



REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE
MINISTÉRIO DE DESENVOLVIMENTO E DE REFORMA INSTITUCIONAL



Roads for Development Program

Basic Safety and Health Guidelines for **Rural Road Works**



1. Introduction

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 Timor-Leste.

The Democratic Republic of Timor-Leste Constitution and the Labour Code are explicit in guaranteeing equal rights and responsibilities for all citizens of the country. Any discrimination based on sex, physical or mental condition, religion, or ethnic origin is prohibited. Based on the national laws, women shall enjoy the same rights and obligations as men in work and in professional opportunities, and people with disability shall have the same rights to work and earn the same level of salaries as any other citizen. The laws prohibit all forms of violence, abuse, harassment and oppression. Protection of children is considered to be the joint responsibility of family, communities and the state and it is illegal to engage workers of less than 18 years of age to any activities that might be harmful for their physical or mental health.

The Democratic Republic of Timor-Leste Labour Code also outlines minimum standards and practices at work that all employers shall adhere to. Workers have a right to safe and hygienic working conditions and breaks from work. Workers also have a right to be compensated for any occupational accidents or work-related illnesses that have occurred during the normal performance of their duties. The Labour Code specifically stipulates that the measures or activities relating to workplace safety, hygiene and health shall be provided at no cost to the workers.

These basic **“safety and health guidelines”** provides the opportunity for all stakeholders to demonstrate good practices related to the compliance and enforcement of the national occupational health and safety in rural road works.

Site safety is the responsibility of all. It is therefore important for both employers and employees to be aware of potential risks and take action to mitigate them.

2. Safety requirements of Employers and Workers

Safety requirements of the Employer

Every Employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of his/her Employees.

Each employers are required to ensure that:

- working conditions and equipment are safe
- site safety is regularly inspected
- workers have been adequately trained for the job they are expected to do
- site safety measures are implemented
- the best solutions are adopted using available resources and skills
- necessary personal protective equipment is available and used
- provide insurance to all workers to compensate them (or their survivors) if the insured worker suffers injury, illness, or death due to circumstances related to his or her work.

Safety Requirements of Workers

All workers on a construction/rehabilitation or maintenance site are required to observe the following:

- Are required not to tamper with or misuse safety equipment provided
- Must use the safety equipment provided
- Should not do anything at a workplace that could threaten the safety of any person
- Should carry out any lawful order given to him/her
- Should obey the safety rules and procedures laid down by the Employer or any Authorized Person
- Report any unsafe situation at or near his/her workplace to the Contractor

3. Occupational health issues and mitigation measures

Due to the nature of road works, safety and health is one of the most crucial social safeguard components. Some of the provisions are very easy to implement and can be provided with a relatively low cost, such as first aid kits and safe drinking water to the workers. It is crucial to note though that even if some of the provisions can be more costly, these costs are often quickly recovered by an increased productivity of the workers.

Usual risks in labour-based operations include: **i)** *discomfort and illness related to a lack of safe drinking water, excessive exposure to sun, wind or rain and the absence of basic toilet facilities;* **ii)** *minor injuries from construction materials, tools and surroundings;* **iii)** *fatigue associated with long working hours, lack of rest periods, the organization of the work and its difficulty;* and **iv)** *minor injuries associated with inappropriate working techniques (e.g. carrying or lifting extremely heavy loads, repetitive work without appropriate breaks, etc.)*

Special risks include: **i)** *injuries caused by hazardous working environments (e.g. falling rocks and areas prone to landslides);* **ii)** *injuries associated with the operation of hazardous equipment or tools (e.g. unguarded machinery, vehicles) ();* or **iii)** *injuries associated with misuse or improper methods from lack of proper training and/or sufficient oversight.*

To minimize these risks, suitable personal protective equipment provided and maintained by the employer, at no cost to the worker, to protect against the risk of accident or injury to health. Workers should be instructed on how to correctly use the personal protective equipment and know how to detect and report any faults.

Some of the occupational health issues and their mitigation measures are given in 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.

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 Bill of Quantities (BoQ) and all other 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 should be done prior to the commencement of work.
Non provision of First Aid Kits , safe drinking water for workers by contractors/supervisors	First Aid Kits 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 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 protection 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.

