A woman wearing a patterned headscarf and a white sleeveless top is working in a banana plantation. She is looking down at a bunch of green bananas hanging from a tree. The background is filled with large green banana leaves and more banana trees.

MANUAL ON HEALTH AND SAFETY IN THE BANANA INDUSTRY GHANA

**A practical guide for risk
management on farms**

Part 1: Technical manual

PREFACE

Banana Producers in Ghana are committed to the Health and Safety of all our workers. For this reason, this booklet titled *MANUAL ON HEALTH AND SAFETY IN THE BANANA INDUSTRY - GHANA* has been written containing policies and procedures to guide and direct all workers to work safely and prevent injuries to themselves and to others.

All workers are encouraged to participate in developing, implementing and enforcing Health and Safety policies and procedures. All workers must take all reasonable steps to prevent accidents and never sacrifice safety for expedience.

Our goal is to eliminate or minimize hazards that can cause accidents.

It is the policy of banana producers in Ghana that all workers be fully informed of the policies manual and be familiar with the contents.

This manual will be reviewed annually and whenever new risks are introduced to work either by changes in working conditions or work procedures.

Together we can achieve a safe and happy work environment.

ACKNOWLEDGEMENTS

This manual was originally developed as part of the Banana Occupational Health and Safety Initiative (BOHESI), co-ordinated by members of the World Banana Forum (WBF) including Solidaridad, Banana Link and the WBF Secretariat / FAO, under the auspices the Food and Agriculture Organization of the United Nations (FAO) within the Trade and Markets Division (EST).

The manual was originally written for use in Ecuador, with support from the Ecuadorian Ministry of Labour (MdT), Ministry of Agriculture (MAG), the Ecuadorian Social Security Institute (IESS) and the Association of Banana Exporters of Ecuador (AEBE). BOHESI partners and WBF members also contributed providing sample OHS manuals and resources and also by reviewing the manual contents. The Initiative has also been supported by the International Labour Organization (ILO) and FAO's Social Policies and Rural Institutions Division (ESP).

It was then translated into English and French and adapted for the Cameroonian context by the BOHESI Health and Safety consultant Adama Traore, with essential input being provided by local banana industry partners.

In 2019/20 the English manual was adapted for use in the Ghanaian banana industry as part of the BOHESI Ghana programme coordinated by Banana Link. The team that worked together to adapt this to the Ghanaian context include Dr. Kofi Davids (GEL), George Kporye (GEL), Anthony Blay (VREL) and Rodrick Kutinyu (Musahammat).

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Design by Paul Lievens (Banana Link)

Photos by James Robinson Photography

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ACRONYMS

ACGIH – American Conference of Governmental Industrial Hygienists

AEBE - Association of Banana Exporters of Ecuador (Asociación de Exportadores de Banano del Ecuador)

AIDS - Acquired Immunodeficiency Syndrome

BOHESI - Banana Occupational Health and Safety Initiative

BPA - Banana Producers Association, Ghana

CAS – Chemical Abstracts Service

COLSIBA - Coordinating Body of Latin American Banana and Agro-industrial Unions (Coordinadora Latinoamericana de Sindicatos Bananeros y Agroindustriales)

CPR - Cardiopulmonary Resuscitation

FAO - Food and Agriculture Organization of the United Nations

FAO-EST – FAO Trade and Markets Division

FAO-ESP – FAO Social Policies and Rural Institutions Division

HIV - Human Immunodeficiency Virus Infection

IDH – Dutch Sustainable Trade Initiative
IESS - Ecuadorian Social Security Institute (Instituto Ecuatoriano de Seguridad Social)

ILO - International Labour Organization

IUF - International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Worker' Associations

MoFA – Ministry of Food and Agriculture, Ghana

NTE - Ecuadorian Technical Standard (Norma Técnica Ecuatoriana)

OHS - Occupational Health and Safety

PHP - Plantations Haut Penja

PPE - Personal Protective Equipment

SSNIT – Social Security and National Insurance Trust

WBF – World Banana Forum

WHO - World Health Organization

MSDS - Material Safety Data Sheets

GEL – Golden Exotics Limited

VREL – Volta River Estates Limited

MH – Musahammat Farms Limited

INSHT – National Institute of Health and Safety, Ecuador (Instituto Nacional de Seguridad e Higiene en el Trabajo)

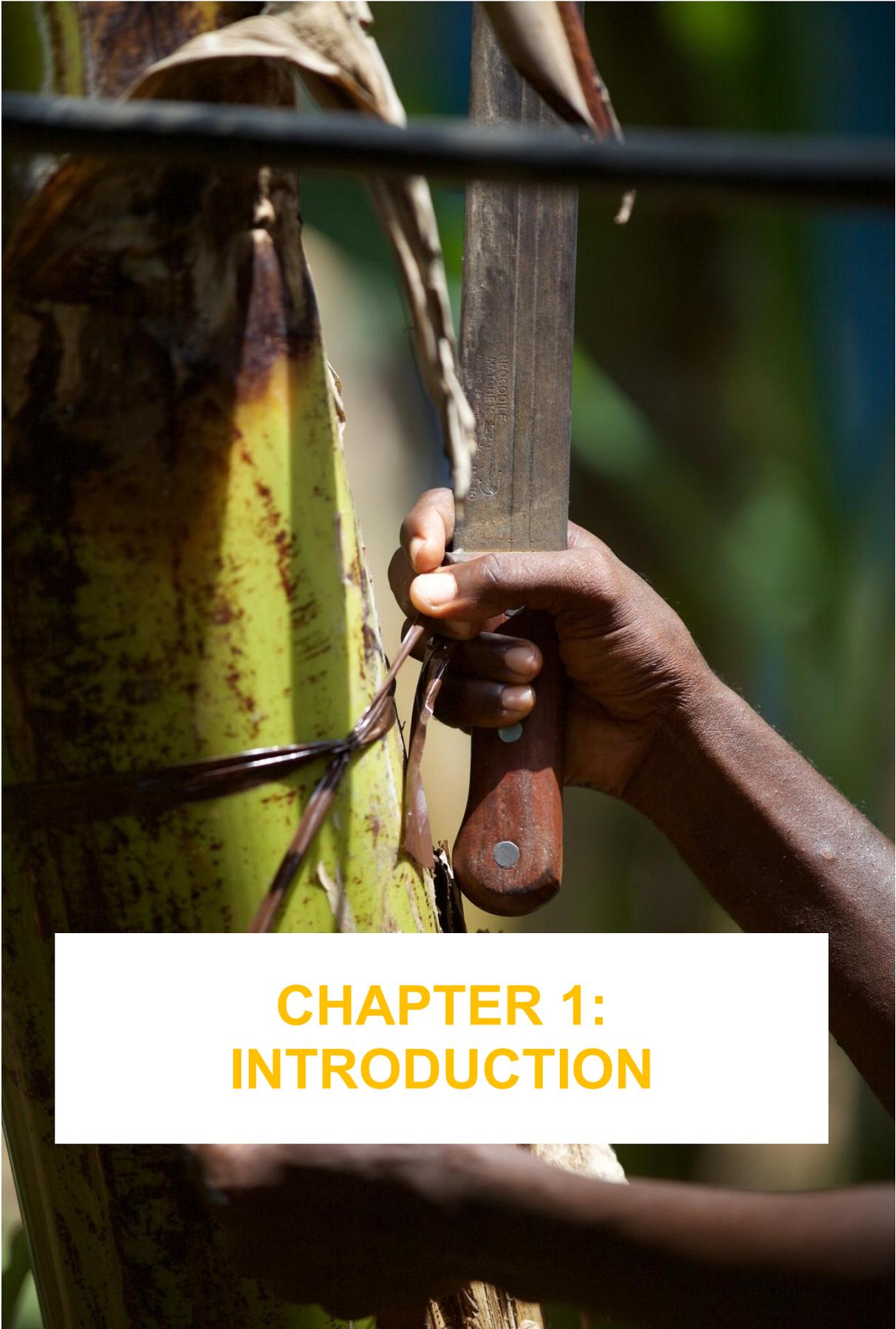
ISO – International Organization for Standardization

CONTENTS

CHAPTER 1: INTRODUCTION	7
1. INTRODUCTION.....	8
1.1 MAP OF THE BANANA INDUSTRY IN GHANA	9
1.2 OCCUPATIONAL SAFETY AND SAFETY IN THE BANANA SECTOR	9
1.3 PROFESSIONAL RISKS IN THE BANANA SECTOR.....	10
2. OBJECTIVE	10
2.1 MAIN OBJECTIVE.....	10
2.2 SPECIFIC OBJECTIVES OF THE MANUAL.....	10
2.3 SCOPE	10
2.4. DEFINITIONS.....	11
CHAPTER 2: LEARNING METHODOLOGY.....	15
1. LEARNING	16
1.1 STAGE ONE – TRAINING THE TRAINERS	16
1.2 STAGE TWO – TRAINING AT FARM LEVEL	16
2. TEACHING	17
3. GUIDANCE FOR TRAINERS	19
3.1 LEVEL OF LITERACY.....	19
3.2 GROUP WORK.....	19
3.3 CASE STUDIES.....	19
3.4 EVALUATION.....	20
CHAPTER 3: OCCUPATIONAL HEALTH AND SAFETY REGULATIONS	21
1. LEGAL.....	22
2. PROFESSIONAL INSTITUTIONS.....	22
2.1 Ministry of Employment and Labour Relations (MELR).....	22
2.2 Department of Factories Inspectorate (Ministry of Employment and Labour Relations).....	23
2.3 NATIONAL LABOUR COMMISSION.....	23
2.4 THE NATIONAL TRIPARTITE COMMITTEE	24
2.5 THE SOCIAL SECURITY AND NATIONAL INSURANCE TRUST (SSNIT).....	25
2.6 TRADE UNIONS AND COLLECTIVE AGREEMENTS.....	25
3. OCCUPATIONAL HEALTH AND SAFETY COMMITTEES	26
3.1 Occupational Health and Safety Committee.....	26
3.2 COMPOSITION	26
3.3 COMMITTEE MEETING.....	26
3.4 ROLES.....	27
4. LEGAL FRAMEWORK	27
1992 CONSTITUTION OF THE REPUBLIC OF GHANA.....	28
LABOUR ACT, 2003 (ACT 651)	28
HEALTH AND SAFETY OBLIGATIONS OF THE EMPLOYER UNDER THE LABOUR LAW OF GHANA.....	28
HEALTH AND SAFETY OBLIGATIONS OF EMPLOYEES UNDER THE LABOUR ACT.....	29
ILO Convention 155.....	32
ILO Convention 184.....	32
ILO Convention 81 - Labour Inspection	32
ILO Convention 115 - Radiation Protection Convention	33
ILO Convention 119 - Guarding Machinery	33
ILO Convention 120 - Hygiene (Commerce and Office).....	34
ILO Convention 148 - Working Environment (Air Pollution, Noise and Vibration)	34
CHAPTER 4: TYPES OF RISK AND RISK MANAGEMENT	35
1. OCCUPATIONAL HAZARDS	36
2. CHEMICAL HAZARDS.....	36

2.1 RISKS FOR SPECIAL POPULATIONS.....	37
2.2 MARKING AND LABELLING PESTICIDES.....	38
2.3 MANAGING MATERIAL SAFETY DATA SHEETS (MSDS).....	45
2.4 STORAGE.....	47
2.5 PERSONAL PROTECTIVE EQUIPMENT (PPE).....	51
2.6 HANDLING AGROCHEMICALS.....	53
3. PHYSICAL HAZARDS.....	56
3.1 EXPOSURE TO EXTREME TEMPERATURES (EXTREME COLD OR EXTREME HEAT, OF ATMOSPHERIC ORIGIN OR DUE TO WORKING CONDITIONS).....	56
3.2 NON-IONISING RADIATION (SOLAR LIGHT, INDUSTRIAL DRYING, WELDING, SMELTING)	57
3.3 EXPOSURE TO NOISE (MOTORS, ELECTRONIC TOOLS AND MACHINES).....	58
3.4 EXPOSURE TO VIBRATION.....	58
4. ERGONOMIC HAZARDS.....	59
4.1 FORCED POSTURES.....	59
4.2 REPETITIVE MOVEMENTS.....	59
4.3 MANUAL HANDLING.....	60
5. BIOLOGICAL HAZARDS.....	61
5.1 INSECT BITES AND STINGS OR ANIMAL BITES.....	61
5.2 SNAKE BITES.....	63
5.3 SANITARY FACILITIES.....	63
5.4 CATERING PROVISIONS.....	66
6. MECHANICAL HAZARDS.....	68
6.1 OPERATING SHARP OR POINTED TOOLS AND OTHER EQUIPMENT.....	68
6.2 UNEVEN FLOORS AND SURFACES.....	69
6.3 WATER SUBMERSION.....	69
6.4 ORDER AND CLEANLINESS.....	70
6.5 OPERATING MACHINERY AND EQUIPMENT.....	70
7. OCCUPATIONAL RISKS.....	75
7.1 MANAGING OCCUPATIONAL RISKS.....	76
7.2 OCCUPATIONAL RISK CONTROL.....	78
7.3 PREVENTION OF WORKPLACE VIOLENCE AND SEXUAL HARASSMENT.....	79
8. RISK MANAGEMENT.....	80
8.1 IDENTIFYING RISKS AND HAZARDS.....	81
8.2 OCCUPATIONAL RISK ASSESSMENTS.....	84
8.3 HEALTH AND SAFETY MANAGEMENT SYSTEM.....	86
8.4 PREVENTION OF ACCIDENTS OR INCIDENTS.....	89
8.5 HIERARCHY OF CONTROL AND PREVENTION.....	92
8.6 SAFETY SIGNS.....	94
9. RISKS IN THE BANANA PRODUCTION SECTOR.....	95
9.1 LAND PREPARATION.....	96
9.2 PLANTING - REPLANTING.....	97
9.3 CROP MAINTENANCE.....	98
9.4 HARVESTING.....	99
9.5 POST-HARVEST WORK.....	100
9.6 PACKAGING AND STACKING: POTENTIAL RISKS.....	101
CHAPTER 5: FIRST AID AND EMERGENCY PROCEDURES.....	102
1. FIRST AID KIT.....	103
2. CARDIOPULMONARY RESUSCITATION (CPR).....	104
3. FIRST AID.....	105
3.1 INSECT BITES OR STINGS.....	105
3.2 SNAKEBITES.....	106
3.3 FIRE.....	107
3.4 BURNS.....	107
3.5 CUTS.....	107
4. CHEMICAL EXPOSURE.....	108
4.1 SKIN.....	108
4.2 EYES.....	108
5. CHEMICAL POISONING.....	108

5.1 INGESTION	108
5.2 INHALATION	108
6. ELECTROCUTION.....	109
CHAPTER 6: APPENDICES.....	110
APPENDIX 1: PROTOCOL FOR HEALTH AND SAFETY INSPECTIONS IN BANANA PLANTATIONS	111
1.1 SCOPE	111
1.2 OBJECTIVES.....	111
1.3 INTRODUCTION	111
APPENDIX 2: HEALTH MONITORING PROCEDURE	158
2.1 LEGAL FRAMEWORK.....	158
2.2 OBJECTIVE.....	158
2.3 SCOPE OF APPLICATION.....	158
2.4 DEFINITIONS.....	158
2.5 RESPONSIBILITIES.....	158
2.6 METHODOLOGY / PROCEDURES.....	159
2.7 VERIFICATION OF MEDICAL DOCUMENTS.....	159
2.8 REPORTS.....	159
APPENDIX 2.1: BODY MAP - IDENTIFYING SYMPTOMS	160
APPENDIX 2.2: MAP YOUR WORLD	162
APPENDIX 3. TEMPLATE FOR OCCUPATIONAL HEALTH AND SAFETY PLAN	163
3.1 INTRODUCTION	163
3.2 OBJECTIVES.....	163
3.3 SCOPE	163
3.4 TEAM RESPONSIBLE FOR THE	163
IMPLEMENTATION OF THE OCCUPATIONAL HEALTH AND SAFETY PLAN	163
3.5 DEVELOPMENT.....	163
3.6 TECHNICAL CONTENT OF THE PLAN.....	164
3.7 PROTOCOL TO VERIFY HEALTH AND SAFETY IN BANANA PRODUCTION	164
3.8 REGULATION OF HEALTH AND SAFETY.....	164
3.9 GUIDE OF DANGEROUS ACTIVITIES FOR WORKING ADOLESCENTS.....	165
3.10 PROGRAMMES.....	165
3.11 CAPACITY-BUILDING IN RISK PREVENTION	165
3.12 RESOURCES	165
APPENDIX 4. EDUCATIONAL TOOLS AND MATERIAL.....	166
4.1 ACTIVITY 1. INTRODUCTION/PRESENTATION.....	166
4.2 ACTIVITY 2: THE ROLE AND FUNCTION OF JOINT HEALTH AND SAFETY COMMITTEES	167
4.3 ACTIVITY 3: RISK ASSESSMENT – WORKPLACE HAZARDS MAP.....	168
4.4 ACTIVITY 4: OCCUPATIONAL HEALTH AND SAFETY INSPECTIONS	169
4.5 ACTIVITY 5: RISK ASSESSMENT.....	174
4.6 ACTIVITY 6: HIERARCHY OF CONTROLS AND PREVENTIVE MEASURES.....	177
4.7 ACTIVITY 7: ACTIVE BREAK.....	179
4.8 ACTIVITY 8: EVALUATION.....	182
APPENDIX 5: ELECTION OF WORKERS TO THE OCCUPATIONAL HEALTH AND SAFETY COMMITTEE.....	184
APPENDIX 6: TEMPLATE - OHS COMMITTEE MEETING MINUTES	186
APPENDIX 7: SAMPLE MATERIAL SAFETY DATA SHEET	188
APPENDIX 8: LIST OF PESTICIDES USED IN BANANA PLANTATIONS AND TOXICOLOGICAL CLASSIFICATION.....	192
APPENDIX 9: HEALTH AND SAFETY POLICIES OF GHANA BANANA PRODUCERS.....	194
9.1 HEALTH AND SAFETY POLICY OF GHANA BANANA PRODUCERS	194
BIBLIOGRAPHY	195
RESOURCES AVAILABLE IN ENGLISH:.....	195
RESOURCES AVAILABLE IN SPANISH ONLY:	196



**CHAPTER 1:
INTRODUCTION**

1. INTRODUCTION

Occupational health and safety is not a new concept. Over time, companies have often taken measures to control occupational accidents and diseases. These measures have now been strengthened thanks to the safety culture that workers adopt day by day, and thanks to the adoption of new laws and applicable regulatory standards.

The International Labour Organisation (ILO) provides the following definition of occupational health and safety, that it is ‘the prevention of work-related injuries and diseases as well as the protection and promotion of the health of workers.’ It aims for the improvement of the working conditions and environment. Occupational health entails the promotion and maintenance of the highest degree of physical and mental health and social well-being of workers in all occupations.

Current legislation ensures that all entities, which are related to occupational health and safety, work in a coherent and harmonious manner. It makes employers aware of their legal duty to protect their workers and it makes workers aware of their own responsibility to pay attention and protect themselves to stay healthy.

A company needs to know which measures to take in order to improve workstations, conditions of service and the work environment. This is in order to guarantee a fit workforce and safe work. Workers also require knowledge on safe working practices.

If companies implement these measures and also instil a culture of prevention into each worker then they will benefit from a reduction in costs incurred due to occupational accidents and diseases, reduced losses due to work absence, increased productivity, increased market competitiveness, improved working conditions, and, finally, a fit workforce. Workers, on the other hand, will be more aware of the prevailing culture, the importance of safe working practices and healthy lifestyles. This will result in an improved quality of life.

Given this objective, this manual is been divided into two parts:

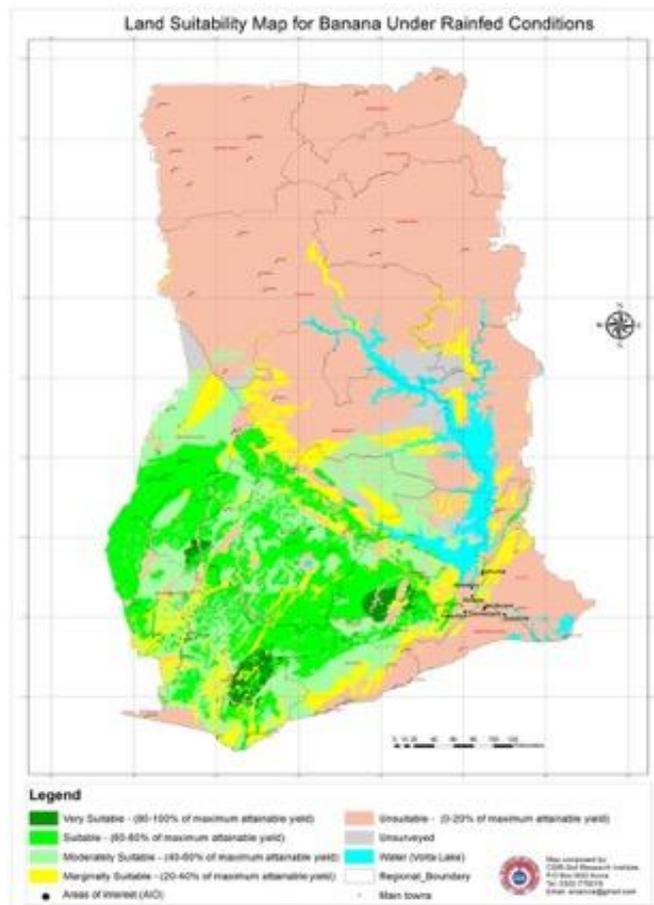
Part one: a technical manual to facilitate the overall understanding of measures that need to be adopted to improve occupational health and safety.

Part two: a manual particularly designed for workers, annexed to part one; this is a teaching tool so workers can adequately understand the essential measures that, when applied on a daily basis for each activity, allow management of risks so that work is carried out in the safest conditions possible. This manual is more than an overview of standards. It must be applied where circumstances permit, when it is feasible, and the standards can be adapted to the various operations, professions or tasks related to the banana industry. The other purpose of this information is to provide educational material to employers, which can be distributed to all or some workers, according to their role on plantations. Some information is repeated for each type of activity, such as manual handling, in order for each chapter to contain all information that is relevant to a certain type of work and to be usable independently as a whole to help workers carry out their tasks safely.

In the appendices, there is information particularly designed for workers. It includes a brief introduction, a general description of the activity in question (profession or specific role) and it then includes a description of the risks pertaining to said activity or of the risks to which the worker is exposed, and, finally, some considerations regarding risk management.

1.1 MAP OF THE BANANA INDUSTRY IN GHANA

The excellent climate conditions and ecology of Ghana have enabled the development of banana and plantain farming on a small, medium and large scale in order to satisfy international demand throughout the year. The following map shows the banana and plantain production zones.



1.2 OCCUPATIONAL SAFETY AND SAFETY IN THE BANANA SECTOR

The Ministry of Employment and Labour Relations, the Ministry of Food and Agriculture (MoFA), the Food and Agriculture Organisation (FAO) of the United Nations, several civil society organisations and national industries have rallied their efforts to draft a strategy that, when implemented, will better demonstrate that the banana industry seeks to promote the creation of decent jobs that can be done in conditions that protect the

health and safety of workers. The application of this manual will contribute to maintaining such conditions.

1.3 PROFESSIONAL RISKS IN THE BANANA SECTOR

The various activities carried out at banana plantations carry risks that may have traumatic and pathological consequences for workers, for example, when they are exposed to a certain quantity of chemical substances or are victims of accidents.

Five types of risks have been identified at workplaces: physical, chemical, biological, ergonomic and psychosocial. However, another category can be added to the list: mechanical risks.

Chapter 4 contains a detailed description of each type of risk that banana workers are exposed to. Furthermore, in PART 2: MANUAL FOR WORKERS there are several educational tools to help workers to learn about the essential precautions to take during their daily work in order to better manage risks and pro-mote health and safety in the workplace.

2. OBJECTIVE

2.1 MAIN OBJECTIVE

The main objective of this manual is to help create a culture of occupational health and safety in the banana sector in Ghana, via training programmes and promotional campaigns. Thus, the purpose is for employers, workers, suppliers and sub-contractors to be aware of and apply measures in order to guarantee a working environment that is suitable for and capable of guaranteeing worker health, integrity, safety, hygiene and well-being.

2.2 SPECIFIC OBJECTIVES OF THE MANUAL

2.2.1 Collect all relevant information regarding occupational health and safety that relates to the banana industry in Ghana.

2.2.2 Define and communicate appropriate measures that are applicable for this sector.

2.2.3 Help constitute and run Occupational Safety and Health Committees.

2.3 SCOPE

This occupational safety and health manual is designed for farmers in the banana sector in Ghana, as well as their workers, agricultural workers in the sector (and their families), and particularly, worker representatives and companies within the framework of joint committees for occupational safety and health.

It may also be of interest to other industry players, suppliers and other members of civil society. Furthermore, it may also serve as a training manual and, therefore, it is also addressed to trainers (in the public or private sector).

2.4. DEFINITIONS

2.4.1 WORKPLACE

This is any space or location where workers are located and where they carry out their work, or places where they need to go for the same purpose.

2.4.2 WORKING CONDITIONS AND ENVIRONMENT

These are elements or factors that have a significant influence on the creation of risks for the health and safety of workers. This definition includes:

4.2.1 The general characteristics of premises, installations, machines, equipment, products, etc., which are found at the workplace;

4.2.2 The nature of physical, chemical and biological agents that are found at the workplace and, namely, their level or intensity and concentration;

4.2.3 Procedures for the use of the aforementioned agents, which influence the creation of risks for workers;

4.2.4 The organisation and layout of tasks, in this case including ergonomic and psychosocial aspects.

2.4.3 WORKER

Any person who carries out paid work for another person; this also includes self-employed or independent workers and the employees of public institutions. The term “workers” is used throughout this handbook to describe both men and women who work.

2.4.4 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

This is a group of elements that interact in order to establish an occupational health and safety policy and objectives. It also includes mechanisms and actions that are necessary to reach these objectives. They are intrinsically linked to the concept of corporate social responsibilities, which aim to raise awareness of the need to provide good working conditions in order both to improve the workers’ quality of life and to promote the competitiveness of companies on the market.

2.4.5 OCCUPATIONAL HEALTH

Occupational Health is a branch of medicine that deals with all aspects of health and safety in the workplace with a strong focus on the primary prevention of hazards. Its main functions include the improvement of working conditions and other aspects of environmental hygiene. It also aims to at safeguarding health at work, preventing loss of occupation as a result of ill health, and supporting prompt treatment and rehabilitation of afflicted workers.

2.4.6 HAZARD

This is any threat of accident or damage to health. It can also be defined as a source or situation with the potential to cause injury, illness or disease.

2.4.7 OCCUPATIONAL RISK

This is the probability that the exposure to a dangerous environmental factor at work will cause injury, illness or disease.

2.4.8 OCCUPATIONAL INCIDENT

This is any event occurring during work or related to work, whereby the person affected does not suffer serious injury and does not require basic first aid.

2.4.9 OCCUPATIONAL ACCIDENT

This is any sudden event that occurs due to or at work and causes the worker to suffer an injury, functional disorder, disability or death. This notion also applies when the accident takes place when executing orders given by the employer or during certain tasks, which are carried out under the employer's authority, including tasks carried out outside the workplace and working hours. Each country's legislation may specify if an event is defined as an occupational accident when the event occurs as the worker is travelling from their home to their workplace and vice versa.

In the case of a self-employed or independent (non-salaried) worker, an event occurring in the aforementioned circumstances is considered an occupational accident.

2.4.10 OCCUPATIONAL DISEASE

This a disease that is contracted due to the exposure to risk factors which are inherent to the professional activity.

2.4.11 EFFECTS OF OCCUPATIONAL ACCIDENTS AND DISEASES

Occupational accidents or diseases may have the following consequences for workers:

2.4.11.1 TEMPORARY DISABILITY

This prevents the worker from being present at work due to an occupational accident or an occupational disease, for the entire duration of the time when the worker is receiving medical, surgical, hospital or rehabilitation care, and in the case of occupational disease, during periods of observation.

2.4.11.2 PERMANENT PARTIAL DISABILITY

This occurs when the worker, following an occupational accident or an occupational disease, suffers damage to their anatomy or definitive functional disorders or after-effects that limits their ability to carry out their work or profession, without preventing them from carrying out essential tasks.

2.4.11.3 PERMANENT TOTAL DISABILITY

This occurs when the worker is unable to work or carry out any profession and needs the assistance of another person for his or her daily care. This occurs following an occupational accident or an occupational disease that causes definitive anatomical limitations or functional disorders.

2.4.11.4 DEATH

If the worker dies following an occupational accident or professional disease, which has previously been qualified as such, then benefits are payable according to the applicable regulations pertaining to sections 3, 10 & 13 of the Workmen's Compensation Act (PNDC Law 1987).

2.4.12 PERSONAL PROTECTIVE EQUIPMENT (PPE)

These are elements (including clothes, gloves, glasses, masks etc.) that workers need to use appropriately to protect themselves from risks that could threaten their safety or health at work.

2.4.13 SIGNS

These are all panels and signs and other visual effects that are used as indicators or reminders of standards, in order for a person to act as required in the face of a risk and for said person to wear the necessary protections, etc.

2.4.14 EMERGENCY PLAN

This comprises all procedures designed as a reaction to an emergency, such as a fire or an explosion, an accidental spillage of chemical substances or a non-controlled release of energy. Emergency plans are necessary in order to keep order and minimise the effects of any disaster.

2.4.15 SOCIAL SECURITY

Social security is essentially related to the domain of social well-being with regard to social protection or cover for needs that are socially recognised, such as health, old age or disabilities.

2.4.16 HEALTHCARE

This describes systems and/or structures put in place by any company or establishment of any nature, be it public or private, secular or religious, civil or military, including those related to liberal professions and persons employed by associations or trade unions to facilitate access to medical services for their workers. This service comprises primary health and occupational health services.

The medical and healthcare service is provided by doctors recruited amongst practitioners who are qualified in occupational healthcare and who are assisted by qualified paramedics.

According to the size and nature of the companies, their geographical location and pre-existing medical infrastructure, the healthcare service may be facilitated either as an independent service that operates for one single company or as a shared inter-company service that operates for several or based on an agreement made with a private or public hospital.

2.4.17 SQUADS

Squads are small groups of organised, alert, trained and qualified persons who are able to prevent or respond to emergency situations.

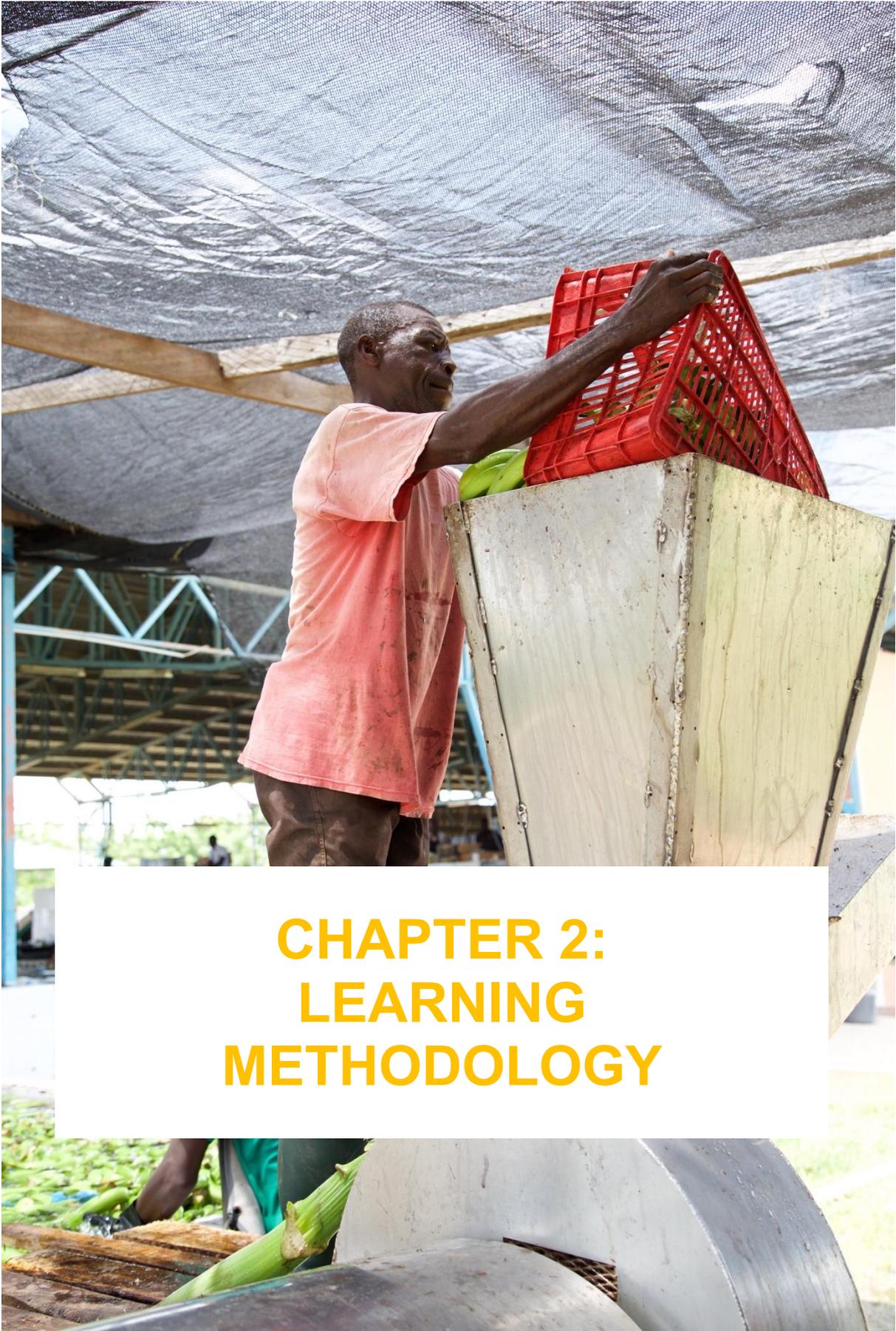
2.4.18 STANDARDS

These are technical standards in force in Ghana, whose aim is to satisfy local requirements and facilitate national and international trade.

