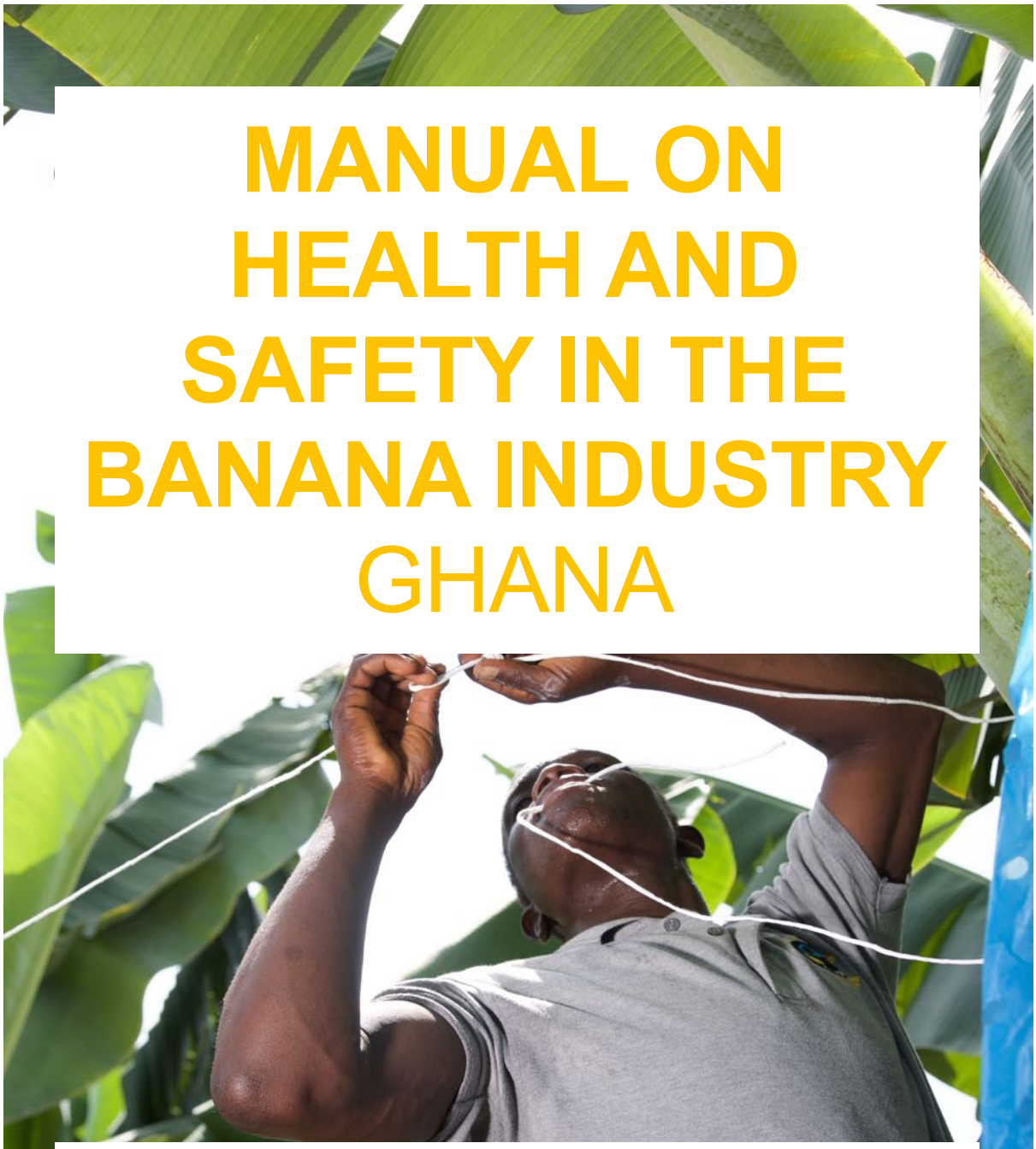
MANUAL ON HEALTH AND SAFETY IN THE BANANA INDUSTRY GHANA



A practical guide for risk management on farms

Part 2: Manual for workers

ACKNOWLEDGEMENTS

This manual was originally developed as part of the Banana Occupational Health and Safety Initiative (BOHESI), co- coordinated 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).

The BOHESI manual has been financed by IDH, The Sustainable Trade Initiative, and co-funded by the Banana Producers Association of Ghana (BPA), Golden Exotics Limited (GEL) Musahamat Farms Limited and Volta River Estates Limited (VREL).

Design by Paul Lievens (Banana Link)

Photos by James Robinson Photography

INTRODUCTION

This second part of the Occupational Health and Safety Manual aims to promote a culture of risk prevention and control by educating workers in the banana industry.

This part is a teaching tool aimed at male and female workers so that they know the fundamental measures which, applied to their daily activities, can contribute to managing risks and enable them to work in safe conditions. **The content of this manual is a guide and not a set of regulations** and should be applied according to what is appropriate and practical in the course of the activities carried out for each job or task.

The information presented comprises a brief introduction, a description or general considerations about what workers are supposed to do in relation to the task or job that is entrusted to them. Subsequently, there is a description of the job-specific risks that the workers are exposed to whilst carrying out their tasks or job. Finally, there are considerations or actions aimed at controlling risks.

The overall aim is to give the employer, Occupational Health and Safety Committee or trade union representative, educational materials which can be distributed to workers separately, according to the specific task they carry out on the plantation.

The information common to various tasks has been included in several annexes which can be found at the end of this manual to be printed and distributed to workers with the main educational materials, so that each chapter provides all the relevant information to carry out specific tasks in a safe and healthy way.

For each task it is also relevant to print and share Annex 4 'Active Pause' as a key activity for preventing ergonomic risks in every task or role in the banana production process.

The report of plant protection products and certification of treatment equipment entitled **"List of Pesticides Approved in Ghana, by the Environmental Protection Agency/CCMC** also should be shared with workers and displayed in the workplace. This document sets out the information about a certain number of parameters linked to pesticide use. These parameters include information about the trade name of a product, the active ingredients, the formulation, the toxicity class, the target pest and usage restrictions.

As a result of this learning, participants will be able to identify the risks posed by their work, know more about the potential dangers to which they are exposed and they will be able to apply the appropriate measures to best ensure their health and safety.

However, **it is essential that these educational materials are accompanied by formal training**, for all workers, on prevention and control in relation to occupational health and safety, as described in the first part of this manual. Before completing any task, workers should be able to identify all risk situations that can present themselves and they should take all measures to control the risk. This is only possible through formal training, especially in cases where workers' literacy levels limit their ability to use the following educational material.

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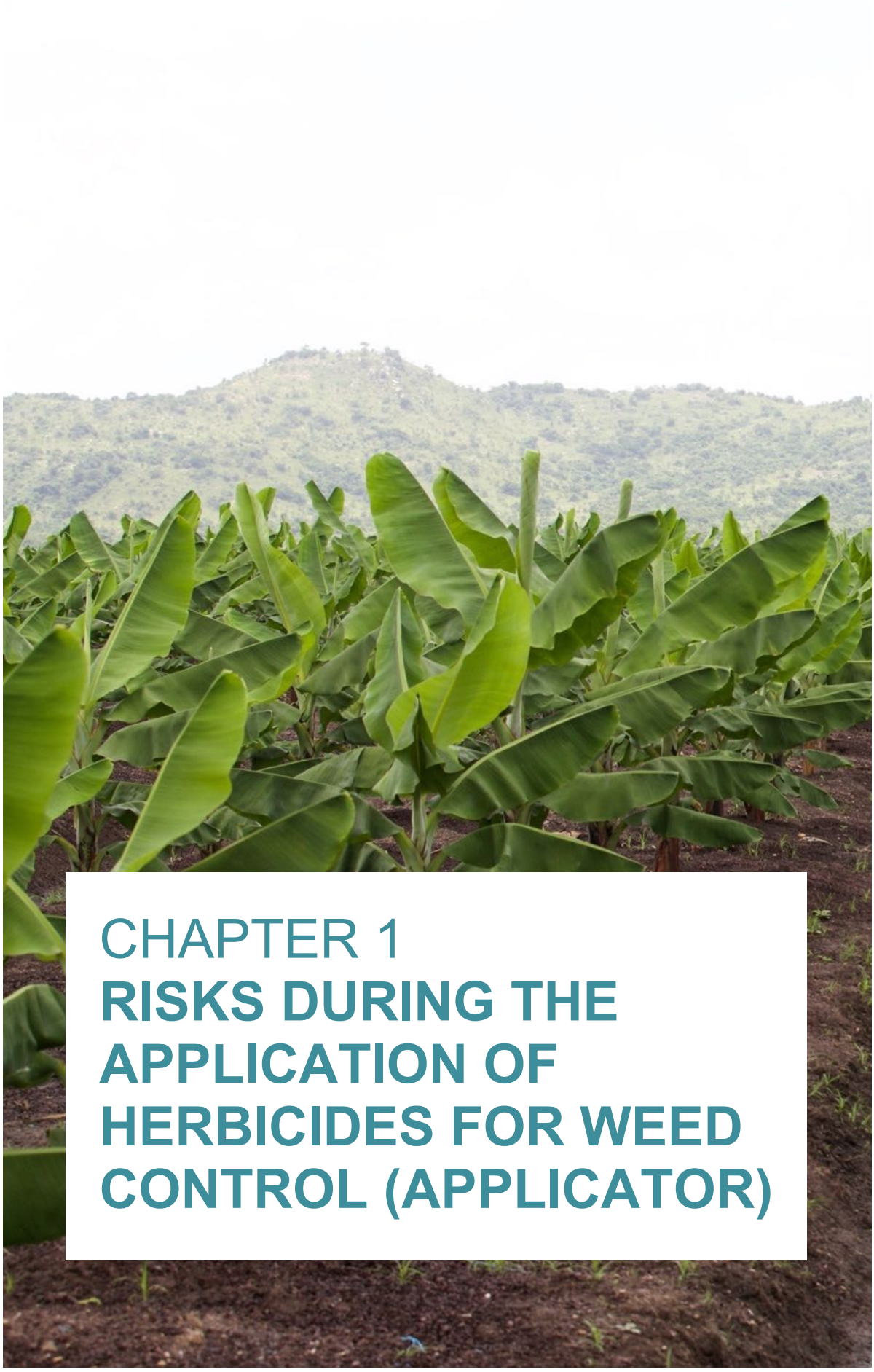


CHAPTER 1
RISKS DURING THE APPLICATION OF HERBICIDES FOR WEED CONTROL (APPLICATOR)

On plantations, weeds compete with crops for water, sun and nutrients. They also harbour insects and diseases. Weed control is achieved through using cultural, mechanical and chemical methods, which in turn generate risks.