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. These include appropriate foot wear, hand gloves, helmets and gumboots among others.

4. Personal protective equipment

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Table 2 shows the mandatory types of safety equipment provided to workers in R4D.

The personal protective equipment must suit the user; consider gender, its size, fit and weight. Workers must make proper use of the equipment; those who help chose the equipment are more likely to use it. All equipment must be maintained, kept clean and stored in a safe place when not in use. When damaged it must be replaced.

Table 2: Mandatory types of safety equipment provided to workers

Type of Task	Required Safety Gear	Why
Digging, carrying, levelling; working with cement, concrete bitumen or similar material; working with metals	 Gloves	Repetitive work without gloves can cause abrasions and other minor injury. Work with metals can cause cuts that could lead to tetanus or other infections.
Working with sharp tools (e.g. pick axes); carrying heavy loads; working with cement, concrete bitumen or similar material	 Boots	A minor mistake from any of these tasks could cause serious injury to the feet, potentially resulting in permanent physical disability.
Breaking rocks	 Safety goggles	A stone flying into a worker's eye may cause serious injury, including permanent loss of sight.
Works under bridges or lower parts of steep slopes where rocks may fall	 Safety hats	If a heavy item falls on a person's head and the person is not wearing a safety hat, this could cause serious injury, even death.
Any work in an intersection or on a road that has traffic	 Bright Vest	Bright vests will help drivers identify workers from a distance and prevent collision
Work that produces a lot of dust	 Masks	Dust can cause respiratory problems, which is especially serious for persons with asthma, allergies and other similar health issues.
Noise related impairments	 Ear Protection	Ear protectors help to protect hearing from loud noise. In dirty and dusty environments, earmuffs are the recommended form of ear protection

5. Disability inclusion

There are also many tasks in road construction that people with disability can perform. People with disability should be consulted with about what kinds of works they are able to do and what types of works they might have difficulty with.

Where necessary, reasonable accommodation should be made for people with disability as to resting breaks, modified tools or safety gear, to allow them to work in a safe and productive manner. Workers with disability should be consulted with about what accommodations they may need.

The following table may guide you in assigning people with disability to specific types of tasks but it should not replace actually asking someone about their capabilities.

Table 3: Examples of tasks carried out by people with different types of disability

Disability	Examples of works that may be carried out
Person with amputation (one leg)	Excavation, loading, unloading, crushing of stone, screening of material, mixing of concrete and mortar, construction of dry and mortared masonry work, dressing of stone paving blocks, weaving of gabion baskets, supervision of work teams.
Person with amputation (two legs)	Crushing of stone, dressing of stone paving blocks, weaving of gabion baskets, preparation of stone for stone masonry work, flagman, cleaning and maintenance of tools.
Person who uses a wheelchair	Crushing of stone, dressing of stone paving blocks, flagman, cleaning and maintenance of tools.
Person with amputation (one hand or arm)	Flagman, control of work team.
Person with hearing impairment	All tasks except blasting. Other persons should be informed about their disability.
Person with a slight vision impairment (e.g. one eye without sight)	All tasks, but tasks such as breaking stones, where further injury to eyes may occur, are not recommended.
Person with a significant vision impairment	Depending on the severity of the condition, weaving gabion baskets, cleaning and maintaining tools.
Person who cannot speak	All tasks, but other persons should be informed about disability.

6. Prevention through pictures

Take note of the following illustrations that may guide you in basic health and safety practices.