2.4.19 OCCUPATIONAL SAFETY AND HEALTH COMMITTEE

This is a joint body, comprising both employer or their representatives, workers representatives, and workers with specialised competence that carries out assignments provided for by law and may be consulted on various topics related to the domains of occupational safety, health, security and environment in companies.

Hygiene and safety conditions for the workplace are mainly defined in Part XV on Occupational Health, Safety and Environment of the Labour Act, 2003 (Act 651) and the Factories, Offices and Shops Act, 1970, (Act 328).



**CHAPTER 2:
LEARNING
METHODOLOGY**

1. LEARNING

The training material in Appendix 4 EDUCATIONAL TOOLS AND MATERIAL aims to help workers and employers to:

- Develop effective skills regarding occupational health and safety.
- Plan and run training and educational workshops regarding safety and health, using educational and participatory methods that are adapted to the intended audience.
- Provide information and guidance regarding the management of health and safety and particularly the characterisation, assessment and prevention of risks and hazards.
- Constitute and run Occupational Health and Safety Committees in order for said committees to be operative and effective in their management.

This material is primarily designed for:

Occupational Health and Safety Committees in medium or large-sized plantations. These committees comprise various staff representatives, including those at plantation, production and administrative / management level; they may also involve medical personnel and the representatives of trade unions.

This training can be carried out in two stages:

1.1 STAGE ONE – TRAINING THE TRAINERS

A trainer who is an expert on the subject will deliver “training for trainers” workshops with the assistance of the employer, worker representatives and relevant government officials where necessary. This expert must have at least two years’ experience in domains related to safety, health and risk prevention in professional environments and must have in-depth knowledge of:

1. Agriculture
2. Occupational health and safety
3. First aid
4. Chemical substances and products
5. Risk management and control
6. Training trainers / education / teaching.

1.2 STAGE TWO – TRAINING AT FARM LEVEL

Those who have completed the “training for trainers” program-me can, in turn, provide the training as multipliers in their workplace, using the manual and educational material

that has been made available. They must put into practice what they have learned, share this learning with all staff / farmers / workers and support the effective functioning of Occupational Health and Safety Committees at farm level.

2. TEACHING

In order to instil a true culture of OHS prevention amongst workers, it is important to adopt a teaching-learning methodology that allows everyone to remain aware, independent and motivated. Participants must be encouraged to learn, understand and apply their knowledge and competencies in order to improve practices and management related to occupational health and safety on the plantation.

The activities suggested in Appendix 4 EDUCATIONAL TOOLS AND MATERIAL were designed particularly to help the trainer to implement a teaching-learning methodology, drawing on resources used by the ILO and IUF in their Manual on Health, Safety and the Environment (cf. bibliography).

Workers can be educated through applying various structured models, including adult training and popular education.

To guarantee the functioning of the process, educational strategies must be defined; these will help to characterise training content and educational practices. The following principles define adequate educational strategies and are to be used as a reference.

TABLE 1: LEARNING PRINCIPLES

METHOD: Project-based learning		
PROCESS	DEVELOPMENT	EVALUATION
<p>Positive interdependence:</p> <ul style="list-style-type: none"> Each member is responsible for the success of the group and must be aware that their personal success depends on the success of others. <p>Face-to-face interaction:</p> <ul style="list-style-type: none"> This dynamic involves continuous and direct interaction between members: they talk, help one another, congratulate each other and reward themselves together. <p>Individual responsibility:</p> <ul style="list-style-type: none"> Each student is co-responsible for the success of the group and takes ownership of agreed conclusions or procedures. Inherent skills for small groups: Students must acquire, develop and implement their teamwork skills. Evaluation of results and the process: the group must develop activities to reflect on and assess the group work. 	<p>Knowledge:</p> <ul style="list-style-type: none"> Researching, classifying, organising and assessing information. In-depth knowledge of abstract concepts that are essential to the topic. Adapting and applying knowledge to real situations. <p>Competencies and skills:</p> <ul style="list-style-type: none"> Creative problem solving; summarising and synthesising; oral expression; planning and structuring speeches, assertiveness, clear communication. Inviting those present to express themselves, asking questions, etc. Tackling uncertainty. Ensuring there is a consensus. Ensuring everyone has understood. Focusing the group's attention on the work. <p>Attitudes and values:</p> <ul style="list-style-type: none"> Expressing feelings. Showing appreciation. Being comfortable with interaction within the group and with each person. Considering the opinions and contributions of others as learning opportunities. Practising active listening. Committing to social change and development. 	<ul style="list-style-type: none"> Initial evaluation of the group members' capacity to cooperate this helps constitute diversified groups and set up specific learning activities to strengthen competencies. Continuous evaluation: setting points of reference or reflection periods, individual and group evaluation regarding aspects related to procedure and work carried out for training purposes; suggesting improvements and redirecting work. Final evaluation: at the end of each proposed task or phase, the trainer presents strategies to assess results or the product of tasks, procedures and skills acquired (interaction). End evaluation: at the end, provide methods to evaluate the progress of each participant.

Source: Manual de habilidades blandas, Servicio ecuatoriano de capacitación profesional(English translation)

3. GUIDANCE FOR TRAINERS

3.1 LEVEL OF LITERACY

All training information and material provided in this handbook is written and so it is recommended to assess the overall level of literacy amongst course participants. It is recommended that instructions be read aloud to the whole group before starting activities, and that all tasks to be carried out and expectations pertaining to said tasks be explained.

Illiteracy is often a sensitive topic and so it is important to not segregate or single out participants who may not have sufficient level of literacy. It is recommended to try and utilise all skills available in the group. This recommendation is applicable to any type of course and is particularly useful if there are literacy issues.

3.2 GROUP WORK

Work in small groups is one of the main educational methods used by trainers on an international level. There are several good reasons for this, namely:

3.2.1 It is an active and dynamic method

3.2.2 Encourages cooperation and the pooling of skills and competencies;

3.2.3 It can help to create good working relationships;

3.2.4 It enables even the shiest participants to engage in discussions;

3.2.5 It allows participants to work without feeling as though they are continuously being observed by the trainer;

3.2.6 It provides an effective framework and structure that is conducive to discussion;

3.2.7 It allows participants to reflect, analyse and find answers to situations that they face at work.

Groups of three or four participants are ideal in terms of size but, in some circumstances, working in pairs is recommended. This working method can be useful for activities that require a specific level of attention, for example if giving a brief presentation is required. Diverse groups should be prioritised, depending on the type of activity.

3.3 CASE STUDIES

In most cases, the “real” issues and actual experiences of participants will provide the best material for developing skills and improving working conditions.

Therefore, these case studies can be a very effective tool for trainers.

They are based on a detailed description of a situation, an event or an issue and they allow sensitive issues to be approached during a course, without anyone feeling attacked or feeling the need to defend themselves.

It is important for cases to be a relevant illustration of the topic or object of the course and they must be similar to the participants' actual work or experiences in order to be constructive. They can be real or imaginary cases.

During group work, this could involve:

3.3.1 One single case that is given to all groups to reflect on, thus generating a range of solutions, ideas and opinions on one same topic;

3.3.2 Different cases that are given to each group but that share a common topic or basis, thus allowing diverse topics to be approached in less time.

Case studies can be based on:

3.3.3 Real situations and issues that are raised or presented by participants; it is a good idea to note essential points or to keep a reminder for future courses;

3.3.4 Written information, for example, a press article or excerpts from specialist journals or magazines in the domain of occupational health and safety.

3.4 EVALUATION

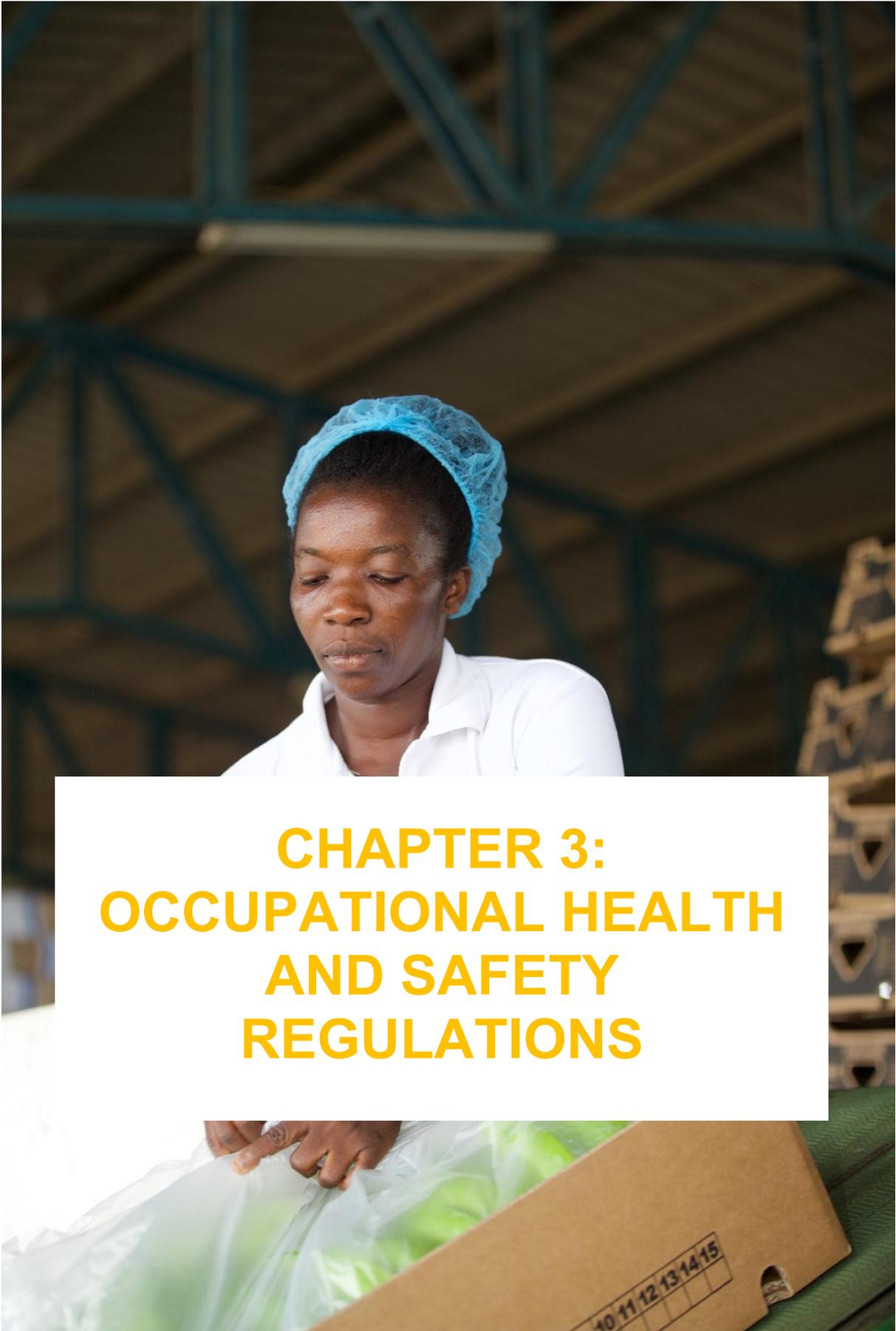
The basic principle of the evaluation is that both course participants and trainers must both be involved. Each party must reflect individually and collectively on the course in which they participated. In the same way that the course was based on group work and the active participation of everyone involved, the evaluation must also be a process that involves everyone present.

Questions must revolve around the point of the course, its weaknesses and its strengths. The evaluation may also be used to analyse the quality of the administration, logistics and moderators or trainers.

Trainers must be evaluated based on the following parameters:

- 3.4.1 Quality of content
- 3.4.2 Relevance and applicability of the content
- 3.4.3 Quality of the logistics
- 3.4.4 Quality of the group
- 3.4.5 Quality of the organisation
- 3.4.6 Quality of the trainers

Refer to Appendix 4, Activity 8 - Evaluation for sample activities and forms that can be used by trainers when evaluating training on occupational health and safety.



**CHAPTER 3:
OCCUPATIONAL HEALTH
AND SAFETY
REGULATIONS**

1. LEGAL

The legal framework of Occupational Health and Safety in Ghana are provided for or contained in the following Ghanaian legislations; 1992 Constitution of Ghana, Labour Act, 2003 (Act 651), Factories, Offices and Shops Act 1970 (Act 328) and Workmen's Compensation Law, 1987 (PNDCL 187).

The rules of hygiene and safety in the workplace are intended to ensure the protection of the worker's health.

2. PROFESSIONAL INSTITUTIONS

The labour laws in Ghana make provision for some institutions responsible for handling issues related to the working conditions of workers or employees.

These include:

2.1 Ministry of Employment and Labour Relations (MELR)

The Ministry of Employment and Labour Relations (MELR) was established by Executive Instrument 1 (EI 1,1993) and by Sections 11 and 13 of the Civil Service Act, 1993 (PNDC Law 327). It is responsible for the formulation and implementation of policies aimed at creating and promoting decent jobs, as well as for developing strategies that promote industrial peace and harmony. The MELR is headed by the Minister of State in charge of Employment and Labour Relations. The Minister is appointed by the President subject to the approval of Parliament.

2.1.1 Functions

- Lead advisor to the Government on matters pertaining to employment and labour.
- To oversee and coordinate employment opportunities and labour-related interventions in all sectors of the State.
- Ensure fair and equitable wages and salaries for employees in all sectors of the economy.
- Ensure the provision of employable skills and apprenticeship particularly to the youth through vocational and technical training at all levels.
- To promote decent and sustainable jobs.
- Ensure occupational safety and health for all workers in both the formal and informal sectors.
- Ensure all workplaces conform to labour laws through labour inspection; and
- Facilitate the development of vibrant co-operatives, medium and small-scale enterprises for employment generation and poverty reduction.

2.2 Department of Factories Inspectorate (Ministry of Employment and Labour Relations)

The Department of Factories Inspectorate provides national leadership in Occupational Safety and Health. The Department seeks to find and share the most effective ways of getting results to save lives, prevent injuries and diseases at all workplaces. It promotes measures that would safeguard the health and safety of persons employed in premises, which fall within the purview of the Factories, Offices and Shops Act, 1970 (Act 328).

The objective of the Department is to prevent occupational accidents and diseases that arise from exposure to stresses in the working environment, by the promotion and enforcement of measures that would safeguard the health and safety of workers, using as a basis, the provisions of the Factories, Offices and Shops Act and its related regulations.

2.2.1 Functions

- Inspection of workplaces to ensure that reasonable standards of safety and health of workers are maintained.
- Investigation of notifiable occupational accidents and dangerous occurrences as provided under the Factories, Offices and Shops Act. The investigation affords identification of the contributory factors in the series of events that lead to an accident and therefore enable advice on appropriate measures to prevent future recurrence.
- Approval of building plans for premises which are intended to be used as Factories, so as to ensure that the provisions for health and safety of persons intended to be employed are adequate and satisfactory, having regard to the requirements of the Factories, Offices and Shops Act and its related regulations.
- Registration of Factories and Renewal of Certificates of registration.
- Supervision of the statutory examination and or test of potentially hazardous plant and equipment to ensure that they are safe to operate.
- Prosecution of offences under the Factories, Offices and Shops Act, 1970 (Act 328)
- Occupational Health and Safety educational programmes in the form of Lectures, Discussions, Audio-Visual Aids and Practical Visits to Industries.
- Organisation of Health and Safety courses for specific target groups of Workers and Management.

2.3 NATIONAL LABOUR COMMISSION

The National Labour Commission (“Commission”) is an agency under the Ministry of Employment and Labour Relations and is established under section 135 of the Labour Act. The Commission seeks to promote and sustain a harmonious industrial environment and co-operation among the labour market players.

2.3.1 Functions:

- To facilitate and settle industrial or work-related disputes through the use of effective dispute resolution mechanisms.

- To investigate labour related complaints, in particular, unfair labour practices.
- To take such steps as it considers necessary to prevent labour disputes.
- To maintain a database of qualified persons to serve as mediators and arbitrators.
- To promote effective labour co-operation between labour and management.

2.3.2 Composition

The National Labour Commission is composed of the following:

- 1) A Chairperson who shall be nominated by the association of employers in Ghana (Ghana Employers Association) and appointed by the President acting in consultation with the Council of State.
- 2) Apart from the Chairperson, the Commission has six other members who are appointed in the following manner; two each nominated by the Government and employer's organization also known as the Ghana Association of Employers and organized labour.

2.4 THE NATIONAL TRIPARTITE COMMITTEE

The National Tripartite Committee is established under section 112 of the Labour Act. It is also another agency of the Ministry of Employment and Labour Relations which meets at least once every three months to deliberate on labour related issues.

2.4.1 Functions:

The National Tripartite Committee is required to perform the following functions:

- Determine the national daily minimum wage.
- Proffer advice on employment and labour market issues, including labour laws, international labour standards, industrial relations and occupational safety and health.
- Consult with partners in the labour market on matters of social and economic importance.

2.4.2 Composition:

The National Tripartite Committee shall comprise:

- The Minister for Employment who shall be the chairperson.
- Five representatives of the Government.
- Five representatives of the Ghana Employers Association.
- Five representatives of organized labour.

2.5 THE SOCIAL SECURITY AND NATIONAL INSURANCE TRUST (SSNIT)

The Social Security and National Insurance Trust (SSNIT) is a statutory public Trust established under the National Pensions Act, 2008 (Act 766). It is mandated to administer Ghana's Basic National Social Security Scheme and to cater for the First Tier of the Three-Tier Pension Scheme. This is to guarantee an employee's pension on retirement.

2.5.1 FUNCTIONS

- To operate the basic national social security pension scheme and other schemes as may be prescribed by law
- To register employers and workers under the Pension Scheme
- To collect contributions
- To manage records on members
- To invest the funds of the Scheme
- To process and pay benefits to eligible members and nominated dependants

2.6 TRADE UNIONS AND COLLECTIVE AGREEMENTS

Article 24 of the 1992 Constitution of Ghana provides that workers have the right to form or join any trade union of their choice for the promotion and protection of their economic and social interests. Trade unions fight for the rights of its members at the workplace and ensure that members are treated fairly at their workplaces.

To protect the economic and social interests of its members, trade unions may enter into negotiations with the employers' organizations or their representative to arrive at favourable conditions of service for its members. The negotiations may result in a Collective Agreement which essentially represents the terms reached between the trade unions and the employers' organizations on the suitable conditions of service for its members.

The Labour Act requires that trade unions seeking to negotiate on behalf of its members must have a Collective Bargaining Certificate. Therefore, without the Collective Bargaining Certificate a trade union is not permitted to negotiate on behalf of its members.

To obtain a Collective Bargaining Certificate, the Trade Union is required to apply to the Chief Labor Officer for a certificate appointing that trade union as the appropriate representative to conduct negotiations on behalf of the class of workers specified in the collective bargaining certificate with the employers of the workers.

2.6.1 RULES OF NEGOTIATION BETWEEN TRADE UNIONS AND EMPLOYERS

The Labour Act outlines various rules that trade unions and employers' organizations must adhere to during their negotiations in respect of the terms and conditions of service of the employees. The rules are:

- a. Parties must negotiate in good faith and make every reasonable effort to reach an agreement.
- b. Parties must disclose all material or information relevant to the subject of negotiation to the other Party.
- c. Parties shall treat as confidential all information disclosed during the negotiations which have not been made public.

3. OCCUPATIONAL HEALTH AND SAFETY COMMITTEES

This is a consultative organ within an establishment or enterprise aimed at the promotion of dialogue and consultation between the employer and workers in the domain of health and safety at work. This is backed by the Collective Agreements of individual Banana Plantation Companies. It is also backed in the Occupational Safety and Health Bill (yet to be placed before parliament).

3.1 Occupational Health and Safety Committee

An employer shall establish an Occupational Safety and Health Committee at the place of work where:

- a. Fifteen or more persons are employed at the place of work and a
- b. Majority of the employees request for the establishment of the committee; or
- c. Chief Executive Officer directs the establishment of the committee.

3.2 COMPOSITION

The Committee shall comprise:

- a. The Employer or his Representative
- b. The elected representatives of the employees.
- c. Occupational Health and Safety Officer
- d. Medical Officer

3.3 COMMITTEE MEETING

The committee meets:

- a. At least once a quarter: the labour inspector must be informed of the date and time of the meeting so that they are potentially able to attend;
- b. Following each serious professional accident or disease;
- c. Upon the request of its chairman or a quorum of its members.

3.4 ROLES

3.4.1 Regularly review accident records, risk assessment reports and follow up on submission of reports to relevant authorities by management.

3.4.2. Ensure the regular and correct implementation of occupational health and safety policies and procedures.

3.4.3 Ensure the implementation or enforcement of all necessary legislative and regulatory requirements.

3.4.4 Ensure the compliance with regular maintenance procedures relating to all machinery and structures.

3.4.5. Ensure the strict implementation and compliance with policies and procedures regarding the provision and use of personal protective equipment (PPE).

3.4.6 Motivate for and facilitate the investigation of all industrial accidents or occupational diseases.

3.4.7 Review action plans in the domain of hygiene and safety regarding the activity of the enterprise and ensure its execution.

3.4.8 Make suggestions to the employer on measures aimed at a continuous improvement of working conditions.

3.4.9 Disseminate relevant and vital information relating to health promotion in the workplace.

3.4.10 Encourage, maintain and develop through training and regular information the culture of safety amongst workers.

4. LEGAL FRAMEWORK

The laws governing Occupational Health and Safety in Ghana are provided for or contained in the following Ghanaian legislations; 1992 Constitution of Ghana, Labour Act, 2003 (Act 651), Factories, Shops and Offices Act 1970 (Act 328) and Workmen's Compensation Law, 1987 (PNDCL 187).

It is also worth noting that Article 11 of the 1992 Constitution lays down the sources of law in Ghana. It provides that one important source of law in Ghana is the Common Law. Therefore, in the absence of specific legislation on a particular health and safety

issue at the workplace, the rules of Common Law as applicable may be resorted to and applied accordingly.

1992 CONSTITUTION OF THE REPUBLIC OF GHANA

Article 24(1) of the 1992 Constitution of the Republic of Ghana states categorically that every person has the right to work under satisfactory, safe and healthy conditions, and shall receive equal pay for equal work without distinction of any kind. This implies that the 1992 Constitution which is the Supreme law recognizes the occupational health and safety of all employees.

LABOUR ACT, 2003 (ACT 651)

The Labour Act of Ghana which governs or specifically deals with labour matters provides for occupational health and safety in Part XV. It spells out the duties of the employer and employees in ensuring and guaranteeing the health and safety of employees at the workplace.

The provisions on occupational safety and health within the Labour Act 651 are consistent with ILO Conventions 155 of 1981 on Occupational Health and Safety and the Working environment, and Convention 161 of 1985 on Occupational Health Services, which Ghana is yet to ratify.

HEALTH AND SAFETY OBLIGATIONS OF THE EMPLOYER UNDER THE LABOUR LAW OF GHANA

1. To provide and maintain at the workplace, plant and systems of work that are safe and without risk to health.
2. To ensure the safety and absence of risks to health in connection with use, handling, storage and transport of articles and substances.
3. To provide the necessary information, instructions, training and supervision having regard to the age, literacy level and other circumstances of the worker to ensure, so far as is reasonably practicable, the health and safety at work of those other workers engaged on the particular work.
4. To take steps to prevent contamination of the workplaces by, and protect the workers from, toxic gases, noxious substances, vapors, dust, fumes, mists and other substances or materials likely to cause risk to safety or health.
5. To supply and maintain at no cost to the worker adequate safety appliances, suitable fire-fighting equipment, personal protective equipment, and instruct the workers in the use of the appliances or equipment.
6. To provide separate, sufficient and suitable toilet and washing facilities and adequate facilities for the storage, changing, drying and cleansing from contamination of clothing for male and female workers.
7. To provide adequate supply of clean drinking water at the workplace.
8. To prevent accidents and injury to health arising out of, connected with, or occurring in the course of, work by minimizing the causes of hazards inherent in the working environment.

9. When an occupational accident or disease occurs at the workplace, an employer is required to report as soon as practicable and not later than 7 days from the date of the occurrence to the appropriate government agency.
10. An employer shall not dismiss or terminate the employment of a worker or withhold any remuneration of a worker who has removed himself or herself from a work situation which the worker has reason to believe presents imminent and serious danger to his or her life, safety or health.
11. An employer shall not require a worker to return to work in circumstances where there is a continuing imminent and serious danger to the life, safety or health of the worker.

An employer who fails to adhere to the above stated rules without reasonable excuse commits an offence and is liable to a fine or to a term of imprisonment not exceeding 3 years or to both.

HEALTH AND SAFETY OBLIGATIONS OF EMPLOYEES UNDER THE LABOUR ACT

Workers or employees are required to use the safety appliances, firefighting equipment and personal protective equipment provided by the employer in compliance with the employer's instructions.

An employee who does contrary cannot hold the employer liable for any injury that was solely caused by the noncompliance of the worker.

Secondly, a worker who finds himself or herself in any situation at the workplace which she or he has reasonable cause to believe presents an imminent and serious danger to his or her life, safety or health, the worker shall immediately report this fact to his or her immediate supervisor and remove himself or herself from the situation.

EMPLOYMENT OF YOUNG PERSONS

The Labour Act prohibits the employment of young persons in any type in any type of employment or work likely to expose the person to physical or moral hazard. Therefore, young persons should not be engaged in work that deals with poisonous chemicals.

A young person is a person of or above 18 years of age but below 21 years.

An employer shall not employ a young person in an underground mine.

An employer who goes contrary to the law on employment of young person's commits an offence and is liable on summary conviction to a fine.

Also, an employer shall not employ a young person on any work unless a medical practitioner has certified that the young person is in good health and is medically fit for the work.

Factories, Shops and Offices Act 1970 (ACT 328) This act also provides for the health, welfare and safety of persons employed in factories, offices and shops and other places, and matters connected with their work.

To ensure that all factories, offices and shops are duly registered and certified in accordance with the ACT.

To also ensure the health, welfare and safety of the workers the Act outlines various measures that owners of factories, offices and shops must put in place.

These measures relate to cleanliness, overcrowding and noise, and include:

Regarding cleanliness, the Act requires the following:

- a. Every factory, office and shop and all furniture, furnishing and fittings therein should be kept in a clean state.
- b. The floor of every office, shop and workroom shall be cleaned at least once a week by washing, sweeping or some other suitable and effective method.
- c. All accumulations of dirt and refuse shall be removed daily from the floors and benches of workrooms, and from staircases and passages.
- d. In every factory, all inside walls and partitions, and all ceilings or tops of rooms, and all walls, sides and tops of passages and staircases shall, where they have a smooth impervious surface must be washed with hot water and soap or otherwise suitably cleaned at least once in every twelve months.
- e. Where the walls are varnished or painted with oil paint, they must be varnished or repainted at least once in every five years, and at least once in every twelve months be washed with hot water and soap or otherwise suitably cleaned; and in other cases, be whitewashed or colour-washed at least once in every twelve months.

Concerning overcrowding, the Act states that a room constituting a factory, office or shop shall not, while work is carried on therein, be so overcrowded as to cause risk of injury to the health of persons working there.

In determining whether any such room is overcrowded or not, account shall be taken not only of the number of persons who may be expected to be working in the room at any time but also of the space in the room occupied by furniture, furnishings, fittings, machinery, plant, equipment and appliances.

Per the Act, the floor area (in square feet) or capacity (in cubic feet) for each person habitually employed to work in any room which constitutes an office or a factory shall not be less than 40 square feet or 400 cubic feet respectively and every workroom shall be not less than nine feet in height, measured from the floor to the lowest point of the ceiling or, where there is no ceiling to the lowest point of the roofing material.

Noise and vibrations likely to affect the health of persons employed in any factory, office or shop should be reduced as far as possible by appropriate and practicable measures.

No person shall in the course of his work be required to lift, carry or move any load so heavy to be likely to injure him.

A first aid box or cupboard of the prescribed shall be provided and maintained in every factory, office and shop so as to be ready accessible, and where more than 150 persons are employed, an additional box or cupboard shall be provided for each additional 150 persons.

Additionally, employers are to ensure that all offices, factories or shops have adequate ventilation by the circulation of fresh air in each work room, have adequate and suitable washing facilities for the use of employees and have sufficient and suitable lighting either natural or artificial.

Furthermore, every factory, office and shop shall have an appropriate means for fighting fire and should be so placed as to readily for use.

Employers are to provide workers with suitable protective clothing appliances, including, where necessary, suitable gloves, footwear, goggles and head coverings where in any factory or shop workers are employed in any process involving excessive exposure to wet or any injuries or effective substances.

Also, there should be adequate sanitary conveniences with adequate lighting and ventilation in every factory, office and shop, conveniently accessible to all workers and which shall be maintained. Separate convenience shall be provided for males and females (except members of the same family).

All these provisions are meant to safeguard and guarantee the health, safety and well-being of workers.

The Workmen's Compensation Law deals with the compensation to workmen for personal injuries caused by accidents arising out of and in the course of their employment.

It provides that an employer is liable to pay compensation and pay all medical expenses of an employee or worker who sustains personal injury by accident arising out of, and in the course of employment in accordance with this Act.

The quantum of compensation payable to an injured employee is generally dependent on an assessment of the nature and degree of injury by a medical officer.

The Act further states that the employee is protected from any diminution in his earnings while undergoing treatment for the injury sustained.

International Conventions to which Ghana is a signatory also serve as guidelines for the enforcement of Occupational Health and Safety standards in Ghana. These are:

ILO Convention 155

This convention requires signatories to formulate, implement and periodically review a national policy on occupational safety, occupational health and the working environment. Its aim is to prevent work-related accidents and injuries so far as is reasonably practicable. Its main points concern the following:

- design, testing, choice, substitution, installation, arrangement, use and maintenance of the material elements of work (workplaces, working environment, tools, machinery and equipment, chemical, physical and biological substances and agents, work processes);
- relationships between the material elements of work and the persons who carry out or supervise the work, and adaptation of machinery, equipment, working time, organisation of work and work processes to the physical and mental capacities of the workers;
- training, including necessary further training, qualifications and motivations of persons involved, in one capacity or another, in the achievement of adequate levels of safety and health;
- communication and co-operation at the levels of the working group and the undertaking and at all other appropriate levels up to and including the national level;
- the protection of workers and their representatives from disciplinary measures as a result of actions properly taken by them in conformity with the policy referred to in Article 4 of this Convention.

ILO Convention 184

This convention speaks to occupational health and safety in agriculture. This convention has the aim of preventing accidents and injury to health arising out of, linked with, or occurring in the course of work, by eliminating, minimizing or controlling hazards in the agricultural working environment. This designated body would also provide for corrective measures and appropriate penalties in accordance with national laws and regulations. The convention requires that national laws and regulations designate a competent authority to be responsible for implementation and enforcement of national laws and regulations on occupational safety in agriculture. It also requires that the rights and duties of employers and workers with respect to occupational safety and health in agriculture. Another requirement is for the establishment of mechanisms of inter-sectoral coordination among relevant bodies in the agricultural sector.

ILO Convention 81 - Labour Inspection

This Convention provides that countries that have ratified this convention including Ghana are required to maintain a system of labour inspection in all industrial workplace.

The functions of the system of labour inspection shall be:

- a. to secure the enforcement of the legal provisions relating to conditions of work and the protection of workers while engaged in their work; such as provisions

- relating to hours, wages, safety, health and welfare, the employment of children and young persons, and other connected matters
- b. to supply technical information and advice to employers and workers concerning the most effective means of complying with the legal provisions;
 - c. to bring to the notice of the competent authority defects or abuses not specifically covered by existing legal provisions.

ILO Convention 115 - Radiation Protection Convention

This Convention speaks about the enforcement of protective measures for workers who are exposed to ionising radiation in the course of their work. Some of these protective measures include:

- a. No worker under 16 should be involved in any work which results in exposure to ionising radiation.
- b. Appropriate warnings shall be used to indicate the presence of hazards from ionising radiation. Any information necessary in this connection shall be supplied to the workers.
- c. All workers directly engaged in radiation work shall be adequately instructed, before and during such employment, in the precautions to be taken for their protection, as regards their health and safety, and the reasons therefor.

ILO Convention 119 - Guarding Machinery

It provides that there should be a competent authority in each country to determine whether and how far machinery, new or second-hand, operated by manual power presents a risk of injury to the worker after holding consultations with the organisations of employers and workers concerned.

The Convention lays down certain specific protective measures regarding such machines to reduce the risk of injury to employees.

