









# **FLEGT COMPLIANCE IN GHANA**

Developing the capacity of Loggers without processing mills



**Health and Safety** 

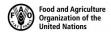
**Training Manual** 

A reference manual on Health and Safety

# **FLEGT COMPLIANCE IN GHANA**

Developing the capacity of Loggers without processing mills

#### FAO-EU FLEGT PROGRAMME











This manual was developed by Dr. Abdul-Moomin Ansong Salifu for Nature and Development Foundation as part of the project "FLEGT Compliance in Ghana - Developing the capacity of loggers with processing mills". Funding for this project has been provided by the FAO-EU FLEGT Programme.

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## **ACRONYMS**

CPR Cardiopulmonary Resuscitation

**FLEGT** Forest Law Enforcement Governance and Trade

**H&S** Health and Safety

NDF Nature and Development Foundation

OSHA Occupational Safety and Health Administration

PPE Personal Protective Equipment

### 1.0 INTRODUCTION

Health and Safety (H&S) is a key concern in forestry activities considering the high risks associated with timber logging process. Studies have shown that despite technological improvements, forestry work is still considered one of the most dangerous activities especially when workers do not have adequate health and safety training (Klun and Medved, 2007).

The issuance of FLEGT license in Ghana makes health and safety a legal requirement for all logging companies to comply with. It is against this background that, Nature and Development Foundation (NDF) under the FAO-EU FLEGT Programme, is implementing a project titled "FLEGT compliance in Ghana: Developing the Capacity of Loggers without Processing Mills" is developing this training manual to help loggers without processing facilities to conform to Health and Safety requirements. This manual will assist the management of concession holders to improve their employee's competence, identify and mitigate hazards, reduce injury and illness rate, and increase productivity in general.

### 1.1 Objectives of the Training Manual

The overall objective of this training manual is to build the capacity of concession holders without processing mills on their health and safety requirements at the workplace. The manual addresses the following specific objectives:

- To train workers on rules to observe and ensure safety at the workplace
- To train workers to know about the need to use Personal Protective Equipment (PPE) while at work and how to use them
- To train workers to know how to identify risks/hazards at the workplace
- To train workers to understand how to remove or control hazards at the workplace

### 1.2 Structure of this Training Manual

This manual has been developed with the main objective of training and providing concession holders without processing mills and other timber loggers with the appropriate knowledge on health and safety in order to understand their role(s) in the application of health and safety requirements, how to identify hazards or potential hazards that need to be prevented or controlled.

The manual is structured in modules based on the training needs of the user on health and safety. It is pragmatic and results oriented, and not structured chronologically. This means, users can easily refer to the different chapters according to their specific needs. Each module begins with exercises to test the training needs of each user/employee based on the positions or the roles each individual plays at the workplace.

To make it easy for the user of this manual to understand the main training points in health and safety, the user is introduced to policy, planning, management and employees commitment to health and safety. This allows the user to understand what the Ghana labour Act 2003 (ACT 651) and the Occupational Safety and Health Administration (OSHA) of the USA department of labour say about employees' health and safety, commitment of management and employees to health and safety protocols, and the administrative measures that should be put in place to make health and safety effective at the work place.

The manual also addresses hazards and protection measures in stock survey, harvesting, felling, loading and transportation, and how these hazards can be controlled or prevented. Additionally, it addresses other potentials hazards that can often be overlooked. This manual can be used by all timber logging companies. However, it does not cover the health and safety requirements of timber processing facilities. Furthermore, this manual cannot cover all potential safety hazards, and thus it is open for further additions and revisions. The methods and strategies of health and safety management

described in this document are mainly drawn from the requirements for health and safety prescribed by the Forestry Commission (FC) Logging Manual, the Labour Act of Ghana (ACT 651), Occupational Safety and Health Administration (OSHA) and importantly experiences from conventional forestry operation.

Lastly, there is a summary of all the important points of the training, and a post-training exercise to assess the capacity that has been built with the training for health and safety compliance.

### 1.3 Pre-Training Questions

	CTION A RSONAL INFORMATION
A.	Position in Company
В.	No. of years in your present position

	CTION B IMPANY POLICY AND COMMITMENT TO HEALTH AND SAFETY
1.	What do you understand by health and safety as a forestry worker?
2.	Have you had any health and safety training before?
3.	List some of the reasons why health and safety is important in forestry operations?

### Section B continued

4.	Are you aware of any policy that talks about the rights of workers regarding health and safety?
_	
5.	What are the health and safety measures being practiced by your company?
6.	Mention some of the roles you and or your management members play to ensure health and safety at your workplace?