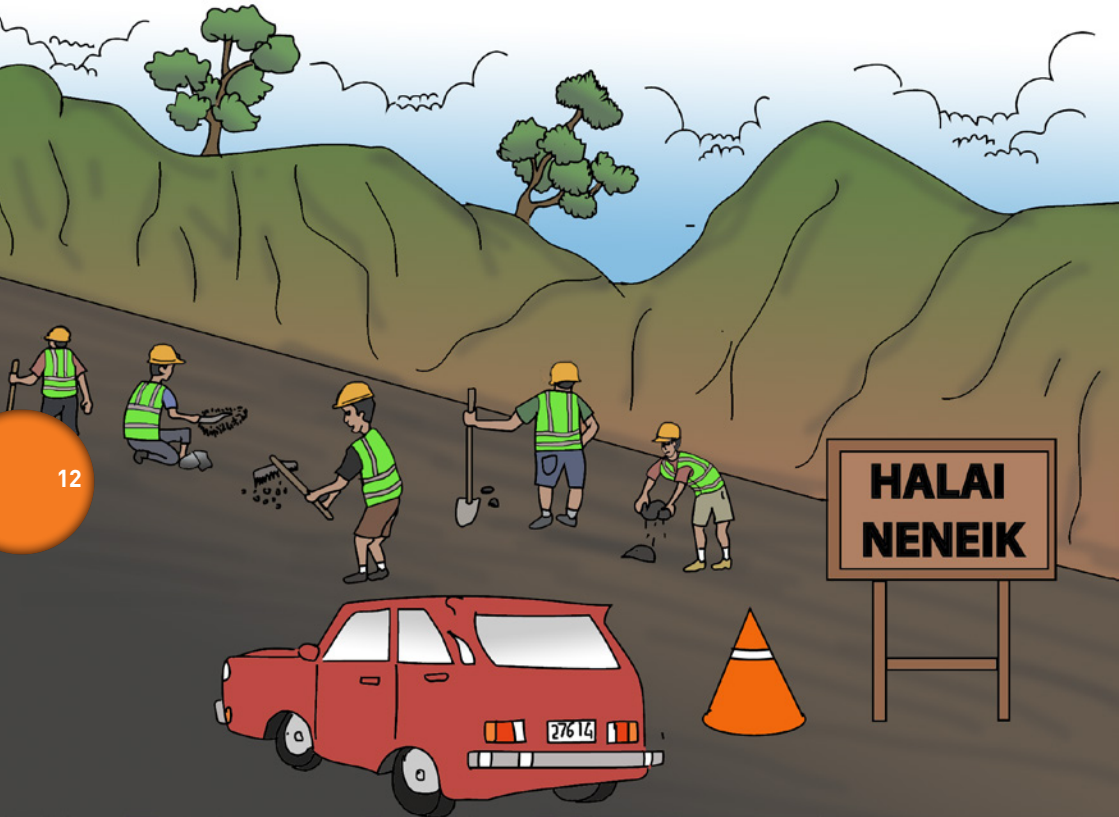
1. Heavy machinery and site safety

- Be aware of heavy equipment such as rollers
- Do not stand behind reversing vehicles
- Keep children away from road works or accompany them through the construction site if they need to pass



2. Signage and Traffic Cones

If the road is open, **signage or traffic cones** should be placed before and after workers.



3. High-visibility vests

High-visibility vests should be worn when workers are working on the edge of the road e.g. cutting grass. This will allow drivers to see them and take action to avoid hitting the workers.