Chemical methods are the most commonly used to control weeds on plantations. This is achieved through the use of herbicides which inhibit and delay growth or destroy the weeds in a crop. There are several different types of herbicides mentioned in the document on plant protection products and certification of treatment equipment entitled “List of pesticides approved in Ghana”, by the Environmental Protection Agency/CCMC reserved for the general public. Nevertheless, it should be mentioned that the use of any herbicide depends heavily on the nature and complexity of the existing weed, the soil type, economic factors and climatic conditions.

1.1 RISK IDENTIFICATION

The use of herbicides for weeding requires workers to carry a pressure pump on their backs. During this task, the following risks may arise:

1. **Mechanical risks:** ground-level falls due to the conditions and the state of the ground the workers walk across.
2. **Physical risks**: heat stress due to the high temperatures on plantations.
3. **Biological risks**: caused by insect or animal bites such as snakes.
4. **Ergonomic risks**: overexertion due to workers lifting and carrying the spray pump on their backs, and from adopting certain postures for extended periods during spraying. This has musculoskeletal consequences.
5. **Chemical risks**: risks during the preparation, use and handling of the herbicide applied by workers.

The most commonly used herbicides are Forza 200SL, Glyphader, Alion 500SC and are categorised in a toxicity class that ranges from ‘IV Practically non-toxic’ to ‘II moderately toxic’ III. This indicates that specific control measures must be taken.

The following table shows the substances most commonly used, their active component and their toxicity category:

Commercial Name	Active Ingredient	WHO Toxicity Category /Class	Re-Entry Period
ALION 500SC	Indaziflam 500gr/L		
FORZA 200 SL	Gluphosinate-200 g/L	U	4 h
GLYPHADER	Glyphosate-360 g/l	III	6h

Risk identification: **if swallowed**, herbicides can cause abdominal pains or a burning sensation.

If herbicides come into **contact with the skin**, they can cause irritation, redness, a rash on the exposed area or a temporary skin sensitisation (allergy). They can also cause severe eye damage, causing irritation, redness, pain and blurred vision.

Inhaling the fumes or mist can be fatal or cause respiratory tract (bronchial) irritation. In case of prolonged or repeated exposure, other organs may be damaged. Fumes are also very toxic and have long-term negative effects on aquatic life.

1.2 PRECAUTIONS FOR RISK CONTROL

1. In order to manage the risk of (ground-level) **falls**, before beginning their work, workers should identify all possible scenarios in which a fall could take place. For example, they should take into consideration the terrain (slippery, muddy or uneven), and the condition of the soles of their shoes (smooth, with no grip). For each identified scenario, the worker should implement every possible measure available to manage risk.

2. To manage **heat stress**, the worker should carry out the task in the early hours of the morning whenever possible and wear a cotton shirt to avoid sunlight exposure.

3. As for **biological risk** management, plantation workers must use long-sleeved shirts and apply insect repellent before starting the day's work to avoid insect bites.

4. In order to manage **ergonomic risks**, which can lead to musculoskeletal damage, workers must know the techniques for correctly lifting heavy loads when lifting the spray pumps. This must be done by following the instructions on how to lift loads correctly.

For more information read ANNEX 2: HOW TO LIFT LOADS CORRECTLY.

1.2.1 For chemical risks

Firstly, read ANNEX 1: WORKING WITH CHEMICALS

1. During the application of herbicides

    - Application must be done when the ambient temperature is below 31°C, relative humidity is at 60% and wind speed is between 3.5 and 6.5 kilometres per hour. The plantation managers can check the meteorological conditions in real time using the site weather station and confirm this with the National Meteorological department.

    - Apply the product perpendicularly to the wind.

2. Personal protective equipment

    - Eye protection: wear air-tight **safety goggles** with indirect ventilation that prevent splashes.

    - Protection for hands: wear **chemical-resistant gloves** (made out of PVC, neoprene or nitrile). Gloves must be replaced if they show any sign of wear-and-tear or are visibly torn.

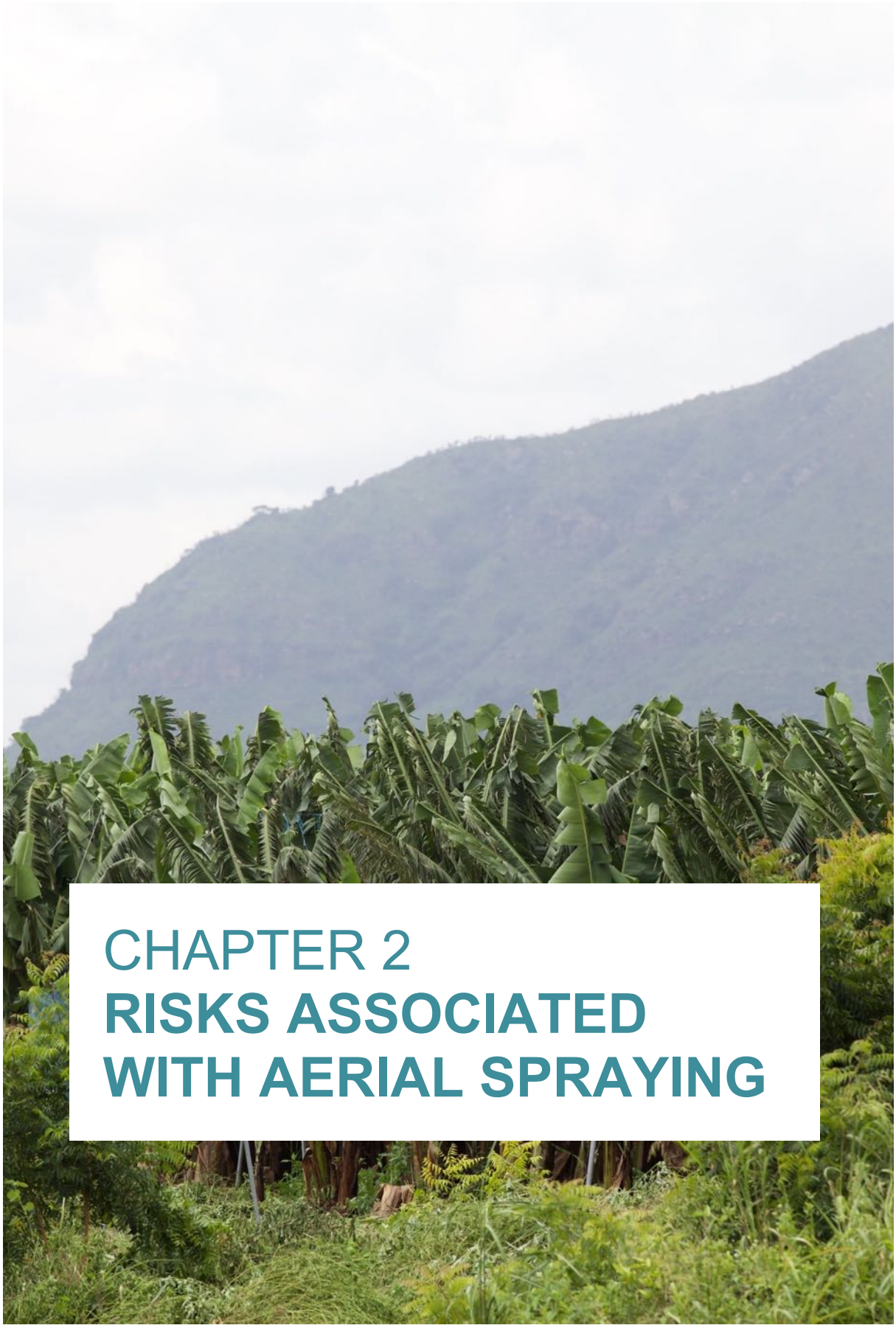
    - Skin protection: wear rubber or neoprene **boots**. Wear a **long-sleeved shirt** with **long trousers** that are waterproof or made of cotton, and a waterproof hood or head cover, or chemical-resistant clothes, depending the length of contact, and filtration and seepage characteristics of the chemical. **Trousers must hang outside the boots.**

    - Respiratory protection: Wear a **protective mask** with a NIOSH-approved cartridge or filter (with activated carbon) for protection against organic fumes. **Filters must be replaced** according to the expiration date, when breathing becomes difficult or when the chemical's smell is detected during use. The expiration date is printed on the filter.

Read the information contained in the following annexes carefully to ensure the proper implementation of the precautions:

- **Annex 1** Working with chemicals
- **Annex 2** How to lift loads properly

If you wish to distribute a photocopy of these precautions to workers, it is essential to also distribute a photocopy of the aforementioned annexes.



CHAPTER 2
RISKS ASSOCIATED WITH AERIAL SPRAYING

Black Sigatoka is a fungus disease of the banana plant caused by Mycosphaerella fijiensis. The disease causes leaves to die and reduces the production and quality of the banana fruit considerably.

Aerial spraying is used to control black sigatoka when it is needed to cover large areas of a plantation. This task is done by an agricultural aircraft.

On a relatively small plantation, ground spraying is done with a mechanical pump carried on the back.

The most commonly used pesticides to combat diseases include: Volley 88OL, Callis 400, Dizole 250EC, COMET+, Psycho, Difference250EC, Refernce250EC, some of which are known to be carcinogenic, namely, Triazoles fungicides including the active ingredients Propiconazole, Fenbuconazole, Tebuconazole and Expoxiconazole. These range from categories “III Slightly toxic” to “II moderately toxic”.

The risks associated with this task are more critical because spraying can harm plantation workers, the aerial spraying company workers, such as pilots and loaders, and nearby communities.

Pilots are not only exposed to chemical poisoning, but also to aircraft accidents due to technical failures, power lines, trees and birds. They are also exposed to physical risks such as noise, excess light and ergonomic issues as a result of the seated position during the flight.

Firstly, read ANNEX 1: WORKING WITH CHEMICALS

2.1 PRECAUTIONS FOR RISK CONTROL FOR PLANTATION WORKERS

1. The plantation management must forbid workers to enter the premises before the specified time required and safety period has passed.

2. It must be clear to workers that accessing or entering production areas during aerial spraying is prohibited. They should not enter the area for any reason.

3. The plantation management must place warning signs or posters with pictograms or other safety measures in access areas to stop unauthorised people from entering sprayed areas.