## 2.0 POLICY, PLANNING AND COMMITMENT TO HEALTH AND SAFETY

#### 2.1 The Labour Act of Ghana and OSHA

According to the 2003 labour Act of Ghana (Act 651), "it is obligatory upon every employer to ensure the health, safety and welfare of employees at the workplace by minimizing the causes of hazards inherent in the working environment". The worker has the right to stop working and report to his supervisor about the presence of danger to his/her life, safety, or health. Similarly, the Occupational Safety and Health Administration (OSHA) - a labour law passed by the United States Congress in 1971, enjoins employers to ensure safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education and assistance.

### 2.2 Management and Employee Commitment

An effective health and safety plan requires the commitment of both management and employees to ensure that the health and safety protocols of the company are adhered to. This commitment includes the following:

- Management shall provide appropriate personal protective equipment (PPEs) for all workers in the various divisions (stock survey, felling, hauling, loading & transportation).
- Management shall provide the needed funds for all health and safety programmes.
- Management shall ensure that health and safety trainings are organized for employees periodically.
- Employees shall ensure the regular use of PPEs provided by management and strictly adhere to all health and safety protocols of the company.
- The company's management shall involve the employees in developing all health and safety programmes. This aspect of a company's commitment to ensure the health and safety of its employees is further elaborated in the company's health and safety policy in section 2.3.1.

### 2.3 Planning

### 2.3.1 The Company Safety Policy

The company health and safety policy should clearly describe management and employees' commitments and roles they will play to ensure the health and safety protocols of the company are strictly adhered to. A health and safety committee should be formed and headed by a safety coordinator

The company safety policy should include the following:

- i. The appointment of an employee in a position of authority as a Safety Coordinator.
- ii. Management, supervisors, leads, foremen, employees should be responsible for implementing this policy.
- iii. Regularly schedule safety meetings for all employees.
- iv. All accidents must be reported, investigated and measures taken to prevent future recurrences.
- v. All new employees must be trained in safe working practices for the specific jobs, closely supervised until they can perform the job safely.
- vi. All employees must use their personal protective equipment provided by the company at all times when working.

- vii. Employees should report any and all accidents to their immediate supervisor.
- viii. All employees are expected to keep their workplaces clean and free of hazards. Any observed hazard should be reported to their immediate supervisor.
- ix. Employees are required to keep a safe distance from other employees while moving equipment to avoid injuries.
- x. Employees should operate equipment in accordance with safety instructions and reasonable manner.

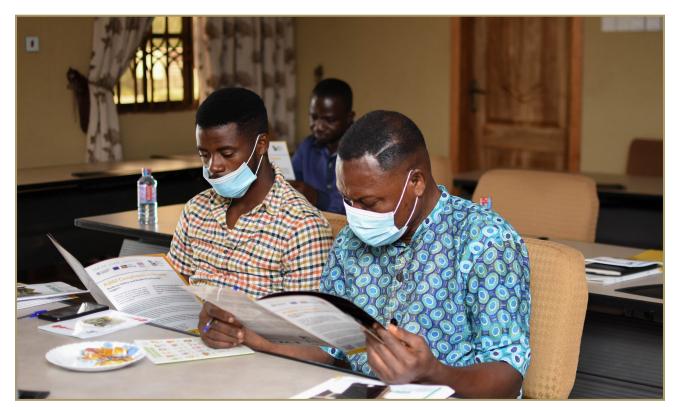
### 2.3.2 Company Drug and Alcohol Policy

Health and safety transcend the use of personal protective equipment (PPEs) and identification of hazards at the workplace. Other significant hazards at the workplace that affect employees' health and safety but can often be overlooked are the illegal use of drugs and alcohol. As a condition of employment, all new employees must sign the company's drug and alcohol policy before been offered the job (see appendix III).

### 2.3.3 Company Training Policy

The company should have a training policy on health and safety which must address the following areas:

- i. Periodic safety training for all employees and management
- ii. All existing employees should receive refresher training from time to time
- iii. Keep records of all safety trainings concerning the use of equipment, first aid, ear plugs, personal protective gear, emergency response, etc.



**Figure 1:** Participants receiving training on the Dos and Don'ts for Health and Safety in the supply of legal timber to both domestic and international markets.

### 3.0 HAZARDS AND PROTECTION IN STOCK SURVEY

3.1 PR	1 RE-Training Quesitons
1.	What are some of the dangers you face when conducting stock survey in the forest?
2.	What are some of the measures you can put in place to prevent or control the dangers described above?