4. Hard hats

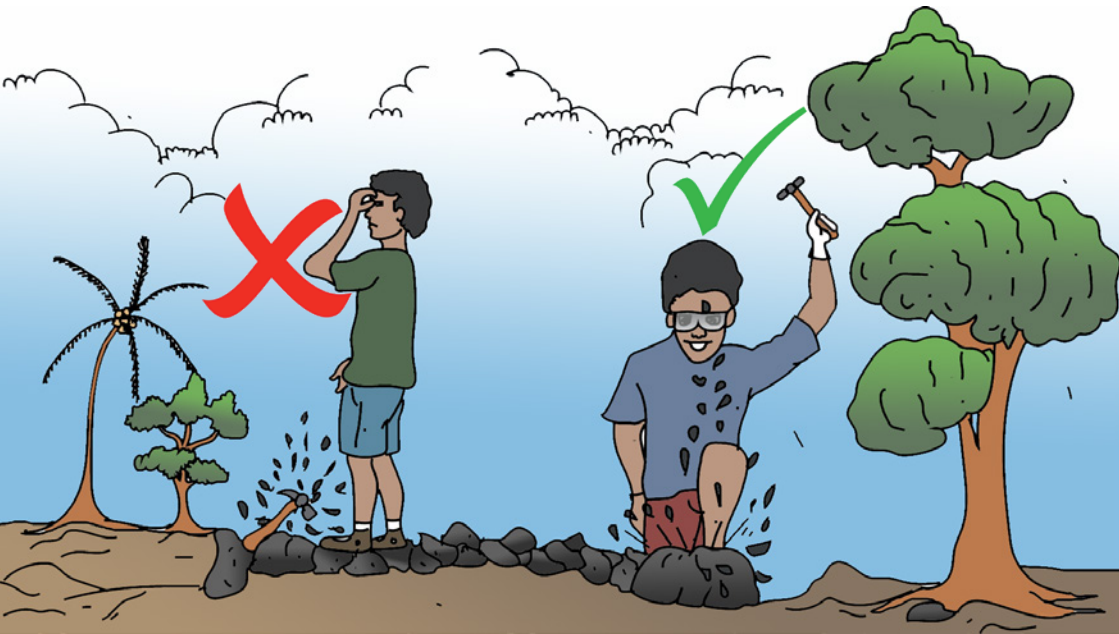
Hard hats should be worn when there is a risk of falling objects e.g. constructing gabion boxes below the level of the road.



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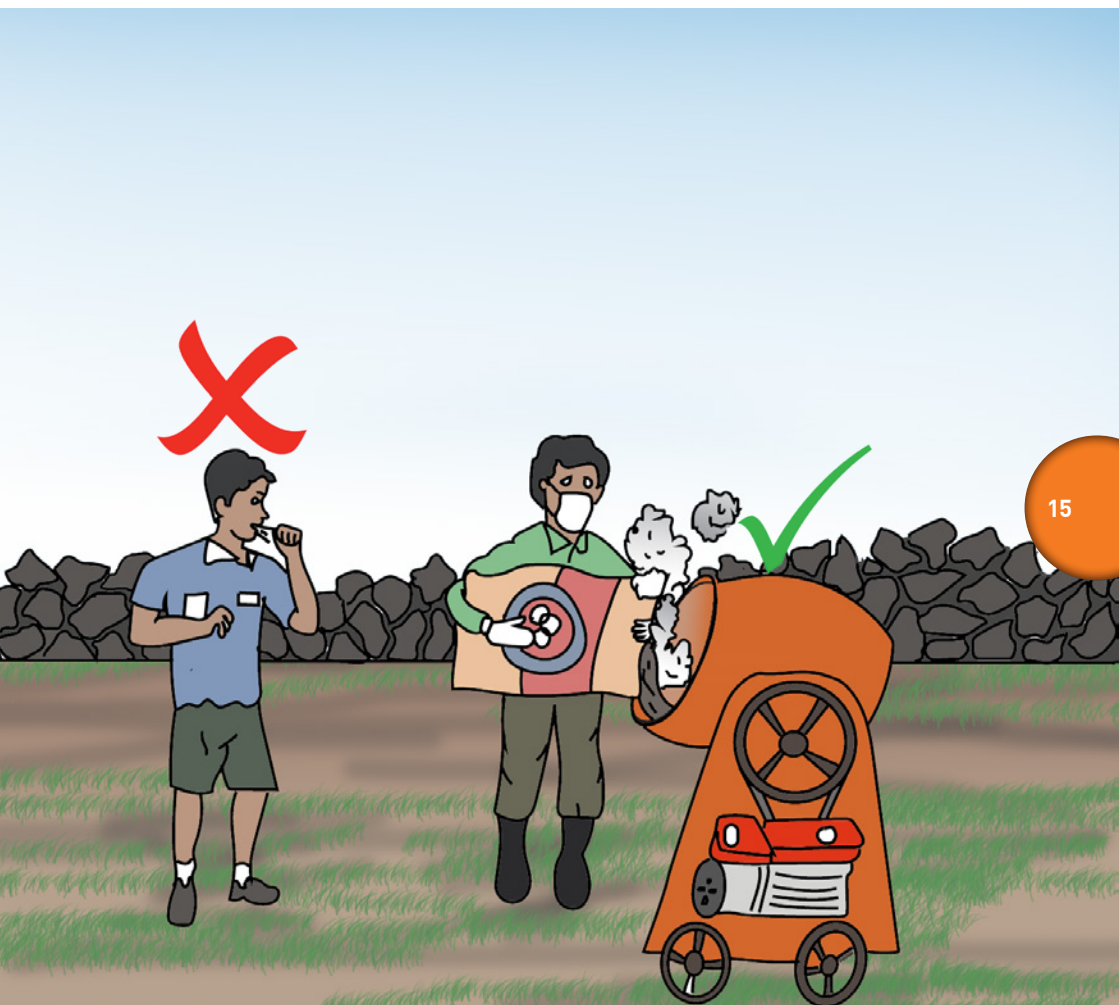
5. Safety goggles