Personal protective equipment

If a worker needs to access the plantation to assess the quality of the spraying after it has been done, he / she must do so wearing protective equipment. The equipment should consist of a long-sleeved shirt, long trousers, rubber boots, indirect ventilation (air-tight) safety goggles, NIOSH-approved air-purifying respirator with approved filters for protection against organic fumes (with activated carbon), nitrile gloves, waterproofs and protective headgear.

2.2 PRECAUTIONS FOR RISK CONTROL FOR AERIAL SPRAYING STAFF

Pilots must comply with government regulations in relation to spraying, such as: not flying more than four metres above the crops and not spraying within a 200-metre radius of schools, populated areas and sensitive zones such as rivers, water reservoirs, and fish or poultry farms, among other areas.

Personal protective equipment

- Pilots must wear a protective helmet with built-in headphones, flame-retardant overalls, air-purifying respirators with filters or cartridges approved for use against organic fumes (with activated carbon), flight gloves, indirect-ventilation (air-tight) goggles and appropriate footwear.

- During spraying, the pilot must wear an air-purifying respirator.

- Pilots and loaders must change the filters or cartridges according to the manufacturer's expiration date, when breathing becomes difficult or when the chemical smell is detected during use.

- After spraying, the pilot must shower with plenty of soap and water and their clothes must be washed immediately after use.

- Before mixing the products, pilots and loaders (people who mix the chemical products) must check the product label and Material Safety Data Sheet (MSDS) to ensure its correct use and control measures in case of an accident.

- Loaders (people who mix the chemicals) must wear a work overall (long-sleeve one-piece), protective headgear, rubber or nitrile gloves, NIOSH-approved air-purifying respirator for protection against organic fumes (with activated carbon), ear protectors, safety goggles and rubber boots.

Read the information contained in the following annexes carefully to ensure the proper implementation of the precautions:

Annex 1 Working with chemicals

If you wish to distribute a photocopy of the precautions to workers, it is essential to also distribute a photocopy of the aforementioned annexes.

List of fungicides for aerial spraying of sigatoka disease

Commercial Name	Active Ingredient	WHO Toxicity Category /Class	Re-Entry Period
VOLLEY 88 OL	Fenpropimorphe + Pyraclostrobine 375g/l	III	6h
DIZOLE 250 EC	Difenoconazole 125g/l	U	4h
CALLIS 400	Methyl thiophanate	U	4h
COMET+	Fenpropimorphe + Pyraclostrobine 375g/l	III	6h
DIFFERENCE 250 EC	Difenoconazole	U	
PSYCHO	Difenoconazole	U	
REFERENCE 250EC	Propiconazole		
PROZOLE	Propiconazole		
BANKO D	Chlorotalonil		
RAINMANCOZ 80 WP	Mancozeb		
IVORY 80 WP	Mancozeb		
Folicure 250EW	Tebuconazole		
Impulse 800EC	Spiroxamine		
Curenox 50WP	Copper Oxychloride		
Cuprofix 30	Metallic copper		
Cosmoplus 90	sordidine		
Banole 60	Paraffin oil		
MAXPAR BSO 75	Mineral Oil	N/A	N/A

CHAPTER 3
RISKS IN THE USE OF COVERS BLUE AND WHITE PLASTIC SLEEVES (BAGGERS' WORK)

To protect the fruit from ravages caused by insects (aphids, thrips, beetles and moths), covers are used (bags or sheaths), and blue and white plastic sleeves are used to cover the fruits. This process is known as bagging. These blue and white sleeves are NOT treated with any insecticides. They are used in their neutral state to provide protection and regulate sun ray to the fruit.

3.1 RISK IDENTIFICATION

Workers face the following risks whilst bagging:

1. **Mechanical risks**: ground-level falls due to the state of the ground workers walk across and falls from a height whilst the worker is on a ladder, and if the ladder is in poor condition or is badly positioned.

2. **Physical risks**: heat stress due to the high temperatures on plantations.

3. **Biological risks**: caused by insect or animal bites such as snakes.

4. **Ergonomic risks**: as a result of overexertion due to workers having to handle the ladder and other work tools.

5. **Chemical risks**: workers are exposed to chemical risks when they handle the bags or strips impregnated with insecticide.

The most commonly used insecticide is Chlorpyrifos which is an organophosphate categorised in a toxicity class 'II moderately toxic'. This indicates that very specific control measures must be taken. Persistent health effects follow either acute poisoning or long-term exposure to low doses, and exposure during pregnancy can affect the development of foetuses, babies and children.

3.2 PRECAUTIONS FOR RISK CONTROL

1. In order to manage the risk of (ground-level) **falls**, before beginning their work, workers should assess all tasks that need to be completed to identify the scenarios in which a risk is present. For example, they should take into consideration the terrain or the ladder. For each identified scenario, workers should implement the measures available to manage risks, namely following the applicable procedures and taking the specified precautions.

2. To manage **heat stress**, workers should carry out their work in the early hours of the morning whenever possible and wear a cotton shirt to avoid sunlight exposure.

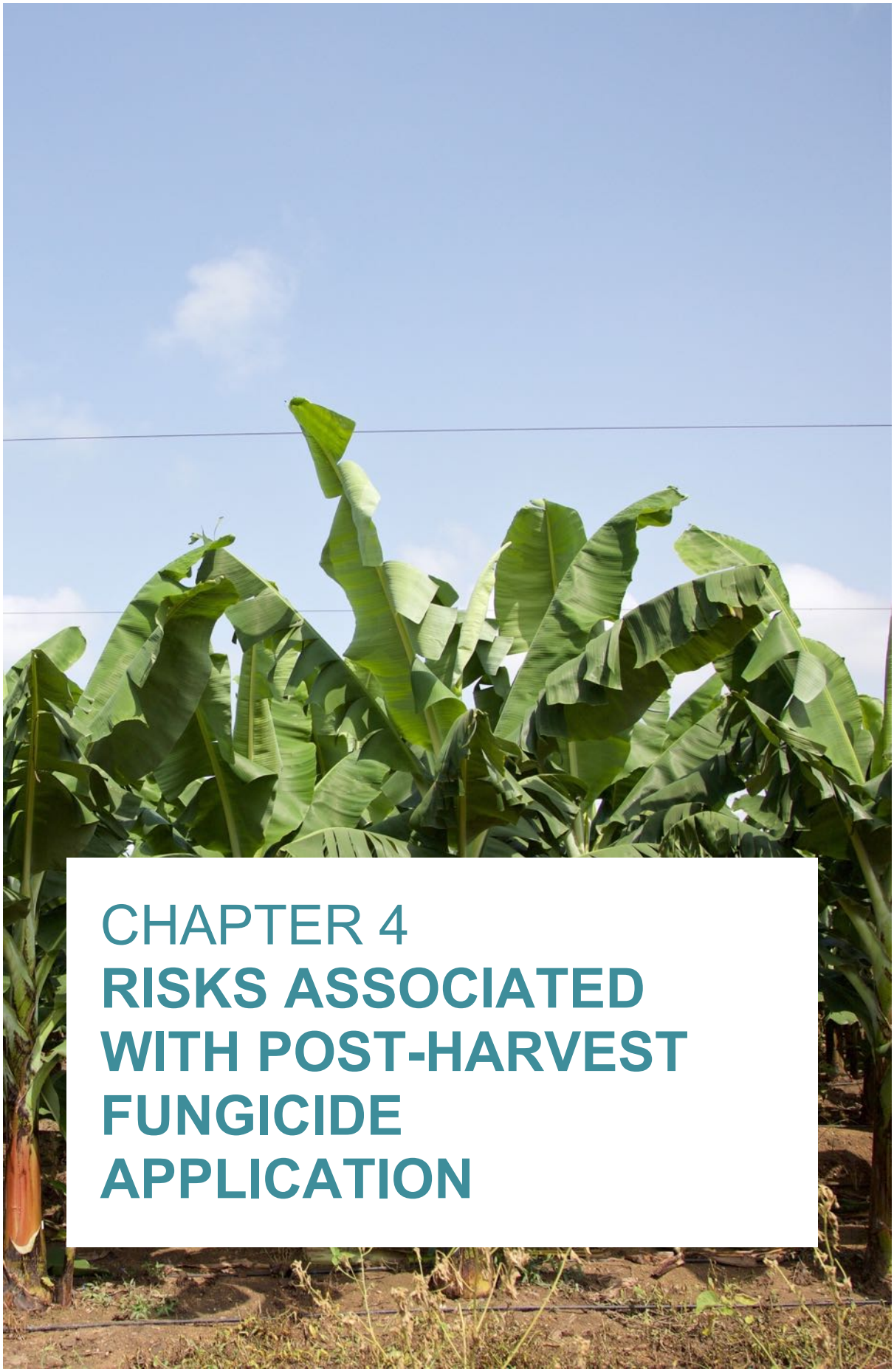
3. As for **biological risks**, to avoid insect bites, plantation workers are advised to wear long-sleeved shirts and apply insect repellent to protect their skin before starting the day's work.

4. In order to manage **ergonomic risks**, which can lead to musculoskeletal damage, whilst workers carry the ladder, they must do so by holding it from the centre and avoid letting it swing. Workers must be aware of the body mechanics to help with lifting and carrying loads correctly.

For more information, read:

ANNEX 2: HOW TO LIFT LOADS CORRECTLY

ANNEX 3: HOW TO USE LADDERS CORRECTLY



CHAPTER 4
RISKS ASSOCIATED WITH POST-HARVEST FUNGICIDE APPLICATION

Post-harvest fungicide application involves the use of approved fungicide or organic products to treat the cut edge (crown) of the banana cluster to prevent it from rotting during storage and transport. Post-harvest products are applied using either knapsack sprayers, brush and cups or in some cases both. This activity is undertaken whilst in a static standing position.

For more information, read ANNEX 2: HOW TO LIFT LOADS CORRECTLY.

4.1 RISK IDENTIFICATION

During post-harvest products use, workers face the following risks:

1. **Biological risks**: caused by insect or animal bites such as snakes.
2. **Ergonomic risks**: due to being in a static standing position. This has cardiovascular and musculoskeletal consequences on the lower limbs if the movements are not performed properly.
3. **Chemical risks**: risks during the preparation, use and handling of the fungicide to prevent the crown from rotting.