### 3.2 Hazards associated with Stock Survey?

A hazard is any source of potential damage, harm or adverse health effects on something or someone. Basically, a hazard is the potential for harm or an adverse effect (for example, to people as health effects, to organizations as property or equipment losses, or to the environment (Canadian Centre for Occupational Health and Safety (CCOHS), 2021).

Risk is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. It may also apply to situations with property or equipment loss, or harmful effects on the environment (CCOHS, 2021).

Common hazards associated with conducting stock survey include the following:

#### **Hazards and Risks**

- Wild Animal (s) attack/Snake/insects bite
- Falling objects (see fig 2)
- Cut from sharp object
- · Loss of employee
- Falling in steep slopes or into abandoned ditches
- Hunters traps



Figure 2: A weak branch from a tree

### 3.3 Control and Protection against Stock Survey Hazards

There are several measures that can be taken to control or prevent hazards associated with stock survey.

These include the following:

#### **Control and Protection Measures**

- All stock survey team members must wear hard helmets to reduce injuries caused by falling objects (see fig 3)
- All employees must stay in visual or audible contact with one another to prevent lost of employees.
- High visibility jackets must be worn by all team members at all times so that workers can see one another from far.
- Safety/wellington boots must be worn by all stock survey team members to prevent snake bites/attack (see fig. 3)
- Closely watch out for slippery sloppy terrains and abandoned ditches to avoid falls and injuries.



**Figure 3:** Participants dressed in appropriate PPEs at a demonstration timber felling. Source: NDF Training team.

# 4.0 HAZARDS AND PROTECTION IN HARVESTING/FELLING

۱.	What are some of the likely dangers associated with tree felling?
<u>.</u> .	Assuming you are the chainsaw operator, what would you advise other workers to do when a tree is being felled?
3.	How do you protect yourself from tree poison?
ŀ.	How can you protect yourself from falling objects?

### 4.2 Hazards associated with Harvesting/Felling

During felling of trees, there are several hazards that may result. Frequent hazards that may occur during felling are as follows:

#### **Hazards and Risks**

- Falling objects/lodged branches from the top of trees (see fig. 2)
- Wild Animals attack/snake bite
- Substances/debris entering eyes
- Chainsaw noise/smoke
- Dead falling tree injury to workers
- Tree poison (e.g. Potrodom)
- Climbing trees/vine ("back pay") see fig. 4
- Chainsaw accidents/cut
- Hunters traps
- Log/tree tension



Figure 4: Climbing vine. Source: NDF Training Team

#### 4.3 Control and Protection Measures

During felling of trees, there are several hazards that may result. Frequent hazards that may occur during felling are as follows:

#### **Control and Protection Measures**

- Identify any hanging trees/branches within the felling area and safely remove it
- Communicate danger to all team members to be aware and protect themselves
- Wear hard helmet at all times when felling to protect yourself from falling objects (see fig.3)
- Wear appropriate PPEs during felling such as helmets, safety boots, nose mask, ear plugs and goggles
- Wear hand gloves at all times to avoid contact with tree poisons
- Place visual signs during felling to warn people against danger
- Inspect chainsaw to ensure it has no defects before use
- All employees should stay at safe distance (300 ft) during felling to avoid injuries from falling trees
- Escape routes should be created before felling starts
- Chainsaw operator should carefully check around and cut all climbing vines to prevent them from pulling other trees down that may be dangerous to forest workers



Figure 5: A chainsaw operator wearing appropriate PPEs. Source: NDF Training Team

## **5.0** HAZARDS AND PROTECTION IN HAULING

5.1 PR	E-TRAINING EXERCISE
1.	List some of the hazards involved during logs hauling?
2.	What dangers do these hazards pose to workers and visitors at the workplace?
3.	How can these dangers be prevented or controlled?

### 5.2 Hazards associated with Hauling

Just as in the other forestry operation activities, there are hazards associated with the hauling of logs from felling site to the log dump for transportation. Some of the hazards associated with this process include:

### **Hazards and Risks**

- Falling trees
- Pushing trees over workers
- Injury from winching
- Bees attack

### 5.3 Control and Protection against Hazards

Some of the measure that can be taken to protect workers from hazards during hauling or control the hazards from happening are discussed as follows:

#### **Control and Protection Measures**

- Employees are encouraged to wear helmets at all times (see figures 3 and 5).
- Main hauling routes should be created before timber harvesting begins
- Visual sign posts must be erected to warn workers to stay away from heavy equipment
- Hauling equipment such as skidders, bulldozers should avoid moving into active felling areas.
- All winching equipment should appropriately match the capacity of the hauling machines before being fitted.
- During unhooking, check to ensure that logs are fully dropped before unhooking
- Avoid using strong scented perfumes to avoid being attacked by bees

### **6.0** HAZARDS AND PROTECTION IN LOADING AND TRANSPORTATION

6.1 PRI	E-TRAINING EXERCISE
1.	What are some of the dangers associated with loading a truck?
2.	How can you protect other workers from being hurt during loading?

