***Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979***

Equal pay to migrant workmen at par with the workers with similar work in the establishment

Displacement allowance at the rate of half of monthly wages or ₹ 75 whichever is higher, at the time of recruitment

Journey allowance sum not less than the fare from the place of residence of the inter-State migrant workman in his State to the place of work in the other State by the contractor to the workman both for the outward and return journeys

Other amenities such as regular payment of wages, equal pay for equal work irrespective of sex, suitable conditions of work, suitable residential accommodation, prescribed medical facilities free of charge, protective clothing etc.

### ***Bonded Labour System (Abolition) Act 1976***

Abolishes bonded labour.





### ***Child Labour (Prohibition and Abolition) Act 1986***

No child shall be employed or permitted to work in any of the occupations set forth in Part A of its Schedule or in any workshop wherein any of the processes set forth in Part B of its Schedule is carried on.

### ***Contract Labour (Regulation & Abolition) Act 1970***

The Act provides for certain welfare measures to be provided by the contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided by the principal employer by Law. The principal employer is required to take Certificate of Registration and the contractor is required to take license from the designated Officer. The Act is applicable to the establishments or contractor of principal employer if they employ prescribed minimum (say 20) or more contract labour.

### ***National Rural Employment Guarantee Act 2005***

**Objective:** To enhance livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year to every household.

**Primary Objective:** Employment Creation.

**Auxiliary Objective:** Regenerating natural resource base and creating productive assets.

**Process Objective:** Strengthening grass root processes of democracy infusing transparency and accountability in governance.

### ***Industrial Disputes Act 1947***

The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

### ***Industrial Employment (Standing Orders) Act 1946***

It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get these certified by the designated Authority.

### ***Trade Unions Act 1926***

The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.

### ***The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996***

All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

### ***Factories Act 1948***

The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

## **8.8.4 The Environmental Conservation**

### ***The Environment (Protection) Act, 1986***

No person carrying on any industry, operation or process shall discharge or emit or permit to be discharged or emitted any environmental pollutants in excess of such standards as may be prescribed.

No person shall handle or cause to be handled any hazardous substance except in accordance with such procedure and after complying with such safeguards as may be prescribed.

After the completion of work, the contractor should remove all his equipment, machineries, surplus construction materials, labour camps, debris etc. from the site and its surrounding agricultural / non-agricultural lands, side-walks, pathways, water channels, drains, side drains etc.

### ***The Wildlife Protection Act, 1972***

No person shall hunt any wild animal specified in Schedule I, II, III and IV, except in self-defense no person shall wilfully pick, uproot, damage, destroy, acquire or collect any specified plant from any forest land and any area specified or possess, sell, offer for sale, or transfer by way to gift or otherwise,

or transport any specified plant, whether alive or dead, or part or derivative thereof.

No person shall destroy, exploit or remove any wild life from a sanctuary or destroy or damage the habitat of any wild animal or deprive any wild animal of its habitat.

In addition, all related NRRDA Environmental Codes of Practice from ECoP 1.0 to ECoP 20.0 and any other instructions issued by the Union/ State Governments may strictly be adhered to during the road maintenance operations.

### **8.9 CONCLUSION**

It is the constitutional obligation of the employers to provide healthy and safe working environment for the workers as also protect the environment in which they live. The safeguards and measures taken to ensure the above are relatively inexpensive vis a vis the savings in costs in terms of savings in preventing probable accidents, enhanced morale of the workers and resultant enhancement in worker efficiency and enhanced efficiency of plants and equipment. All the employers should be conversant with various laws of the land that pertain to the healthy working conditions, safe worksites and preservation of environment and should strive to improve the HSE within their jurisdictions.

## ANNEX 1: PROMOTING DECENT WORK FOR ALL



### Promoting Decent Work for All

Work is central to people's well-being. In addition to providing income, work can pave the way for broader social and economic advancement, strengthening individuals, their families and communities. Such progress, however, hinges on work that is decent. Decent work sums up the aspirations of people in their working lives.

The ILO has developed an agenda for the community of work. It provides support through integrated **Decent Work Country Programmes (DWCPs)** developed in collaboration with its tripartite constituents. With gender equality as crosscutting, the decent work agenda is about:

1. **Creating Jobs** – an economy that generates opportunities for investment, entrepreneurship, skills development, job creation and sustainable livelihoods
2. **Guaranteeing rights at work** - to obtain recognition and respect for the rights of workers. All workers, and in particular disadvantaged or poor workers, need representation, participation, and laws that work for their interests.
3. **Extending social protection** - to promote both inclusion and productivity by ensuring that women and men enjoy working conditions that are safe, allow adequate free time and rest, take into account family and social values, provide for adequate compensation in case of lost or reduced income and permit access to adequate healthcare.
4. **Promoting social dialogue** - by involving strong and independent workers' and employers' organizations, which is central to increasing productivity, avoiding disputes at work, and building cohesive societies.

#### *An ILO concept, an international consensus*

The Decent Work concept was formulated by the ILO's constituents – governments and employers and workers – as a means to identify the Organization's major priorities. It is based on the understanding that work is a source of personal dignity, family stability, peace in the community, democracies that deliver for people, and economic growth that expands opportunities for productive jobs and enterprise development.

Decent Work reflects priorities on the social, economic and political agenda of countries and the international system. In a relatively short time this concept has forged an international consensus among governments, employers, workers and civil society that productive employment and Decent Work are key elements to achieving a fair globalization, reducing poverty and achieving equitable, inclusive, and sustainable development.

#### *Decent Work Country Programme – India*

The first DWCP-India, aligned to India's 11th Five-Year Plan, covered the period 2007-12. The second DWCP-India covers the period 2013-17 and is aligned to India's 12th Five-Year Plan as well as the United Nations Development Action Framework (2013-17). DWCP- India (2013-17) has 4 priorities. The four priorities focus on promotion of International Labour Standards & Fundamental Principles and Rights at Work, promotion of policies for job-rich and inclusive growth especially for women, youth and disadvantaged groups; building a national protection floor and strengthening workplace compliance as well as enhancement of labour administration, tripartism and social dialogue at national and state levels.







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