Post-harvest products list

Commercial Name	Active Ingredient
Cumora 500gr/l	Boscalid 500gr/l
Bankit 250gr/l	Azoxystrobine 250/l
Enerpack 4SL	Giberelline 4SL/4%
RYZUP	Giberelline 40SG
Citric Acid(organic)	Citric Acid
Control*Phite* PH	Polyhydroxic Carboxilix Acid
ZYTRON(organic)	Citrus seed extract
Ortiva/ Abound	Azoxystrobine 250/l
Fairland2408	Organosilicon

4.2 PRECAUTIONS FOR RISK CONTROL

1. In the case of **biological risks**, to avoid insect bites workers must use long-sleeved shirts for work.
2. In order to manage **ergonomic risks** when lifting the spray pumps, which can lead to musculoskeletal damage, workers must know the appropriate body movements (body mechanics) to use in order to lift loads correctly. In addition, due to workers' static standing position during the working period, they should have active breaks to change position and, therefore, help blood circulation to their lower limbs to avoid circulatory problems.

CHAPTER 5
RISKS ASSOCIATED WITH PREPARING THE SOIL

The soil needs to be prepared before sowing crops and it involves a range of activities, covered here. These activities are performed in the open air and can be carried out using mechanical equipment such as a tractor or hand tools.

The tools required for these activities are those used when loosening soil: picks, spades, hoes, and rakes.

When these activities are carried out using equipment such as tractors, workers are in a sedentary position during the whole working day. When the ground is prepared with hand tools, workers exert all their strength to perform this activity.

5.1 RISK IDENTIFICATION

When an activity is performed using **mechanical equipment**, workers face the following risks:

1. **Mechanical risks**: noises and vibrations produced by the running engine, which could affect a worker's hearing system and joints, respectively.
2. **Physical risks**:
    - Excessive natural light, exposure to the sun's UV rays.
    - Heat stress caused by the high temperatures due to exposure to the sun's rays.
3. **Biological risks**: caused by insect or animal bites such as snakes.
4. **Ergonomic risks**: due to the worker's seated position during the vehicle's operation. This can lead to musculoskeletal consequences in the lower back.
5. **Chemical risks**: due to dust generated whilst loosening the soil when it is completely dry.

When an activity is performed using **hand tools**, workers face the following risks:

1. **Mechanical risks**:
    - Ground-level falls due to the state and condition of the ground that workers walk across.
    - Knocks and shocks when using the tool, or the slipping of the tool itself. Cuts caused when using sharp tools and injuries to the eyes due to projecting particles from the ground or the tool.
2. **Physical risks**:
    - Excessive natural light, exposure to the sun's UV rays.
    - Heat stress caused by the high temperatures due to exposure to the sun's rays.
3. **Biological risks**: caused by insect or animal bites such as snakes.
4. **Ergonomic risks**: due to the effort expended by the worker when using tools to loosen and prepare the soil (with a spade, for example), and prolonged positions held when using the pick and spade, which can have musculoskeletal consequences.
5. **Chemical risks**: as a result of mineral fertilisers (granulated) that workers use before sowing.

5.2 PRECAUTIONS FOR RISK CONTROL

1. Workers must not use tools that are in poor condition (poorly maintained) or use them incorrectly, nor should they misuse them to perform any kind of operation.

2. Workers must not use tools other than what they are designed for or use them beyond their technical capacity.

3. Workers must not carry cutting tools and sharp tools without their sheaths.

4. In the workspace, work tools, equipment and materials should be well stored in order to prevent any risk of tripping over them.

5. Workers should keep all work tools and accessories clean and use them only if they are in good condition.

6. If the tasks entail exposure to sun rays, tasks should be organised so that they are performed early in the day.

7. Areas of the plantation where there are holes, boreholes, pits and deep ditches should be marked as they constitute a risk if someone were to fall into them.

8. If conditions allow, workers should protect themselves from the sun's rays and stay in the shade.

Personal hygiene is very important: skin irritations that are put down to work can be due to a person's lack of cleanliness during and after work.

Personal protective equipment

- For their personal protection, workers should use work clothes consisting of long trousers, a long-sleeved shirt, and leather gloves for heavy-duty tasks (as used by engineers), a wide-brimmed hat, and boots.

- To avoid insect bites, workers must wear long-sleeved shirts for work.

- If workers are responsible for applying fertilisers, they must also wear rubber or nitrile gloves to protect themselves.

CHAPTER 6
RISKS ASSOCIATED WITH PLANTING AND REPLANTING WORK

Banana plants are reproduced asexually, traditionally by using stumps, shoots or offshoots which grow out of the bottom of the plant. Vegetative (asexual) reproduction can also be done by multiplying plant tissue or meristem culture, in a laboratory or in vitro in nurseries.

The risks that workers are exposed to depend on the method of planting and replanting activities used, given that different tools are used depending on the case.

6.1 RISK IDENTIFICATION

Regardless of the reproduction process followed at the plantation, for planting and replanting activities, the worker uses hand tools, in a static, lowered position, during the working day.

The risks that workers are exposed to can be summarised as follows:

1. **Mechanical risks**:
    - Ground-level falls due to the conditions and the state of the ground workers walk across.
    - Cuts caused when using sharp tools and injuries to the eyes due to projecting particles from the ground or the tool.
2. **Physical risks**:
    - Excessive natural light, exposure to the sun's UV rays.
    - Heat stress caused by the high temperatures due to exposure to the sun's rays.
3. **Biological risks**: caused by insect or animal bites such as snakes, spiders and scorpions that are found in the plants that need to be planted. If workers have previously fertilised the soil using organic matter, they have therefore also exposed themselves to fungi and bacteria that are found in compost.
4. **Ergonomic risks**: due to the effort expended by workers when using tools to loosen and prepare the soil (with a spade, for example), and the prolonged working positions, such as squatting or similar, there can be musculoskeletal consequences.
5. **Chemical risks**: as a result of mineral fertilisers (granulated) that workers use before planting and replanting activities.

6.2 PRECAUTIONS FOR RISK CONTROL

1. To avoid insect bites plantation workers must use long-sleeved shirts for work.
2. Workers must not use tools that are in poor condition (poorly maintained) or use them incorrectly, nor should they misuse them to perform any kind of operation.
3. Workers must not use tools other than what they are designed for, or use them beyond their technical capacity.
4. Workers must not carry cutting tools and sharp tools without their sheaths.
5. In the workspace, work tools, equipment and materials should be well stored in order to prevent any risk of tripping over them.
6. Workers should keep all work tools and accessories clean and use them only if they are in good condition.
7. If the tasks entail exposure to sun rays, tasks should be organised so that they are performed early in the day.

8. Areas of the plantation where there are holes, boreholes, pits and deep ditches should be marked as they constitute a risk if someone were to fall into them.

9. If conditions allow, workers should protect themselves from the sun's rays and stay in the shade.

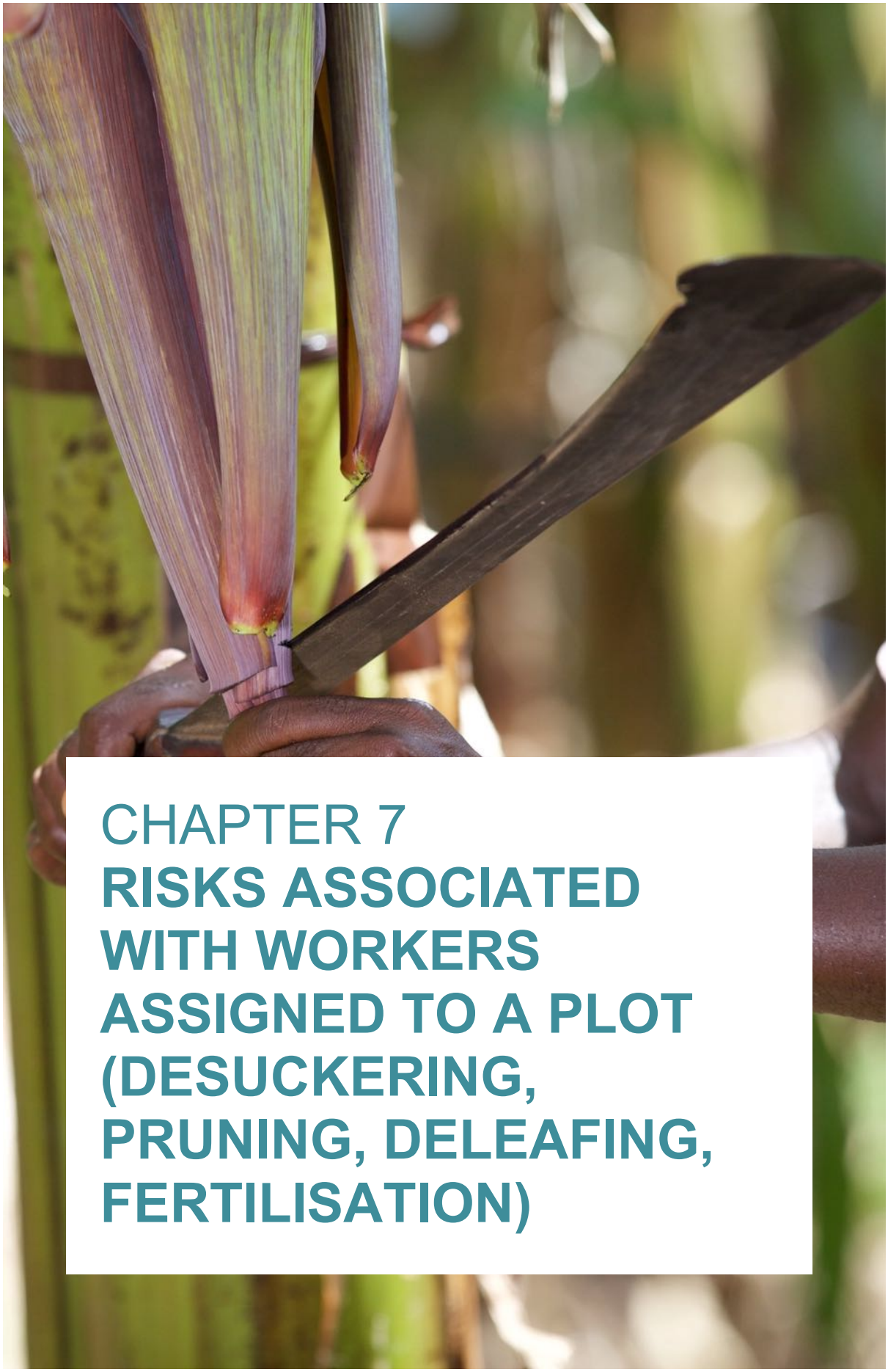
Personal hygiene is very important: skin irritations that are put down to work can be due to a person's lack of cleanliness during and after work.

6.2.1 In the event of chemical risks

Personal protective equipment

- For their personal protection, workers should use work clothes consisting of long trousers, a long-sleeved shirt, a wide-brimmed hat, and boots.