Such measures include:

- a. All setscrews, bolts and keys, and other projecting parts of any moving part of machinery liable to present danger to any person coming into contact with them when they are in motion, shall be so designed, sunk or protected as to prevent such danger.
- b. All flywheels, gearing, cone and cylinder friction drives, cams, pulleys, belts, chains, pinions, worm gears, crank arms and slide blocks, and, to the extent prescribed by the competent authority, shafting (including the journal ends) and other transmission machinery also liable to present danger to any person coming into contact with them when they are in motion, shall be so designed or protected as to prevent such danger.
- c. The use of machinery which has dangerous parts shall not be operated without the appropriate guards.
- d. All machinery shall be so guarded as to ensure that standards of occupational safety and hygiene are not infringed.

ILO Convention 120 - Hygiene (Commerce and Office)

It outlines some rules of hygiene and safety that employers must implement at the workplace which includes offices, farms and factories. The rules include:

- a. All premises used by workers, and the equipment of such premises, shall be properly maintained and kept clean.
- b. All premises used by workers shall have sufficient and suitable ventilation, natural or artificial or both, supplying fresh or purified air.
- c. All premises used by workers shall have sufficient and suitable lighting.
- d. As comfortable and steady a temperature as circumstances permit shall be maintained in all premises used by workers.
- e. All workplaces shall be so laid out and workstations so arranged that there is no harmful effect on the health of the worker.
- f. A sufficient supply of wholesome drinking water or of some other wholesome drink shall be made available to workers.
- g. Sufficient and suitable washing facilities and sanitary conveniences shall be provided and properly maintained.
- h. Sufficient and suitable seats shall be supplied for workers and workers shall be given reasonable opportunities of using them.
- i. Suitable facilities for changing, leaving and drying clothing which is not worn at work shall be provided and properly maintained.
- j. Underground or windowless premises in which work is normally performed shall comply with appropriate standards of hygiene.
- k. Workers shall be protected by appropriate and practicable measures against substances, processes and techniques which are obnoxious, unhealthy or toxic or for any reason harmful. Where the nature of the work so requires, the competent authority shall prescribe personal protective equipment.
- l. Noise and vibrations likely to have harmful effects on workers shall be reduced as far as possible by appropriate and practicable measures.
- m. There shall be a dispensary or first-aid post or box in every workplace.

ILO Convention 148 - Working Environment (Air Pollution, Noise and Vibration)

This convention requires that workers shall comply with safety procedures relating to the prevention and control of, and protection against, occupational hazards due to air pollution, noise and vibration in the working environment.

To ensure this there shall be supervision at suitable intervals of the health of workers exposed or liable to be exposed to occupational hazards due to air pollution, noise or vibration in the working environment. Such supervision shall include a pre-assignment medical examination and periodical examinations.



CHAPTER 4: TYPES OF RISK AND RISK MANAGEMENT



1. OCCUPATIONAL HAZARDS

The occupational risk factors to which workers are exposed are as follows:

CHEMICAL HAZARDS: agrochemicals and non – agrochemicals used in agriculture in their various forms (e.g. gas, vapour, dust, mist, fumes etc.).

PHYSICAL HAZARDS: rough terrain, noise, vibrations, ionising radiation (high and low frequency), extreme temperatures (cold, heat), differential pressure,

BIOLOGICAL HAZARDS: viruses, bacteria, fungi, rickettsia, parasites, rodents, animal predators and vectors

ERGONOMIC HAZARDS: manual handling, posture, repetitive movements, and others.

PSYCHOSOCIAL HAZARDS: bad work organisation (shift work, work breaks), mental overload, stress, and others.

MECHANICAL HAZARDS: all factors related to objects, machinery, equipment and tools that may cause occupational accidents, either due to a lack of preventative and/or corrective maintenance, or the absence of a safety device in a force transmission system, mobile or protruding parts in an object and the absence of appropriate tools or personal protection elements.

CATASTROPHIC RISKS: explosions, fires, natural disasters, etc.

The following chapter will explain in detail those risks factors which are most common in the banana industry, with guidance on the prevention and control of these risks at farm level.

Further information on the specific risks associated with each role in the farm and packing house, and how to manage these specific risks, can be found in **PART 2: MANUAL FOR WORKERS**

2. CHEMICAL HAZARDS

In the banana sector, large varieties of chemical substances are used, from fertilisers to pesticides and insecticides to eliminate weeds and pests (for crop protection).

Due to the potential consequences for plantation workers, the use and manipulation of pesticides pose many risks which must be controlled.

Chemical pollutants can enter the worker's body through the mouth, the respiratory tract and the skin. The level of risk is related to the dose of substance absorbed and also to the duration of exposure and the concentration of said substance in the workplace environment.

Workers can be exposed to various sources of chemical products during the various phases of the agricultural activity, namely:

1. Production
2. Maintenance
3. Storage
4. Transport
5. The elimination and processing of product residue
6. Emissions when various tasks are carried out
7. The maintenance, repair and cleaning of the equipment and receptacles used and containing chemical substances

Therefore, the plantation is obligated to establish and publish procedures that cover all stages of production where chemical substances are handled, from the point of receipt, transport, storage, application and elimination.

Similarly, workers are responsible for staying healthy, following procedures established so they can work safely, knowing the data sheets for product safety (MSDS) and using the required PPE.

The designated supervisor, prior to starting any fumigation operation, must ensure that all equipment is in perfect working order and that all workers who handle or apply chemical substances are appropriately trained, particularly so that they can:

1. Understand the indications on the product label
2. Understand how the equipment runs
3. Take appropriate measures of protection
4. Understand the emergency procedures to carry out in the event of accidental exposure

If the plantation uses organophosphate pesticides or pesticides containing an organic phosphorus component (n-methyl carbamate), then a programme must be implemented to monitor the level of cholinesterase in workers who manipulate said pesticides.

The Managing Director / Operations Manager must also ensure that appropriate emergency procedures are created and implemented in order to react to accidental spillage of toxic chemicals. As a safety measure, the plantation must make full cleaning kits available where necessary.

For further information for workers see PART 2: MANUAL FOR WORKERS, ANNEX 1. WORKING WITH CHEMICALS

2.1 RISKS FOR SPECIAL POPULATIONS

The ILO refers to the study reports of the agency, Inter Press Service, which demonstrate that chemical substances and other toxins have a “particularly devastating effect on women’s health” (especially due to their impact on their biological reproductive functions). The World Health Organisation (WHO) also recognises that pregnant women and children are more vulnerable to pesticides.

Children can be exposed if they are present at an agricultural workplace or if members of their family go home and their skin or clothes are covered in potentially toxic

chemicals (e.g. pesticides) or even if the family vehicle is contaminated with such substances. Therefore, particular care needs to be taken to keep children away from sources of pesticides (clothing, containers etc.).

The unborn foetus is vulnerable to exposure during various phases of its development. The degree of vulnerability can vary, depending on the type of pesticide is involved¹. Similarly, infants who are being breastfed can absorb toxic chemicals (e.g. pesticides) that may be found in the breast milk of their mother who may have been exposed².

Therefore, the exposure of pregnant or breastfeeding women to toxic chemicals (e.g. pesticides) must be avoided as much as possible. Pregnant or breastfeeding women must be placed at workstations where there is lower risk. Toxic chemicals must be placed in their appropriate packaging and labelling.

2.2 MARKING AND LABELLING PESTICIDES

The labelling is designed in order to clearly and simply inform the final user of a pesticide about both aspects related to the control of harmful organisms and precautions to take for risk-free use. Therefore, it is important to read and understand the entire label as it contains all useful information, for example: the chemical products in the pesticides; the use of the product (what it is for); potential risks; how to use it and what to do in the event of an accident. The label is a legal requirement: indeed, the law stipulates that pesticide manufacturers and importers must include a certain amount of information on the label of their products.

The label must be read carefully, particularly in the following situations:

1. Before buying a pesticide

Read the label carefully before buying a pesticide product to check that the product is authorised for your intended use. This use must be found on the label. If the desired product use or application is not found there, then this use is illegal. You need to know the formula, how to prepare it and apply it; the information on the label will inform you on the quantity of product you need.

2. Before using the pesticide

Read the label to know whether there are any use restrictions (e.g. toxicity category for worker health and environmental impacts); restrictions regarding application hours (e.g. no application during the hottest hours of the day); whether it is necessary to use PPE when mixing or applying the product and what kind of first aid should be administered in the event of an accident.

¹ The risks are described in the article "Aerial Application of Mancozeb and Urinary Ethylene Thiourea (ETU) Concentrations among Pregnant Women in Costa Rica: The Infants' Environmental Health Study (ISA)" published by Joode B. Van Wendel, et al., in the journal, Environmental Health Perspectives. The document is available at the following link: <http://ehp.niehs.nih.gov/wp-content/uploads/advpub/2014/9/ehp.1307679.pdf>

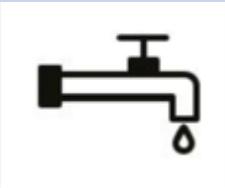
² The risks are described in the article "Exposure to toxic elements via breast milk", published by A. Oaskarsson et al. in the Analyst journal, issue 120 (3), pages 765 - 770.

3. Before storing the pesticide

Read the label to know whether any recommendations should be followed regarding storage or warehousing (e.g. in the original container, hermetically sealed, visible label, stored in a cool dry place, locked premises).

4. How to dispose of empty containers that have contained a pesticide

Read the label to learn how to dispose of the empty containers safely. For example, once the product is no longer being used, the triple washing technique must be employed to clean the contaminated containers before disposing of them:

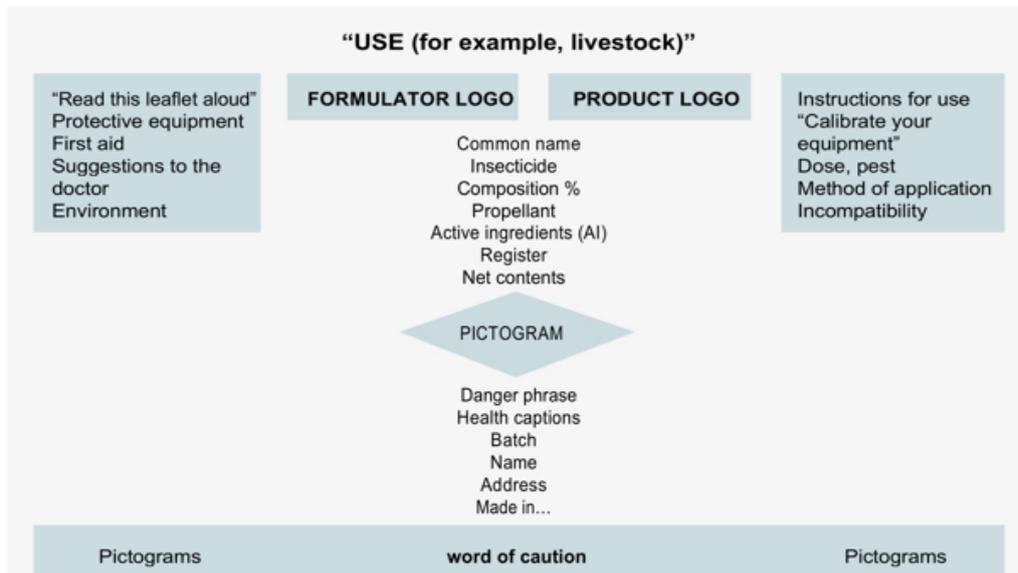
			
Puncture the empty container to prevent it from being reused. Store and take to the collection centre.	Drain the container. Add water until it is one fourth (1/4) full.	Seal the container. Shake for thirty seconds.	Pour the water into the spray tank and repeat the procedure three times.

The appropriate use of any herbicide directly depends on the product information available. Therefore, the label on the container is a major element and is often the only information available to the user.

Applicable regulations stipulate that:

1. Any plant-protection product must be distributed in closed containers with indelible labels.
2. The labels must be written in French and in English.
3. The label must comprise three sections, that is to say: a section that identifies the product, a section that contains the usage recommendations and a section regarding precautions and warnings.

FIGURE 1: SAMPLE PESTICIDE LABEL



The label of all products designed for crops have a coloured band at the bottom, which indicates the degree of toxicity, and pictograms regarding the use of protective equipment and control of the environment.

Pictograms, related to the use of protective equipment must be taken into account, as well as label colours, as the latter allow the category or degree of substance toxicity to be identified.

Please refer to the international technical standard for more information on the toxicological classification of pesticides and to see the list of active ingredients according to toxicological category.

FIGURE 2: LABEL COLOUR AND DEGREE OF TOXICITY

LABEL COLOUR	LEVEL OF TOXICITY	HAZARD
	Ia Extremely toxic	VERY TOXIC
	Ib Highly toxic	TOXIC
	II Moderately toxic	HARMFUL
	III Slightly toxic	DANGER
	IV Practically non-toxic	CAUTION



All crop product labels have a coloured stripe on the bottom part indicating their toxicity level. They also have pictograms on the use of protective clothing and environmental protection:

FIGURE 3: PICTOGRAMS OF PROTECTIVE EQUIPMENT FOR PESTICIDE USE

Symbol	Situation represented	Symbol	Situation represented
	Storage		Advice Wear overalls during application
	Activity use gloves when handling products		Advice
	Activity use gloves when handling products		Advice Cover nose and mouth for protection
	Activity Use in application		Advice Wash yourself after use
	Advice		Advice protect face and eyes. This icon is used when there is a risk of splash back.
	Advice Cover nose and mouth for protection		Advice Wear an apron during application
	Advice Harmful to animals		Advice Harmful to fish. Do not contaminate lakes, rivers, ponds or streams.

In plantations, toxic and flammable products, such as fuels, oils, etc. are also used as well as pesticides.

They can be identified according to the provisions of the Standard NFPA704.

This classification is related to the “fire diamond”, which is used for warnings regarding hazards that may be caused by flammable and radioactive materials. Therefore, in the banana industry, it is important for all personnel members to be aware both of the classification criteria and what each number means according to the colour.

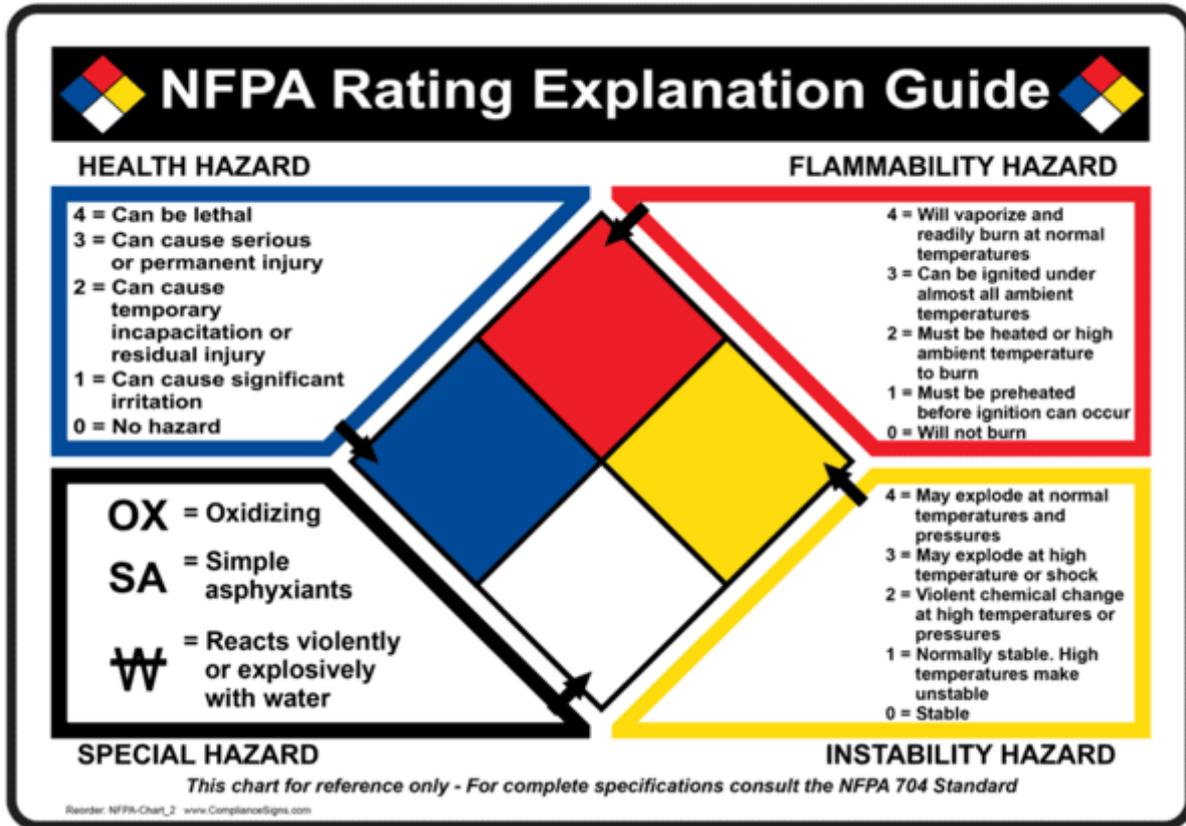
The NFPA 704 standard creates an illustration based on a diamond divided into four parts. Each part is a different colour and represents the levels of hazard of the substance being classified.

RED. This colour indicates the flammability risks.

BLUE. This colour indicates the health risks.

YELLOW. This colour indicates the product instability risks.

WHITE. This part contains indications that refer specifically to certain products, such as oxidants, products that react to water, or asphyxiants.



The levels of hazard are indicated in each descriptive section, using a numeric scale, as is shown on the following table:

TABLE 2: HAZARD LEVEL

LEVEL OF DANGER	BLUE - HEALTH	RED - FLAMMABILITY	YELLOW - INSTABILITY
4	<p>Substances that can be lethal in certain non-controlled conditions.</p> <p>E.g. Aluminium phosphide, phenol, chlorine.</p>	<p>Substances that evaporate quickly or fully at room temperature and under normal atmospheric pressure, or that disperse and burn easily in the air.</p> <p>E.g. Isobutane, Acetaldehyde, Acetylene.</p>	<p>Substances that, in themselves, can explode or decompose or produce explosive reactions at a normal temperature and under normal pressure.</p> <p>Substances that are sensitive to localised heat or mechanical shocks at a normal temperature and under normal pressure.</p> <p>Substances that react quickly and are self-igniting when at a high temperature (200°C to 250°C).</p> <p>E.g. Per-acetic acid, nitro-glycerine.</p>
3	<p>Substances that can cause serious or permanent lesions in certain non-controlled conditions.</p> <p>E.g. Sodium hydroxide, diethylamine, liquid nitrogen.</p>	<p>Liquid and solid substances that may ignite in almost all conditions at room temperature.</p> <p>Substances that, when in this form and when they come into the atmosphere, are hazardous in almost all room temperatures.</p>	<p>Substances that, in themselves, can explode, decompose or have an explosive reaction but that, in order to do so, require a powerful detonator or must be heated in a confined space (prior to any ignition procedure).</p>

		E.g. Aluminium, acetone, benzene.	E.g. Nitrocellulose, dinitroaniline.
2	Substances that can cause temporary incapacity or residual damage in certain non-controlled conditions. E.g. Sulphur, toluene, xylene.	Substances that must be heated gently or exposed to relatively high temperatures before igniting. E.g. Benzaldehyde, liquid asphalt.	Substances that undergo strong chemical changes at high temperatures and pressures. E.g. Benzoyl chloride, sulphuric acid.
1	Substances that can cause significant irritation in certain non-controlled conditions. E.g. Red phosphorus, ethylene, ether.	Substances that must be preheated before igniting. E.g. Red phosphorus, ethylene, ether.	Substances that, in themselves, are normally stable but that may become unstable at high temperatures and pressures. E.g. Ether, calcium oxide, nitric acid.
0	Substances that may not present any more danger than an ordinary combustible material in certain non-controlled conditions.	Substances that do not burn when they are exposed to fire, including substances that are intrinsically non-combustible.	Substances that are normally stable, even under fire. E.g. Barium chloride, liquid oxygen.

E.g. Aluminium powder, palm oil.

E.g. Concrete, sand, hydrochloric acid.

The only symbols that can be found in the white section are:

1. OXI oxidising agent
2. R Strong or hazardous reaction to water
3. AS Simple asphyxiant gas (this symbol is only used for the following gasses: nitrogen, helium, neon, argon, krypton, xenon). The symbol "SA" for simple asphyxiant (gases) can also be seen.

With regard to substances that require both symbols W and OXI, W is more critical (particularly for fire-fighters) and so it must be left in the corresponding diamond. The OX symbol is placed below.

Any other symbol that is not listed above does not pertain to the NFPA 704 standard and should appear outside the diamond. It is not necessary to indicate anything that is particular to corrosive substances as this risk is already taken into account in the blue HEALTH category.

2.3 MANAGING MATERIAL SAFETY DATA SHEETS (MSDS)

It is useful to know the material safety data sheet of a product in order to identify dangers and risks pertaining to the product, such as flammability, instability, reactivity, toxicity, possible injury caused by contact, etc. The sheets help avoid any improper manipulation, potentially limit the need to use PPE and prepare for action in the case of an emergency.

This document provides information required to manipulate the product in question in a risk-free manner and it also covers aspects related to storage, transport, use and the elimination of residue, as well as measures to take in the event of an accident.

These sheets must always be available to personnel handling the products in question.

The chemical supplier is obligated to issue an MSDS for each product in the English and French language.

See the sample Material Safety Data Sheet in Appendix 7 and Figure 5 'Sections of a MSDS' below on page 21.

FIGURE 5: SECTIONS OF MSDS



2.4 STORAGE

Standards require a warehouse or storage premises exclusively reserved for pesticides; other products, such as fertilisers, fuels, personal protective equipment and tools, inter alia, must be kept separately. Standards for good agricultural practice, for example, the Global GAP standard, provide for a chapter entirely related to the correct storage of pesticides, which can serve as a guide.

The international technical standard sets conditions to follow and precautions to take to store and transport these substances. Indeed, the inadequate storage of chemicals, particularly in the event of an incompatibility, may provoke fires, explosions and, consequently, material damage and even loss of human lives.

The general rules, which apply to the storage of chemicals, are listed below.

2.4.1 Chemical storage guidelines

When a chemical must be stored, you need to consult its safety data sheet, namely the sections regarding regulations, transport and the product's stability-reactivity, depending on whether it will be stored temporarily or permanently. The following precautions must be taken:

1. Check whether the space in which the chemicals are kept meets basic standards, such as: adequate ventilation and lighting, emergency exits, non-combustible walls, a non-absorbent floor, presence of a siphon or flow path, shelves or counters in good, tidy, clean condition, availability or proximity of elements required in the case of an emergency (extinguishers, sinks, showers, kits in the event of spillage).
2. Up to date inventory of all chemicals in storage. This document must always be available on the premises or at the storage location.
3. Separate solid and liquid products, organise the spaces for each category in compliance with the required safety measures; it is recommended that solid products be on shelves above liquid products.
4. Consult the safety data sheet corresponding to each chemical being stored (the packaging of certain products contains the label or an information sheet). Generally, the United Nations system is used. This system classifies hazardous substances into nine large groups hereafter referred to as "Classes", which in turn are divided into sub-classes to refine the level of hazardousness. Each numbered class corresponds to a pictogram with a background in a specific colour, in the shape of a diamond with a drawing that represents the hazard. These categories and the corresponding grid can be consulted (Chemical labelling guide).
5. According to the product class (which can be identified according to the corresponding diamond), a grid of incompatibility of chemicals must be applied (see following section) in order to check the compatibility of the product being

stored with products already on the premises, prior to its storage. The grid is read by crossing the different hazard classes described. This grid must be displayed and visible at the entrance of the area where the chemicals are stored temporarily or permanently.

6. It is advisable to use chemicals with a low risk as a physical barrier to separate two classes of incompatible products. For example: sodium chloride, silica gel, inter alia.
7. Products pertaining to the same risk class must be grouped together.

TABLE 3: INCOMPATIBILITY GRID FOR CHEMICALS

	CLASE UN															
CLASE 1 Explosivos 6 divisiones		1														
CLASE 2 División 2.1 Gases inflamables																
CLASE 2 División 2.2 Gases no inflamables - No tóxicos																
CLASE 2 División 2.3 Gases tóxicos																
CLASE 3 Líquidos inflamables															4	2
CLASE 4 División 4.1 Sólidos inflamables, reacción espontánea y explosivos insensibilizados									3							
CLASE 4 División 4.2 Sustancias que pueden experimentar combustión espontánea									3						3	3
CLASE 4 División 4.3 Sustancias que al contacto con el agua desprenden gases inflamables								3	3						3	3
CLASE 5 División 5.1 Sustancias comburentes																
CLASE 5 División 5.2 Peroxidos orgánicos																
CLASE 6 División 6.1 Sustancias tóxicas																2
CLASE 7 Material radiactivo																
CLASE 8 Sustancias corrosivas								4	3	3						
CLASE 9 Sustancias y objetos peligrosos varios								2	3	3			2			

a) Meaning of colours

-  The products can be stored together; use the MSDS to check the reactivity of each product.
-  Precaution, potential restrictions; use the MSDS to review the incompatibilities; there is a risk of incompatibility and particular precautions may be necessary.
-  The products are incompatible: they need to be stored separately.

b) Meaning of numbers

The mixed storage of explosive materials depends on particular incompatibilities, such as those listed.

The class 9 substances (various hazardous substances and objects) are easily inflammable and contribute to fire spreading quickly; they must not be stored near toxic substances or flammable liquids.

Mixed storing is only allowed if the products do not react amongst themselves in the event of an incident; it is recommended to keep them in small cabinets or any other location that is physically separate to avoid contact.

Corrosive liquids that are placed in breakable containers must not be stored with flammable liquids, unless they are physically separate (safety cabinet or any other effective means to avoid accidental contact).

c) Important comments

Products belonging to the gas group (class 2.1, 2.2 and 2.3) must be stored separately from other products, regardless of chemical compatibility, as they require special conditions.

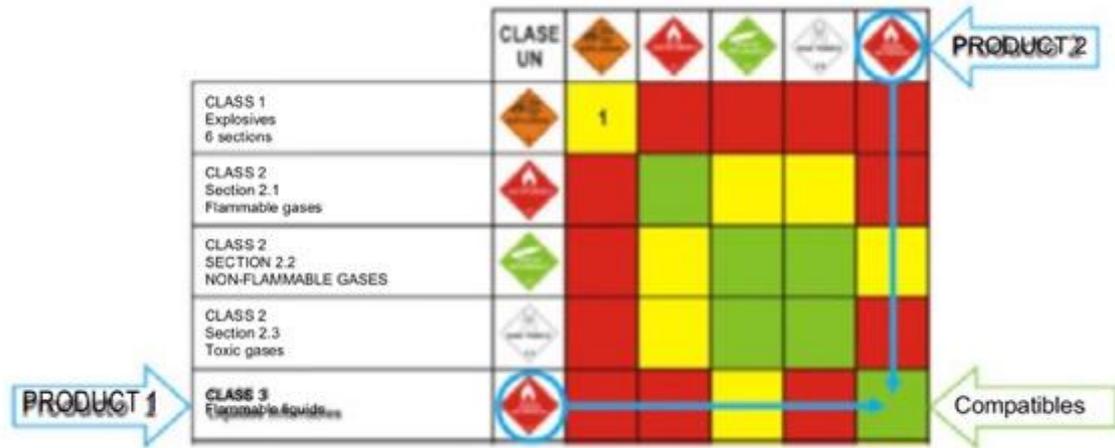
Small pressurised containers (aerosols) can lead to more or less significant restrictions with regard to flammable liquids, toxic and class 9 substances.

Products in class 6.2 (infectious) require special conditions and their storage complies with specific regulation

FIGURE6: GRAPHIC SYMBOLS - LABEL SHAPE AND DESIGN

EXPLOSIVES		Dangerous Goods Classes and Divisions				FISSILE MATERIAL	
1.1, 1.2, 1.3	EXPLOSIVES	2.3	TOXIC GASES	5.2	New Label, ORGANIC PEROXIDES	7 Cont	FISSILE MATERIAL
1.4	Substances and articles which present no particular hazard	3	FLAMMABLE LIQUIDS		Old Label (not permissible after 1 January 2011)	8	CORROSIVE SUBSTANCES
1.5	Very insensitive substances which have a mass explosion hazard	4.1	FLAMMABLE SOLIDS	6.1	TOXIC SUBSTANCES	9	MISCELLANEOUS DANGEROUS SUBSTANCES & ARTICLES
1.6	Extremely insensitive articles which do not have a mass explosion hazard	4.2	SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION	6.2	INFECTIOUS SUBSTANCES	MIXED CLASSES (for road or rail transport or for storage in Australia)	
2.1	FLAMMABLE GASES	4.3	SUBSTANCES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES	7	RADIOACTIVE MATERIAL (Category I)	ELEVATED TEMPERATURE SUBSTANCES	
2.2	NON-FLAMMABLE NON-TOXIC GASES	5.1	OXIDIZING SUBSTANCES		RADIOACTIVE MATERIAL (Category II or III)	ENVIRONMENTALLY HAZARDOUS SUBSTANCES	

FIGURE 7: COMPATIBLE STORAGE EXAMPLE



When does the incompatibility grid for storage apply?

When a worker in a banana company, who is responsible for this task, must store a chemical temporarily or permanently, they must take into account the product’s frequency of use.

Where does the incompatibility grid for storage apply?

In all areas or installations of the company where the chemicals are stored.

Why was the incompatibility grid for storage created?

For necessary risk prevention and protection measures to be taken in order to avoid harmful effects on worker health and negative environmental consequences in the case of non-compliant storage of chemicals.

2.4.2 Chemical storage premises

Designated storage areas for chemicals, in addition to the applicable regulatory provisions, must have a specific location and layout:

1. They must be located in areas that are far from offices, production areas and areas for the storage of raw materials or finished products, places where food products designed for human or animal consumption are manufactured.
2. They must be located in protected areas that cannot be flooded and, according to the risk analysis, take into consideration the distance between the premises and residential areas, educational centres and healthcare establishments.
3. The installations must be very well ventilated and, if necessary, there must be mechanical ventilators (air extractors) that are also protected by a grate that is thin enough to avoid insects, animals or birds entering.

4. The floor must have a gradual slope and be waterproof (concrete or other). Adequate drainage and containment must also be provided in the event of an accidental spillage.
5. The premises need to be identified with signs and also have internal and external signs.
6. Access to the premises shall be restricted to authorised personnel members.
7. Containers must not be placed on the ground but on platforms.
8. The entire chemical storage area shall be contained within a drip tray, according to the quantity and nature of products, as well as the applicable standards.
9. The chemicals must be placed on structures or platforms to avoid the deterioration of packaging due to corrosion or humidity.
10. Liquids must be in containers with a pouring spout at the top, which are properly closed and located at the lower part of the shelf.
11. Store chemicals in their original container with their respective label, according to the national standard in force.
12. Rank the different chemicals according to their toxicological category and their physical state (type of formula).
13. Store the products by leaving a space between the rows or shelves.
14. Each location shall be equipped with a kit/material in case of an emergency: a container with clean absorbent material (sawdust, sand, lime, etc.) and another empty container. The absorbent material that shall be used must be placed in the empty container immediately after having been used for cleaning; this used material must be disposed of in compliance with the provisions in force.
15. The containers that contain chemicals shall be filled and emptied while taking the necessary precautions to avoid any spillage and contamination of personnel.
16. The areas designated for chemical storage shall be exclusively designed for this purpose and in no event can the following be stored there: food and drink, medication, clothing, domestic utensils or any other product for human consumption, which, if contaminated, could present a health risk.

2.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

In Ghana, Section 2 of Part XV of the Labour Law 2003 (Act 651) stipulates that:

“An employer shall supply and maintain at no cost to the worker adequate safety appliances, suitable fire-fighting equipment, personal protective equipment, and instruct the workers in the use of the appliances or equipment.”

All risk zones including those where PPE is compulsory must be signposted by the company.

Personal protective equipment must be provided according to the nature of the work activity. This equipment comprises:

1. Respiratory protection e.g. respirators and breathing apparatus when the nature of the industry or works being carried out do not sufficiently eliminate gases, fumes, vapors, dusts or even harmful micro-organisms.
2. Eye Protection e.g. Goggles, visors or other eye protection devices designed to protect the worker against all solid, liquid, gaseous or radiation emissions that may cause be harmful to the eyes
3. General personal protective equipment e.g. gloves, gauntlets, muffs, headgear, overalls, hoods and safety shoes to provide general safety protection for workers against multiple hazards
4. Special clothing and/or equipment designed to protect workers when they are carrying out specific safety - critical tasks
5. All other appliances, devices or accessories designed to protect workers against the risks pertaining to their activity.

PPE are selected according to the following criteria:

- risk assessment of activity
- level of protection;
- compliance with national and international standards;
- ergonomics;
- fit (and comfort for worker)
- sustainability.

Section 2 of Part XV of the Labour Law 2003 (Act 651) again stipulates that:

“It is the obligation of every worker to use the safety appliances, firefighting equipment and personal protective equipment provided by the employer in compliance with the employer’s instructions”

2.5.1 Storage

PPE must be stored according to the manufacturer’s recommendations and never in a location where there are chemicals. Once the personal protective equipment and work clothes have been approved, the occupational health and safety manager should ensure enough stock of said clothing and equipment to meet the company needs. This manager should keep a register of the equipment (PPE and clothing) provided to personnel.