Safety goggles should be worn when breaking rocks to prevent shards entering the eyes.



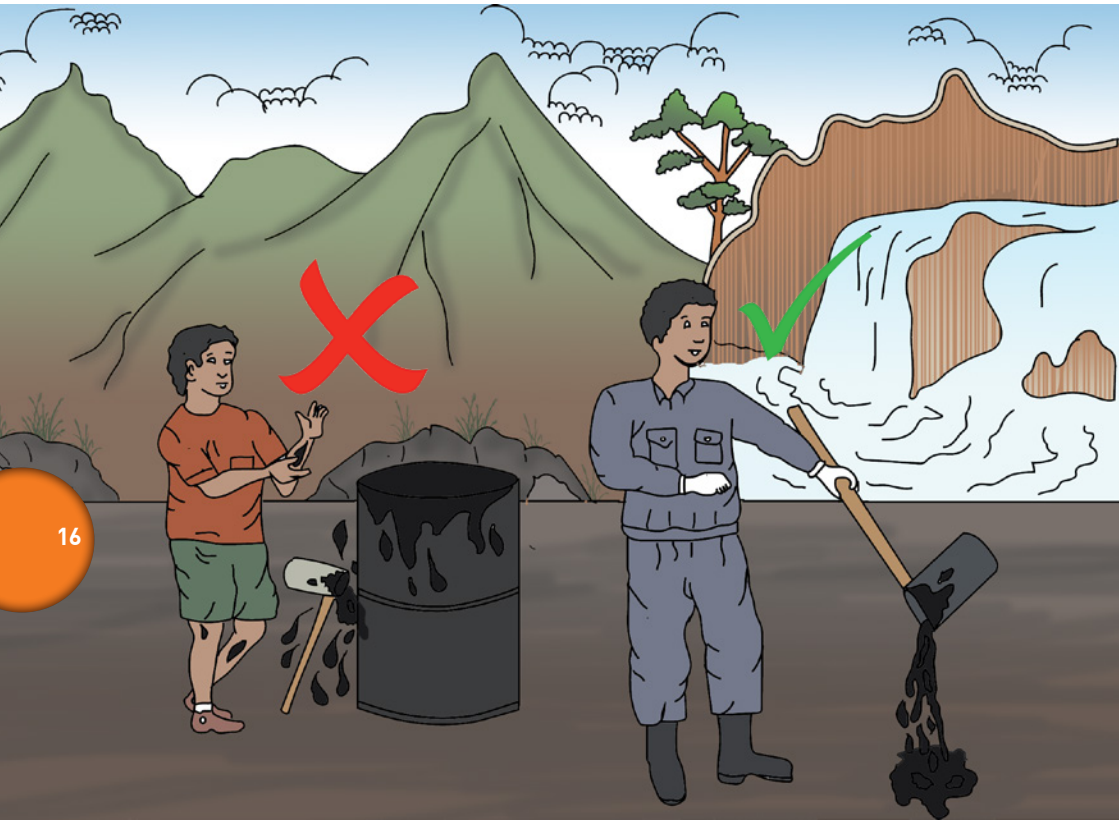
6. Dust masks

Dust masks should be worn when pouring dry cement or on very dusty roads. This will reduce the risk of damaging workers' lungs or developing respiratory problems.



7. Full-length overalls and gloves

Full-length overalls and gloves should be worn when handling hot bitumen to reduce risk of burns.