- Workers must use nitrile gloves as a means of protection if they apply granulated fertiliser if they are exposed to this risk.



CHAPTER 7
RISKS ASSOCIATED WITH WORKERS ASSIGNED TO A PLOT (DESUCKERING, PRUNING, DELEAFING, FERTILISATION)

Workers assigned to a plot, have several jobs or tasks to carry out at various times. Workers use cutting tools to perform these tasks throughout the plantation and they are in charge of tasks that can be summarised as follows:

- **Desuckering**: this operation consists of removing the offshoot (female plants) from the mother plant before they become too developed, in order to avoid them competing with the mother plant, by capturing the light, water and nutrients.
- **Pruning**: this consists of removing the dried shoots and pods that cover the pseudo stem.
- **Deleafing**: this activity involves removing the leaves that are dried and green but broken, folded or affected by sigatoka, in order to avoid the aggressive development of the disease.
- **Fertilisation**: this takes place when the plant needs to be fed. This is done using compost and organic matter (manure) or matter made from minerals (granulated).

7.1 RISK IDENTIFICATION

Regardless of the tasks workers carry out, they must handle hand tools, whilst moving around the whole plantation, alternating between seated, squatting, standing or inclined positions during the working day.

The risks that workers are exposed to are:

1. **Mechanical risks**:
   - Ground-level falls due to the conditions and the state of the ground the workers walk across.
   - Cuts caused by using sharp tools.
2. **Physical risks**:
   - Excessive natural light, exposure to the sun's UV rays.
   - Heat stress caused by the high temperatures under the sun.
3. **Biological risks**: caused by insect or animal bites such as snakes, spiders and scorpions that are found in the plants that need to be planted. If workers have previously fertilised the soil using organic matter, they have therefore also exposed themselves to fungi and bacteria that are found in compost.
4. **Ergonomic risks**: due to the effort expended by workers when using the tools, which can lead to sprains. There are also the risks associated with prolonged working positions, such as squatting or similar, which can have musculoskeletal consequences in the lower back.
5. **Chemical risks**: as a result of handling fertilisers used to strengthen plants.

7.2 PRECAUTIONS FOR RISK CONTROL

1. To avoid insect bites plantation workers must use long-sleeved shirts for work.
2. Workers must not use tools that are in poor condition (poorly maintained) or use them incorrectly, nor should they misuse them to perform any kind of operation.
3. Workers must not use tools other than what they are designed for, or use them beyond their technical capacity.

4. Workers must not carry cutting tools and sharp tools without their sheaths.

5. In the workspace, work tools, equipment and materials should be well stored in order to prevent any risk of tripping over them.

6. Workers should keep all work tools and accessories clean and use them only if they are in good condition.

7. Areas of the plantation where there are holes, boreholes, pits and deep ditches must be marked as they constitute a risk if someone were to fall into them.

8. If conditions allow, workers should protect themselves from the sun's rays and stay in the shade.

Personal hygiene is very important: skin irritations that are experienced can be due to a person's lack of cleanliness during and after work.

Personal protective equipment

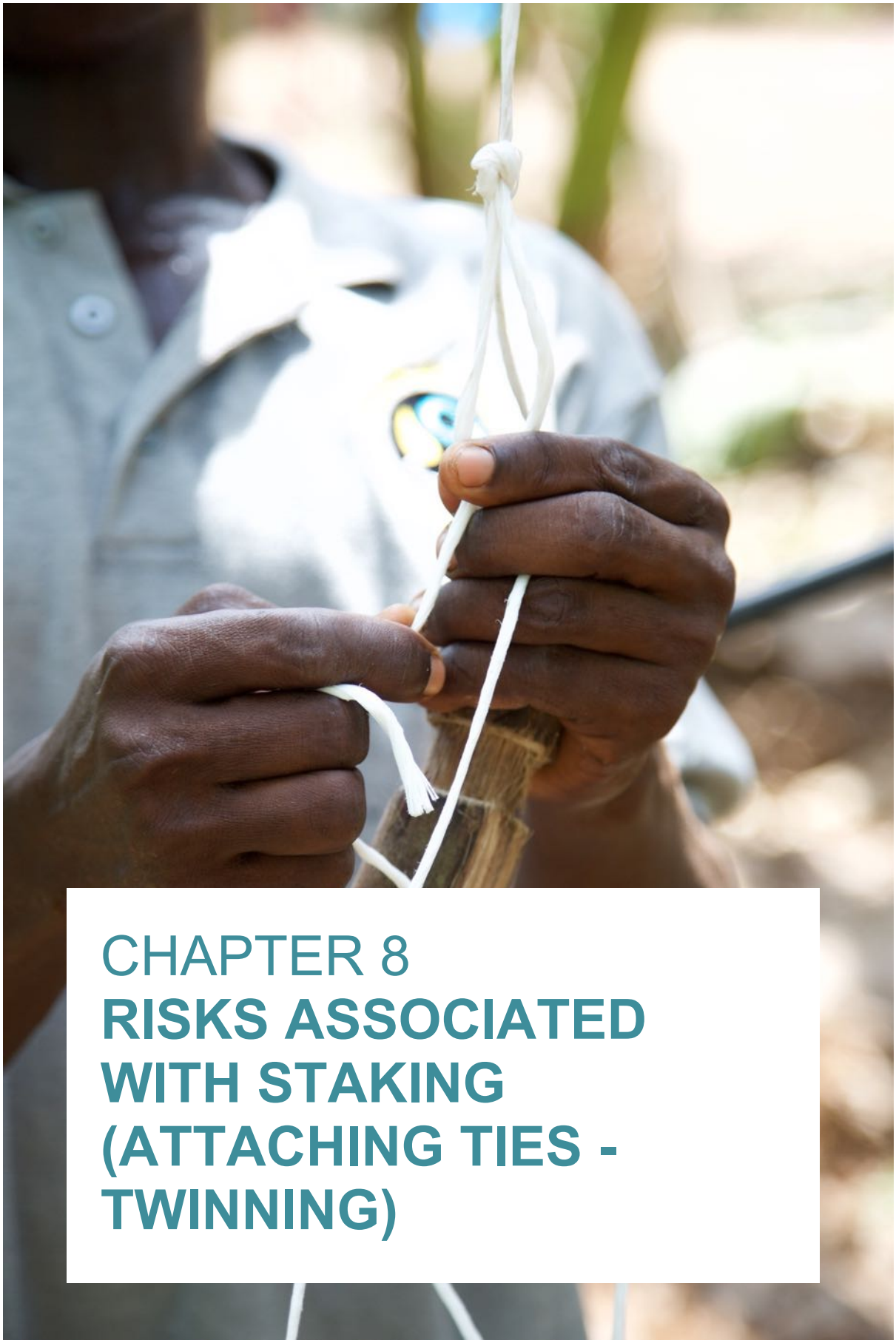
- For their personal protection, workers should use work clothes consisting of long trousers, a long-sleeved shirt, a wide-brimmed hat, and boots.

- Workers must use nitrile gloves as a means of protection if they apply granulated fertiliser if they are exposed to the risk.

Read the information contained in the following annexes carefully to ensure the proper implementation of the precautions:

Annex 1 Working with chemicals

If you wish to distribute a photocopy of the precautions to workers, it is essential to also distribute a photocopy of the aforementioned annexes.



CHAPTER 8
RISKS ASSOCIATED WITH STAKING (ATTACHING TIES - TWINNING)

Twinning is the process of providing support for banana plants to prevent bunches from falling, resulting from the weight of the bunch or wind strength.

There are two types of twinning: overhead and ground.

Overhead twining is done by strapping the twine in the neck of the bunch to an overhead cable.

Ground twinning is done by strapping a twine in the neck of the bunch to the neighboring plant.

The risks that workers are exposed to depend on the type of rope used as a holding aid, because the tools differ according to each type of rope.

8.1 RISK IDENTIFICATION

Regardless of the type of twinning done, the risks that workers are exposed to can be summarised as follows:

1. **Mechanical risks**:
    - Ground-level falls due to the conditions and the state of the ground the workers walk across.
    - Falls from the ladder when tightening is performed from above.
    - Cuts caused by using sharp tools when a rope needs to be cut down with a tool.
2. **Physical risks**:
    - Excessive natural light, exposure to the sun's UV rays.
    - Heat stress caused by the high temperatures due to exposure to the sun's rays.
3. **Biological risks**: caused by insect or animal bites such as snakes, spiders and scorpions that are found in the plants.
4. **Ergonomic risks**: due to the extra effort expended by workers when carrying the ladder to carry out twinning from above, this can entail musculoskeletal consequences in the lower back.

8.2 PRECAUTIONS FOR RISK CONTROL

1. To avoid insect bites plantation workers must use long-sleeved shirts for work.
2. Workers must not use tools that are in poor condition (poorly maintained) or use them incorrectly, nor should they misuse them to perform any kind of operation.
3. Workers must not use tools other than what they are designed for, or use them beyond their technical capacity.
4. Workers must not carry cutting tools and sharp tools without their sheaths.
5. Workers should keep all work tools and accessories clean and use them only if they are in good condition.
6. If workers use a ladder to carry out twinning from above, they must know the appropriate techniques for correctly lifting ladders.
7. Personal hygiene is very important: skin irritations that are experienced can be due to a person's lack of cleanliness during and after work.