2.5.2 Use

The use of PPE is compulsory when defined as such by the company according to the risk analysis and also in relation to the requirements indicated on the labels and MSDS of any products that they must manipulate.

2.5.3 Cleaning

Any work clothing and PPE that has been in contact with pesticide or other hazardous substances must be cleaned and decontaminated after each use – gloves must be worn. This should be carried out in designated areas within the workplace, as provided by the company. Workers should NEVER wash their PPE at home to avoid any contamination to family members, in particular children.

2.5.4 Change, renewal and restitution

Worn or damaged PPE must be replaced immediately. In particular mask filters must be changed frequently, according to the manufacturer's instructions.

If the PPE is worn or damaged, then the worker must request a replacement from their supervisor or the company's health and safety manager. In order to change the PPE or the work clothing, the worker in question must return the used equipment before receiving new items. The manager shall determine whether the equipment can be reused or whether it must be eliminated – the protection of workers health should be the key element in any decision-making process.

When a worker's contract ends then they must return all PPE and clothing that they have received by their employer.

2.6 HANDLING AGROCHEMICALS

Several chemicals are used in banana farming, particularly fertilisation, weed control and disease control. The most frequently used chemicals in banana plantations can be grouped into the following categories:

1. **Fertilisers**: used to fertilise and nourish crops, usually with a nitrate and sulphate base but also made from organic substances from animal or plant matter in some cases.
2. **Herbicides**: used to control and eliminate weeds, for example Glyphosate (Panzer and Roundup) and Paraquat (Gramoxone)
3. **Insecticides**: used to control pests, for example Chlorpyrifos
4. **Fungicides**: used to control fungus such as the sigatoka (black leaf streak) and protect the banana crown, for example Mancozeb.
5. **Nematocides**: used to kill the plant parasites and nematodes, for example Oxamyl, Terbufos (Control) and Cadusafos.

These products may impact on the health of workers and the effects vary according to the toxicity of the substance used and the frequency and length of exposure. Prolonged

exposure presents particular risks as workers often do not immediately feel the effects on their health, which can sometimes appear months or years later.

For specific information on the common substances used for each specific worker role in banana production and their toxicity category see PART 2: MANUAL FOR WORKERS

The workplace risks are present as soon as the substances are received or stored until the containers, which contained the substances, are decontaminated.

Employers must adopt specific measures to protect workers from hazards that originate from the use of chemicals at work, for example:

1. Provide training and information to workers regarding the hazards related to exposure to chemicals used at the workplace;
2. Train workers on how to understand and follow instructions on the labels and safety data sheets;
3. Use the safety data sheets as a basis, as well as other specific information that is available at the workplace, to prepare written instructions for workers;
4. Provide continuous training on policies and procedures regarding the use of chemicals at work.

The company must establish and publish policies and procedures that cover all stages of production where chemical substances are manipulated, from their receipt to their use or elimination.

Also, workers are responsible for following procedures established so they can work safely and stay healthy, refer to the data sheets for product safety (MSDS) and use the required PPE.

The operations / farm manager and or the supervisor - in charge and or the health and safety officer, prior to starting any fumigation or chemical application activity, must ensure that all equipment is in perfect working order and that all workers who handle or apply chemical substances have received the required training, particularly so that they:

- a) understand clearly, the indications on the product label;
- b) have clear knowledge of the operating procedure for equipment;
- c) apply all appropriate safety measures;
- d) understand and apply the emergency procedures to carry out in the event of overexposure.

If the plantation uses organophosphate pesticides or pesticides containing n-methyl carbamates then it must provide for an occupational health system in order to monitor the cholinesterase levels of the workers in question, that is to say all workers who handle these products, whether they are responsible for mixing them, transporting them, or applying them, etc.

Similarly, policies and procedures regarding re-entry periods (periods of worker restriction from fumigated areas) must be applied regardless of the type of pesticide and in accordance with the risk analysis carried out. During these periods, the areas treated

with pesticides must be appropriately highlighted with approved safety signage to notify workers and non - workers of the hazard; the signposts must be easy to understand for everyone, including workers and non - workers.

In all workplaces, relevant information must be displayed or made available to workers through various means, regarding the toxicity of pesticides and other products in use, and authorised or restricted access hours, etc.

The hazard related to exposure to an agrochemical product when there is no control in place can lead to poisoning through the lungs, the skin, the digestive system or parenterally (nose, skin, mouth, eyes).

TABLE 4: CHEMICAL RISKS - HAZARDS, CONTROLS AND CORRECTIVE MEASURES

HAZARD	CONTROL	CORRECTIVE MEASURE
Incorrect dosage of products for a planned application (overdose or insufficient dosage).	The dosage must be carried out by personnel who have been trained for this purpose and have expertise in the matter. Consult the indications on the label or call a technician.	Revise and amend the dosage. Calibrate and sort the pouring spouts by suitable use, according to the type of product. Farmers may only purchase and use agrochemical products, which are on the register of the national authority in charge of plant and animal sanitation, as well as food safety. These products may only be purchased from authorised distributors and retailers.
Prolonged storage of products, exceeding the expiration date.	Keep a register of the products entering and exiting the storage area.	Get rid of expired products according to the legal provisions and regulations in force, as well as the indications by the competent authorities.
Prolonged storage of products, exceeding the expiration date.	Keep a register of the products entering and exiting the storage area.	Get rid of expired products according to the legal provisions and regulations in force, as well as the indications by the competent authorities.
Personnel access to the farmed area during aerial fumigation activities.	Signposting.	Signposts specifically for the agricultural sector must be visible and placed at the entrance of the farm, namely for lorries and also at pedestrian crossings. Posts and signs must be made of weather-resistant materials, they must be large enough to be clearly legible from a distance of at least 20 m, they must also be located at entrances and access roads and must be maintained so that they remain in good condition, in compliance with the standards in force and the corresponding technical INEN standard.

Exposure to agrochemical products.	Install eye wash stations, emergency showers and washing places for contaminated work clothing.	Provide adequate sanitary equipment: washstands, eye wash stations, for emergencies, showers to decontaminate workers, wash contaminated clothing, and changing rooms, according to the number of workers.
Ignorance of safety precautions to take when using agrochemical products.	Provide safety data sheets for all products used.	Farmers must provide all workers with the safety data sheets for the chemicals used on their farm.
Pesticides are not applied manually or sprayed at the recommended hours (early in the morning when the temperature is cooler).	Prohibit applying pesticides between 10:00 am and 02:00 pm.	Do not let workers work for more than 4 hours in a row when they are carrying out spraying tasks and provide for personnel rotation every 6 months.
Intoxication of workers and pilots in charge of applying the products.	Respect the established working hours.	Rotate workers and pilots in accordance with the standards in force.

All workers associated with tasks that involve the use and manipulation of pesticides must be trained on how to handle chemicals in a risk-free manner, by qualified professionals who must emphasise the hazards and precautions to take.

For specific information on the chemical risk management measures required for each specific worker role in banana production see PART 2: MANUAL FOR WORKERS and its ANNEX 1: WORKING WITH CHEMICALS.

3. PHYSICAL HAZARDS

These risks are incurred when workers are exposed to extreme physical factors that go beyond what the body can withstand and do not correspond to a normal tolerable environmental situation in any usual workplace.

3.1 EXPOSURE TO EXTREME TEMPERATURES (EXTREME COLD OR EXTREME HEAT, OF ATMOSPHERIC ORIGIN OR DUE TO WORKING CONDITIONS)

Workers who are exposed to atmospheres that are extremely hot or extremely cold may suffer from physiological disorders.

To reduce the effect of extreme temperatures in work areas, the employer must follow the following recommendations:

1. They must provide their personnel with suitable work clothing in accordance with the activity they are carrying out and thermal conditions.
2. In closed areas, such as offices, hangars, warehouses, etc., where the temperature exceeds 25°C, a ventilation or air conditioning system is necessary.

3. Access to clean drinking water must be provided in fields and areas where personnel are exposed to high temperatures.
4. For all manual work lasting for a prolonged period of time, regular break periods must be authorised so that workers have time to rehydrate and rest in shaded areas.
5. In installations or during operational procedures that generate a lot of heat, measures must be taken to the greatest possible degree to avoid reaching temperatures that are hazardous to workers.
6. The time that workers spend in closed areas without ventilation or where temperatures can climb must be limited by establishing rotations. Furthermore, metabolic activity and the level of protection or insulation provided by work clothing must be taken into account.
7. Installations that generate high or low temperatures (heat or cold) must be located at a reasonable distance from work areas (within regulatory limits). This helps reduce exposure potential hazardous situations, such as fire or explosion, emission of harmful gasses and direct radiation and the effects of the cold, the heat and drafts, which could harm the health of workers.

3.2 NON-IONISING RADIATION (SOLAR LIGHT, INDUSTRIAL DRYING, WELDING, SMELTING)

Non-ionising radiation (low-frequency fields and wave lengths) can cause effects that are difficult to detect but that are potentially harmful to health.

To control this type of radiation at the workplace, the following considerations apply:

1. Personnel affected by welding operations (welder and assistant) must receive sufficient training regarding the risks pertaining to this activity and the related prevention measures, particularly regarding the use of PPE. All welding work must be authorised before being carried out.
2. Personnel exposed to bad weather (farm workers, etc.) must be able to protect themselves from risks related to exposure to UV rays by using appropriate clothing (canvas and cotton) and particularly by covering their heads with wide-brimmed hats that protect the face and the neck. They can also apply sun cream and sunscreens. Further-more, shaded areas must be available to them, as well as all previously listed measures of protection.

3.3 EXPOSURE TO NOISE (MOTORS, ELECTRONIC TOOLS AND MACHINES)

Noise is a form of physical pollution. It is air-transmitted in waves. To control this type of noise at the workplace, the following considerations apply:

1. Noise levels must be measured regularly and, if necessary, noise maps should be drafted. The commonly accepted tolerable noise limit is 85 dB (A - weighted) for an 8 hour work day. Noise is measured using a Sound Level Meter (SLM).
2. Noise must be controlled by reducing it at the source, blocking the path of transmission and preventing worker exposure.
3. If necessary, noisy operations must be isolated using applicable engineering techniques. Individual means of protection shall only be used in the event that no technique can be applied to reduce exposure to noise and its harmful effects.
4. Workers in question shall be equipped with headsets and other suitable hearing protection PPE, according to the level of noise measured, the length of exposure, the capacity of the hearing protection filter and the compatibility with other personal protection elements being used at the same workplace.
5. Disregarding the use of appropriate PPE in areas with noise levels above normal/regulatory limits is forbidden.

3.4 EXPOSURE TO VIBRATION

Exposure to vibration occurs when the oscillation of a structure is transmitted to a body part. The vibration can cause discomfort, loss of precision when carrying out movements, reduced efficiency, and health effects.

To control vibrations at the workplace, the following measures apply:

1. Any agro-industrial equipment, machine and tool that may emit vibrations must be subject to preventative maintenance, in compliance with approved maintenance procedures.
2. Workers who are exposed to vibrations must be equipped with suitable personal protective equipment (PPE).
3. If vibrations emitted by equipment cannot be avoided then the work shall be organised in order for personnel to rotate via shift-work so that their exposure time is limited.
4. Heavy equipment such as tractors, power shovels and excavators, etc., which produce vibrations, must be fitted with a seat with a sufficiently comfortable back that cushions the movement.

4. ERGONOMIC HAZARDS

These are the risk factors that result mainly from workload and organisation.

Taking “active breaks” is recommended for all tasks related to banana farming and for any for the ergonomic risks listed as follows. The ILO, in their Encyclopaedia of Occupational Health and Safety, recommend taking active breaks for 5 minutes every hour. For more information, see Appendix 4, Activity 7 “Active breaks”.

4.1 FORCED POSTURES

Forced postures are various body positions that are either fixed or limit mobility, cause muscles and tendons to contract excessively, or put excessive and sometimes asymmetrical pressure on joints, thus causing a static position that puts stress on muscles.

To control forced postures at the workplace, the following considerations apply:

1. Workers who work standing up must be trained regarding good practices in order to avoid prolonged static postures when carrying out their work.
2. Workers are advised to stretch their upper and lower limbs and engage in exercises to increase joint flexibility at the beginning of the working day and throughout their working hours.
3. For activities that involve repetitive movements, workers must reduce the frequency of movements as much as possible or modify their movements in order to better control their exertions.
4. When work is carried out sitting down, the back must be kept straight and against the back of the chair. Workers must align their elbows with the worktable and adapt the height of the chair to their work. They must also change position often (for example, by getting up from their chair regularly).
5. The height of the workstation must be adapted to the worker.

4.2 REPETITIVE MOVEMENTS

Repetitive work consists of a worker carrying out the same activity within a given time (ranging from a few seconds to a few minutes) and then repeating said activity constantly throughout a work cycle; or it is when a worker, regardless of the length of the cycle, repeats the same actions for at least half of the duration of said task.

To control repetitive movements at the workplace, the following considerations apply:

- a. When the work is carried out standing up at a workstation then workers must vary their posture to help with blood circulation.

- b. They must take breaks to rest or recover from fatigue for a duration of 8 to 10 minutes following each hour of work.
- c. Personnel must rotate between different workstations to avoid being constantly exposed to the same tasks.
- d. If the task requires using both upper limbs then workers must endeavour to use them alternatively.

4.3 MANUAL HANDLING

This consists of any movement that is necessary to lift and move a load or heavy object, by one or several workers. Specific actions include manual lifting, pushing, moving, putting down and repositioning a heavy object. This can lead to risks that could affect the physical health of anyone who continuously carries out this type of activity.

To limit the harmful effects related to the improper handling of heavy objects at the workplace, the following considerations apply:

1. Loads must be manipulated and transported in a mechanical manner as much as possible, using lifting devices such as forklifts, hand trolleys, pallet trucks, conveyors, cranes and hoists in warehouses.
2. Workers responsible for handling loads and materials must receive sufficient training in order to carry out these tasks safely.
3. Personnel must particularly be trained in the case when they must lift and transport heavy objects in pairs or with several workers. In this case, this type of operation must be led by one single person to ensure good coordination and avoid accidents.
4. Workers must not be obligated to manually transport a load whose weight may affect their health or safety.
5. According to national standards, a worker can lift a maximum weight of: Men: 25 kg. Women: 15 kg
6. In exceptional circumstances, in the case of adult workers who are healthy and in good physical shape, the maximum weight can be extended to 40 kg on condition that the task is temporary and carried out in safe conditions. If the weight exceeds this amount then mechanical means must be prioritised (source INSHT).
7. When sitting, workers must not lift objects exceeding 5 kg and must ensure that the object is at close proximity to their torso. Therefore, they need to avoid lifting said object from the ground or from above shoulder-level and turning or bending their torso.
8. Pregnant women should not be required to lift heavy objects.

9. Workers must wear PPE that is adapted to the risks to which they are exposed.

For more information on the procedure to lift a heavy object safely, within the aforementioned limits, see PART 2: MANUAL FOR WORKERS, Annex 2: HOW TO LIFT LOADS CORRECTLY

5. BIOLOGICAL HAZARDS

These types of hazards may cause diseases. Indeed, any contact with a deriving organism or substance may be a threat to health. This is namely the case with the following: viruses, bacteria, parasites, fungi, insects and other types of poisonous animals, etc.

To control biological factors existing at the workplace, the following measures apply:

1. Any agro-industrial activity that presents a biological risk to worker health must be carried out very cautiously and using PPE that corresponds to the nature of the risk.
2. Exposed work centres require a pest and disease control programme to prevent the incubation and spread of biological agents and other vectors of animal origin that present a risk to the health of persons.
3. Waste disposal sites should be located at designated sites separate from activity areas. This prevents direct human contact with pathogens which can cause infections. These areas must comply with the national environmental standards in force, particularly with regard to infrastructure, which must provide for: a fire hydrant, electricity, pipes, lighting, ventilation, lack of standing water, in order to avoid the spread of infectious agents.
4. Workers shall have access to a sufficient number of toilets (with strict maintenance procedures and schedules), for males and for females. All waste disposal bins must be equipped with lids.
5. Spaces that do not have a drinking water supply device must contain drinking fountains for human consumption and the water quality must be regularly controlled (bacteriological analysis).

5.1 INSECT BITES AND STINGS OR ANIMAL BITES

Insect bites and stings may cause an immediate skin reaction. Red ant bites and wasp, bee and hornet stings are generally painful, whereas mosquito bites and flea and mite bites tend to be itchy.

The risk of death is lower from insect bites and stings than from snake bites.

5.1.1 Considerations

In most cases, insect bites and stings can easily be treated on site or at home. However, some people may have a severe allergic reaction, which requires immediate medical attention to avoid severe consequences (including death)

5.1.2 Symptoms

Symptoms depend on the type of sting or bite and, amongst other things, they include:

- pain
- reddening
- swelling
- itching
- inflammation
- numbness
- pins and needles

Some persons may have a severe reaction to bee and insect stings, which may even be life-threatening. This is called an anaphylactic shock. This type of reaction can occur quite rapidly and cause death if no treatment is administered quickly.

Anaphylaxis presents with various symptoms that can quickly manifest in the whole body, namely:

- chest pain
- swollen mouth or face
- difficulty swallowing
- difficulty breathing

If these symptoms occur medical attention must be sought immediately.

Refer to the First Aid Section in Chapter 5 to learn how to react in the event of an insect bite or sting.

5.1.3 First aid

Some spider bites can be very severe and potentially deadly; however, most of them are harmless. Once bitten or stung, if possible, the insect should be brought to the relevant medical facility for identification (and determination of appropriate treatment).

5.1.4 Prevention

- Avoid fast and sudden movements near insect hives or nests.
- Avoid wearing perfume and clothing with floral patterns or dark colours.
- Use mosquito repellent lotion amongst other products, and clothes that provide good coverage.

- Be cautious if you eat out in the open, particularly with sugary drinks; do not stay near bins, which attract bees.
- If a person knows that they are allergic to insect bites or stings, they should keep a suitable emergency kit on their person (epinephrine solution (adrenaline)) and ensure that close friends and family know how to use it in the case of a severe allergic reaction.

5.2 SNAKE BITES

The measures, which must be taken if somebody is bitten by a snake, are crucial and must be followed very precisely as, in many cases, consequences can be deadly.

5.2.1 Signs and symptoms

A person who has been attacked by a snake generally presents the following symptoms:

1. Non – specific symptoms:
 - pain, swelling and bleeding at the site of the bite
2. Symptoms due to venomous bites:
 - thirst and difficulty breathing
 - vision problems, nausea and vomiting
 - progressive weakness and paralysis
 - prolonged and/excessive bleeding from the bite site and other sites (e.g. passing bloody urine).

If the person presents these types of reactions then this indicates that the bite may be from a venomous snake and that the toxins, which are found in the snake's saliva, may already be in the person's bloodstream. IMMEDIATE action is therefore required as, without appropriate first aid, the risk of death is high.

5.2.2 First aid

In the event of a snake bite, the instructions mentioned in more detail in the First Aid section in Chapter 5 of this handbook must be followed and action must be taken as quickly as possible before the venom begins to have an effect.

5.3 SANITARY FACILITIES

Sanitary facilities, showers, sinks, and lockers are to be regularly cleaned and maintained. If not, such spaces may be sources of infectious diseases. They would also breed vectors of disease.

The floors, walls and ceilings of bathrooms and showers, sinks and toilets must be covered with one layer of material that is easy to clean using liquid disinfectant products.

Workers shall ensure that all accessories (taps, siphons and gutters), as well as cabinets, seats, etc., are always well - maintained and clean.

Use of these premises for purposes other than those stipulated is not supported by national regulation.

5.3.1 Toilets and urinals

- Toilets and urinals must be equipped with toilet paper and waste disposal bins with a lid. They must be cleaned regularly.
- If the toilets are adjoined to a workplace then there must be a separating door and an outdoor natural or artificial ventilation system. Furthermore, they should not be visible from the outside and the door must be fitted with an indoor locking system.

5.3.2 Sinks and showers

- Every establishment must make sinks with running water available to all personnel and there must be at least one sink for every 15 persons.
- When, due to their specific nature, works incur a risk of exposure to extreme temperatures and dust, contact with harmful, irritating or infectious substances or simply soiling substances then a shower for at least 10 workers (who stop working at the same time) must be provided for.
- Sinks and showers must be equipped with suitable toiletries (soap, clean towels, cleaning brushes, etc.,) which are provided by the employer and frequently replenished.
- Workers, who use greasy, oily materials or paint, or who manipulate toxic substances must wash in specific designated areas and must have access to the necessary special cleaning products on a case by case basis, which are non-irritant and not hazardous to health.
- Separate showers for men and women should be provided where possible, with shower doors with an indoor locking system.
- Personal belongings must be placed in separate cabinets that are available to the workers.
- Showers that are adjacent or close to the changing rooms are also practical; otherwise, clothes hangers must be provided for.

- If shower and tap water is not drinking water then this should be clearly communicated using a legible placard.

PROCEDURE TO WASH YOUR HANDS - THE HEALTH OF OTHERS IS IN OUR HANDS!



5.3.3 Changing rooms

- Changing rooms must be equipped with a sufficient amount of seating and individual cabinets that can be locked with a key or padlock. These cabinets must be at least 1.80m high (not including the legs) and must be fitted with a hanger bar and a sufficient number of hangers;
- When work clothing, which is dirty due to soiling, ill-smelling, powdery, explosive or flammable materials, is put away as per usual in the changing room then the individual cabinets must have two different compartments, including one specially reserved for this clothing;
- The cabinets must be fully cleaned at least once a week by workers who are responsible for this task. The site manager must ensure full cleaning at each change of ownership.

Furthermore, it would be desirable that workplaces:

- have separate changing rooms and personnel lockers for men and women
- be fitted with benches or seats
- provide workers who are required to manipulate or are exposed to mildly toxic products, with a double cabinet, one for work clothing and the other for non-work clothing
- provide coat hooks or racks in the offices.

5.4 CATERING PROVISIONS

5.4.1 Canteens

- Worksites that employ more than fifty (50) workers and work premises which are more than 2 km away from the nearest village must offer an eating area for its employees.
- The employer must install canteens for the use of workers. These must be located near their working area, relatively far away from any potentially unsanitary environments, and have sufficient lighting and ventilation.
- The floors, walls and ceilings must be easy to clean.
- These spaces must be properly equipped; with tables, chairs, and kitchen utensils (cups, plates and cutlery).
- Ensuring adequate potable water supply is essential and necessary for allowing workers to wash dishes and utensils. The employer is responsible for providing cleaning supplies.

5.4.2 Kitchens

- The floors, walls and ceilings must be easy to clean.
- If necessary, an extraction system (smoke suction hood, exhaust fans) must be installed.
- Good hygiene must prevail and food waste must be placed in covered bins until its collection, in order to avoid contamination.
- Food must be stored at room temperature or refrigerated when necessary.
- Drinking water must be used in food preparation.

5.4.3 Water supply

- There must be a sufficient supply of clean drinking water for workers' consumption throughout the worksite or premises.
- It is compulsory to make at least one (1) water faucet available on-site for every fifty (50) workers; although it is encouraged to have additional water dispensers available.
- Workers are not permitted to drink directly from the tap by placing their mouth on the faucet.
- Pipelines for drinking water must be independent from those supplying non-potable water, and the necessary measures must be taken to avoid cross-contamination.
- If there is no drinking water supply available due to the location of the premises, a water or wastewater treatment system must be installed. In such a case, the corresponding physical, chemical and bacteriological controls must be performed on a regular basis.
- Whenever drinking water must be transported to the premises using cisterns or tanks, these containers must be airtight as well as undergo regular cleaning and sanitation procedures, in accordance with the applicable hygiene standards.
- Whenever water is used in manufacturing processes, workers must be warned (using clearly visible signs) whenever the water is not drinkable. This also applies to water from fire hydrants.
- In any event, when drinking water is not sourced from a regular supply network, it must be subject to portability testing at least once every three (3) months.

5.4.4 Crop management

In order to control the biological factors that may be present in the workplace, the following precautions must be taken:

- The preparation of manure and dung-based organic fertilizers must be performed in accordance with the applicable technical instructions; it must be mixed in a cool and well-ventilated area, under the requisite conditions in place to protect workers' health.
- The reuse of wastewater for crop irrigation is permitted only if it meets the water quality criteria in place for agriculture and irrigation; enacted in compliance with current environmental standards.

6. MECHANICAL HAZARDS

Mechanical hazards refer to all factors that may result in injury due to the mechanical action of parts or elements of a machine, a tool, or certain materials; whether these are projected, or in solid or liquid form.

6.1 OPERATING SHARP OR POINTED TOOLS AND OTHER EQUIPMENT

When a worker handles sharp tools (hammers, pliers, scissors, sharp knives, needles, brushes with metal bristles, etc.), they are at risk of sustaining cuts or other injuries, either due to the sheer force of gravity or other reasons.

To minimize mechanical risks and ensure that workers safely handle all hand-held tools and appliances, the following precautions must be taken:

- For starters, the worker must always ensure that the tool that is most suited to the task is being used.
- Before using a new tool or device, the worker must ensure that these properly equipped with the corresponding safety equipment (i.e. screen, ergonomic handle, grounded power outlet, well insulated wiring, minimal noise generation, and safe vibration levels).
- It is important to inspect the tool prior to use and ensure it is in good condition: handles must be smooth, free of splinters and firmly affixed; metal parts must not be oxidized, cracked or blunt; electric cables must be well insulated, no peeled or protruding wiring; electrical appliances and their corresponding parts must be free from grease, debris, etc.
- The worker must be instructed how to handle the tool correctly, and follow the directions provided by either the manufacturer or their supervisor. In this regard, the worker should never underestimate the advice of a more experienced individual.
- The worker should wear their personal protective equipment (PPE), if required for the type of tool or device being used; as well as follow the recommendations provided by both the manufacturer and their supervisor.
- All portable electric tools must be fitted with a double insulation system, as well as with either a grounded power outlet or a malfunction detection device. Portable electric tools must have a valid certificate of compliance.
- Only qualified and trained personnel are permitted to use, repair, maintain, or install electrical equipment.
- Only qualified personnel are permitted to refurbish tools and equipment

- All tools and equipment must be regularly inspected, serviced, and only used for their intended purpose.
- Workers will receive the necessary training to use the assorted tools and devices; they will also be properly briefed of the risks so that they may be able to avoid accidents.

6.2 UNEVEN FLOORS AND SURFACES

Workers can develop bone, joint or muscular disorders (painful lesions resulting from the elongation of lower limb ligaments and joints) if they regularly walk or move across irregular surfaces; be these natural or artificial.

To minimize the risks associated with uneven working surfaces, the following precautions must be taken:

- All personnel must circulate through offices, corridors, workshops, stairs and all premises by walking at a normal pace; running is not permitted.
- Floors must be dry before allowing foot traffic across; whenever floors are wet, a warning sign must be placed there (e.g. "Caution! Wet floor").
- High circulation areas must be free of obstructions and appropriately levelled so as to not cause passers-by to trip and fall.
- Work areas must be kept clean and neat, with no litter or unnecessary equipment cluttering the floors.
- Drainage pipes must be covered with a grid; one that is strong and sturdy enough to support frequent foot traffic and heavy loads.
- Ditches, wells and other reservoirs must be covered with a lid, to prevent accidental falls.
- Floor-level tubing and wiring must be either firmly affixed to the floor or covered, so as to not get caught on passers-by feet.

6.3 WATER SUBMERSION

Death by drowning or suffocation becomes a risk whenever workers undergo submersion in a large volume of water without taking the necessary precautions.

In order to minimize this risk, the following precautions must be taken in such instances:

- To the extent it is possible, tanks, water reservoirs and pools must only be cleaned after being emptied, and while wearing the appropriate PPE. A special permit is required.

6.4 ORDER AND CLEANLINESS

Many accidents, although sometimes attributed to other causes, are in fact due to a lack of order and cleanliness, as well as to the accumulation of waste or other materials. The build-up of clutter can cause people to slip, stumble and fall; it can even cause fires. Accidents due to a messy or dirty work environment can take many forms: blows, burns, cuts, among others.

To minimize the risks associated with a lack of order and cleanliness, the following precautions must be taken:

- All hand-held tools and portable devices must be placed or stored in the designated areas. One or more locations must be reserved as storage areas, in which each tool will have its own place. This is done so tools are not misplaced and are hence easier to find.
- High circulation areas must be free from any obstructions.
- It is advisable to keep an inventory and regularly dispose of items that are no longer being used, in accordance with the applicable standards (i.e. classified waste material).
- It is important to regularly promote order and cleanliness across the facilities, standardising work processes and educating personnel on good practices (i.e. avoid leaving items out in the open, particularly around high-traffic areas, etc.).

6.5 OPERATING MACHINERY AND EQUIPMENT

The most common hazards associated with operating machinery and equipment are related to unprotected moving machine parts (such as fork tips, belts and pulleys, gears, rotating parts, elements that engage in particle projection, sharp edges, wheels in motion), which can injure workers as well as others around them.

Any surface or ground irregularities must be remedied in order to reduce the risk of accidents.

6.5.1 Heavy machinery and equipment

The following precautions must be taken:

- Only equipment that is relevant to the task being performed must be used; the equipment must be inspected prior to its use and solely operated by qualified personnel.
- When employing cranes, excavators, cable or tube laying equipment, or any large machinery for working at height, near overhead power lines, etc. it is best to maintain the recommended safety distances as per the provisions outlined in the health and safety codes relevant to these types of professional activities; similarly, someone should always be on the ground assisting the machine

operator and overseeing the manoeuvres at all times. Whenever possible, power lines must be switched off for the duration of the works.

- The original design of the equipment must never be modified, nor its safety devices disabled, particularly so in the case of machinery employed to lift heavy loads.
- Equipment must not be operated while it is being cleaned, serviced, or while refuelling is underway.
- All repairs must be made by qualified personnel, to prevent accidental activation or uncontrolled stops.
- Before turning off the machine, the operator must ensure that the key has been removed from the ignition, and that the equipment has been properly secured, unloaded, and docked.
- The ignition devices must be easily identifiable and easy to access, as well as conceived in such a way that hinders unintentional activation.
- Emergency stop devices must be easily accessible and clearly visible.
- All fixed or mobile parts that can cause injury (such as lesions or getting caught on somebody) must be fitted with a safety system, a protective barrier, or another protection device, which must be easily identifiable and clearly visible.
- Transporting passengers on machinery and work equipment while it is in operation, the unauthorised use of the communications equipment, and sleeping or eating in proximity to these devices, are all strictly forbidden. Similarly, workers whose duties do not extend to the operation booth must keep clear of the equipment while it is in operation and well beyond its range of action.
- Only authorised operators are permitted to handle the equipment. They may not delegate their responsibility to unqualified personnel.
- In case of a gas leak or flammable liquid leak, the operator must immediately shut off all machines or engines located in high-risk areas.
- All heavy machinery must be subject to a maintenance routine that implements preventive, corrective and predictive maintenance.
- Workers are not permitted to wear necklaces, watches, rings, bands, loops or loose clothing while operating the equipment or in the adjacent areas to where the equipment is being used.
- Any machine or electric control mechanism devoid of security features should be rendered as “out of service”.

6.5.2 Portable machines and devices

The following precautions must be taken:

- If there is a gas leak or flammable liquid leak, the operator must immediately shut off all machines or engines located in high-risk areas.
- Only portable machines and devices (welding machines, oxy-fuel cutting machines, portable generators, compressors, pumps, etc.) that have been previously inspected and determined to be compliant as well as in good working condition, may be used. Each device must be used to perform a specific task and only operated by qualified personnel.
- While they are not in use, portable devices must be turned off and stored in the corresponding storage area.

- All electricity-powered devices (more than 24 volts) must have a ground connection. The on switch for all portable devices must be protected to avoid unintentional activation.
- All fixed or mobile parts that can cause injury (such as lesions or getting caught on somebody) must be fitted with a safety system, such as a protective barrier, or another protective device.
- Hydraulic pressure machines must have conduction devices equipped with safe cable joints.
- The electric components of all portable equipment or devices must have properly insulated cables and connectors, to ensure they can be operated safely.

6.5.3 Safeguards

The safeguards in place for machines, tools and other devices can only be removed for maintenance purposes and they must be immediately restored as soon as the work is completed. The following precautions must be taken:

- Always retain the original parts supplied by the manufacturer, do not change or remove them.
- While the device is in operation, the security perimeter or area must not be breached.
- The breadth of the safe zone enabled by the protective element must be adequate enough so as to not pose a danger for the individual operating the device.
- The driver or operator must not be interfered with, disturbed or distracted in any way while operating the device.

6.5.4 Vehicles

Among the most common occupational transport accidents that involve vehicles are: head-on collisions, vehicle roll-overs, side-impact collisions, fires, etc. Other hazards include pollution (exhaust fumes), noise and vibration.

The following precautions must be taken:

- All vehicle drivers must have the required permits and comply with both the traffic code and traffic regulations. If necessary, the company will train drivers (in defensive driving); regardless of the type of licence they may have in their possession.
- The car must be fully turned off and the driver and/or passengers must neither smoke nor use their mobile phones during refuelling.