### 6.2 Hazards associated with loading and Transportation

Transportation of logs from the forest to the processing site poses a lot of hazards to timber workers. Some of the daily hazards encountered in loading and transportation according to safe work Australia (2014) are discussed below:

#### **Hazards and Risks**

- · Slips, strains and falls getting in and out of machine or checking load
- Other road users struck by logs or other material falling off truck
- · Struck by log when releasing load restraints
- Crushed or struck by logs
- Back strain from throwing log restraint straps or chains
- · Loads with extreme overhang
- Rollover of log truck due to the high load or load movement
- · driver being hit by falling, rolling or sliding logs
- Falling of logs due to poorly secured lashings/chains



**Figure 6:** A timber log being hauled. Source: NDF Training Team.



**Figure 7:** A timber truck being loaded. Source: NDF Training Team



Figure 8: A timber truck with burst tyre and with logs almost falling off. Source: MadinGhana's blog.

### 6.3 Control and Protection against Hazards

### **Control and Protection Measures**

- All workers should stay at safe area whiles logs are loaded
- All workers must wear PPE including high visibility clothing, safety footwear and a safety helmet while during loading.
- Before moving trucks, driver should scan the surroundings to ensure no person is sitting on any part of the truck.
- No worker should leave the safe area and enter the loading work area.
- Selected machines for use should be able to lift the logs to be loaded
- The loader operator should be trained and assessed against the relevant units of competency
- Do not enter the machine's work area until the operator has given you permission
- Ensure load binding equipment e.g. chains and tensioners are in working order before use.
- Log loads should be restrained by lashings capable of holding the load weight and secured to comply with safety regulations.
- Visually check the load lashings regularly while in transit regardless of whether they are self-tensioning or not.
- Driver must observe road rules at all times including road warning signs.
- Before unloading, the driver should inspect the load for signs of movement to avoid injury from falling logs

### 6.4 Visual Warning Signs

The hazardous nature of forest operations requires that visual warning signs are kept at vantage points to warm workers and visitors against potential hazards at the workplace. This will help to eliminate or reduce the risks at the workplace.

The following are common visual warning signs used during forestry operation:



**Figure 9:** Visual warning signs - (a) Warning for Felling in progress, (b) Warning for flying debris, (c) Warning for slippery road, (d) Beware of falling objects.

## 7.0 OTHER HAZARDS IN FORESTRY ACTIVITIES

The hazards associated with forestry operations are not consigned to only those that happen directly during timber harvesting activities. They are equally other hazards that are risky to forestry workers but have not been given the needed attention. Such hazards include chemical spillage, forest fires and absence of first aid kits.

7.1 PR	E-TRAINING EXERCISE
1.	Apart from the hazards discussed so far, what other hazards are you likely to encounter at the workplace?
2.	How do these hazards differ from those discussed so far?
3.	How can you prevent or control these other hazards?

### 7.2 Chemicals Spillage

Chemical spillage in the forest may be hazardous to forest workers, forest fringe communities, and other downstream users of forest resources if not properly controlled. For instance, chemicals spillage in the forest may pollute river bodies which are primary sources of drinking water for the above mentioned category of people. Direct contact with certain chemicals may also harm the skin.

### 7.2.1 Control and Protection measures against Chemicals Spillage

- Company must enforce the use of appropriate PPEs to prevent direct contact with chemicals
- In case of chemical spillage, immediately notify others working in the area and surrounding communities about the hazard, and if the situation warrants it, evacuate the area.
- Importantly, any chemical spillage must be reported the nearest Environmental Protection Agency (EPA) office.
- Clean up spillage and any damage and dispose of spilled chemicals appropriately according to national regulations.
- Store chemicals appropriately in accordance with storage instructions.
- Control the spill. This step focuses on ensuring that the spill does not become any worse.

#### 7.3 **Forest Fires Control and Prevention Measures**

Forest fires is one of the hazards in our forests. In Ghana, forest fires are mostly caused by human activities such as farming, hunting, and charcoal burning (Agyemang, et al., 2015). However, careless handling of fire by forest workers can also cause forest fires. Nearly all forest fires in Ghana occur during the dry season (November-April) with peaks in January and February. Meanwhile, there is lack of protective and suppression equipment in fighting forest fires in Ghana. To this end, there should be continuous education and capacity building in preventing forest fires. Additionally, the Forestry Commission (FC) should enforce wildfire laws in Ghana, intensive patrols and inspection, maintenance of fire breaks, and collaboration between stakeholders in the fight against forest fires.