For further information, read ANNEX 2: HOW TO USE LADDERS CORRECTLY

Personal protective equipment

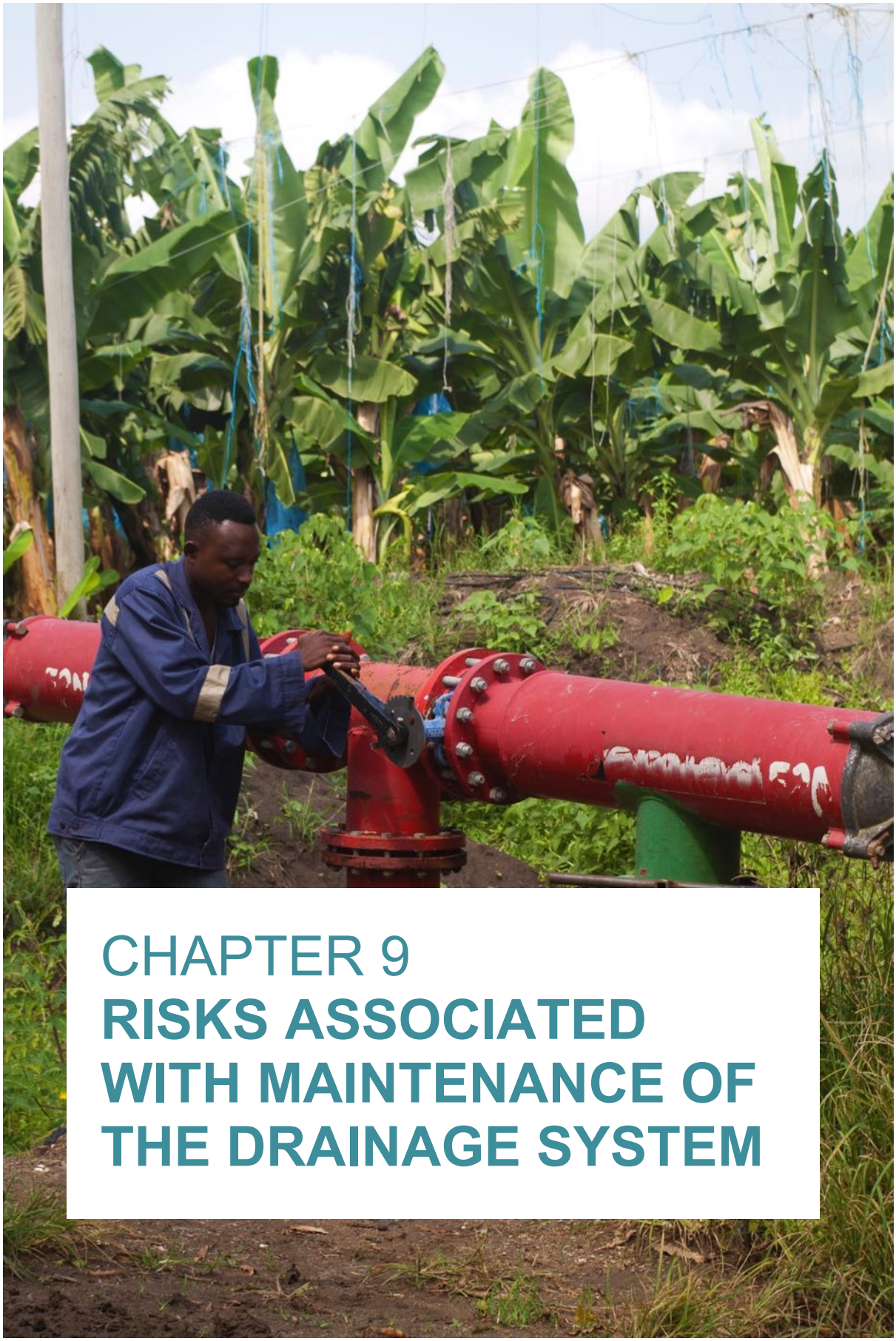
- For their personal protection, workers should use work clothes consisting of long trousers, a long-sleeved shirt, a hat and boots.

- Workers must use gloves for light work when attaching ties with a pick, but they must be sufficiently robust so as to prevent perforations and splinters from the stalks.

Read the information contained in the following annexes carefully to ensure the proper implementation of the precautions:

Annex 2 How to use ladders correctly

If you wish to distribute a photocopy of the precautions to workers, it is essential to also distribute a photocopy of the aforementioned annexes.



CHAPTER 9
RISKS ASSOCIATED WITH MAINTENANCE OF THE DRAINAGE SYSTEM

This task is carried out on the primary, secondary and tertiary drains so that they are maintained in good condition to drain away water, particularly in rainy season.

Workers use different tools, including spades, pickaxes and machetes and in certain cases agricultural machinery, such as mechanical diggers.

The risks that workers are exposed to depend on the tools or equipment used.

9.1 RISK IDENTIFICATION

Regardless of the method used to maintain canals and drains, the risks that workers are exposed to are as follows:

1. **Mechanical risks**:
    - Ground-level falls due to the conditions and the state of the ground the workers walk across.
    - Cuts caused by using sharp tools. Projecting particles are also possible (cf. cutting weeds).
2. **Physical risks**:
    - Excessive natural light, exposure to the sun's UV rays.
    - Heat stress caused by the high temperatures due to exposure to the sun's rays.
    - If the activities are carried out with diggers, workers are also exposed to the noises and vibrations produced whilst operating this large equipment.
3. **Biological risks**: caused by insect and/or animal bites, such as snakes.
4. **Ergonomic risks**: due to the effort expended by workers when using the tools, which can lead to sprains when remaining in a static semi-squatting position. This can have musculoskeletal consequences in the lower back. If workers use machines, the complications can occur due being in a static sedentary position and exposure to vibrations.

9.2 PRECAUTIONS FOR RISK CONTROL

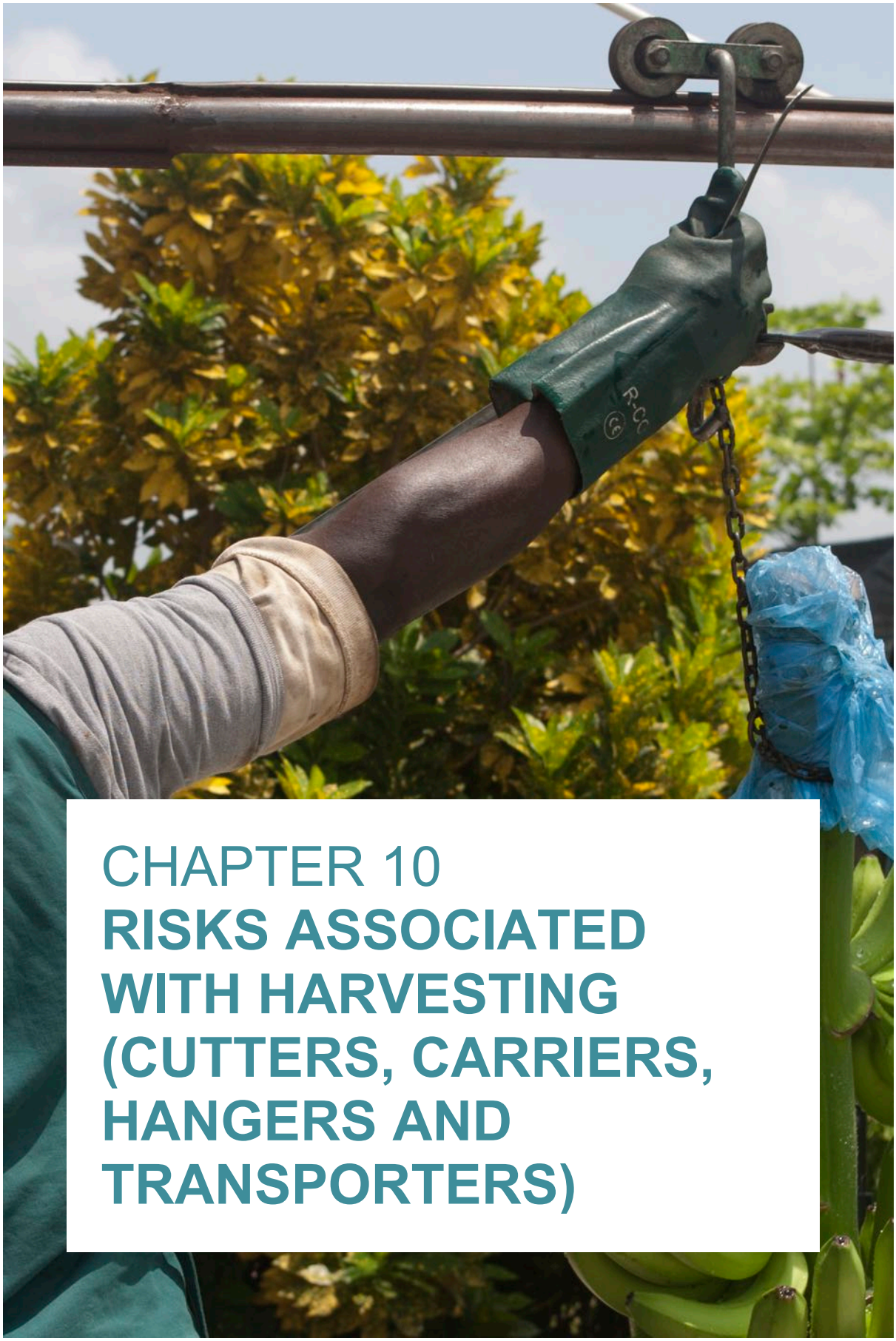
1. To avoid insect bites plantation workers must use long-sleeved shirts for work.
2. Workers must not use tools that are in poor condition (poorly maintained) or use them incorrectly, nor should they misuse them to perform any kind of operation.
3. Workers must not use tools other than what they are designed for, or use them beyond their technical capacity.
4. Workers must not carry cutting tools or sharp tools without their sheaths.
5. Workers should keep all work tools and accessories clean and use them only if they are in good condition.
6. Areas of the plantation where there are holes, boreholes, pits and deep ditches must be marked as they constitute a risk if someone were to fall into them.
7. If the tasks entail exposure to sun rays, tasks should be organised so that they are performed early in the day.
8. If conditions allow, workers should protect themselves from the sun's rays and stay in the shade.

Personal hygiene is very important: skin irritations that are experienced can be due to a person's lack of cleanliness during and after work.

Personal Protective Equipment

- For their personal protection, workers should use work clothes consisting of long trousers, a long-sleeved shirt, light gloves, boots and a wide-brimmed hat.

- Workers must use hearing protection when using motorised equipment. The seat must be fitted with an anti-vibration mechanism.



CHAPTER 10
RISKS ASSOCIATED WITH HARVESTING (CUTTERS, CARRIERS, HANGERS AND TRANSPORTERS)

Banana Harvesting is the process of gathering ready banana bunches by defined standards from the fields to the processing facility.

The banana harvesting operation is segmented into four roles namely:
Cutting, Carrying, Hanging, and Transporting to the packing station
Each of these roles is performed by a worker (i.e. cutter, carrier, hanger, and transporter).

CUTTERS: are responsible for cutting the banana bunch that is ready and pre-calibrated to be cut.With a machete or a dedicated sharp tool, they make a V-shaped cut above the top third of the pseudostem then lower the bunch onto the pillow/padding on the carrier's shoulder and cut the bunch.

CARRIERS: receive the bunch once it has been cut onto the pillow/padding and then carry it to the cableway for hanging. The carrier may also be referred to as the 'backer'.

HANGERS: collect the bunch from the carrier, from the side of the pseudostem, and hangs it with a chain hooked to the cable by a trolley.
These tasks are repeated until a row of bunches defined by plantation standards (e.g. 80 bunches) are gathered and subsequently transported.