- All vehicles must be backed into the parking space, to facilitate evacuation or the use of the vehicle in the event of an emergency.
- All vehicles, whether owned or rented, must be in perfect operating condition and include all the safety features required by law.
- The use of seatbelts is mandatory.
- It is strictly forbidden to leave the keys in the ignition; this applies to the driver and/or the person in charge of the vehicle; regardless of whether the vehicle is on or off. The keys must be in the possession of the driver or the person in charge of the vehicle at all times.
- Transporting passengers on the platforms of vehicles not equipped for that purpose, or on a vehicle transporting chemicals, is not permitted. Drivers are not allowed to use their mobile phones while driving.
- Whenever it is necessary to store fuel at workshops or other locations, the tanks or containers used for this purpose must conform to current standards (fireproof material, hermetic closure). The same is applicable to the storage of hazardous or flammable residues (e.g. rags soaked with gasoline or covered in grease).
- Use of PPE may be required.

6.5.5 Agricultural machinery

The following precautions must be taken while operating agricultural machinery:

- The machine must be operated by fully trained and authorised personnel.
- The machine must always have the handbrake engaged when it is not in operation, and any accessories (forks, rake) must rest firmly on the ground.
- When working on a hillside, the driver must take care to not carve out ditches, because this could result in landslides.
- The driver's seat must be equipped with shock absorbers, and the use of a safety belt is compulsory.
- Agricultural machinery is not intended for transporting passengers; this practice must be avoided at all costs.
- The control panel (on button, acceleration, lift control, brakes) must meet all the necessary conditions.
- Protective components will only be removed for vehicle maintenance purposes and immediately restored to their original location as soon as the work is completed.

- All machinery or motor vehicles must be equipped with appropriate warning signals and responsive breaks, to facilitate routine operations as well as safe parking practices.
- Every component of the machinery will be subject to preventive, predictive and corrective maintenance.
- Machines that must operate on public thoroughfares will be equipped with safety elements and all the required identifiable elements, mandatory for both daytime and night-time travel, as per the legislation currently in force.
- The driving speed regulations must be observed, especially while working in hazardous, wet or slippery areas, and the appropriate precautions must be taken when the ground is not uniform or levelled.
- The maximum load allowed must be visibly displayed on the forklift itself.
- The use of the forklift must conform to the regulations in force and, if transporting chemicals or hazardous materials, the relevant guidelines must be observed.
- Before performing complex manoeuvres, the driver or operator must first be aware of the following: the planned route; the area for loading and unloading; the vehicle's capacity; floor conditions; potential obstacles to be avoided; and the possible presence of other personnel, who must receive prior notice of the manoeuvres.
- It is strictly forbidden to walk under raised forks; to lift persons; to use sleeves or belts to move, push or pull loads; to place extensions on the vehicle or attach uncertified devices; to stand in front of or behind the forklift while it is in operation; to lift or move a load without previously ensuring it is firmly secured.
- To facilitate the use of the forklift, it is advisable to employ logistic platforms that have been specifically designed to load and unload cases, pallets, containers, etc.
- When the load is very bulky and impairs visibility, the driver or operator must operate the forklift with the help of an assistant.
- When the forklift must be operated on an incline, for example if it must traverse inclines, the driver must remain aware of the vehicle's dimensions and its centre of gravity.
- The unit must be completely turned off while refuelling non-electric forklifts.
- If the forklift is not electric (equipped with an internal combustion engine instead) and has to be used within enclosed spaces, the concentration of carbon monoxide must be carefully monitored so that it does not exceed the maximum allowable limits.

6.5.6 Forklifts

The following precautions must be taken while operating forklifts, particularly within enclosed spaces (i.e. warehouses):

- Only authorised drivers who have been previously trained may operate the forklifts, unless the individual in question has a special permit for operating this type of vehicle.
- The forklift must be equipped with a roof enclosing the driver; sound signals and easily identifiable visual signs, as well as emergency and parking brakes. The vehicle must have a back-up beeper enabled; when turned off, all control panel functions must be disabled with the fork resting firmly on the ground and the hand brake engaged.
- Loads must be transported with the fork lowered and positioned as close as possible to the ground.

7. OCCUPATIONAL RISKS

Occupational risks and work-related stress are some of the most challenging obstacles to overcome when it comes to occupational health and safety. These are common problems in modern societies and can therefore have serious repercussions across workplaces —and even entire countries’— economic landscapes.

Stress is generally considered to be a growing concern and quite prevalent in the workplace. Estimates reveal that nearly half of all missed days are due to work-related stress. As is the case for many other issues related to mental illness, stress is often misunderstood and even stigmatised. That said, if stress and psychosocial hazards finally become perceived as a tangible problem for companies —as opposed to a badge of shame to be pinned on the victim— it will hence be possible to manage these just like any other occupational health and safety risks.

To start with a definition, or rather a conceptual design, of psychosocial hazards and occupational risks, we don't have to go further than the interpretation offered by the ILO and the WHO as far back as 1984 determined that “the conditions present in a workplace environment, tied to the organisation, the nature of the work and the performance thereof, are liable to affect the health and welfare (physical, psychological or social) of the workers as much as the organisation of the tasks themselves”. According to Cox and Griffiths, psychosocial hazards entail those which “affect individuals’ social well-being, psychological and physical health, as well as organisations’ effectiveness, in an adverse manner.”

A troubled psychosocial state can affect a person's health and manifest itself in many ways, for example: in gastrointestinal, physiological, psychological, and emotional disorders. These symptoms are often due to a mix of stressful situations, exacerbated by the interaction of outside factors (i.e. environmental).

These psychosocial factors can be analysed from several theoretical approaches, but the common element amongst these is the relationship between the working environment and the individual. “Health problems occur when work-related demands do not adapt to the workers’ needs, expectations or skills.”

The harmful consequences are not only evident in the affected individual, but also in the organisation; as reflected in phenomena such as absenteeism, workplace conflicts, a decline in productivity, etc.

As a result, each worker will react differently when confronted with a specific psychosocially challenging situation. What’s more, each worker is endowed with certain characteristics (personality, needs, expectations, vulnerability, adaptability, etc.) that will frame their resiliency as well as their response, hence uniquely modifying the outcome of the situation at stake.

A safe and healthy workplace environment is the harbinger of high performance; not only does help employees stay healthy, but it also stimulates their motivation and fosters their involvement in the organisation. On the other end of the spectrum, the deterioration in the quality of work is sometimes a cost that seems negligible on the short run, but it certainly becomes significant on the medium and long term.

For more information on the legal framework on occupational risks, please refer to Appendix 1, titled “PROTOCOL FOR HEALTH AND SAFETY INSPECTIONS IN BANANA PLANTATIONS”

7.1 MANAGING OCCUPATIONAL RISKS

Occupational risks, just like other risks, should be subject to specific procedures to manage workplace hazards, such as it is described in Section 8 below on RISK MANAGEMENT. Occupational risks must be evaluated using methods that focus on the source of the problem (the prevention principle). In other words, by analysing the characteristics of the working arrangements in place, rather than those intrinsic to the individual. The following factors are assessed:

ORGANISATIONAL ELEMENTS	
CORPORATE POLICIES AND ETHOS	<ul style="list-style-type: none"> • Work-Family Balance • Human Resources Management • Health and Safety Protocol • Corporate Social Responsibility • Corporate Strategy
ORGANISATIONAL CULTURE	<ul style="list-style-type: none"> • Labour Relations Policy • Organisational Communication • Supervision/Leadership
LABOUR RELATIONS	<ul style="list-style-type: none"> • Workplace Environment • Trade Unions • Collective Contracts • Corporate Culture

WORK-RELATED ELEMENTS	
WORKING CONDITIONS	<ul style="list-style-type: none"> • Type of Contracts • Compensation • Career Plan
WORKSTATION ORGANISATION	<ul style="list-style-type: none"> • Job Rotation • Teamwork
JOB QUALITY	<ul style="list-style-type: none"> • Use of Personal Competences • Complaints/Labour Law • Autonomy and Oversight Capacity • Physical Safety at Work • Social Support • Working Hours • Telecommuting

When a company's organisational and occupational factors are dysfunctional —i.e. when they cause disparate responses such as maladjustment, tension, stress-triggered psychological and physiological reactions, etc.— that is when these become risk factors. When there is a high probability of negative impact on the health and well-being of workers, these psycho-social factors embody real threats; not only on an individual basis, but collectively. For example, the outbreak of tension or stress can quickly spread through an organisation via the contagion effect.

FACTORS LINKED TO PSYCHO-SOCIAL STRESS	
NATURE OF THE WORK	<ul style="list-style-type: none"> • Lack of variety in job duties, short working cycles, fragmented and uninteresting professional duties, poor use of competencies, uncertainty, conflictive relationships, lack of clarity in one's role.
PACE OF WORK AND OVERLOAD	<ul style="list-style-type: none"> • Too much work, pace of work, pressure related to completion times, deadlines / urgent work.
SCHEDULE	<ul style="list-style-type: none"> • Rotation, graveyard shifts, unpredictable working hours, inflexible schedules, long working days or without shift changes.
MONITORING	<ul style="list-style-type: none"> • Lack of participation in decision-making process, few opportunities for self-managing workload, etc.
ENVIRONMENT AND INFRASTRUCTURE	<ul style="list-style-type: none"> • Poor working conditions, unsuitable work equipment, inadequate maintenance of equipment, insufficient space or cramped conditions, bad lighting, excessive noise.
ORGANISATIONAL CULTURE AND PROFESSIONAL DUTIES	<ul style="list-style-type: none"> • Inadequate internal communication, lack of support, poorly outlined tasks or tasks not aligned with the objectives of the organisation, quality of leadership.
INTERPERSONAL RELATIONSHIPS	<ul style="list-style-type: none"> • Physical and social isolation, poor relationships with managers, interpersonal conflicts, lack of support structure. • Psychological and sexual harassment.
ROLE WITHIN THE ORGANISATION	<ul style="list-style-type: none"> • Ambiguity, conflicts of interest (one's role and responsibilities vs. people and colleagues).
CAREER PLAN	<ul style="list-style-type: none"> • Uncertainty or stagnation in one's professional career, absence of/excess of promotions, low wages, lack of job security.
WORK-FAMILY BALANCE	<ul style="list-style-type: none"> • Work-family conflict, weak familial support, "being pulled both ways".

7.2 OCCUPATIONAL RISK CONTROL

Workers as well as their trade union representatives have the right to demand a safe and healthy working environment. They also have the right to participate and make proposals on all aspects related to the prevention of occupational risks, including psycho-social hazards.

To prevent the onset of this type of risk, the following considerations are key:

- The organisation of the work itself (such as rotations, schedules and pace of work) must be constantly reassessed. Workers' input must be sought out when it

comes to developing strategies that could address an existing issue (related to transportation, meals, breaks, etc.).

- A fair division of labour can be guaranteed by implementing an adequate rotation and introducing variation into workers' routine tasks. These techniques also ward off against extremes, such as work overload or lack of work.
- Stressful situations can progressively take hold and it is essential that these be detected early on. They can also serve as warning signs; their detection should encourage management to revise the organisational structure of the company (professional tasks and other factors).
- Instances of “mobbing” (workplace harassment), sexual harassment and violence must be identified, reported and resolved with the intervention of superiors, co-workers, trade union representatives, and —when the case warrants such intervention—competent public authorities.

7.3 PREVENTION OF WORKPLACE VIOLENCE AND SEXUAL HARASSMENT³

A healthy working environment is a factor that always contributes to the physical and mental well-being of the workers therein. Such an environment can also help prevent instances of violence and harassment. Fostering gender equality can also be a contributing factor. Inexperienced women and young men are often the targets of such harassment, with either their position or their age making them particularly vulnerable.

Whenever a workplace violence and harassment risk assessment is conducted, the following warning signs should be checked for as indicators of the existence of problems or tension in the workplace:

- Any signs of abuse, either verbally or in the form of innuendos or sexual remarks, aggressive body language, threatening behaviour, or a manifested intent to cause harm;
- Any reported incidents or physical attacks that have caused injuries;
- A high rate of absenteeism and staff turnover.

Preventive measures may include the following components:

- Confidential communication opportunities between workers and management, with access to both male and female points of contact (e.g., supervisors).
- Effective grievance mechanisms with clear remedial actions.

³ The International Labour Organization (ILO) refers to this topic at length in its Code of Practice on “Safety and Health in Agriculture”. The document can be accessed here: <http://www.ilo.org/public/english/standards/relm/ilc/ilc88/rep-vi-1.htm>

- Conscientious staff organisation in terms of work team organisation, male and female roles and appropriate working hours.
- Appropriate gender-segregated facilities such as toilets, changing rooms and showers.
- Gender sensitive education and training for worker, with a clear anti-harassment and violence message from employers

Employers must perform a consultation that involves all workers as well as trade union representatives to develop and implement policies designed to eliminate or reduce the risk of workplace violence and harassment, such as implement disciplinary procedures or issue responses to any complaints filed. Complaints must be treated fairly and in a supportive and professional manner throughout both the investigation phase and the conflict resolution process. The utmost care should be taken to safeguard confidentiality and protect the personal information of workers who are victims of workplace violence or harassment.

For more information on these topics, refer to the document titled “IUF / COLSIBA / Chiquita - Joint Understanding on Sexual Harassment”⁴.

8. RISK MANAGEMENT

Two conditions must be met in order to reach the ultimate objective, which is to prevent work-related injuries and diseases and to protect and promote the health of workers: first, workers must know and apply all standards and procedures that allow them to carry out their work in safe conditions; secondly, employers need to establish measures that allow them to control risks. In other words, workers must do their job while always ensuring that safety comes first, and employers must be aware that they are obligated to provide workers with the conditions and elements required for them to safely carry out their work.

This can be qualified as a “win-win” relationship: on one hand, workers win because their health and safety are protected; on the other hand, employers win because the work will be more productive. And finally, the State also wins because costs incurred by occupational accidents and professional diseases are reduced. Ultimately, these measures improve the workers’ quality of life.

Workers must help to create a culture of prevention, which is possible when they are able to:

1. Identify and analyse risks and hazards;
2. Apply standards and good practices in order to carry out work safely.

⁴ Link for the IUF / COLSIBA / Chiquita agreement - Joint Understanding on Sexual Harassment, <http://www.iuf.org/sites/cms.iuf.org/files/Final%20signed%20version-e.pdf>

With regard to the employer, actions can be listed, such as the implementation of measures that accentuate safety at the plantation, for example:

1. A procedure for the investigation of occupational accidents and incidents.
2. A procedure for workplace inspections.
3. A procedure for risk assessment.
4. A procedure for preventative maintenance.
5. A clear industrial accident and emergency policy
6. A clear procedure for evacuation (during accidents).
7. Clear policy and procedures regarding personal protection (PPE).
8. Clear and effective workplace training policy and procedure
9. Signposting and demarcation of work zones.

The following information provides a framework and contains methodological and practical recommendations regarding how a health and safety plan can be implemented at a plantation.

8.1 IDENTIFYING RISKS AND HAZARDS

This provides information on hazards and risks in the workplace and during daily activities. This identification prevents damage to the health of workers and damage caused by installations and the environment.

A HAZARD consists of any characteristics pertaining to a situation, material or piece of equipment, which may cause injury to persons or damage the environment (fauna and flora) or property. A RISK is the probability of a material, substance or event affecting either the health or physical integrity of a worker or goods and equipment.

All work activities must be risk assessed and appropriate control measures identified. All identified risks must be made known clearly to the workers involved in the activities. This will enable them identify the risks involved in their tasks: "If I identify the risk then I am protecting myself from it. If I do not identify it, I am exposing myself to it and I may have an accident or become ill."

Employers are obligated to make available all necessary control measures to reduce the identified risks (as far as is reasonably practicable).

Here are some techniques to identify risks and hazards:

- Carrying out professional risk assessment of all workplace activities (by the employer)
- Exchanging information during meetings or informal discussions.

- Carrying out health and safety inspections (see 8.1.4 below).
- Health investigations (See Appendix 2: Health Monitoring Procedure).
- Hazard mapping (See APPENDIX 4.3: RISK ASSESSMENT –WORKPLACE HAZARDS MAP).
- Body mapping (see APPENDIX 2.1: BODY MAP - IDENTIFYING SYMPTOMS).
- ‘Your world’ map (see APPENDIX 2.2: MAP YOUR WORLD).
- National / threshold statistics

When applying these techniques, the information that is collected needs to facilitate the prioritisation of risks and hazards and the understanding of causes and effects.

8.1.1 Analysing occupational risks

Occupational risks can be analysed in the following manner:

1. Select the type of work to analyse: consider the following factors to classify each work activity per the criteria below:
 - a. Severity of potential accidents
 - b. Frequency of potential accidents
 - c. Frequency of activity
 - d. Frequency of exposure.
2. Identify the work phases if it can be divided into several phases.
2. List existing or potential hazards pertaining to each activity: this requires analysing all logical possibilities.
3. Eliminate some hazards if possible
4. Control each hazard: to reduce the risk, one needs to tackle the source and the cause, and work in the field, as well as with the workers.
5. Regularly review the analysis of occupational risks and continuously improve it.

The occupational health and safety manager is in charge of carrying out this risk analysis: they must define the best procedure to reduce and, if possible, eliminate the hazards.

8.1.2 Workplace inspections

In conducting workplace inspections, the use of checklists to conduct interviews and observe the field, is recommended. The occupational health and safety manager shall be in charge of carrying out the inspections. However, selected representatives of the health and safety committee may also participate in this activity. The following is included in Appendix 4: Educational tools and material, Activity 4, a 'check list' model for a workplace inspection.

1. Inspection objectives

- Identify occupational hazards at the right time and indicate reasonably practicable corrective measures.
- Keep the most senior level of management in the organisation informed regarding existing hazards and risk ratings and the corrective measures taken.
- Instil a positive attitude into personnel regarding safety by highlighting accident prevention.
- Determine the training needs of workers according to work activities.

2. Types of inspection

a) According to the level of inspection:

- I. **General inspections:** these involve all workplace installations and industrial procedures.
- II. **Specific inspections:** These are non-routine inspections. These involve high-risk procedures or procedures requiring frequent changes and that are not routine in the company (acquisition of new machinery, modification of an operation).
- III. **Special inspections:** these correspond to investigations that must be carried out, e.g. post-accident inspection, complaint-related inspection, regulatory inspections.

b) According to frequency:

- I. **Periodical:** systematically carried out at pre-arranged dates.
- II. **Intermittent:** random/sporadic in nature and can involve various phases of an activity.
- III. **Continuous:** carried out permanently throughout the duration of an activity or procedure.

It is essential for these workplace inspections to be complemented by scheduled worker medical examinations. The occupational health practitioner, in coordination with the occupational health and safety manager, must carry out these examinations.

8.2 OCCUPATIONAL RISK ASSESSMENTS⁵

The risk assessment is the result of combining the severity of the damage and the probability of the risk occurring. The ILO Convention 184 (articles 7 and 8) and the Labour Law (Act 651) clearly define employer obligations with regard to their duty to identify hazards, evaluate risks and apply the necessary prevention and protection measures. It is crucial that OSH committee members fully understand the risk evaluation procedure in order for them to participate.

8.2.1 The severity of the damage

The following must be taken into consideration to define the potential severity of the damage:

- a) Body parts that may be injured;
- b) The nature of the damage, measuring its degree, which can range from “mild” to “severe”.

Mild

- a) Superficial injuries: contusions, abrasions, tissue irritation
- b) Discomfort: headache, general feeling of being unwell.

Moderate

- a) Small lacerations, first-degree burns, concussion, minor sprains.
- b) Temporary loss of hearing, allergic reactions e.g. dermatitis, asthma, musculoskeletal disorders.

Severe

- a) Amputations, fractures, poisoning, multiple traumatic injuries, fatal injuries.
- b) Occupational lung diseases, permanent hearing loss, cancers etc.
 - I. Periodical: systematically carried out at pre-arranged dates.
 - II. Intermittent: random/sporadic in nature and can involve various phases of an activity.
 - III. Continuous: carried out permanently throughout the duration of an activity or procedure.

It is essential for these workplace inspections to be complement

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‘Evaluation of occupational risks’, Institute of occupational safety and hygiene, Ministry of Labour in Spain.

8.2.2 Risk

The probability that damage will occur can be measured and ranges from low to high, according to the following criteria:

High: the damage will always or almost always occur.

Medium: the damage will occur occasionally.

Low: the damage will occur rarely.

When measuring the probability that the damage will occur, one should consider whether the control measures that are already in place are adequate. Legal requirements and information on good practices also play an important part regarding specific control measures. The following should also be considered, in addition to information regarding occupational activities:

1. Individual susceptibility to various hazards (personal characteristics or biological parameters);
2. Frequency of exposure to the hazard;
3. Service disruptions, for example: electricity, water;
4. Installation, machine part or protective device breakdowns;
5. Exposure to the elements (weather);
6. Protection provided by PPE and duration of use of PPE;
7. Personal factors: e.g. negligence, unintentional errors or deliberate violation of procedures.

The following table⁶ proposes a simple method to assess risk levels according to their probability and expected effects.

TABLE 5: RISK LEVEL ASSESSMENT

		Effects		
		Mild	Moderate	Severe
Probability	Low B	Slight risk	Tolerable risk	Moderate risk
	Medium M	Tolerable risk	Moderate risk	High risk
	High A	Moderate risk	High risk	Intolerable risk

⁶ 'Evaluation of occupational risks', Institute of occupational safety and hygiene, Ministry of Labour in Spain, page 6.

8.2.3 Occupational risk evaluation

The risk levels indicated in the previous table provide a basis that can be used to decide whether it is necessary to improve existing controls, implement new controls, and take certain measures in a timely manner. The following table⁷ presents a criterion as a starting point for decision making. It also indicates that efforts, which were designed specifically to manage risks and according to the urgency of the need to adopt said control measures, must be proportional to the risk.

TABLE 6: OCCUPATIONAL RISK EVALUATION

Risk	Action and reaction time
Low	No specific action is required.
Tolerable	It is not necessary to improve the preventative actions. However, more affordable solutions or improvements that do not incur significant expenses must be considered. Regular inspections are required to ensure that control measures remain effective.
Moderate	Efforts must be made to reduce the risk and to define which investments are required. Measures designed to reduce the risk must be implemented within an appropriate period of time. If the moderate risk is associated with extremely severe consequences then a subsequent action must be determined to establish the probability of the damage as precisely as possible and to define whether the control measures need improvement.
High	Workers should only begin their work if the risk has been minimised. It may be that considerable means are required to control the risk. If the risk corresponds to work that is already ongoing then the issue must be resolved in a lesser time period than the period corresponding to moderate risks.
Intolerable	The work should neither be started nor continued until the risk is reduced. If it is not possible to reduce the risk, even when employing all possible means, then the work must be prohibited.

8.3 HEALTH AND SAFETY MANAGEMENT SYSTEM

This is the programme prepared at the plantation in order to reduce or eliminate accidents or incidents that may cause bodily harm to persons or damage the property. The programme generally covers:

8.3.1 The prevention of work - related accidents and injuries.

8.3.2 Preventing structural damage (to installations, equipment, machinery and tools)

8.3.3 Preventing industrial fires

8.3.4 Occupational health (controlling absenteeism)

8.3.5 Social responsibility in the domain of prevention.

⁷

'Evaluation of occupational risks', Institute of occupational safety and hygiene, Ministry of Labour in Spain, page 7.

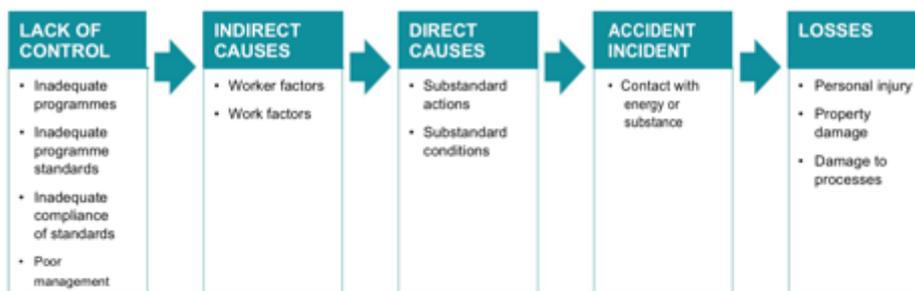
It is essential to be as aware as possible of anything that may precede an accident, in order to adopt appropriate control measures. This may break the cycle of causes and the cause-and-effect relationship.

Any accident/incident is a series of consecutive events, as can be seen in the following diagram.

This diagram demonstrates that losses are the consequence of an accident. However, before this occurs, there will have been what is called direct causes, which originate from indirect causes and faults or breakdowns in the systems, due to a lack of control, overall.

Lack of control refers to one of the four principles of company management: planning, organisation, direction, control. This can be summed up by four representative points:

1. Non - existent or unrealistic policies and procedures;
2. Absence of standards or standards that are not adapted to all decisions made in relation to prevention;
3. Ignorance or poor application of existing standards;
4. Lack of management control and preventative techniques.



Source: Ecuadorian Institute for Social Security (IESS)

LACK OF CONTROL (PROGRAMMES)	
<ul style="list-style-type: none"> Leadership and administration Inspection planning Work analysis and procedures Investigation and analysis of accidents and incidents Work/task observations Preparation for emergency cases Worker training 	<ul style="list-style-type: none"> Personal protection elements Engineering control Personal communications Group communications General progression Hiring and placement Purchasing control

If the intermediate level of supervision is not involved in safety management, either due to apathy or due to deliberate or accidental exclusion, then workplace accidents or incidents are more likely to occur as a consequence of lack of control. For this reason, risk assessments, inspections and accident / incident investigations are not carried out. Other necessary actions are not adopted within the plantation.

These first flaws (or first links in the chain) can lead to a whole series of fundamental causes. These causes may explain why whatever happens, due to the materialisation of concrete facts that were able to occur due to management errors.

These causes precede the symptoms; these are reasons for which immediate causes appear. They explain why workers have acted in such and such a way, and the existence or emergence of conditions that are unsafe or inferior with to the required level of safety.

Indirect causes mainly fall into two categories: those related to factors that are particular to workers and those related to factors that are particular to the work (working environment).

The first category means that persons do not act as they should in terms of prevention. The second category explains why there are inadequate conditions or situations. Here is a summary of all triggering factors and elements that may have adverse consequences due to a lack of possible proper or desirable use of human resources and means of production.

The importance of direct causes is such that, without clear internal policies at the plantation and at all levels, and without firm decisions made by management to combat these causes, it will not be possible to reach a reasonable and sustainable level of safety. Forgetting the fundamental causes would be the equivalent of suggesting striving for safety based on temporary aspects that are only defined by what is known as indirect causes.

INDIRECT CAUSES	
WORKER-RELATED FACTORS	WORK-RELATED FACTORS
Deficient physical and physiological aptitude <ul style="list-style-type: none"> • Unsuitable physical strength • Poor vision or hearing • Sensory impairments (touch, smell) Inadequate psychological aptitude <ul style="list-style-type: none"> • Deficient comprehension • Lack of common sense (poor judgement) • Slow reaction capacity Physical or physiological issues <ul style="list-style-type: none"> • Fatigue due to lack of rest • Exposure to extreme temperatures • Drug addiction Mental or psychological tensions <ul style="list-style-type: none"> • Routine, monotony • Over-concentration • Frustrations, concerns • Stress, fear (harassment, violence) Lack of knowledge <ul style="list-style-type: none"> • Lack of experience • Insufficient training • Not understanding instructions Inappropriate attitude <ul style="list-style-type: none"> • Over-zealousness (time saving) • Pressure, excess, clowning around • Misguided vision (machismo) 	Inadequate direction or supervision <ul style="list-style-type: none"> • Poor identification of hazards • Poor communication of standards • Inhibition regarding the application of standards Deficient engineering management <ul style="list-style-type: none"> • Unsuitable criteria • Unsuitable acquisitions or deficient control • Incorrect specifications Deficient maintenance <ul style="list-style-type: none"> • Ineffective preventive maintenance • Poor repairs Inappropriate tools and equipment <ul style="list-style-type: none"> • Poor evaluation of hazards • Ergonomic unsuitability • Inadequate specifications Inadequate work criteria <ul style="list-style-type: none"> • When carrying out procedures • For communications (training) • For maintenance (update) Wear and tear <ul style="list-style-type: none"> • Inadequate inspections • Poorly carried out maintenance • Usage does not comply with planned purposes Abnormal usage <ul style="list-style-type: none"> • Accepted by the supervisor • Not accepted by the supervisor

These immediate observations or signs (wrongly named as “causes”) are often forerunners of accidents or incidents that may occur and they are a significant link in the cause and effect chain, as they are circumstances that may to the fact that produces a loss (accident). These are **dangerous personal and social acts** and **dangerous material conditions**.

DIRECT CAUSES	
FAILURE TO COMPLY WITH STANDARDS	NON-CONFORMING CONDITIONS
<ul style="list-style-type: none"> • Disregarding warnings • Forgetting to use locks • Overspeeding • Switching off safety mechanisms • Removing safety elements • Using defective equipment • Carrying loads incorrectly • Remaining in hazardous areas • Not using personal protection • Being in an inadequate position when carrying out a task • Carrying out maintenance on running equipment • Making jokes • Harassing/being harassed • Working under the influence of alcohol or drugs • Driving without authorisation • Using equipment and material that were not designed for the task in question • Using equipment without authorisation • Not giving a warning, as required, if a situation becomes critical 	<ul style="list-style-type: none"> • Unsuitable or insufficient protective equipment and shelter • Defective tools, equipment or material • Space is too limited to carry out the work • Insufficient warning systems • Risk of fires and explosions • Lack of orderly and clean workplace • Exposure to noise, radiation, very high or low temperatures, dust, fumes, gas • Insufficient or excessive lighting • Inadequate ventilation • Unprotected operational sites • Inappropriate stack of material • Poor alert systems • Non-existent grounding system (power points)

A **dangerous act** is the behaviour of one or several persons that jeopardises a procedure, which is deemed safe, and thus can lead to an accident. A **dangerous condition** is the expression of one or several material factors that can provoke immediate accidents or incidents. Ultimately, they are situations in relation to work procedures, materials and the environment that fall short of the standard or point of reference deemed as safe.

8.4 PREVENTION OF ACCIDENTS OR INCIDENTS

Once the causes of occupational accidents or incidents have been identified, **corrective measures** must be implemented to avoid the situation repeating itself.

If we examine the various aspects surrounding an accident, three stages can be distinguished: contact with a source of energy whose intensity exceeds the limit that the human body or structure can tolerate, pre-contact and post-contact.

Pre-contact coincides with what is known as the prevention stage. The accident or actual contact coincides with the protection stage, and post-contact with the repair stage. Each of these stages comprises opportunities for concrete and effective action.

8.4.1 Prevention stage

In this stage, accidents/incidents can be avoided.

This is the stage when a risk management programme is prepared and implemented in order to avoid losses and to plan actions, which aim at reducing damage to worker and machinery. Control during the pre-contact stages occurs mostly by intervening with regard to the level of risk, at the source or at the means of transmission.

Once a decision is made to implement a positive occupational safety system and inherent risks identified and evaluated, the control measures may be implemented to reduce the risk of accident or loss.

In order to be truly effective, safety must be strongly considered in all activities, from drafting policies, programmes and standards to designing structures and acquiring new equipment and materials. There are examples of strategies and simple tools for the management of occupational health and safety, which can be used by employers and workers throughout this essential prevention stage. Namely:

1. Regular breaks and rest periods for physically demanding activities;
2. Rotating tasks among personnel members in order to avoid health impacts linked to repetitive activities;
3. Active breaks, which can even be just 5 minutes short, to prevent ergonomic risks related to repetitive tasks.

Offering these types of solutions is part of the administration's role and two other types of general actions can also be added to the list: detection and correction. Detecting and correcting hazards is part of the possible responses in the face of occupational accidents, diseases, fires and other hazards in the workplace.

This pre-contact stage must be a productive stage in order to manage risks. It allows for the drafting of adequate programmes, the establishment of reference standards, the feedback of information and the management of compliance with operational standards. In this case, the prevention aspect of control is the prime objective.

Control throughout the pre-contact stage is the aim of the entire safety programme.

8.4.2 Risk Reduction stage

During this stage, it is possible to avoid the consequences of an accident. Absorption, substitution, separation and protection techniques are all indicated for his purpose.

If, at the time when contact occurs, measures have been set beforehand to absorb or modify the effect of the energy, then it will be possible to reduce or minimise loss: for example, a protective helmet will not prevent an object from falling but it can absorb a significant part of the energy and thus limit injuries.

Using less volatile and less hazardous products is an example of substitution techniques.

The energy released can be reduced to limit its effects: thus, speed reducers or eye-wash fountains, for example, carry out this function. Furthermore, if workers wear cut-resistant gloves when using metal tools or knives then, by way of isolation, they can lessen the consequences of the release of energy in the event of an accident.

Protective techniques aim to strengthen the isolation of structures, bodies or objects that can enter into contact with a source of energy.

It is clear that contact can often not be avoided. However, without a doubt, potential loss can be reduced significantly in a satisfactory manner.

Therefore, the contact stage is the stage when there is an incident, which may or may not lead to loss, according to the quantity of energy or substance released, as well as other factors, including chance. Controls reduce the level of contact or exchange to a minimum, the result being a “timely release” rather than accidental losses. Therefore, these protective measures do not avoid contact or accidents but do contribute to significantly reducing subsequent effects.