8. First aid

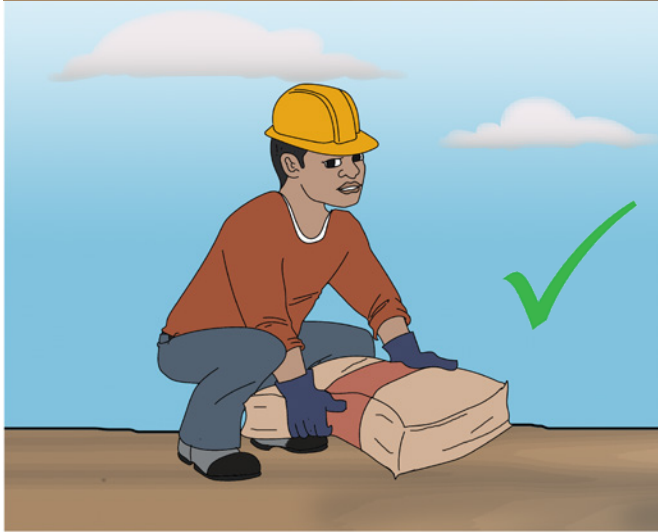
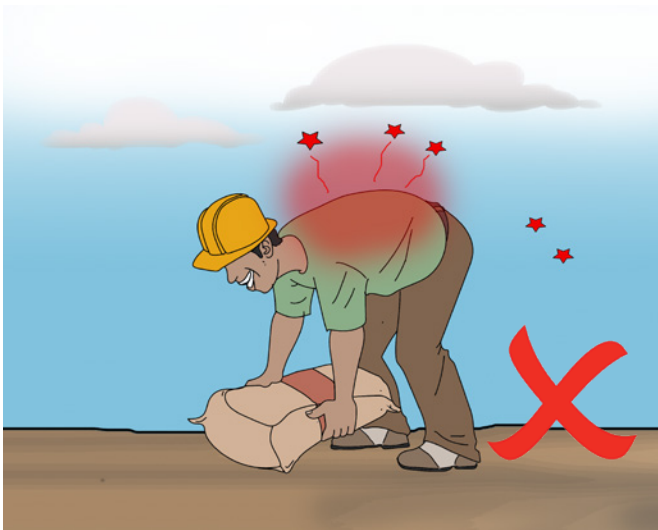
Making the right **first aid** response when incidents happen is critical. It could literally save someone's life.



9. Heavy loads

Heavy loads should never be lifted alone but together with other people. All lifting work should be done in a good posture so that legs do most of the lifting, thus minimizing the effects on workers' backs.

- Where the maximum permissible weight which may be transported manually by one adult male worker is more than 55 kg, measures should be taken as speedily as possible to reduce it to that level.
- No woman should be assigned to manual transport of loads during a pregnancy which has been medically determined or during the ten weeks following confinement if in the opinion of a qualified physician such work is likely to impair her health or that of her child.



10. Clean drinking water

Workers should also be provided with at least 2 litres per 8-hour shift of safe and **clean drinking water**