#### 7.4 **First Aid**

The absence of a First Aid Kit in the various forest operations teams is equally a hazard to the workers. This is because when a worker is hurt, the victim might not get the necessary first Aid to stabilize the victim's condition before being conveyed to the nearest health center. Hence, First Aid Kits must be carried by all bush operation teams at all times and restocked regularly. Also, all employees shall be taught how to administer basic First Aid and Cardiopulmonary resuscitation (CPR) when the need arises.

### 8.0 SUMMARY

Forestry operation is considered one of the most dangerous activities especially when workers do not have adequate health and safety training. The hazards associated with every single timber logging activity – stock survey to transportation cannot be overemphasized. Therefore, it is important that both management and employees take health and safety issues seriously.

The benefits associated with health and safety training are enormous. These include identification and mitigation of hazards, improving employee competence, reducing injury and illness rate, ensuring safer workplace and increasing productivity. Hence, it is significant that all employees are properly trained in the safest way to perform their job. To this end, it is important that each concession holder/company develops a health and safety policy, educate employees to understand their roles in the safety policy, the hazards and potential hazards that need to be prevented or controlled, and the ways to protect themselves and others against these hazards at the workplace.

## 9.0 REFERENCES

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## **10.0 APPENDICES**

APPENDIX I Post - Traini	ING EVALUATION	V					
Q1. What is your general assessment of this workshop? (Please tick)							
1. Poor	2. Good	3. Very Good	4. I	Excellent			
<b>Q2</b> . Kindly rate	the usefulness o	of the different mo	dules to yo	our compan	у		
1. Not usef	ul 2. Use	ful 3. Very	/ Useful				
Session					Rating		
Policy, planning and commitment to health and safety 1 2 3						3	
Hazards and protection in stock survey and felling 1 2						3	
Hazards and p	protection in haul	ling		1	2	3	
Hazards and p	Hazards and protection in loading and transportation 1 2 3						
Q3. How will you apply the knowledge you gain from this training in the next 3-12 moths?							
Q4. Kindly rate the general organization of the workshop as follows:							
1. Poor	2. Good	3. Very Good	4. I	Excellent			
Item Rating (Please tick)							

Item	Rating (Please tick)					
Participation selection	1	2	3	4		
Participants contribution to issues	1	2	3	4		
Facilitation	1	2	3	4		
Venue	1	2	3	4		
Food	1	2	3	4		

Date of bir	rth:
Time:	
(Yes)	(No)
(Yes)	(No)
Signature:	
	(Yes) (Yes) Signature:

#### **APPENDIX III**

### **COVID 19 MANAGEMENT PROTOCOL**

The company shall form a COVID-19 management team led by the H&S manager. Within the premise of the W.H.O and Ghana Health Services guidelines, all supervisors and managers shall ensure absolute compliance with all COVID-19 protocols by all employees.

### **Covid 19 Management Team**

A COVID 19 management team headed by the health and safety manager shall be composed. The team shall:

- 1. Develop and implement practical guidelines in accordance with W.H.O and Ghana Health Services guidelines for all employees and visitors to follow.
- 2. Monitor and support all workers through appropriate communication throughout this difficult times.
- 3. Identify the risk of infections from customers who buy logs from the company and follow the Appropriate COVID 19 protocols to avoid being infected.
- **4**. Follow appropriate protocols when dealing with incoming drivers of vehicles coming to load logs or discharge fuel to the company.
- **5**. Regularly educate employees on the pandemic through proper communications and use of flyers, fact sheets etc.
- 6. Report any suspected case to the nearest health center.
- 7. Regularly wear face masks, use hand sanitizers, washing hands under running water and practice social distancing

### **APPENDIX IV**

### **EMPLOYEE DRUG AND ALCOHOL POLICY FORM**

- 1. I agree that I will not involve myself in illegal use of drugs and alcohol at the workplace
- 2. I agree to notify my employer if I am under any prescription drug
- 3. I agree not to operate any equipment or machine while taking prescription drugs that may impair the safe performance of my duty
- 4. I agree never to drink alcohol when operating equipment on the job
- 5. I agree never to involve myself in any illegal or controlled substance while employed
- 6. I agree never to report to work under the influence of drugs/alcohol
- 7. I agree that my employment be immediately terminated should I violate any of the above regulations

	Name:	
,	Sianature:	
	. <b>.</b>	
	Date:	
	Date.	
,	\ \	
	witness:	



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