8.4.3 Repair stage

All that can be done at this stage is to limit the severity of the consequences, that is to say avoid the worst consequences of an accident, namely thanks to:

1. The provision of first aid to the injured: Everyone is well aware that if an injured person is assisted by a well-trained first-aider who understands their role, within the first few minutes following an accident, then it is likely that, by the time medical services arrive on site, the injured person will be in a less serious state than had there not been any first-aid.
2. Emergency plan: these plans and preparations related to emergencies are particularly useful in the event of a fire, explosion, and bomb alert, amongst other things. A good anti-fire squad and good primary intervention and first-aid structure can be decisive factors for a good reaction to an emergency.
3. Immediate repair: Those at intermediate supervision levels must be responsible for keeping installations, equipment and material in perfect condition, without waiting for a breakdown or damage to occur, especially given the costs of a repair or replacement in the event of the latter.
4. Collecting remains: Properly collecting materials following various incidents, breakdowns or deteriorations can greatly help reduce the severity of a loss.

Post-contact controls do not avoid accidents but certainly help to minimise losses.

These controls can signify the difference between injury and death, between repairable damage and total loss, between a simple claim and legal proceedings, between interrupted production and the full closure of the plantation.

The idea is to control the risk of accidents. This occurs by implementing preventative measures, namely, thanks to motivating actions and measures to promote safety, particularly based on the four following categories: work/risk, hazard identification, accidents/incidents and losses.

8.5 HIERARCHY OF CONTROL AND PREVENTION

After the risk evaluation procedures, it is important to establish an inventory of actions to take, in order to better limit and control these risks. To this end, good planning and implementation is required for the control measures that will be defined.

To control or eliminate hazards, there is a hierarchical classification of operational controls related to health and safety, which must be taken into account to help the decision-making procedure and ensure that the best measures are taken. The result is that both the company and the workers feel that the solution benefits everyone. This consists of:

8.5.1 Elimination (at the source)

This solution is the basis of the hierarchy. When a hazard is detected, which can be eliminated, this needs to be done. Often the reason for the hazard is that the technology or procedure is obsolete; and often, the elimination must occur during the phase related to the design of the installation, production chain or implementation of a procedure or operation. This must take into account that the working environment must be as safe as possible.

8.5.2 Substitution

If a particular hazard is detected and if it is technically possible then a substitution should be carried out (which will reduce or eliminate the hazard). This is the case, for example, when eliminating asbestos, a carcinogenic substance that can be replaced by another component, thanks to advances in research.

8.5.3 Hazard reduction

If it is not possible to eliminate the hazard or a harmful product cannot be replaced then there must be an attempt to reduce its hazardous properties. In this case, type 2 diesel is a relevant example: it is known that the sulphur, which dissolves in this fuel, is a pollutant and so the diesel used needs to contain less sulphur for cleaner emissions and to reduce the impact on health.

8.5.4 Engineering controls

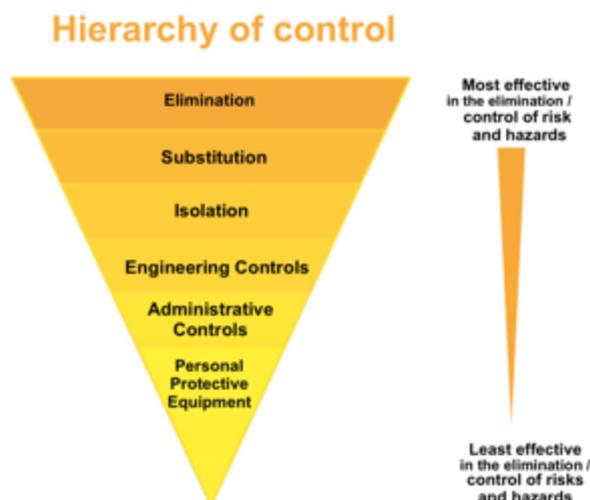
These are procedures that originate from technological or other advances (sometimes of a practical nature) to facilitate the limitation (or isolation) of dangers. Examples are protective screens (for grinders), filters, barriers, etc.

8.5.5 Administrative controls

These controls facilitate the implementation or strengthening of previous controls or those implemented in the event of minor risks. Overall, when engineering controls or other are not possible in order to stop the hazard then these controls allow workers to be notified and made aware of the existence of specific facts or hazards, against which measures must be taken. Panels and signals, etc. are the best examples in this case. There can be quite sophisticated administrative controls that may be confused with engineering controls. However, it is important to know what each type of control is used for.

8.5.6 Personal protective equipment (PPE)

Once all necessary efforts have been made to eliminate, reduce or lessen a hazard, and after having applied all engineering controls, all administrative methods or all collective protection methods (instructions on suitable working procedures; warning panels, signs, etc.), then there can still be certain hazards or contact with a hazard. In this case, personal protective equipment must be used. However, PPE must be the last resort. There is a whole range of PPE, according to the hazards and types of tasks to be carried out, to protect workers on a bodily level. However, it should always be taken into account that PPE should allow workers to move and work more or less freely in an unencumbered fashion.



8.6 SAFETY SIGNS

There is a need to install signs, whether warning signs or other, in accordance with international standards, in all locations where there is a hazard, namely the presence of inflammable materials, locations where traffic is limited (for pedestrians or vehicles), and locations where other risks may threaten personal or collective safety. It is important to inform workers that they are obligated to respect these signs.

The presence of safety signs does in no way exempt employers from their obligation to adopt preventative, collective and individual measures against existing hazards.

Thus, the signs are complementary and are based on the following criteria:

1. The use of pictograms are preferable as they generally avoid written language;
2. Paints, which are used, must be very resistant to wear and washable;
3. All signs must be kept in a good state, clean and visible, and must be replaced when they deteriorate.

The following tables describe the types of geometric shapes and colours that are traditionally used, as well as precise examples of use:

TABLE 7. SAFETY SIGNS 1

Geometric symbol	Meaning	Safety colour	Contrasting colour to the safety colour	Colour of symbol
	Safety conditions For example; First aid - Emergency exit - Fire evacuation point	Red	White*	White*
	Prohibition For example; No smoking - Do not drink water - Do not touch	Red	White*	White*
	Obligatory action	Blue	White*	White*
	Warning For example; Caution: hot surface - Caution: biological risk - Risk of electrocution	Yellow	Black	Black
	Safety conditions For example; First aid - Emergency exit - Fire evacuation point	Green	White*	White*

TABLE 8: SAFETY SIGNS 2

SIGNS	DESCRIPTION
	<p>White background and diagonal red bar; the safety symbol is black and is positioned at the centre of the panel, behind the red bar indicating a ban.</p> <p>The peripheral border is white and is also optional. The red colour should cover at least 35% of the sign surface.</p>
	<p>Blue background: the safety symbol or text is white and at the centre of the sign; the white peripheral border is optional. The blue colour must cover at least 50% of the sign surface.</p> <p>Symbols used for compulsory standards: an indication of the type of protection required, as a drawing, a legend or numbers (complementary descriptive table at the bottom of the safety sign).</p>
	<p>Yellow background, black triangular border. The safety symbol is black and at the centre of the sign; the yellow peripheral border is optional. The yellow colour must cover at least 50% of the sign surface.</p>
	<p>Green background: white-coloured safety symbol or text, positioned at the centre of the sign. The sign is square or rectangle-shaped and is large enough to include the safety symbol and/or text; the white peripheral border is optional. The green colour must cover at least 50% of the sign surface.</p>

9. RISKS IN THE BANANA PRODUCTION SECTOR

The following risks are applicable to the banana production sector. It should be noted that there is detailed information available for workers on this very topic in **PART 2: MANUAL FOR WORKERS**.

9.1 LAND PREPARATION

	HAZARDS	EXAMPLES
1		Falls from a height
2	MECHANICAL:	Falls at ground level
3		Trampling over an object
4		Collision against a moving object
		Lacerations caused by sharp objects
5		Concussions/lacerations caused by blunt objects or tools
6		Injuries caused by projectile fragments or particles
7		Injuries due to a collision with other equipment, a vehicle
8		Vehicle rollover resulting in injuries
9		Blisters and burns
1	PHYSICAL:	Exposure to high temperatures
2		Exposure to non-ionising radiation
3		Noise exposure
4		Exposure to vibration
1	BIOLOGICAL:	Exposure to insects
2		Exposure to wildlife: spiders, snakes
1	ERGONOMIC	Excessive physical exertion / excessive strain
2		Fixed or awkward postures
3		Repetitive movements
1	OCCUPATIONAL:	Monotonous work

9.2 PLANTING - REPLANTING

	RISKS	TYPES OF HAZARDS
1	MECHANICAL:	Falling worker - at height
2		Trampling over an object
3		Concussions/lacerations caused by blunt objects or machines
1	PHYSICAL:	Exposure to heat
2		Exposure to non-ionising radiation
1	BIOLOGICAL	Exposure to bacteria and viruses
2		Exposure to fungi and protozoa
3		Exposure to organic derivatives
4		Exposure to insects
5		Exposure to wildlife: spiders, snakes
1	ERGONOMIC:	Excessive physical exertion / excessive strain
2		Fixed or awkward postures
3		Repetitive movements
4		Manipulation of heavy objects
1	OCCUPATIONAL	Monotonous work

9.3 CROP MAINTENANCE

	RISKS	TYPES OF HAZARDS
1	MECHANICAL:	Falling worker - at height
2		Falling worker - same level
3		Falling objects - due to a cave-in or collapse
4		Falling objects - manually transported
5		Trampling over an object
6		Collision against stationary object
7		Concussions/lacerations caused by blunt objects or tools
8		Fragment or particle projection
9		Work performed at higher than 1,80 m above ground
1	PHYSICAL:	Exposure to heat
2		Exposure to non-ionising radiation
1	CHEMICAL:	Exposure to liquid sprays
2		Exposure to toxic or harmful substances
	RISKS	TYPES OF HAZARDS
1	BIOLOGICAL:	Exposure to viruses
2		Exposure to bacteria
3		Exposure to insects
4		Exposure to wildlife: spiders, snakes
1	ERGONOMIC:	Excessive physical exertion / excessive strain
2		Fixed or awkward postures
3		Repetitive movements
4		Manipulation of heavy objects
1	OCCUPATIONAL:	Monotonous work

9.4 HARVESTING

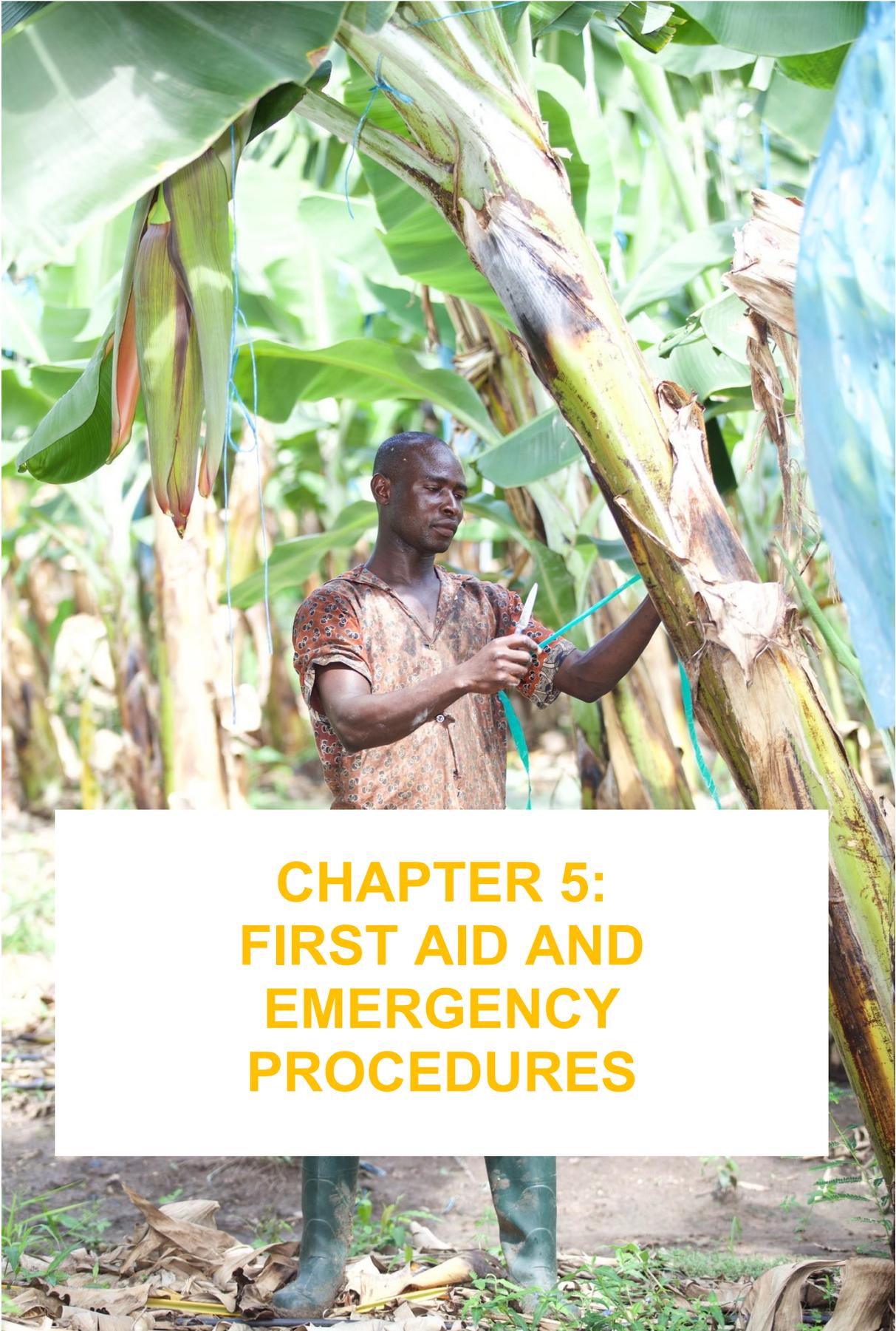
	RISKS	TYPES OF HAZARDS
1	MECHANICAL:	Falling worker - at height (if use ladders)
2		Falling worker - same level (eg when crossing drains)
3		Falling objects - due to a cave-in or collapse
4		Falling objects - manually transported
5		Falling objects - unsecured, loose
6		Trampling over an object
7		Collision against stationary objects
8		Concussions/lacerations caused by blunt objects or tools
9		Fragment or particle projection
10		Work performed at higher than 1,80 m above ground
1	PHYSICAL:	Exposure to heat
2		Exposure to non-ionising radiation
1	BIOLOGICAL:	Exposure to insects
2		Exposure to wildlife: spiders, snakes
1	ERGONOMIC:	Excessive physical exertion / excessive strain
2		Fixed or awkward postures
3		Manipulation of heavy objects
1	OCCUPATIONAL:	Monotonous work

9.5 POST-HARVEST WORK

	RISKS	TYPES OF HAZARDS
1	MECHANICAL	Falling worker - same level
2		Falling objects - manually transported
3		Collision against stationary objects
4		Concussions/lacerations caused by blunt objects or tools
5		Fragment or particle projection
1	PHYSICAL:	Exposure to heat
1	CHEMICAL	Exposure to toxic or harmful substances
1	BIOLOGICAL:	Exposure to insects
2		Exposure to wildlife: spiders, snakes
1	ERGONOMIC:	Excessive physical exertion / excessive strain
2		Fixed or awkward postures
3		Repetitive movements
4		Manipulation of heavy objects
1	OCCUPATIONAL	Monotonous work
2		Poor distribution of work
3		Painstaking nature of the task

9.6 PACKAGING AND STACKING: POTENTIAL RISKS

#	RISKS	TYPES OF HAZARDS
1	MECHANICAL:	Falling worker - same level
2		Falling objects - manually transported
3		Trampling over an object
4		Collision against stationary objects
5		Concussions/lacerations caused by blunt objects or tools
1	PHYSICAL:	Exposure to heat
1	BIOLOGICAL:	Exposure to insects
2		Exposure to wildlife: spiders, snakes
1	ERGONOMIC:	Excessive physical exertion / excessive strain
2		Fixed or awkward postures
3		Repetitive movements
4		Manipulation of heavy objects
1	OCCUPATIONAL:	Monotonous work
2		Painstaking nature of a task



CHAPTER 5: FIRST AID AND EMERGENCY PROCEDURES

1. FIRST AID KIT

The first aid kit in the banana production sector should contain the following items:

- Basic first aid instructions: A booklet containing basic first aid instructions
- Disposable gloves
- Adhesive plaster
- Sterile cotton wool
- Safety pins
- Sterile gauze pads
- Gauze bandages (6" & 4")
- Crepe Bandage
- Triangular bandage
- Methylated spirit
- Scissors
- Sterile saline solution
- Eusol
- Paracetamol 500mg (10 tablets)
- Plastic bags to safely dispose of contaminated waste
- First Aid record booklet: to record details of injured workers and first aid delivered

Furthermore, in premises where organophosphate and carbamate pesticides are used, the first aid kit must stock atropine sulphate. It can serve as an antidote in case of poisoning.

The name and telephone number of the workplace first-aid attendants as well as the phone number and address of the nearest emergency medical services must appear either inside the first aid kit or in close proximity to it. Reusable items (such as scissors) must be cleaned thoroughly after each use, either with warm soapy water or a cotton ball soaked in alcohol. Some items are available in disposable form, but they are often not as effective as their metal counterparts, nor are these standard-issue items.

Employers must ensure that all first aid kits are regularly restocked.

2. CARDIOPULMONARY RESUSCITATION (CPR)

Cardiopulmonary or cardiorespiratory resuscitation (CPR) is an emergency procedure that saves lives. It is employed when a person has stopped breathing and their heart has stopped beating. Cardiac arrest can occur, for example, as the result of an electric shock, a heart attack, drowning, or any other incidents that can cause the heart to stop beating.

CPR consists of exerting pressure on the chest intermittently — called compressions— at an average rate of 100 - 120 compressions per minute, administered in rounds of 30 compressions, followed by two rescue breaths. The most effective CPR cycles are: for adults - 30 x 2 x 5; for children - 15 x 2 x 5; and for infants - 15 x 2 x 5.

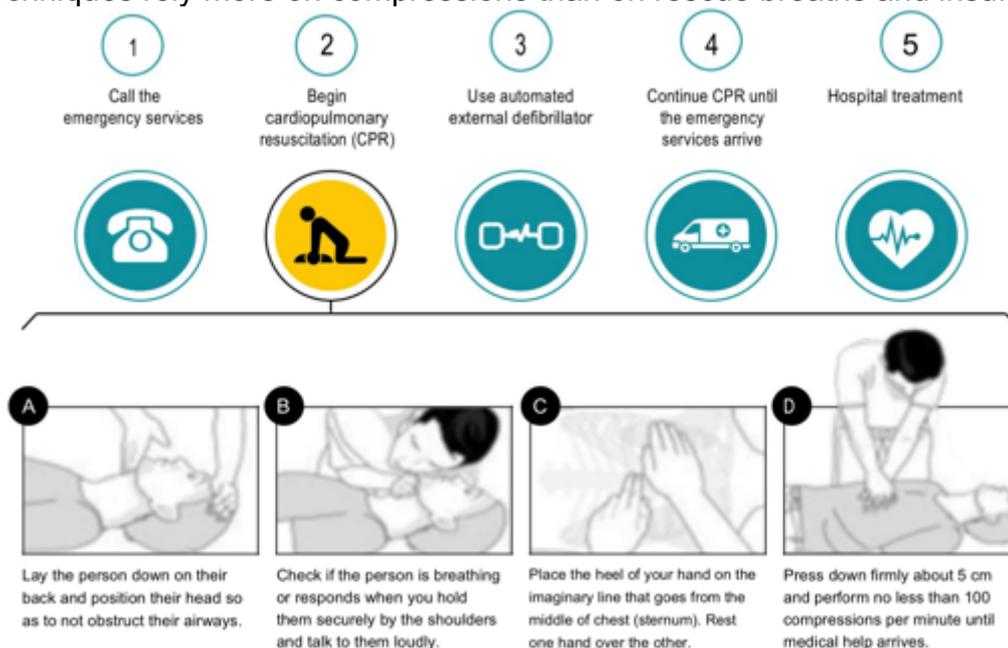
CPR technique combines mouth-to-mouth resuscitation and manual cardiac massage:

- Rescue breaths (or artificial breathing via insufflation) provides air to the lungs
- While the chest compressions help continue blood flow and transfer of oxygen (which may have ceased)

The technique is performed continuously professional medical.

When blood flow to the brain is interrupted, there is a chance of permanent brain damage or death may occur within just a few minutes. Therefore, it is essential to try to maintain blood flow and breathing until emergency services or professional first responders arrive on the scene.

CPR technique may vary slightly depending on the age or weight of the patient. The latest techniques rely more on compressions than on rescue breaths and insufflation.



3. FIRST AID

3.1 INSECT BITES OR STINGS

3.1.1 Procedure for severe reactions:

1. Examine the victim's airways and their breathing; call the company's medical personnel or the local emergency number. CPR may commence if there is no response from the victim.
2. Comfort the victim, and try to calm them down, as needed.
3. Remove the victim's rings and any other jewellery if the infected area begins to swell.
4. Use the victim's own emergency kit if they suffer from allergies and carry an Epi-Pen or epinephrine.
5. Remain with the victim until paramedics arrive on the scene.

3.1.2 General measures applicable to most incidents

1. Remove the stinger if it's visible, by either scraping it off using a credit card or any other object that has a thin, straight edge. Do not use pliers as these could press on venom sac and increase the amount of venom in the blood.
2. Thoroughly wash the infected area using soap and water.
3. Apply ice (wrapped in a piece of cloth) on the puncture site; alternating 10 minutes on and 10 minutes off. Repeat as necessary.
4. If necessary, administer an antihistamine and/or apply an anti-itch cream on the site.
5. Over the next few days, remain on the lookout for signs of infection (such as increased redness, swelling, or pain).

3.1.3 Do not...

1. Apply a tourniquet;
2. Administer any stimulant or pain medication, unless prescribed by a doctor.

3.1.4 When to call a doctor

It is essential to call the company doctor or the local emergency number if the victim exhibits the following symptoms:

1. Difficulty breathing, wheezing;
2. Swelling of the face, mouth, or neck;
3. Tightness in the throat or difficulty swallowing;
4. Feeling of light-headedness;
5. Purplish complexion.

Note: If you have experienced an adverse or severe reaction to a bee sting or other insect bites in the past, you must go to the hospital's emergency services and undergo treatment immediately; then the doctor may recommend further tests and prescribe a treatment. You should always keep a specialised emergency kit with you in case this happens again.

3.2 SNAKEBITES

To treat a snake bite, act fast and:

1. Remain calm and call medical services using the emergency numbers provided. Make sure that the snake does not attack the same victim again or another individual.
2. Immobilise the victim: this is to stop the venom from slowly spreading across the body and to gain time as the paramedics arrive on the scene. Maintain the wound below heart level to reduce the flow of the venom through the bloodstream.
3. Monitor vital signs: temperature, pulse, breathing rate, and blood pressure. If there are signs that the victim is in shock (pale complexion), have them lie down and raise their feet about 30 cm from the ground.
4. Attempt to identify the snake that attacked the victim.

It would be useful to know which kind of snake has attacked the victim by the time medical services arrive on the scene, in order to determine which antidote to administer and thus stop the effects caused by the toxins found in that particular venom.

3.2.1 Do not...

- Apply a tourniquet;
- Apply a cold compress on the wound, it will only make things worse;
- Allow the victim to move or make any effort, as this may cause the venom to spread more quickly;

- Allow the victim to consume alcoholic beverages to ease the pain;
- Administer painkillers, or natural remedies;
- Attempt to pump or suck the venom out, it doesn't do any good;
- Slice open the puncture wound with a knife to let the venom flow "out", it doesn't help.

In any event, the fate of the victim will depend on how quickly the emergency team makes it on the scene. It is therefore essential to call for help immediately; as is the case for most types of incidents.

3.3 FIRE

If an individual's clothes catch fire, yell and get help immediately. The victim must throw themselves on the ground and roll around to smother the flames. They should not run or try to approach a shower (if remote) or a water source on their own.

It is everybody's responsibility to help their colleagues when they're in danger. In such an instance, do not use the fire extinguisher on the victim. Instead, immediately cover them with a blanket (if possible, a fire-proof or fire-retardant one), lead them towards a shower if one is nearby; otherwise, have them roll on the floor.

Once the fire is out, leave the victim stretched out on the floor, ensuring that they don't get cold, and call for medical assistance.

3.4 BURNS

Minor burns that occur in the course of the workday as one comes in contact with hot objects or materials, are treated by washing the affected area with cold water.

Serious burns, on the other hand, require immediate medical attention at a hospital. The use of creams and ointments is not recommended for severe burns. After initial first aid, please refer all victims to the site clinic for further medical care.

3.5 CUTS

Cuts must be treated immediately by holding the affected area under running water for several minutes. If the cut is not very deep and the bleeding stops quickly, after cleaning the wound antiseptic solution and water, cover it with either a bandage and a plaster, as appropriate. Refer victim to the site clinic for further medical care.

If possible, it is best to clean the wound with saline solution/eusol solution instead of running water, and always call the medical emergency number.

4. CHEMICAL EXPOSURE

4.1 SKIN

If chemicals come in contact with the skin, rinse the affected area immediately with plenty of water for at least 15 minutes; if a large part of the body comes in contact with chemical substances, the safety showers that have been installed should be used instead. The victim must also rid themselves of any contaminated clothing they might be wearing (e.g. while in the shower). Remember that a speedy response is essential to limit or reduce the severity of the injury. If in doubt, always call a doctor.

4.2 EYES

When it comes to the eyes, timing is everything: a quick response must follow no later than 10 seconds after the incident. The victim's eyes should be rinsed immediately; the sooner the better, to limit eye injury. Wash the eyes with plenty of water — and if possible using a saline solution— for 15 minutes, keeping them open (using one's fingers) to ensure that water penetrates under the eyelids.

Medical intervention is compulsory, even if the lesion appears to be mild.

5. CHEMICAL POISONING

5.1 INGESTION

1. It is imperative that emergency services be called before any other measures are taken.
2. If the person is unconscious, they must be adjusted into the recovery position.
3. Cover the victim with a blanket so that they don't get cold and remain by their side.
4. If required, perform CPR.
5. Do not administer alcoholic beverages to the victim.
6. Do not induce vomiting if the product ingested is a corrosive.

5.2 INHALATION

1. Immediately lead the victim into an open place with plenty of fresh air.
2. Call emergency services as soon as possible.

3. At the first sign of shortness of breath, perform CPR. If an oxygen tank is available, employ it only if the personnel present have been trained to use it.
4. The toxic fumes inhaled by the victim must be identified.

If it's a gas, then the responder must use the appropriate mask for this type of gas while assisting the victim. If no sui-table mask is available, the responder must hold their breath as long as possible until the toxic fumes have dissipated.

6. ELECTROCUTION

A speedy intervention is paramount in this instance. The measures to be taken are as follows:

1. Cut the passage of current through the victim, which can be done in one of two ways:
2. Shut off the electricity using the corresponding switch;
3. Physically separate the injured person from the point of contact, with a piece of wood or similar (non-conductive) device, without ever directly touching the victim's body.
4. Select whichever way is quickest. In the second instance, the responder can attempt to cause a short circuit while taking preliminary precautions, so that the power line is shut down completely.
5. Once the victim is released, the responder must examine their airways, and check for their breathing and pulse.
6. Please call the plantation's medical emergency number immediately and perform if the victim is non-responsive.



CHAPTER 6: APPENDICES

APPENDIX 1: PROTOCOL FOR HEALTH AND SAFETY INSPECTIONS IN BANANA PLANTATIONS

1.1 SCOPE

This health and safety inspection protocol for the banana production sector focuses on the three productive phases of banana cropping: cultivation, harvest and post-harvest.

1.2 OBJECTIVES

Improve the working conditions in banana cropping (cultivation, harvest and post-harvest), by outlining clear technical guidelines.

Introduce guidelines that will help reduce the risks that workers involved in banana production are exposed to.

Align the key risks faced in banana cultivation, harvest and post-harvest with practical preventive measures that will improve both health and safety conditions and the working environment.

1.3 INTRODUCTION

Agricultural activities are divided into stages. Hence, each stage entails a series of tasks. That is where the risk factors inherent to these specific activities lay. The table below introduces guidelines to be used when inspecting health and safety conditions in the agricultural sector. This is done on the basis of each task's characteristics and its inherent risk factors.

Within the legal context, two specific legal instruments govern the activities recorded on the table. The first is Part XV and XVI of the Labour Act 2003 (Act 651) and second is The Factories, Offices and Shops Act 1970 (Act 328) which lays down general measures for workplace health and safety.

APPENDIX 1: PROTOCOL FOR HEALTH AND SAFETY INSPECTIONS IN BANANA PLANTATIONS						
N o .	1. VERIFICATION OF THE MINISTRY OF	MEANS OF	Y e s	N o	DEADLINE	LEGAL
					IF N/A, COMPLIANCE WITH THE	

	LABOR AND EMPLOYMENT REQUIREMENTS	VERIFICATION		STIPULATED TIMEFRAME	FRAMEWORK
1.1	REGISTRATION AND CERTIFICATION DEPT OF FACTORIES AND LABOR DEPT A health and safety professional on site.	CERTIFICATE Training		6 months	
1.2	Medical facilities, providing both preventive and curative health services, available to all workers.	Training. Certified Medical staff		30 days	
1.3	An Occupational Health and Safety Committee has been formed and acquired official recognition.	Deeds of recognition. Minutes of the committee's monthly meetings.		30 days	
1.4	In accordance with the Workplace Hygiene and Safety Code, duly registered in the system.	Certification of adherence to the Workplace Hygiene and Safety Code, issued by multidisciplinary team.		60 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)

		Return receipt upon delivery of the Code for every worker.			
1.5	The Corporate Health and Safety Policy, drafted and published.	Ensure that workers are well aware of the Safety Policy. Display the Safety Policy in a visible location.			30 days
1.6	Availability of workplace hazard identification chart.	A workplace hazard identification chart developed by a company health and safety technician, drafted in accordance with internationally recognised methodology.			30 days

1 7	The hazard identification chart is accessible for both workers and visitors.	Map of the different facilities, clearly denoting the location of the potential hazards.			30 days	
1 8	Chart outlining the layout of the different facilities is available, indicating distances/scales and the distribution of areas where crops have been planted.	Map pinpointing the different areas across the plantation.			30 days	

2. CHEMICAL HAZARDS						
No.	2.1. STORAGE	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
		Compatibility of chemicals				

2.1.1	Safe storage procedures for all chemical products.	products stored. Isolated from heavy foot traffic areas. Products stacked correctly.			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
2.1.2	Chemical products must be properly labelled and accompanied by Safety Data Sheets (SDS).	A label indicating name, composition, and potential hazards of chemical product in question.			30 days	
2.1.3	Adequate ventilation throughout the premises where chemicals are handled and stored.	Natural or artificial ventilation of the storage area.			30 days	
2.1.4	Fire-resistant shelving used for the storage of chemical products.	Metal shelves.			60 days	
2.1.5	Waterproof flooring.	Flooring in the storage area manufactured out of waterproof material.				
	Space available between the	Enough space to perform				

2.1. 6	shelves and the walls, allowing for the inspection of products.	a visual inspection of the products.			30 days	
2.1. 7	Chemical products stored far away from any water sources.	Chemical products are not stored near any water sources that could be contaminated.			30 days	
2.1. 8	The updated Safety Data Sheets (SDS), in French. Dissemination of Safety Data Sheets (SDS) on agrochemicals and combustion products, as well as training material.	Safety Data Sheets (SDS) for all chemical products in the storage facility. Training material for all employees who manipulate chemical products. Safety Data Sheets (SDS) for managing chemical products.			30 days	

2.1.9	Thorough stock control of all products used.	Appropriate management of the stock of chemical products (first in, first out principle)			30 days
2.1.10	List of chemical substances and fuels used for agricultural purposes, indicating name and quantities.	Updated list of chemical product stock, alongside quantities available.			30 days
2.1.11	Fire extinguishers, labelled according to the type of fire they are employed for (ABC, multi-purpose), as well as amount in stock. Monthly checks, stock control.	Availability of fire extinguishers and a monthly stock control. Training.			30 days
2.1.12	Electrical installations in good condition, properly concealed or in tubes.	Adequate electrical installations, up to code.			30 days

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APPENDIX 1: PROTOCOL FOR HEALTH AND SAFETY INSPECTIONS IN BANANA PLANTATIONS

2. CHEMICAL HAZARDS						
N o.	2.2. USE	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEW ORK
2.2.1	Exclusive use of products with green label.	Check the demand and storage only for products with a green label.			30 days	
2.2.2	Abide by the time-frame stipulated for treating farmlands	Keep record of the date and time the product was used and the time at which			30 days	

	with agrochemicals, as required for each product.	workers can re-enter the premises where it was used.				
2. 2. 3	Plant protection products only used across the plantations.	Use of chemical products across plantations.			30 days	
2. 2. 4	Warning signs that read "KEEP OUT", accompanied by the respective visual icon, put up prior to the use of agrochemical products.	Mounting warning signs prior to the use of agrochemical products.			30 days	
2. 2. 5	Instructions on products' label are carefully followed.	Health and Safety Procedure respected when using and handling agrochemical products.			30 days	
2. 2. 6	Whenever agrochemicals are applied using a backpack-style pesticide sprayer linked to a hand-	Waterproof attire must be supplied to all staff			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)