TRANSPORTER: A mechanically operated aero tractor or donkey pulls the bunches using the cableway, to the receiving and processing station.

10.1 RISK IDENTIFICATION

The risks are specific to each stage of the harvesting process and can be summarised as follows:

1. **Mechanical risks**:
    - Falls due to the conditions and the state of the ground workers walk across.
    - Cuts that the cutter and backer can suffer whilst using sharp tools.
    - The worker responsible for the (bunches) cableway can suffer cuts and injuries if the cableway derails.
2. **Physical risks**:
    - Excessive natural light, exposure to the sun's UV rays.
    - Heat stress caused by the high temperatures under the sun.
3. **Biological risks**: caused by insect and/or animal bites, such as snakes and spiders hidden in the plants and bunches.
4. **Ergonomic risks**: due to the effort expended by the cutter when using the cutting tool, the backer must balance the bunch when transporting it to the cableway, and the worker responsible for the cableway train must pull the row of bunches to bring it back to the processing station. All these tasks can cause musculoskeletal complications, sprains and hernias of the lumbar vertebrae.
5. **Chemical risks**: these can occur in cases where workers handle covers and treated materials, if there is toxic residue.

10.2 PRECAUTIONS FOR RISK CONTROL

1. To avoid insect bites plantation workers must use long-sleeved shirts and apply insect repellent before starting the day's work.
2. Areas of the plantation where there are holes, boreholes, pits and deep ditches must be identified and marked as they constitute a risk if someone were to fall into them.

3. The cutter must not use tools that are in poor condition (poorly sharpened) or use them incorrectly, when cutting at the stem of the banana plant.

4. The backer must quickly inspect the bunch before receiving it to check if there are insects present or other factors that could affect them.

5. If conditions allow, workers should protect themselves from the sun's rays and stay in the shade.

6. Workers must not carry cutting tools and sharp tools without their sheaths.

7. Workers should keep all work tools and accessories clean, well sharpened, and use them only if they are in good condition.

8. Workers responsible for the cableway and backers should have basic knowledge about body mechanics.

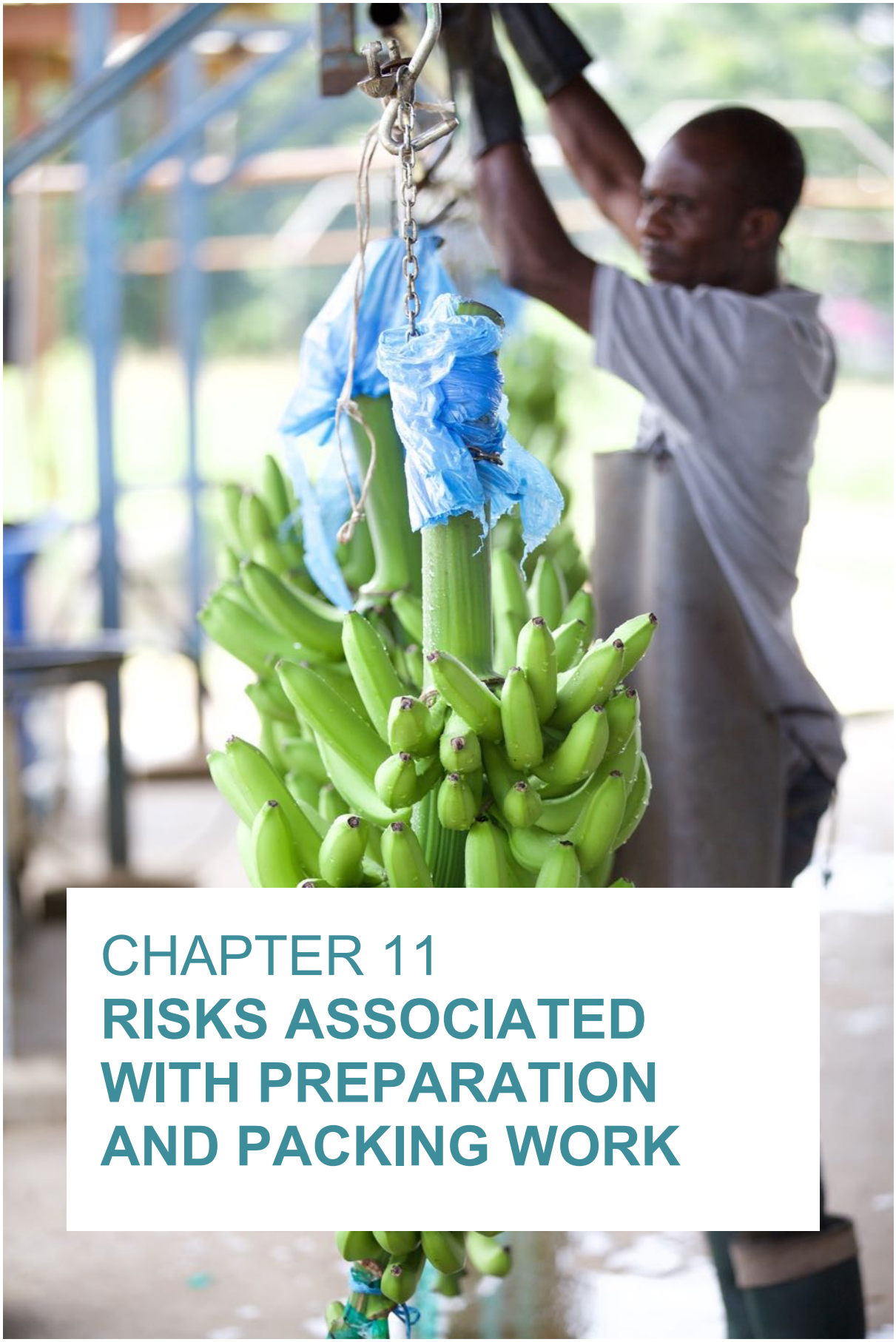
Personal hygiene is very important: skin irritations that are put down to work can be due to a person's lack of cleanliness during and after work.

For more information read ANNEX 2: HOW TO LIFT LOADS CORRECTLY.

Personal protective equipment

- For their personal protection, workers should use work clothes consisting of, long trousers, a long-sleeved shirt, a cap or hat, and boots. Latex or nitrile gloves must also be worn in case of contact with treated covers.

- In addition, workers responsible for the cableway installation and maintenance must wear a helmet to protect their head and wear gloves fitting for their work.



CHAPTER 11
RISKS ASSOCIATED WITH PREPARATION AND PACKING WORK

When the bunches arrive at the pack house, a worker is assigned to remove the cover on the pseudo stem or the bunch, the worker also removes the foam pads before prewashing the bunch.

11.1 RISK IDENTIFICATION

When preparing the bunches for processing and packing, workers are exposed to the following risks:

1. **Mechanical risks**: falls due to the condition and the state of the ground the workers walk across.

2. **Physical risks**: excessive natural light, exposure to the sun's UV rays and stress caused by the high temperatures under the sun.

3. **Biological risks**: caused by insect or animal bites, such as snakes or other, that can be found in the bunches.

4. **Ergonomic risks**: due to the effort expended when pulling the bunches from the shadow net to the de-handing area. This can lead to musculoskeletal problems, such as sprains and lumbar hernias.

5. **Chemical risks**: these can occur in cases where workers handle plastic sleeves that are treated prior to use, in which case there can be chemical residue on these plastics.

11.2 PRECAUTIONS FOR RISK CONTROL

1. To avoid insect bites plantation workers must use long-sleeved shirts for work.

2. Workers must quickly inspect the bunch before handling it in order to check whether there are insects or other factors that could harm them.

3. If plastic sheets were pre-treated, pregnant and breastfeeding workers should not carry out this task.

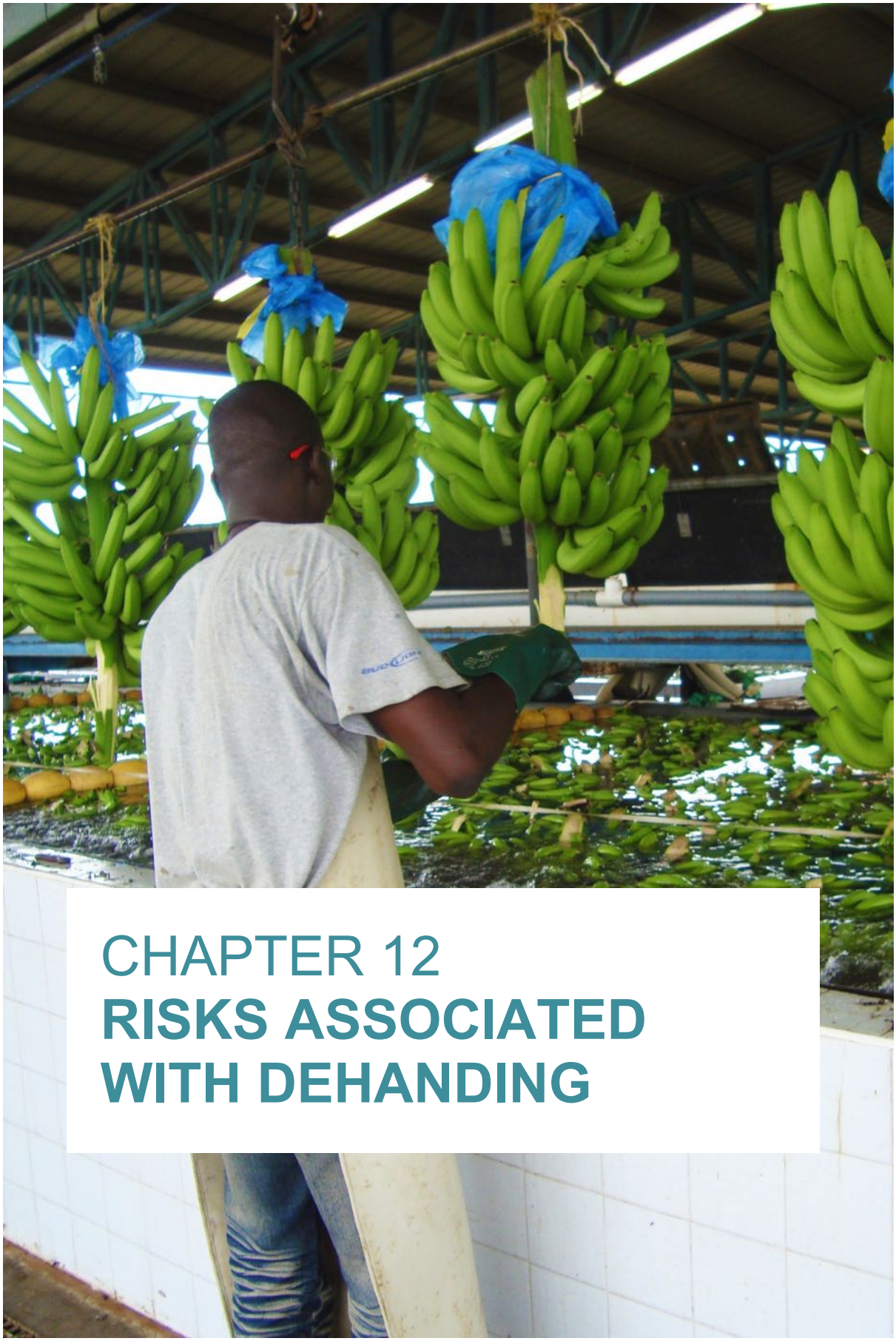
4. If conditions allow, workers should protect themselves from the sun's rays and stay in the shade.