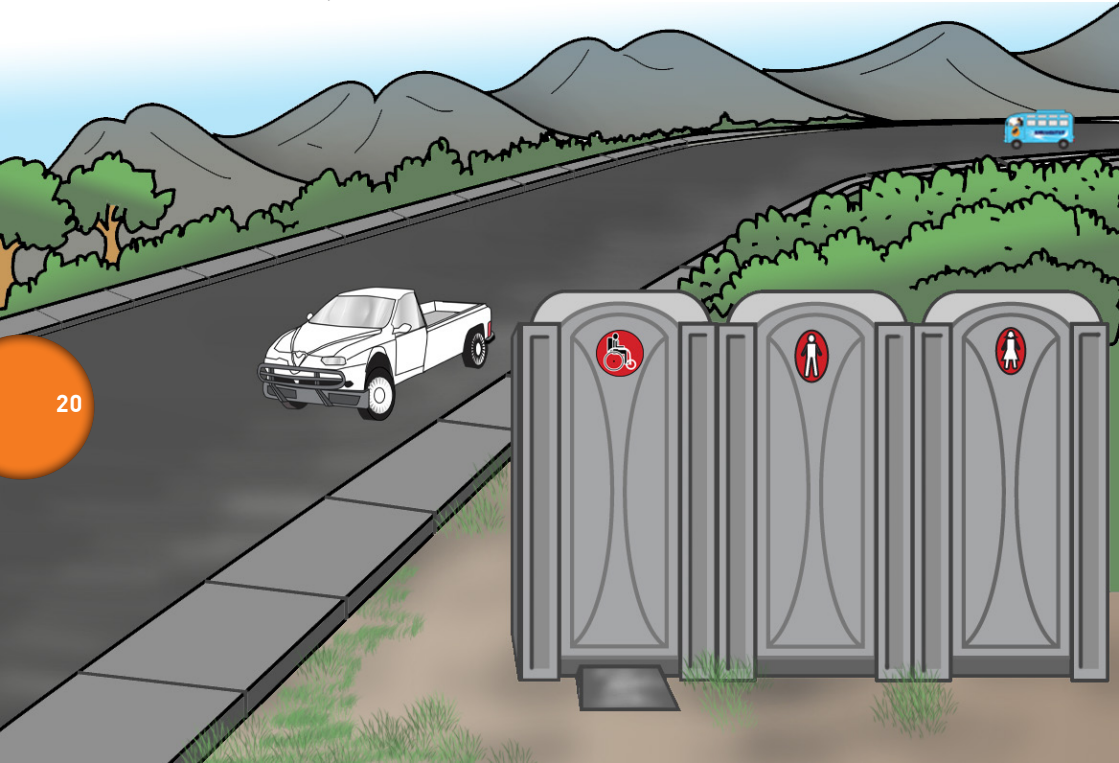
- No alcohol consumption is allowed during working hours onsite.



11. Toilets

At campsites, **Toilets** must be private and secure and within 500 metres of all work sites, beyond the camp limits as required.

- All toilets should be clean
- Water and soap should be present for washing hands
- Men's and women's toilets should be separated if requested by the community



12. On labour-based sites

On labour-based sites, works should be organized such that workers are well spaced out through individual or group task work.



13. Zero Tolerance to Sexual Harassment

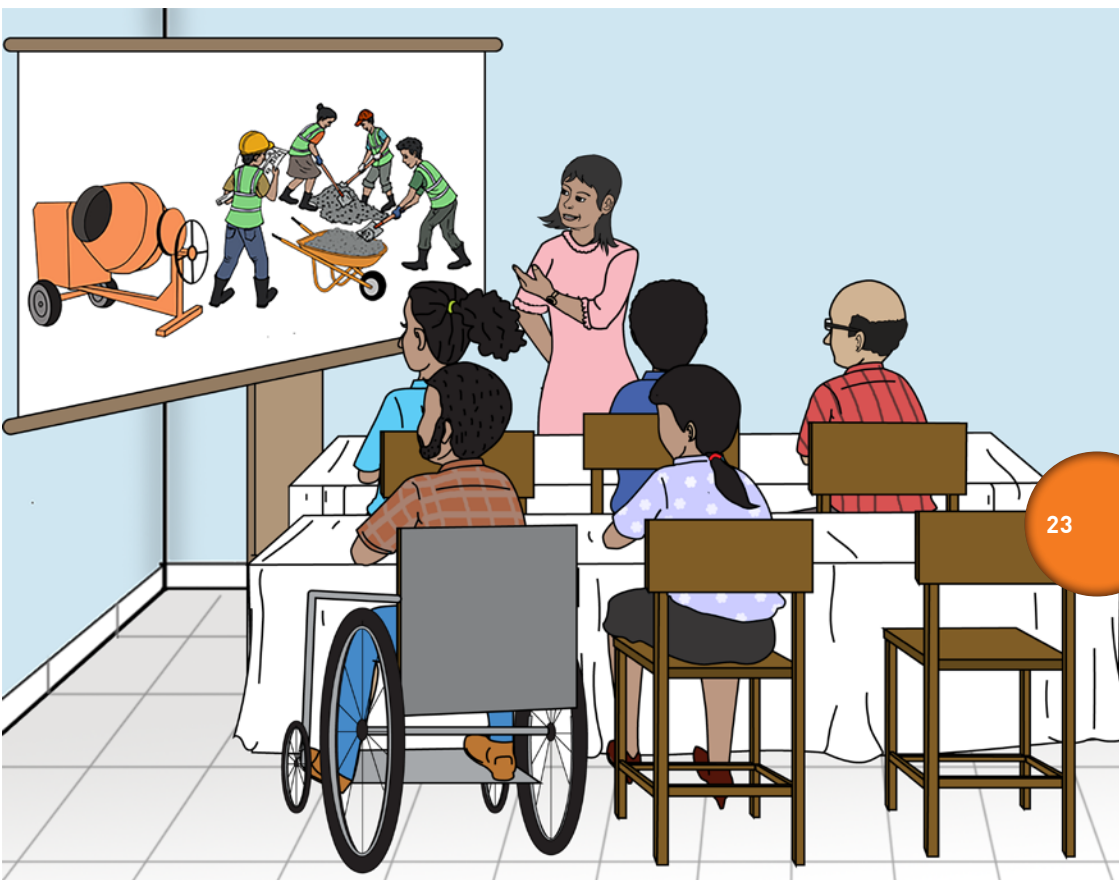
Ensure that the work environment promotes women's and men's efficiency and that it does not sustain gender based violence and stereotypes