	<p>operated pulveriser, a backrest</p> <p>made out of waterproof fabric is</p> <p>used.</p>	<p>responsible for spraying</p> <p>agrochemical products.</p>				
<p>2.</p> <p>2.</p> <p>7</p>	<p>The manual application of</p> <p>agrochemical products,</p> <p>whenever necessary, is</p> <p>performed with the worker's back</p> <p>to the wind. Spraying must not be</p> <p>performed in high winds.</p>	<p>Health and Safety Procedure</p> <p>for the manual application of</p> <p>agrochemicals.</p>			30 days	
<p>2.</p> <p>2.</p> <p>8</p>	<p>Workers must not eat, smoke,</p> <p>or use water to clean their faces,</p> <p>eyes or nostrils while handling</p> <p>agrochemicals.</p>	<p>Health and Safety Procedure</p> <p>for the manual application of</p> <p>agrochemicals.</p>			30 days	

2. CHEMICAL HAZARDS

No.	2.3. MEASURES FOR MONITORING HEALTH	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
2. 3. 1	Procedures to regularly assess workers' exposure levels. Measuring exposure to chemical agents. The measured value is based on threshold exposure limits.	Reports on measurements and the evaluation of chemical contamination levels in the workplace.			60 days	
2. 3. 2	Health Monitoring Plan (medical examinations, medical protocols, monitoring health regimens)	Medical protocol.			30 days	
2. 3. 3	Regular health check-ups, in medical offices and laboratories	Health Screening re-ups for workers.			90 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)

<p>2. 3. 4</p>	<p>Regular health check-ups for workers who come in contact with agrochemicals, such as carbamates and organophosphates (OPs). Examinations every 3 months for personnel in direct contact with agrochemicals, annually for personnel who are indirectly exposed.</p>	<p>Specific health monitoring procedures for personnel exposed to organophosphates (OGs) and carbamates.</p>			<p>90 days</p>
<p>2. 3. 5</p>	<p>Regular health check-ups (annual) for workers who come in contact with agrochemicals, for ex. methyl bromide.</p>	<p>Specific health monitoring procedures for personnel exposed to methyl bromide.</p>			<p>90 days</p>
		<p>Health Monitoring Plan for</p>			

2. 3. 6	Healthcare for high risk activities	individuals with specific personal risk factors.			30 days	
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2. CHEMICAL HAZARDS						
No.	2.4. CONTROL AND MANAGEMENT	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
2. 4. 1	Supply of personal protective equipment (hat, gloves, mask, apron, goggles, shoes) based on risk factor exposure, free for workers.	Documents on the supply and use of personal protective equipment (PPE) issued to employees.			30 days	

2. 4. 2	Emergency showers and an eye wash station must be readily available and functional.	Availability of operational emergency showers and eye wash stations.			60 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
2. 4. 3	Spill containment supplies.	Availability of a spill containment kit.			60 days	
2. 4. 4	Training and information programme for workers on the correct usage and handling of agrochemicals.	Health and safety training programme and documents.			30 days	
2. 4. 5	Posters and advertisement in strategic locations for workers to become aware of the risks they are exposed to as well as of the recommendations to follow.	Publication of an information pack presenting existing risks to workers.			30 days	
2. 4. 6	Proper waste disposal.	Waste storage containers.			30 days	
2. 4. 7	Washing clothing contaminated by agrochemical products along	Health and Safety Procedure for treating			30 days	

	with regular clothing is not allowed.	clothing contaminated by agrochemical products.				
2. 4. 8	Pregnant women, children and persons with disabilities are not allowed to wash clothing contaminated by agrochemical products.	Health and Safety Procedure for treating clothing contaminated by agrochemical products.			30 days	
2. 4. 9	Wall or spill-control drums for containment purposes in case of spills.	Wall spill-control drums for containment, with a capacity equal to 110% of the substance contained.			30 days	

No.	3. THE DEMANDS OF PHYSICAL WORK	MEANS OF VERIFICATION	Yes	No	DEADLINE, IF N/A, COMPLIANCE WITH THE	LEGAL FRAMEWORK
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					STIPULATED TIMEFRAME	
3.1	Establish weight criteria for manually lifting and carrying objects (max. limit is 23 kg).	Health and Safety Procedure for manual lifting.			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
3.2	Workers trained on manually lifting and carrying objects.	Health and safety training programme and documents.			30 days	
3.3	Implementation of breaks.	Health and Safety Procedure.			30 days	
3.4	Working on rotation to avoid continuous and repetitive movements.	Health and Safety Procedure.			60 days	

3. 5	Handheld tool inspection to reduce the likelihood of repetitive motion injuries.	Regularly inspect handheld tools and replace as necessary.			60 days			
3. 6	Decrease physical load by using mechanical devices instead.	Availability of mechanical support devices used for managing workload.			180 days			
3. 7	Work-Related Musculoskeletal Disorders (WMSDs) Evaluation Measures	Protocol for monitoring workers exposed to hazards that could lead to developing Musculoskeletal Disorders (MSDs).			90 days			
3. 8	Work-Related Lower Back Pain Evaluation Measures (annual x-rays) See Appendix 5.	Evaluation measures for workers suffering from back pain.			90 days			

N o.	4. NOISE AND VIBRATION	MEANS OF VERIFICATION	Ye s	N o	DEADLINE, IF N/A, COMPLIANC E WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
4. 1	Evaluation of hand-arm vibration (HAV) and whole-body vibration (WBV) based on occupational exposure.	Measurement and assessment of vibration levels, reports.			60 days	
4. 2	Limiting and regulating exposure.	Health and Safety Procedure for occupational exposure to vibration.			60 days	
4. 3	Installation of vibration isolation machinery and equipment, as needed.	Availability of vibration isolation machinery and equipment.			60 days	
4. 4	Noise measurements to determine workers' levels of occupational exposure;	Measurement and evaluation reports for			90 days	

	identification of type of noise, based on workstation.	workplace noise levels.				Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
4. 5	Preventive measures applied based on each workstation's measurements.	Noise control, both at source and across the receiving environment.			60 days	
4. 6	Adjustments to noisy workstations or adoption of work programmes that emit less noise pollution.	Replacement or maintenance of noisy machinery.			60 days	
4. 7	A reduction in the frequency with which noisy machinery and equipment are employed.	Administrative measures set to reduce noise exposure.			60 days	
4. 8	Absorbent surfaces on walls and floors.	Availability of absorbent surfaces, as required.			60 days	
4. 9	Area-by-area insulation of noisy	Relocation of noisy machines during the			90 days	

	activities.	production process.			
4. 1 0	Limit and regulate noise exposure.	Administrative measures to reduce noise exposure.			60 days
4. 1 1	Supply workers with hearing-protection devices.	Documents concerning the provision and use of PPEs issued to employees.			30 days
4. 1 2	Implementation of control systems (encapsulation of noise-generating sources, insulation, silencing).	Encapsulation of noise source.			30 days
4. 1 3	All noise-generating machines undergo a preventive and corrective maintenance program.	Maintenance records, kept by the company.			180 days

N o.	NOISE AND VIBRATION	MEANS OF VERIFICATION	Yes	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
4. 14	Worker training programme on the importance of regular maintenance and the use personal protective equipment.	Programme and documents for health and safety training.			30 days	
4. 15	Assessment of measures adopted.	Report on the control measures adopted; assessment of their effectiveness.			30 days	

4. 16	<p>Evaluation measures to detect neurosensory hearing loss, caused by noise exposure.</p> <p>Medical examinations for workers regularly exposed (annual reports).</p>	<p>Specific health monitoring procedures for personnel exposed to noise pollution.</p>			90 days	<p>PART XV and XVI of Labour Act 2003 (Act651)</p> <p>The Factories, Shops and Offices Act 1970</p> <p>(Act328)</p>
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N o.	5. HEAT STRESS (EXTREME TEMPERATURES - HEAT)	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
5. 1	<p>Use of appropriate work clothing (long sleeves and long).</p>	<p>Documents concerning the provision and use of PPEs, issued to employees.</p>			30 days	
	<p>Safety footwear, based on risk factor exposure, in good</p>					

5.2	<p>condition:</p> <ul style="list-style-type: none"> • Tall rubber boots for working in fields where the worker is exposed to moisture (water, mud, agrochemicals). • Leather boots for remainder of activities. 	<p>Documents concerning supply and use of safety footwear, adapted to the task to be performed.</p>			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)	
5.3	<p>Resort to mechanized assistance to reduce the generation of metabolic heat, by implementing machine-based solutions to reduce the amount of physical activity exerted by the workers.</p>	<p>Availability of mechanical support devices used for managing workload.</p>			30 days		
5.4	<p>Limiting length of exposure, implementing rest periods in designated cool areas.</p>	<p>Administrative measures to reduce length of exposure.</p>			30 days		

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N o .	6. NON-IONISING RADIATION (SUN EXPOSURE/UV RAYS)	MEANS OF VERIFICATION	Y es	N o	DEADLINE, IF N/A, COMPLIANC E WITH THE STIPULATE D TIMEFRAME	LEGAL FRAMEWOR K
6 . 1	Use of work clothing that protects against UV rays (hat, shirt, sunglasses, pants)	Documents concerning the provision and use of PPEs, issued to employees.			30 days	
6 . 2	Use of sunscreen (in the form of creams or lotions).	Supply and use of sunscreen.			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)

6 . 3	<p>Organisation of work-related tasks on the farm and production facility to allow for the rotation of workers subject to UV-ray exposure.</p>	Working Procedures			30 days	
N o .	7. BIOLOGICAL RISKS	MEANS OF VERIFICATION	Y es	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATE D TIMEFRAME	LEGAL FRAMEWOR K
7 . 1	<p>Satisfactory health and hygiene conditions.</p>	Clean and disinfected toilets.			30 days	
7 . 2	<p>Inspection to detect the presence of biological risks throughout the production facility's</p>	<p>Report on the results of the inspection carried out on the plantation.</p>			30 days	

	workstations.					
7 . 3	Gloves supplied to workers.	Documents concerning the provision and use of PPEs, issued to employees.			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
7 . 4	First aid and medical care provided to all workers who suffer skin injuries.	Medical protocol.			30 days	

No.	8. MECHANICAL HAZARDS	MEANS OF VERIFICATION	Y es	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
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8.1	Strict enforcement of a janitorial program.	Inspection record for workstations.			30 days	
8.2	The drains in the packing facility must be covered with grids, painted yellow.	Availability of a drainage processing facility.			60 days	
8.3	Corridors free of obstacles and designated high-traffic areas for staff use.	Signs mounted and compliance with circulation guidelines.			30 days	
8.4	Use of non-slip material throughout the production facility's corridors and staircases to prevent falls.	Availability of non-slip material throughout required areas.			60 days	
8.5	Periodical re-examination of staircase's condition.	Inspection record for workstations.			30 days	

8.6	Examination of the scaffolding's condition.	Inspection record for workstations.			30 days
8.7	Scaffolding equipped with clearly marked railings.	Scaffolding equipped with railings and signs.			60 days
8.8	Portable ladders, in good condition.	Availability of ladders, in good condition.			60 days
8.9	Shelters for storing machinery and parts.	Implementation of protective measures for machines' moving parts.			30 days
8.10	Conveyors equipped with an emergency stop device.	Availability of emergency stop devices.			60 days
8.11	Locking mechanism/ interlocking system for	Safety procedure for locking and labelling machinery and			60 days

Part XV and XVI
Labour Act 2003
(Act 651) and The
Factories, Shops

	machines, engines, equipment and conveyors.	equipment.			
8.1 2	Installation of blade guards and safeguards for other sharp tools.	Availability of protective measures for sharp tools.			60 days
8.1 3	Sufficiently sized sleeves and handles for sharp tools; not slippery, do not slide off.	Ergonomic tool design.			30 days
8.1 4	Blades firmly affixed on the tool, no bolts, nails or mounting elements missing.	Availability of protective measures for sharp tools.			30 days
8.1 5	Sharp or pointed tools kept properly sharpened.	Review, maintenance and replacement procedure for manual tools.			30 days
8.1 6	Appropriate boxes or containers used for	Availability of protective			30 days

	transporting sharp or pointed tools.	measures for sharp tools.				
8.17	Agricultural machinery: parts with sharp elements are isolated to avoid human contact.	Availability of protective measures for sharp tools.			30 days	

APPENDIX 1: PROTOCOL FOR HEALTH AND SAFETY INSPECTIONS IN BANANA PLANTATIONS

8.18	Preventive maintenance program for tools and equipment.	Review, maintenance and replacement procedure for manual tools.			60 days	LEGAL FRAMEWORK
8.19	Safety inspections of engines, machines and other equipment are performed.	Inspection report on worksites and their corresponding machinery			30 days	
8.20	Tools stored in a safe place.	Assess the distribution of			30 days	

		tool storage locations.				
8. 21	Use of the device without prior training and authorisation is not permitted.	Health and Safety Procedure for the use of machinery.			30 days	
8. 22	Ergonomics of the various tools.	Ergonomic tool design.			60 days	
8. 23	Tool selection in line with the task to be performed.	Adequate supply procedure in place for tools, on a per activity basis.			30 days	
8. 24	Tools, machines and equipment used correctly.	Health and Safety Procedure for tool and machinery use.			30 days	
8. 25	Transportation and proper tool storage.	Health and Safety Procedure for tool use.			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)

8.26	Machines and equipment that could pose a risk to workers correctly labelled.	Safety warnings on all machinery.			60 days
8.27	Pressure cylinders stored in vertical position and secured in place with chains.	Safety procedure for pressure cylinder storage.			30 days
8.28	Empty and full cylinders are separated and correctly labelled.	Safety procedure for pressure cylinder storage.			30 days
8.29	Cylinders are only transported using mechanical lifting devices.	Safety procedure for pressure cylinder transportation.			30 days
	Public transport areas used by staff are isolated from danger zones, such as uneven	Availability of safety			30 days

8.30	walking surfaces. The latter will be clearly signalled and equipped with safety guards.	guards to prevent people from tripping.				
8.31	All work areas must be kept clean and neat.	Inspection report on cleanliness and order throughout premises.			30 days	

N o.	9. WORKPLACE TRANSPORT SAFETY	MEANS OF VERIFICATION	Y es	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
9.1	Preventive maintenance for	Maintenance Policy Vehicle inspection record.			60 days	

	transportation scheme.					
9.2	Road Safety Education and Defensive Driving Programme	Defensive Driving Programme available for personnel and open for registration.			30 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
9.3	Transporting passengers alongside agrochemical products or using machines not designed for that purpose is not allowed.	Safety Procedures for Transporting Personnel.			30 days	
9.4	Workers offered mobility facilities throughout the plantation.	Safety Procedures for Transporting Personnel.			60 days	
	10. ELECTRICAL SAFETY	MEANS OF			DEADLINE, IF N/A, COMPLIANCE WITH THE	LEGAL

N o.		VERIFICATION	Y e s	N o	STIPULATED TIMEFRAME	FRAMEWORK
1 0. 1	Preventive maintenance program and regular inspections for all components of the electrical system.	Maintenance program and inspection report on the electrical system.			30 days	
1 0. 2	Production facility equipped with lightning conductors.	Availability of power grounding conductors.			180 days	
1 0. 3	Electrical wiring fitted into tubing and properly isolated.	Adequate electrical installations, in tubes without bare wiring or noticeable issues.			60 days	
	High-voltage areas and	Electrical safety measures			30 days	

104	corresponding panels labelled properly.	in place.				
105	Emergency stop keys for all required machinery.	Availability of emergency stop devices.			60 days	

No.	11. HEALTH SERVICES	MEANS OF VERIFICATION	Yes	No	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
11.1	Sink with water and liquid soap.	Equipped with liquid soap.			30 days	
11.2	Equipped with running water.	Running water available at health services stations.			60 days	
	They remain closed and	Health services within the				

11 .3	provide personalised medical information to workers.	gated compound.			30 days	
11 .4	Function properly.	Health services functioning properly.			30 days	
11 .5	Split by gender.	Health services available, split by gender.			60 days	
11 .6	Good ventilation and lighting.	Properly lit health services.			60 days	
11 .7	Facilities kept under reasonably clean and hygienic conditions at all times.	Clean and sanitary conditions.			30 days	
11 .8	Fully stocked with toilet paper at all times.	Hygiene services provided on an ongoing basis; ongoing supply of paper			30 days	PART XV and XVI of Labour Act 2003 (Act 651) and The Factories, Shops

		towels and soap.				and Offices Act 1970 (Act 328)
11 .9	Exempt from damage or any form of impairment.	Toilets in optimal working condition.			60 days	
11 .1 0	Sufficient proportion of toilets per number of workers.	Sufficient number of health service units.			60 days	
11 .1 1	Appropriate signage and labels.	Relevant information, clearly highlighted.			30 days	
11 .1 2	Sufficient availability of showers, split by gender.	Availability of men's and women's showers.			60 days	
11 .1 3	Water points so that the workers have access to drinking water.	Workers are supplied drinking water.			30 days	
11 .1 4	Facilities properly equipped for washing work clothing and protective equipment.	Availability of laundromats for washing work clothing.			30 days	

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No.	12. CANTEEN	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWOR K
12. 1	Not far from the work stations and isolated from unsanitary areas.	Located away from unsanitary areas.			30 days	
12. 2	Available for use by all workers.	All company employees are able to use the facility.			60 days	
12. 3	Located away from areas where chemical products are used and stored.	Located away from areas where chemical products are stored.			30 days	
	Facility functions properly and	Properly equipped for			60 days	

12.4	allows for the preparation and consumption of food	food preparation.				Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
12.5	Good ventilation and lighting.	Sufficient natural or artificial lighting and ventilation.			60 days	
12.6	Clean and sanitary conditions.	Sterile conditions maintained.			30 days	
12.7	Furnished and equipped (tables, chairs, devices in which to store and heat food).	Plenty of utensils.			60 days	
12, 8	Drinking water supply for human consumption and washing utensils.	Drinking water supply for human consumption.			30 days	
12, 9	Food consumption at work	Consumption of food in			30 days	

	stations is not permitted.	work areas not permitted.				
12. 10	Water sample results.	Results of microbiological suitability assessment to determine water quality.			30 days	

No.	13. CHANGING ROOMS (COMPULSORY)	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWO RK
13. 1	Proper lighting and ventilation	Sufficient natural or artificial lighting and ventilation.			30 days	Part XV and XVI of the Labour Act 2003 (Act 651) and The Factories, Shops and Offices Act 1970(Act 328)

13. 2	Access to basic services.	Access to water and electricity.			30 days	
13. 3	Adequate sanitation system in place for the disposal of sewage and waste water, to stave off potential vectors or causal agents of infection.	Sanitation system in place.			30 days	
13. 4	Clean and sanitary conditions.	Maintained in clean and sanitary conditions.			30 days	
13. 5	In proper working conditions and exempt from physical damage (floor, ceiling, walls, electrical installation)	In optimal working conditions.			30 days	

13, 6	Located close to the working premises, but completely independent.	Independent, for productive sectors to work properly.			30 days	

No.	14. MAJOR ACCIDENTS	MEANS OF VERIFICATION	Yes	No	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
14. 1	Emergency plan drafted and published.	The plan must outline actions to take in emergency situations.			180 days	
14. 2	Outline of disaster assistance team's functions and	Allocation of responsibilities for			60 days	

	responsibilities (brigades).	emergency situations.				
14.3	Workers aware of all emergency procedures. Training, drills, documents.	Training programme and registration; personnel trained to react in emergency situations.			30 days	
14.4	Safety zones and assembly points clearly identified.	Signs present to easily identify assembly points.			30 days	
14.5	Equipment available for emergency response.	Equipment to provide basic emergency care available.			60 days	
14,6	Regular drills to assess response times, documents.	Record of the drills.			180 days	Part XV and XVI of Labour Act 2003 (Act 651) and The Factories, Shops
	Cooperation with relief	List of emergency				and Office Act 1970 (Act 328)

14, 7	agencies, to improve the quality of emergency support.	assistance providers.			180 days
14, 8	Clearly identified fire extinguishers, inspected on a monthly basis.	Availability of fire extinguishers. Monthly inspection report.			30 days
14, 9	Unobstructed access to clearly identified evacuation routes and emergency exits.	Signalling of emergency exits and routes.			30 days
14. 10	Trained and qualified staff to assist in emergency situations, training material.	Training programme on assistance in emergency situations. Records available.			60 days
	Detailed accident and incident	Accident and incident			60 days

14.11	investigation records, reported to the competent authority.	investigation records.				
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No.	15. MEDICAL SERVICE AND BASIC FIRST AID	MEANS OF VERIFICATION	Y e s	N o	DEADLINE, IF N/A, COMPLIANCE WITH THE STIPULATED TIMEFRAME	LEGAL FRAMEWORK
15.1	Availability of basic first-aid facilities, trained personnel and primary care teams, on a basis that is sufficient and appropriate to the size of the premises, and accessible to all workers.	Basic emergency equipment. Qualified personnel.			30 days	
	First aid kit and a stretcher available, to care for and	First aid kit and stretcher				

15.2	transport patients in case an accident takes place on the premises.	available for the use of emergency responders.			30 days	
15.3	First aid training for personnel.	Training programme and records thereof.			60 days	Part XV and XVI Labour Act 2003 (Act 651) and The Factories, Shops And Offices Act, 1970 (Act 328)
15.4	First aid kit at hand, clearly identified and regularly restocked so that there is no shortage of items available.	Record of items restocked.			60 days	
15.5	Medical service for personnel.	Occupational health care professional. Local nurses.			180 days	

APPENDIX 2: HEALTH MONITORING PROCEDURE

2.1 LEGAL FRAMEWORK

The following legal provisions are applicable to this protocol:

2.1.1 Part XV and XVI of the Labour Act of Ghana Act 651 and The Factories, Offices and Shops Act 1970 (Act 328) which speaks directly to Occupational health and safety

2.2 OBJECTIVE

Protect workers' health as efficiently as possible. The process makes it possible to ensure that all personnel employed in the banana industry meet—from the moment they are hired—the medical prerequisites that allow them to perform their professional activities to the best of their ability. It also acts as a safeguard against their health status potentially having an adverse effect when it comes to the fulfilment of their professional duties.

2.3 SCOPE OF APPLICATION

The procedure described below applies to new and former personnel. It is independent from the organisation's other activities.

2.4 DEFINITIONS

2.4.1 Worker: Pursuant to these provisions, a “worker” shall consist of any individual, regardless of sex and nationality, who performs a professional activity in return for remuneration, under the direction and authority of a natural or legal person, public or private entity, that is considered as an “employer”. Neither the legal status of the employer nor that of the employee shall play a role in assessing the quality of the worker's performance.

2.4.2 Health: This is the state of physical, mental and social well-being of an individual; not merely defined as the absence of disease.

2.4.3 Occupational Illnesses: Consists of diseases contracted due to exposure to risk factors inherent to the performance of a professional activity.

2.5 RESPONSIBILITIES

The individual responsible for conducting medical examinations is the occupational health care professional, who will coordinate the process alongside the persons in charge of occupational health and safety and human resource within the organisation.

2.6 METHODOLOGY / PROCEDURES

Monitoring workers' health shall be performed in accordance with the following procedure:

2.6.1 Any worker selected for a position within the company must undergo a medical examination to assess their fitness to work, prior to issuance of a final hiring decision.

2.6.2 A medical examination prior to employment is mandatory when it concerns: (a) work involving a serious risk due to the nature of the products and agents handled or used, or the conditions under which the work is performed; (b) women and children under 18 years of age; and (c) individuals with mental or physical disabilities.

2.6.3 All employed workers must be subject to regular examinations, pursuant to current legislation.

2.6.4 When the duties regularly fulfilled by a worker entail a serious risk, the worker must be subject to medical supervision during a determined period of time following the termination of their employment contract.

2.6.5 All employees whose activities require special skills that could put their health and lives in danger —be it the worker's own or anyone else's— must undergo regular medical examinations, with the possibility of further periodic examinations if deemed necessary.

Employers are required to cover the costs of the examinations. It is compulsory for all workers to undergo medical examinations.

2.7 VERIFICATION OF MEDICAL DOCUMENTS

Strict confidentiality should be maintained while monitoring workers' health. Private records concerning patient's health and medical history must be safely stored and always remain under the supervision of medical staff.

National legislation or a competent authority must prescribe the conditions under which those records must be kept, and for how long they must be retained.

2.8 REPORTS

2.8.1 Medical examinations

2.8.2 Occupational medical history

APPENDIX 2.1: BODY MAP - IDENTIFYING SYMPTOMS

Objectives

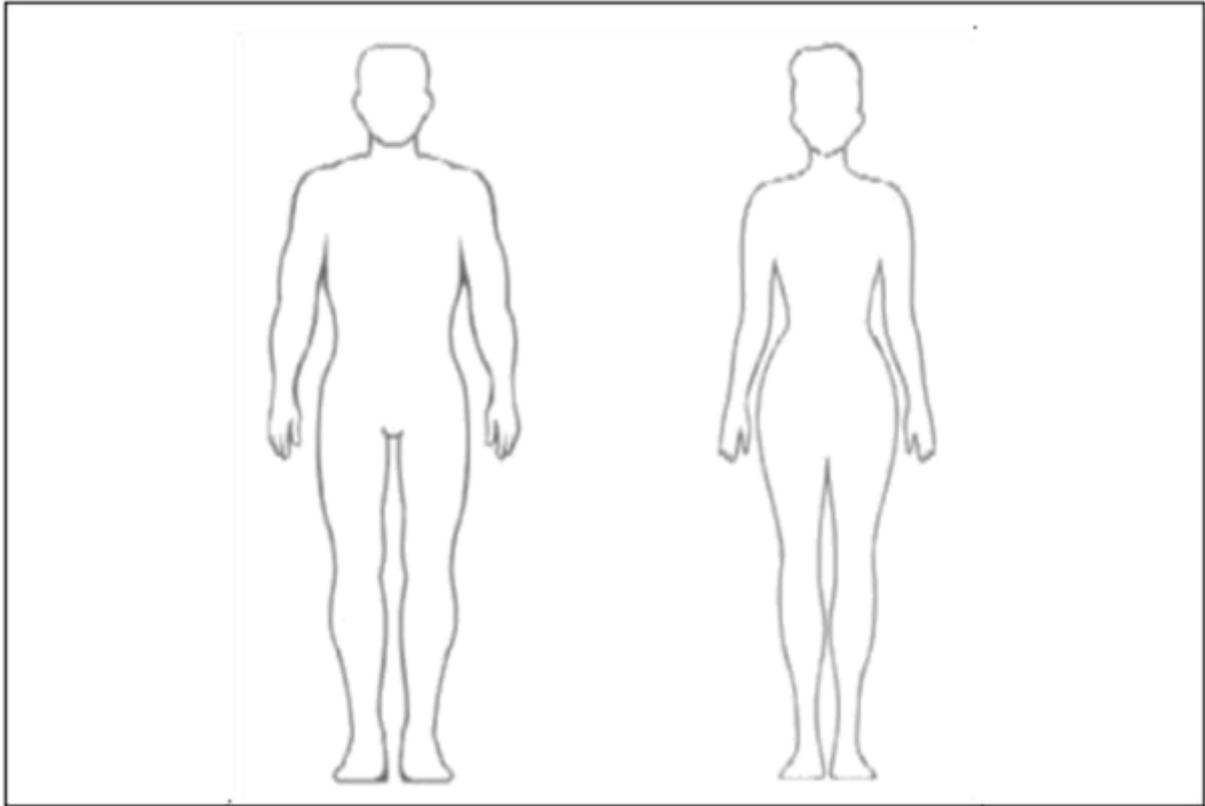
- Use the body map to learn to recognize the symptoms of the disease.
- Define the connection between health problems and occupational hazards.
- Use the results of the exercise to highlight the problems and look for solutions (for example, during the Joint Committee meetings).

Exercise: Work in small groups - provide materials (drawing the body)

1. Using coloured pencils, mark the places on the body where—in your opinion—work-related or work-exacerbated symptoms or pain could be experienced.
2. Use different colours for each of the following symptoms:
3. Carefully think about why you coloured each specific area of the body. This tool (Body Map) can help both the facilitator and the participants identify sensitive issues.

RED	= cuts, bruises
GREEN	= diseases and disorders, for ex.: stomach pain, dermatitis
BLUE	= pain, discomfort, for ex.: headaches, muscle aches, musculoskeletal disorders
BROWN	= reproductive health problems
BLACK	= stress

What to say: Once the exercise is finished, introduce your own body map to the group by describing or identifying the problems. The group can then openly discuss the issues together and identify any patterns. They can consider potential remedial actions or seek to become better informed on the most salient pathologies. Potential remedial actions could include referring issues to the Health and Safety Committee or Staff representatives raising issues with local management.



APPENDIX 2.2: MAP YOUR WORLD

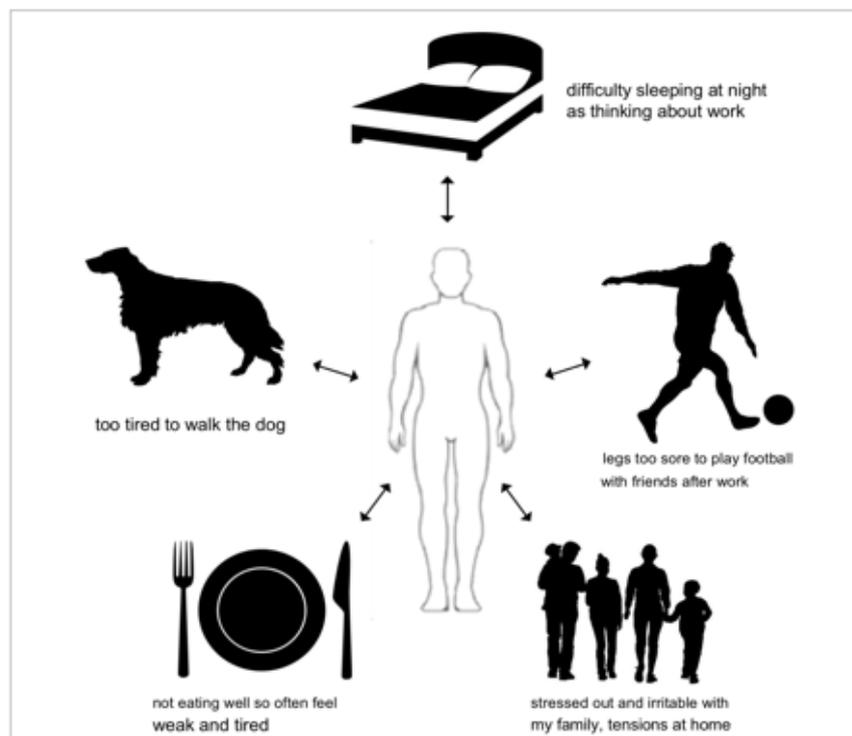
Having participants “map their world” will show them how work can affect their personal life. This tool can be used to identify priorities and to help participants understand the relationship between work and their health; as well as the impact that work can have on their lives and those of their families and friends. It is important to emphasise the different impacts for women and men.

Participants must be handed:

1. A sheet of paper with an outline of a human body;
2. The results from previous exercises: the Body Map and the Workplace Hazards Map.

Exercise

1. Gather a group of workers who perform the same sort of tasks and propose the following activity.
2. Ask the participants to draw a rough picture of a person / activity based on the effect of a specific problem: for example, somebody draws a child because long working hours leave little time for childcare activities.
3. As participants sharpen their critical thinking skills and make the link between the problems themselves and the outline in the middle of the page that represents their body, ask them to explain briefly what they are drawing and why; keep note of their illustrations, for further reference.
4. Discuss the results with the participants and highlight the most common problems. Classify them and identify workplace risk factors.
5. Discuss what actions to take in response to the identified factors.



APPENDIX 3. TEMPLATE FOR OCCUPATIONAL HEALTH AND SAFETY PLAN

3.1 INTRODUCTION

The prevention plan will be developed internally by companies and public and private institutions and will be approved by the company or institution's management, it will be adopted by its whole organisational structure. In addition, the prevention plan must be known and understood by all workers.

3.2 OBJECTIVES

1. Plan the activities that are to be developed on occupational risk prevention in banana plantations.
2. Set implementation time periods for the activities outlined in the plan.
3. Implement the prevention measures on health and safety at work.

3.3 SCOPE

The current plan applies to all roles in the organisation and in the management of occupational health and safety.

3.4 TEAM RESPONSIBLE FOR THE IMPLEMENTATION OF THE OCCUPATIONAL HEALTH AND SAFETY PLAN

The team responsible for implementing, evaluating and improving the current plan are:

1. Occupational Health and Safety specialist / professional
2. Occupational Health Doctor
3. Social worker
4. Members of the Health and Safety Committee
5. General management

3.5 DEVELOPMENT

To develop the Risk Prevention Plan the following information is considered:

1. Type of company, production activity, number of workplaces, number of workers.
2. Organisational structure of the company.
3. Organisation of production, definition of processes, sub-processes, activities and tasks, roles.

4. Organisation of preventive activities, and their representatives (unit, company's medical service).
5. Objectives and goals that, in terms of prevention, the organisation aims to achieve, as well as technical, human, material and economic resources that are available for this purpose.

3.6 TECHNICAL CONTENT OF THE PLAN

3.6.1 IDENTIFICATION OF RISKS: this will be carried out according to each type of position and using methodologies that are internationally recognised and adapted to the company's production activities.

3.6.2 RISK MEASUREMENT: measuring risks will be done by prioritising the risks that cannot be managed at source and by communicating this risk.

3.6.3 RISK EVALUATION: evaluation will be carried out once the results of the measured risks are obtained, these results will be compared with existing national legislation to create checks.

3.6.4 RISK CONTROL: once the risks are evaluated, checks at the source, of the means of communication and lastly of the receiver (the worker) will be conducted, taking into account the administrative, engineering measures in place, amongst others.