- Train staff to recognize signs of violence against women and understand laws and existing policies on gender based violence, sexual harassment, and sexual exploitation



14. Information and training

Many of the rural road construction hazards can be contained or avoided if proper safety **information and training** is provided.



5. Annex

Instructions:

- To be completed at least once a month by the site supervisors or community Development officers
- Site supervisor/ community Development officers to inspect the work site and interview workers to check compliance on the below occupational Health and safety social measures.
- Site supervisor/ community Development officers should speak to the Contractor's Representative to confirm and discuss follow-up if necessary.

District:	Suco:	Road Name:		
Contract Package:	Contractor name:	Compliance (Tick appropriate box)		
Obligatory Measures		Yes	No	N/A
Sufficient, safe drinking water provided to workers (2 litre/person)				
Complete First Aid Kit present at site camp and small first aid kit present where works are being carried out				
Clean toilets every 500m if applicable (for rehabilitation packages only)				
Workers on site at least 18 years of age				
Children not present at the work site (excluding those using the road for commuting)				
Proper tools provided for the workers to conduct their work				
Safety equipment is being used where appropriate (refer to this Basic safety and Health Guidelines) – if not, detail in Remarks section.				
Workers reported having received instructions regarding safety and health procedures				
Did the contractor take proper action if incidents of sexual harassment occurred?				
If no, explain...				

Road furniture, warning signs, traffic cones, safety barriers etc. in place			
Remarks and corrective measures instructed to the contractor:			
Date of Field Check :	Field Review Conducted by:		

Date by which the Contractor shall implement the corrective measures:

Verification that the above instructions have been received and understood (to be filled in by the Contractor's representative):

Date: _____ Signature: _____

Name & Title: _____

References

The following publications were used as reference materials:

- Labour Code. Democratic Republic of Timor Leste, LAW No. 4 /2012 of 21 February.
- Prevention through pictures in construction. Safety and health are human rights. ILO-LABADMIN/OSH & ISSA-Construction Section 2014.
- Rural road maintenance training modules for field engineers: Module 8- Occupational Health & Safety, Environmental Issues and Decent Work. Ministry of Rural Development, Government of India. 2015.
- Recommendation concerning the Maximum Permissible Weight to Be Carried by One Worker. R128 - Maximum Weight Recommendation, 1967 (No. 128). 1996-2017 International Labour Organization (ILO).
- Social Safeguards Framework for Rural Road Works. Democratic Republic of Timor Leste, Ministry of Development and Institutional reform. 2018.
- Safety, Health and Welfare on construction sites: A training manual Geneva, International Labour Office, 1995
- International Labour Organization, Convention No. 155. Occupational Health & Safety.

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