3.7 PROTOCOL TO VERIFY HEALTH AND SAFETY IN BANANA PRODUCTION

The protocol to verify health and safety conditions in banana production, consists of a document that provides a guide for reducing risks. It focuses on the production stages of cultivation, harvest and post-harvest. It aims to verify the management of risk factors that workers are exposed to. It is also recommended that the verification guide in APPENDIX 1 of this manual be applied. From the protocol, inspections of any shortcomings must be conducted. In addition, during planning, specific activities should be established as well as dates of when these activities are to be performed.

3.8 REGULATION OF HEALTH AND SAFETY

All the regulatory requirements that must be satisfied in terms of Occupational Health and Safety are detailed in APPENDIX 1 of this Manual. They are outlined below:

- COMPANY POLICY
- CORPORATE NAME AND PERMANENT ADDRESS
- REGULATORY OBJECTIVES
- CHAPTER 1 REGULATORY REQUIREMENTS
- CHAPTER 2 HEALTH AND SAFETY MANAGEMENT SYSTEM
- CHAPTER 3 RISK PREVENTION IN VULNERABLE POPULATIONS
- CHAPTER 4 COMPANY'S OWN RISK PREVENTION
- CHAPTER 5 MAJOR ACCIDENTS
- CHAPTER 6 SAFETY SIGNS

- CHAPTER 7 MONITORING OF WORKERS' HEALTH
- CHAPTER 8 ACCIDENT REGISTER AND INVESTIGATION
- CHAPTER 9 INFORMATION AND CAPACITY-BUILDING IN RISK PREVENTION

These general items should be developed and broken down into activities to be performed and proposed times in which to complete them should be set.

3.9 GUIDE OF DANGEROUS ACTIVITIES FOR WORKING ADOLESCENTS

This is a guide on occupational health and safety that focuses on updating the list of dangerous activities in adolescent work. The objective of this guide is to identify the activities that are detailed in APPENDIX 1 of this Manual to ensure that they are not performed by adolescents.

3.10 PROGRAMMES

The programmes described below will be developed over time and will promote the prevention of health problems in workers:

1. Programme for the prevention of alcohol, tobacco, and other drug use and consumption.
2. HIV-AIDS prevention programme.
3. Psychological violence prevention programme.
4. Reproductive health risks prevention programme.

3.11 CAPACITY-BUILDING IN RISK PREVENTION

This section includes information that workers should know about occupational risks that they are exposed to with the aim of preventing, minimising and eliminating these risks.

3.12 RESOURCES

This section includes the material, financial and human resources needed to implement the current plan.

APPENDIX 4. EDUCATIONAL TOOLS AND MATERIAL

This section offers several examples describing the exercises, activities and educational tools that could not only be used to hold training courses and facilitate the debate around work-related issues, but also educate the participants themselves; particularly if they have been nominated to become members of the Occupational Health and Safety Committee.

It will be thus easier to draw a connection between the training workshop, the responsibilities of the Health and Safety Committee and workplace activities. The more participants learn, the more skills they will gain — skills that they can apply daily in their jobs, or as members of the Committee. Therefore, these training sessions have been carefully crafted so that everyone — whether it is an occupational health and safety expert or a field worker— can easily put these lessons into practice.

4.1 ACTIVITY 1. INTRODUCTION/PRESENTATION

Objective

This will help:

1. you to know who's who among the participants
2. the participants to get to know each other
3. to define what participants hope to learn (it is important to pinpoint learning goals to facilitate the final evaluation of the course). It is important to allow time to review these at the end of the session.

Exercises

Choose one of the options proposed below in order to introduce the programme and create a participative environment. Introductions, if done individually, can take some time so choose the technique that fits your timetable. Use the topics below as a guideline:

- a) name
- b) experience / point of view when it comes to topics related to occupational health and safety
- c) position and workstation
- d) what are the participants' learning expectations for this training session?

Technique No. 1 – Personal presentation

Prepare a text to introduce yourself before the group.

Technique No. 2 – Peer presentation

Approach a member of the group and tell them about yourself; then have this member, in turn, ask you questions. Take notes and introduce your partner to the rest of the group.

Technique No. 3 – Group presentation

Work together as a team by forming a slightly larger group of 4-5 members. Select one person who will take down notes on a piece of paper and a second one, who will introduce the group.

What to say: Introduce yourself to a colleague, to a small group or to the whole group.

The facilitator should take down notes concerning what the participants intend to learn, in order to draft an agenda for the training session to be included in the final training evaluation report.

4.2 ACTIVITY 2: THE ROLE AND FUNCTION OF JOINT HEALTH AND SAFETY COMMITTEES

Refer to 'CHAPTER 3.3 OCCUPATIONAL HEALTH AND SAFETY COMMITTEES' for further information relevant to this activity.

Objectives

- Outline the responsibilities of Joint Health and Safety Committees as well as the role played by employee and management representatives who form part of these committees.
- Discuss and analyse the challenges these Committees face and explore ways to overcome them that will actually improve the way they function.

Exercises

1. Ask participants to raise their hands as a way to determine whether any amongst them are or have ever been members of a Joint Health and Safety Committee (in the banana industry or elsewhere).
2. Ask the group a few brief questions to introduce the topic, based on the content found in Chapter 3 of this handbook, for example: Who can tell me...?
 - What is the main role of a Joint Health and Safety Committee?
 - How many employees and management representatives are members of the Committee?
 - What is the role of employee and management representatives?
 - How often must the Committee members meet face-to-face?
 - What are the key aspects in the agenda of the Committee's meetings?

- According to the occupational Health and Safety Plan what information should the Committee regularly receive?
3. Discuss the following topics in small groups and take notes (provide pens and paper) on:
- What could go wrong and stop the Committee from working effectively?
 - What action could you take to make the Committee more effective?
4. Ask each group to present their conclusions before the rest of the participants and agree an action plan to improve the Committee

4.3 ACTIVITY 3: RISK ASSESSMENT – WORKPLACE HAZARDS MAP

Chapter 4 ‘TYPES OF RISKS AND RISK MANAGEMENT’ describes the various occupational risks associated with banana production by classifying them into different categories: chemical, biological, physical, ergonomic, mechanical and psycho-social.

With the help of this “Workplace Hazards Map” activity, participants will find it easier to assimilate the information contained in this section of the manual through practical example. The activity can be done in groups using open and interactive discussions. It is also an activity that can be applied in practice in the workplace, in order to properly identify and pinpoint occupational risks and hazards. It also acts as a preliminary step to the development of a prevention strategy.

Implementation

Before you get started, it might be useful to speak about the five major risk categories and the potential hazards within these to ensure that these concepts are well understood by everyone and give participants the opportunity to ask questions.

1. Introduce the activity to the participants.
2. Put them into groups of 4-5 members.
3. Provide them with a large sheet of paper and pencils in 5 different colours.
4. Allocate each group a section of the worksite
5. Ask each group to think about the key roles performed in this section and the risks associated with these.
6. Ask each group to present their Workplace Hazards Map before the other groups

They may use different colours or symbols to identify hazards within the following categories on the map:

	Physical
	Chemical
	Ergonomic
	Biological
	Psycho-social

During the presentations, the facilitator may visibly write down all the hazards related to each category of risk in a place that all participants may see it. This list can be used as a point of discussion and further analysis, while clearly establishing the link to this handbook.

In the workplace

When performing this exercise in a workplace setting, a questionnaire on health and safety topics can also be drawn up. This will serve the purpose of collecting employee information, which is of use for the various departments involved. The facilitator can also incorporate this information into the Workplace Hazards Map.

There is another similar activity known as the “**Body Map**” exercise, which can be just as useful for training employees to identify specific health issues and highlight the relationships that exist between certain hazards and the health problems they have identified. For more information on the “Body Map” exercise, refer to **Appendix 2.1**.

To go deeper into risks and hazards, particularly psycho-social, and provide a more thorough analysis of their impacts another activity that can be used is “**Map Your World**”. Going beyond the Workplace Hazards Map can help participants understand how work-related issues can have a broader reach and even affect their private (and family) lives. This is the case with disorders related to stress, depression, dissatisfaction and many other factors that highlight a clear need for a work-life balance. You can find more information in the “Map Your World” exercise found under **Appendix 2.2**.

4.4 ACTIVITY 4: OCCUPATIONAL HEALTH AND SAFETY INSPECTIONS

As explained in ‘Chapter 4.8 RISK MANAGEMENT - 8.1.2 Workplace inspections’, regular health and safety inspections are a good way to identify the risks and hazards present throughout the workplace. Any training session can benefit from this exercise, which is used to foster a discussion followed by the analysis of specific workplace risks

and hazards. The following is an example of a practical, commonly used method in workplace training sessions.

Objectives

- Understand why inspections are important for health and safety professionals;
- Learn to carry out workplace inspections;
- Promote inspection methodology that is relevant and useful to workers.

Exercises

1. Ask the participants a few questions, by way of introducing the topic:
 - a. Why must we perform occupational health and safety inspections?
 - b. Which particular aspects must be observed and studied closely?
 - c. When should an inspection be conducted? Under which circumstances?
 - d. Who should conduct the inspection?

Use the information contained in Chapter 4.8 of this manual in the discussion and make sure that the participants have sufficient knowledge to be able to perform the next activity.

2. Divide the participants into small groups of 2-4 members, and give them the following instructions:
 - a. Go over the examples provided in the questionnaire below as well as the questions that could be asked during an inspection.
 - b. Once the risks have been identified through the “Workplace Hazards Map” exercise, launch the discussion and formulate the key issues that should be included in a questionnaire for a similar inspection taking place within your workplace.

The facilitator can split up the exercise into parts and assign a specific scenario to each group. For example:

- Group A - a general inspection of the packing house
- Group B – a general inspection of the plantation
- Group C – a specific inspection on chemical safety

The facilitator may also request each group to perform a mock inspection following a specific scenario, for example: request group A to perform an inspection after a chemical spill, or Group B to perform an inspection after a new pesticide has been used, etc. Refer to Chapter 4 for specific guidelines on inspections. You can also use the examples that pertain to the first exercise, point 1.c. above, “Under which circumstances?”

3. The facilitator will then invite each group to present the key points of their respective questionnaires.

2. Either the facilitator or the rapporteur for each group can ask the rest of participants for their input, such as any comments and suggestions that will help improve the questionnaire and ready it for use within their respective line of work.

The information contained in Chapter 4.8 of this manual will help you explore the topic in-depth and allow participants to better understand the importance of performing regular health and safety inspections, their components, and their relevance — based on different types of situations that could arise within the workplace.

4.4.1 ACTIVITY 4: Sample questionnaire – inspections

SAMPLE QUESTIONS FOR HEALTH AND SAFETY INSPECTIONS		Y es	N o	Action required
Storage and Handling				
1	Are the warehouses in good condition?			
2	Is the necessary equipment in place to avoid manually handling heavy loads and machinery?			
3	Have workers been trained on the proper techniques for handling different types of material (e.g. for lifting heavy loads)?			
4	Are there procedures in place for the correct storage of materials?			

Dangerous Substances			
5	Are dangerous substances being used?		
6	Have the data sheets corresponding to these dangerous substances been issued?		
7	Have the dangers associated with these particular substances been somehow prevented or controlled?		
8	Have workers received training?		
9	Has valuable information on this topic been disseminated?		
10	Are containers clearly labelled?		
11	Have dangerous substances been safely stored?		
12	Have workers received the corresponding personal protective equipment?		
N o i s e			
13	Have noise-related hazards and risk areas been clearly identified?		

1 4	Has a program for noise reduction or noise control been implemented?			
Protective Equipment				
1 5	Is personal protective equipment required?			
1 6	If it is, is the equipment available suitable and have workers been consulted on the subject?			
Training				
1 7	Have all workers been trained and briefed on the safety issues relevant to their work stations?			
1 8	Have workers who are exposed to specific risks or hazards been properly trained?			
Sanitation				
1 9	Are there enough toilets, sinks and showers; are these sanitary facilities in good condition?			

20	Are there premises suitable for changing one's clothes and resting?			
21	Is clean and safe drinking water available to all?			
22	Are there facilities suitable for administering first aid?			

Source: *Health Safety and the Environment, ILO / IUF, P. Kirby, P. Hurst 2004, p. 94*

4.5 ACTIVITY 5: RISK ASSESSMENT

It is important for the Occupational Health and Safety Committee representatives to fully understand the risk assessment process, to enable their full participation in this important process when required. This exercise is an education tool to share the contents of 'Chapter 4.8 RISK MANAGEMENT - 8.2 OCCUPATIONAL RISK ASSESSMENTS' for more information. through a practical activity which can later be applied by the participants in the workplace.

Exercise

1. Introduce the different concepts linked to risk assessment, in line with 'Chapter 4 - 8.2 OCCUPATIONAL RISK ASSESSMENTS'.
2. Ask participants to share their thoughts concerning risks that:
 - Are 'slightly severe' / 'severe' / 'very severe' (refer to 8.2.1 The severity of the damage)
 - Are very likely / likely / hardly likely to take place (refer to 8.2.1 The probability of the risk)
 - Are trivial / bearable / moderate / significant / unbearable (refer to TABLE 8: RISK LEVEL ASSESSMENT)

The facilitator can enrich the discussion by referring to the previously identified risks from ACTIVITY 3: RISK ASSESSMENT and to Chapter 4.8 of this handbook in order to illustrate these concepts, making sure to check participants' understanding.

3. Invite participants to work in pairs (with the person sitting next to them) and ask each team to:
 - Consider the tasks that must be performed by workers in banana plantations which require handling heavy loads;

- Choose one workstation (either the field or the packing unit) and fill out the risk assessment form below, titled Sample Questionnaire - Risk Assessment. Participants must be given enough time to consider and identify potential remedial actions, for example 30 minutes.
4. Ask participants to share their views on:
- The priority risks they have identified; based on their severity, probability and risk level;
 - The remedial actions they recommend;
 - Any additional questions to be included in the questionnaire.

This exercise uses the example of handling heavy loads, but the facilitator can select other tasks which may entail certain risks by adapting both the activity and the questionnaire as necessary. Participants should also be asked to consider specific risks for women, including pregnant women and nursing mothers.

4.5.1 ACTIVITY 5: Sample Questionnaire - Risk Assessment

CHECKLIST: Handling heavy loads				
<p>(A) Questions to ask:</p> <p>(If the answer to the question is "Yes", tick the corresponding box and then assess the level of risk)</p>	<p>Risk Level:</p> <p>(Tick the corresponding box)</p>			<p>Possible remedial action: (Take notes in order to complete Section B)</p>
	Yes	Low	Med.	High

<p>The tasks involve:</p> <ul style="list-style-type: none"> • holding loads away from the trunk Twisting Stooping • reaching upwards large vertical movements long carrying distances • strenuous pushing or pulling • unpredictable movement of loads repetitive handling • insufficient rest or recovery • a work rate imposed by a process 					
<p>The loads are:</p> <ul style="list-style-type: none"> heavy? bulky/unwieldy? • difficult to grasp? unstable/unpredictable? • intrinsically harmful (e.g. sharp/hot)? 					
<p>In the working environment, are there:</p> <ul style="list-style-type: none"> constraints on posture? • uneven floors or in poor condition? variation in levels? hot/cold/humid conditions? • strong air movements? poor lighting conditions? 					
<p>Individual capability, does the job:</p>					

require unusual capability? • pose a hazard to those who have health problems? • pose a hazard to pregnant women? • call for special information/training?					
Other factors: posture / movement: is movement or posture hindered by clothing or personal protective equipment?					

(B) Remedial actions: Which remedial actions should be taken, in what order of priority?

- i)
- ii)
- iii)
- iv)
- v)
- vi)

Source: Health Safety and the Environment, ILO / IUF, P. Kirby, P. Hurst 2004, p. 94

4.6 ACTIVITY 6: HIERARCHY OF CONTROLS AND PREVENTIVE MEASURES

Prevention —always better than the cure— is the best way to guarantee workers’ health and safety, and this is precisely the main role of all Occupational Health and Safety Committee representatives. Chapter 4.8 RISK MANAGEMENT of this manual offers guidelines on the various methods used to prevent and control occupational hazards; these are easily taught to participants using this activity, which can also be used for practical training purposes in the workplace.

Exercise

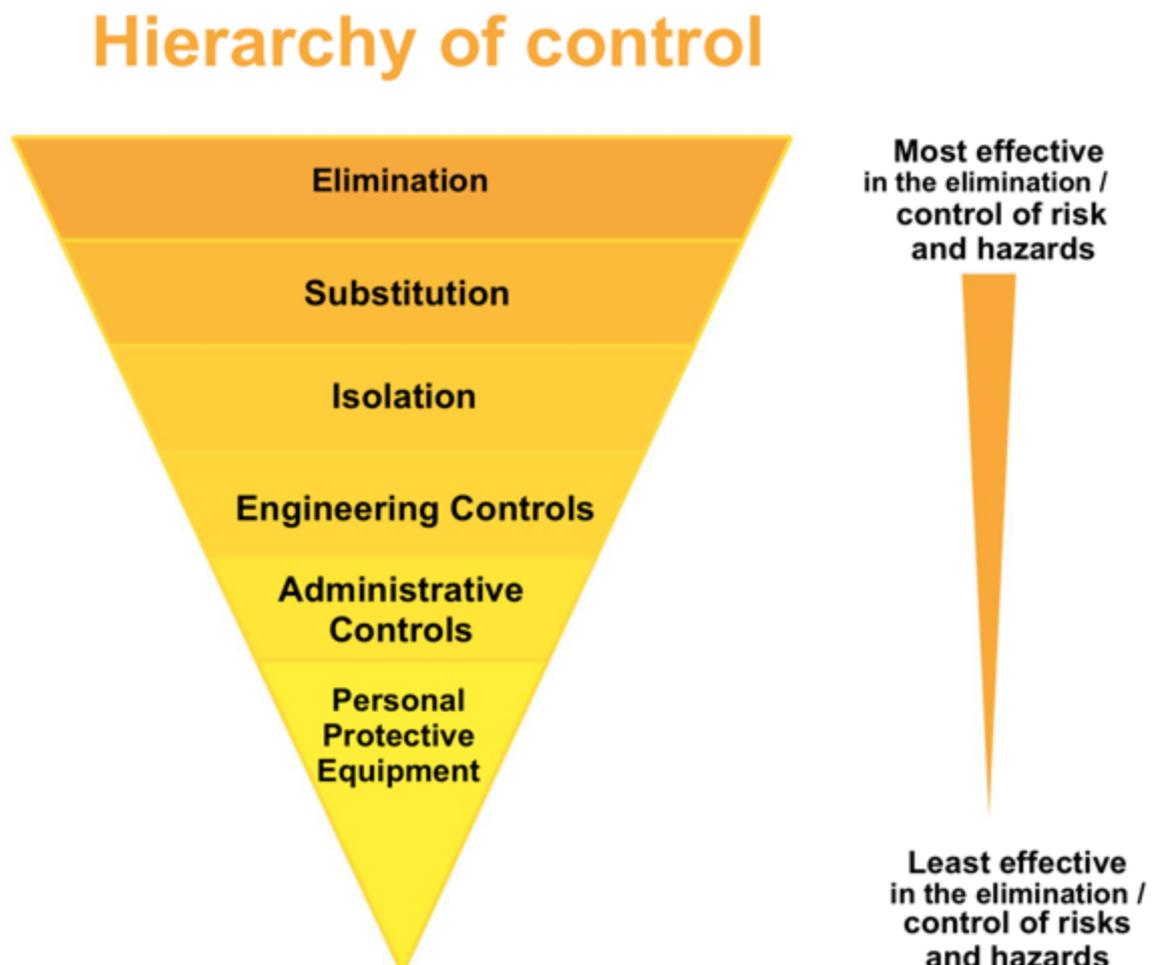
1. Introduce the key concept as described in Chapter ‘8.5 HIERARCHY OF CONTROL AND PREVENTION’

2. Give participants a chance to ask questions about this method and share their experiences applying it within the workplace.
3. Divide participants into groups of 2-4 people and ask them to select together a prominent hazard, relevant to their work in the banana industry (as done in previous exercises) and use it as the core issue for this activity.
 - a. Ask each group to briefly present their ideas on the main risks linked to this particular hazard;
 - b. Discuss what can be done to prevent and control each risk, by using the hierarchy of controls as well as any additional ideas for prevention strategies.

The goal is to find a prevention measure for each hazard, by inviting the group to discuss all possible solutions, referring to the hierarchy of controls where appropriate. The facilitator can draw a pyramid of this hierarchy on the board or somewhere visible, so that participants can easily recall the different steps, starting with point 1) Elimination, through point 6) Personal Protective Equipment.

4. Invite groups to share their prevention and control strategy.

The facilitator should summarize the discussions and link them to the information presented in Chapter 4.8. RISK MANAGEMENT, if necessary.



4.7 ACTIVITY 7: ACTIVE BREAK

The ILO, in its Encyclopaedia of Occupational Health and Safety, recommends taking 5-minute breaks or changing positions every hour as a preventive measure to for ergonomic risks – as explained in Chapter 4.4. ERGONOMIC RISKS. Workers should never maintain the same working position for more than two hours in a row, and if that's the case, the worker in question should take an 'active break' that is at least 15 minutes long.

The facilitator can therefore integrate active breaks into the programme of the course so that participants become accustomed to this activity. The trainer should highlight the importance of this practice in the workplace.

Exercises

1. Invite all participants to stand up and take an “active break”.
2. Explain why active breaks are required within the workplace for prevention of ergonomic risks, in respect of international regulation on Health and Safety.
3. Guide the participants through the active break exercises using the diagram provided below. If the group is not too big, give each participant the opportunity to suggest a movement for the group to copy.

- 1 Turn your head to the right, hold for 10 seconds and repeat on the other side.



- 2 Lift your chin up, hold for 10 seconds and then rest your chin on your chest, hold for 10 seconds.



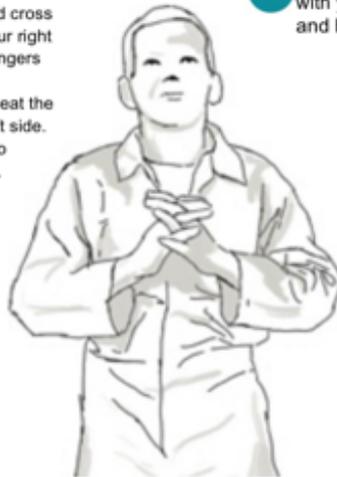
- 3 Lift your shoulders to your ears, hold for 10 seconds. Then put your shoulders back to the beginning position.



- 4 Tilt your head to the right with your right hand, hold for 10 seconds and then repeat on the other side.



- 5 Place your palms together in front of your chest and cross your fingers. Bend your right wrist and push your fingers to the right, hold for 3 seconds and then repeat the movement on your left side. Move between the two positions for 10 times.



- 6 Lock your fingers and raise them with your palms facing the sky and hold for 20 seconds.



- 7 Cross your left arm to your right side, hold straight and with your left hand push towards your chest for 20 seconds. Rest and repeat with the other arm.



8 Raise your right arm over your head and lean your torso to the left, hold for 20 seconds. Rest and repeat on the other side.



9 Raise your left arm behind your head, push your left elbow down with your right hand, hold for 15 seconds. Rest and repeat on the opposite side.



10 Raise your left leg and push your left knee upwards towards your body with your two hands, hold for 15 seconds. Rest and repeat on the opposite side.



11 Bend your right knee and hold your right foot with your right hand, hold for 15 seconds. Rest and repeat on the opposite side.



12 Very slowly flex your torso forwards, it does not matter if you are not able to reach the ground, hold for 15 seconds. Then slowly straighten your back to return to your normal position standing position.



13 Transfer your weight forwards onto your toes, hold for 5 seconds, then transfer your weight backwards onto your heels, hold for 5 seconds before going back to the centre.



4.8 ACTIVITY 8: EVALUATION

Technique 1:

1. Remind participants of what their expectations were at the beginning of the session. Explain that the following activity will be used to assess to what extent these expectations have been met.
2. Write down the evaluation questions on a large sheet of paper that can be displayed on the wall. These can be read aloud to the whole group, for example:
 - What important lessons have you learned during this training session?
 - Did the training session not meet some of your expectations?
 - How will this training session influence your future work when it comes to health and safety issues?
3. Provide participants with paper (small self-adhesive post-it notes are ideal) and pencil.
3. Ask the participants to reflect on each question, individually write down their answers on a piece of paper and attach it to the corresponding evaluation question.

The facilitator can save the responses to analyse them after the training session has concluded.

An evaluation form can also be distributed to participants at the end of the session, to complement the participatory evaluation exercise described above.

A sample evaluation form can be found below. It is preferable that the participants complete this form anonymously.

Alternative techniques:

An alternative is to ask each question to the group and give participants the opportunity to move around the room to indicate their response, i.e., to stand by a 'yes' or 'no' sign or to have the option of choosing a number in a scale of 1-5 which best fits their experience.

This scale could, for example, measure confidence as a Committee member and whether this had increased with 1 being 'not at all' and 5 being 'completely'. Or the facilitator can simply refer back to the objectives identified at the beginning of the day and ask participants to tick those that have been met.

4.8.1 ACTIVITY 8: Sample Evaluation Form

You can ask whichever questions you believe will help you evaluate the participants' learning process and the success of the teaching methods applied.

Objective: Assess whether the workshop was a success.

Exercise: Use the questions suggested below to analyse the outcome of the training session.

- List three objectives you had for this workshop or write down what you hoped to achieve from participating in this workshop: have your expectation been met?

.....

.....

.....

- How will you use what you have learned during the workshop? How will you use the new skills you have acquired (in particular, concerning the aforementioned three objectives you listed, or what you expected to achieve) within the workplace; and tomorrow, the following week, next month?

.....

.....

.....

- Do you have any recommendations to help improve this training session? What would you like to learn in a second module of this course?

.....

.....

.....

Please write down any further comments you may have on a separate sheet. Thank you for your participation.

APPENDIX 5: ELECTION OF WORKERS TO THE OCCUPATIONAL HEALTH AND SAFETY COMMITTEE

In the location.....(name of plantation),
on.....(date of meeting to appoint
representatives),at.....(time), the agenda was read and
approved.

The presence of.....(number of workers) workers has been
confirmed.

Worker representative that has been nominated to take part in the plantation's Health
and Safety Committee:

DELEGATE NAME:

.....

PLANTATION / FARM NAME:

.....

Signature:

.....

ELECTION OF THE HEALTH AND SAFETY DELEGATE FROM

(Name of plantation)

Signature of workers present, and in support of, the election of their representative
(majority requirement = at least half +1)

	Names and Surnames	ID number	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

APPENDIX 6: TEMPLATE - OHS COMMITTEE MEETING MINUTES

MINUTES OF THE OCCUPATIONAL HEALTH AND SAFETY COMMITTEE				
Date and time:				
Plantation:		Chairperson:		Participation percentage (n. present vs n. expected)
Work centre:		Secretary:		
	Representatives - workers	Representatives - company	Guests	
PARTICIPANTS				
	participation %:	participation %:	participation %:	

SUMMARY OF TOPICS DISCUSSED				
TOPICS DISCUSSED	CONCLUSIONS	RECOMMENDATIONS	RESPONSIBLE PERSONS	CALENDAR / OBSERVATIONS

ACTION PLAN - OCCUPATIONAL HEALTH AND SAFETY COMMITTEE									
1. Context and justification									
2. Objectives									
3. Strategy									
4. Activity calendar									
Topic	Objective	Risk factors	Causes	Actions to implement	Expected results	Goal	Person responsible	Period	Indicators

APPENDIX 7: SAMPLE MATERIAL SAFETY DATA SHEET

Date drafted: _____ Date revised: N/A (First version)

Identification of the substance/formula and the company responsible for its manufacturing/commercialisation
<ul style="list-style-type: none">· Commercial name of the substance/formula:· Reference name(s) of the manufacturer/commercialisation company:· Company name and address:· Telephone number:· Emergency telephone number:· Other information:
Composition/component information
<ul style="list-style-type: none">· Substance:· Content percentage/content:· CAS registry number:· Classification:· EINECS number:
Identification of risks/hazards
<ul style="list-style-type: none">· The most significant risks:· Specific risks:
First aid
<ul style="list-style-type: none">· Inhalation:· Skin contact:· Eye contact:· Ingestion:
Fire-fighting measures

- Adequate means of intervention/extinction:
- Prohibited means:
- Particular risks in the event of a fire:
- Products resulting from combustion:
- Need for protective equipment for personnel responsible for extinction:

Measures to take in the case of accidental spillage

- Personal precautions:
- Environmental precautions:
- Cleaning methods and procedures:

Manipulation and storage

- Manipulation:
- Precautions / technical measures
- Storage:
- Technical measures / storage conditions

Exposure control / personal protection

- Measures regarding design/engineering:
- Control parameters:
- Personal protective equipment:
- Respiratory protection:
- Eye protection:
- Hand protection:
- Hygiene measures:

Physical and chemical properties

- Appearance:
- Odour:
- pH:
- Boiling temperature (°C):
- Fusion temperatures (°C):
- Explosion temperature (°C):
- Flammability / explosiveness properties:
- Pressure and steam:
- Relative density:
- Solubility:
- Water/octanol partition coefficient:
- Other properties:

Stability and reactivity

- Conditions to avoid:
- Materials to avoid:
- Hazardous decomposition products:

Toxicological information

- Acute toxicity:
- Local effects:
- Excessive exposure:
- Skin contact:
- Eye contact:
- Inhalation/ingestion:

Ecological information

Considerations regarding elimination

Information regarding transportation

- Classification data:

Regulatory information

Other information

- Recommendations / restrictions:
- References / sources consulted to draft the MSDS

APPENDIX 8: LIST OF PESTICIDES USED IN BANANA PLANTATIONS AND TOXICOLOGICAL CLASSIFICATION

COMMERCIAL PESTICIDE NAME	COMMONLY USED PESTICIDE NAME	TOXICOLOGICAL CLASS	TOXICOLOGICAL EVALUATION
Ranger	Glyphosate	II	Highly dangerous
Calixin	Tridemorph	II	Highly dangerous
Tilt, Bumper	Propiconazole	III	Moderately dangerous
Gramoxone		I	Extremely dangerous
Triziman	Dithane Mancozeb	IV	Slightly dangerous
Benlate	Benomyl	IV	Slightly dangerous
Sico	Difenoconazole	III	Moderately dangerous
Basudin	Diazinon	III	Moderately dangerous
Baycor	Bitertanol	III	Moderately dangerous
Bankit	Azoxystrobin	IV	Slightly dangerous
Mertect	Thiabendazole	III	Moderately dangerous
Imazalil	Imazalil	II	Highly dangerous
Dursban	Chlorpyrifos	II	Highly dangerous
Furadan	Carbofuran	I	Extremely dangerous
Vydate	Oxamyl	I	Extremely dangerous
Indar	Fenbuconazole	III	Moderately dangerous

Tego	Break-Thru	----	-----
Mocap	Ethoprophos	I	Extremely dangerous
Roundup Original	Glyphosate–isopropylammonium	II	Highly dangerous
Counter	Terbufos	I	Extremely dangerous
DiPel	Bacillus thuringiensis subsp. Kurstak	III	Moderately dangerous

APPENDIX 9: HEALTH AND SAFETY POLICIES OF GHANA BANANA PRODUCERS

9.1 HEALTH AND SAFETY POLICY OF GHANA BANANA PRODUCERS

(....company name.....) recognises its moral and legal responsibility of providing and maintaining a safe and healthy working environment to all our workers, with a view to continuous improvement. This commitment extends to ensuring that the company's operations do not place the local community at risk of injury, illness or property damage. This goal is only achievable by adherence to established objectives striving to exceed all obligations under applicable legislations, and by fostering an enthusiastic commitment to health, safety and the environment, (....company name.....) personnel, contractors, subcontractors, visitors and the general public.

In particular:

- a) Management, working in collaboration with the Occupational Health and Safety Committee, will strive to take all reasonable steps to reduce workplace hazards to as low as reasonably achievable.
- b) Managers and supervisors are held accountable for the health and safety of all workers under their supervision. This includes responsibility for applicable training and instruction, appropriate follow-up of reported health and safety concerns, and implementation of recommended corrective action. This accountability is integrated into the performance appraisal system.
- c) Supervisors, workers and visitors are expected to perform their duties in a safe and healthy manner and are accountable for the health and safety of themselves and others.
- d) (....company name.....) is committed to providing all necessary information, training and instruction to ensure that appropriate work practices are followed in the workplace, and to promote their use outside the workplace.
- e) If necessary (....company name.....) will take disciplinary action where individuals fail to work in a safe manner, or do not comply with applicable legislation or corporate policies and procedures.

Health, Safety and the Environment is everyone's responsibility. (....company name.....) expects that everyone will join in our efforts to provide a healthy and safe working environment on a continuous basis. Only through the dedication and efforts of all individuals can (....company name.....) succeed in providing a healthy and safe working environment.

Policy Approved By:

.....

Date:

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This manual is a practical guide for risk management on banana farms and has been developed in two parts:

Part One - Manual for trainers with technical material for the global understanding of necessary measures to improve occupational health and safety.

Part Two - Manual for workers with specific educational material that can be distributed to workers as separate task-related handouts depending on their work on the farm. This learning tool provides workers with an understanding of basic measures which when applied to daily activities, control risk and allow work to be undertaken safely.

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