5. Workers should be aware of body mechanics.

Personal hygiene is very important: skin irritations that are experienced can be due to a person's lack of cleanliness during and after work.

Personal protective equipment

- For their personal protection, workers must use work clothes consisting of long trousers, a long-sleeved shirt, a cap or a wide-brimmed hat, a latex or nitrile apron, latex or nitrile gloves and wellington boots.



CHAPTER 12
RISKS ASSOCIATED WITH DEHANDING

Dehanding involves the cutting, or removal of the hands (clusters) of fruits from the shaft into the washing tanks to allow the latex to flow out of the fruit.

Dehanding, is carried out using a well sharpened dehanding knife or a defined tool.

12.1 RISK IDENTIFICATION

Workers carry out this task whilst standing or resting on the washing tanks and they are exposed to the following risks:

1. **Biological risks**: caused by insect or animal bites, such as bites from snakes or other creatures hiding between the bananahands, or wasps and bees in the surrounding environment.

2. **Ergonomic risks**: due to being in a static standing position throughout the day and due to the hand movements for handling the knife and cutting. This can lead to joint problems in the hands and arms. It can also have cardiovascular consequences due to working whilst standing.

3. **Physical risks**: cuts to the hands due to using a cutting tool and possible cuts and injuries caused if the cableway derails.

12.2 PRECAUTIONS FOR RISK CONTROL

1. To avoid insect bites plantation workers must use long-sleeved shirts for work.
2. Workers must not use tools that are in poor condition (poorly maintained) or use them incorrectly, nor should they misuse them to perform any kind of cut.

3. Workers must not leave their tools and knives in an inappropriate place.

4. Workers must not carry cutting tools and sharp tools without their sheaths, and even less so in their pockets.

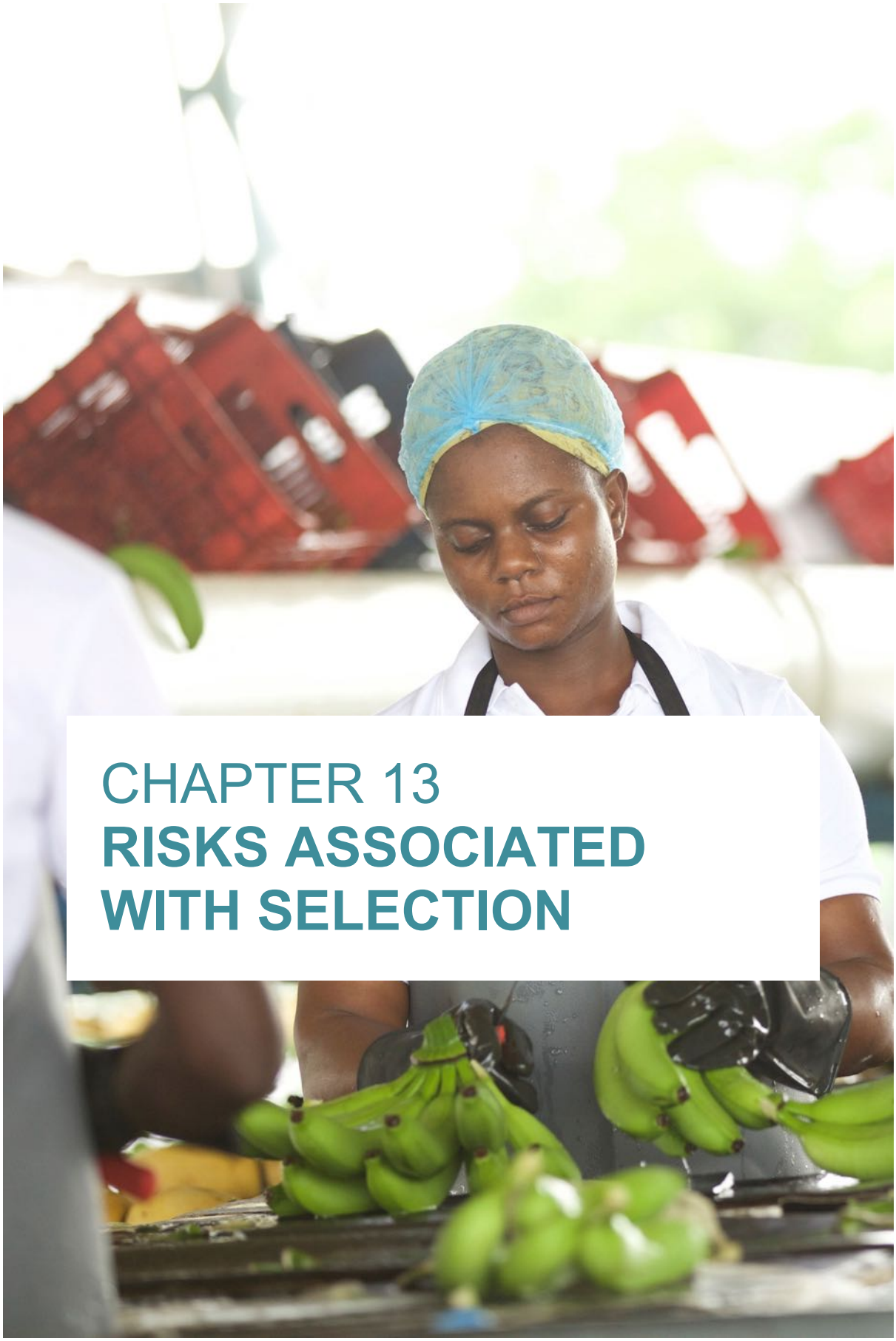
5. Workers should keep all work tools and accessories clean, well sharpened, and use them only if they are in good condition.

Personal hygiene is very important: skin irritations that are experienced can be due to a person's lack of cleanliness during and after work.

Personal protective equipment

- Workers must use work clothes consisting of trousers, a short-sleeved shirt, and rubber boots.

- For their personal protection, workers must use rubber or nitrile gloves and a rubber apron.



CHAPTER 13
RISKS ASSOCIATED WITH SELECTION

Selection involves trimming the crowns of banana clusters and sorting them into various grades according to size and quality specifications. Selection is done using a selection knife that must be well sharpened. Workers perform selection activity in a standing position.

The selected clusters are placed in a washing tank.

13.1 RISK IDENTIFICATION

Workers perform this work in a standing position, and they are exposed to the following risks:

1. **Biological risks**: caused by insect or animal bites, such as bees, that are in the environment, or germs that can grow in the tank where the fruit are placed.

2. **Ergonomic risks**: due to being in a static standing position while performing this activity and due to the hand movements for handling the knife and cutting. This can lead to joint problems in the hands and arms. It can also have cardiovascular consequences for the lower limbs, due to working whilst standing.

3. **Physical risks**: cuts to the hands due to using cutting tools. In addition, due to the humid environment, workers should protect themselves by using plastic boots and a waterproof apron.

13.2 PRECAUTIONS FOR RISK CONTROL

1. To avoid insect bites plantation workers must use long-sleeved shirts for work.

2. Workers must not use tools that are in poor condition (poorly maintained) or use them incorrectly, nor should they misuse them to perform any kind of cut.

3. Workers must not leave their tools and knives in an inappropriate place.

4. The workstation must be equipped with a footrest so that workers can change their position and to allow blood to flow to the lower limbs, which prevents circulatory problems.

5. Workers must not carry cutting tools and sharp tools without their sheaths, and even less so in their pockets.

6. The plantation is responsible for keeping all work tools and accessories clean, well sharpened, and give them to workers in good condition.

Personal hygiene is very important: skin irritations that are experienced can be due to a person's lack of cleanliness during and after work.

Personal protective equipment

- Workers must use work clothes consisting of trousers, a short-sleeved shirt, and rubber boots.

- For their personal protection, workers must use gloves that protect against cuts or rubber gloves to protect the hand that is not holding the tool, and rubber apron.

CHAPTER 14
RISKS ASSOCIATED WITH CLASSIFICATION, WEIGHING, LABELLING AND PACKAGING

This involves three distinct tasks, but they pose nearly the same risks.

For classification, workers stand throughout the working period. They collect the banana hands (clusters) from the washing tank, and depending on the quality of the fruit required (thickness, size and general appearance), they then place them on trays on the conveyor (which uses rollers or is motorized), and then push them into spraying chambers for post-harvest treatment.

Workers who weigh the fruit hold the trays containing the banana clusters and check the weight to ensure that the fruit meets the required standards. Subsequently, they are returned to the conveyor.

The trays are pushed along the conveyor to the packing area. Workers who are responsible for packing the fruits take the clusters from each tray and put them in a card-board box with a polypropylene plastic liner. As with the classification and weighing activities, packing is also undertaken in a standing position.

14.1 RISK IDENTIFICATION

Workers perform this work whilst standing, facing the conveyor during the whole post-harvesting process. They are exposed to the following risks:

1. **Biological risks**: caused by insect or animal bites, such as bees, that are in the environment, or germs that can grow on the fruit.

2. **Ergonomic risks**: due to being in a static standing position in performing the activities and due to repetitive hand movements when handling the fruit. This can lead to joint problems in the hands and arms. It can also have cardiovascular consequences on the lower limbs, due to working whilst standing.

3. **Chemical risks**: due to inhalation of vapours from fungicide sprays by the workers who are weighing the fruit after it exits the spraying chamber.

14.2 PRECAUTIONS FOR RISK CONTROL

1. The workers must take regular active breaks to allow blood to flow to the lower limbs, which prevents circulatory problems.

2. The plantation is responsible for keeping all work tools and accessories clean, well sharpened, and giving them to workers in good condition.

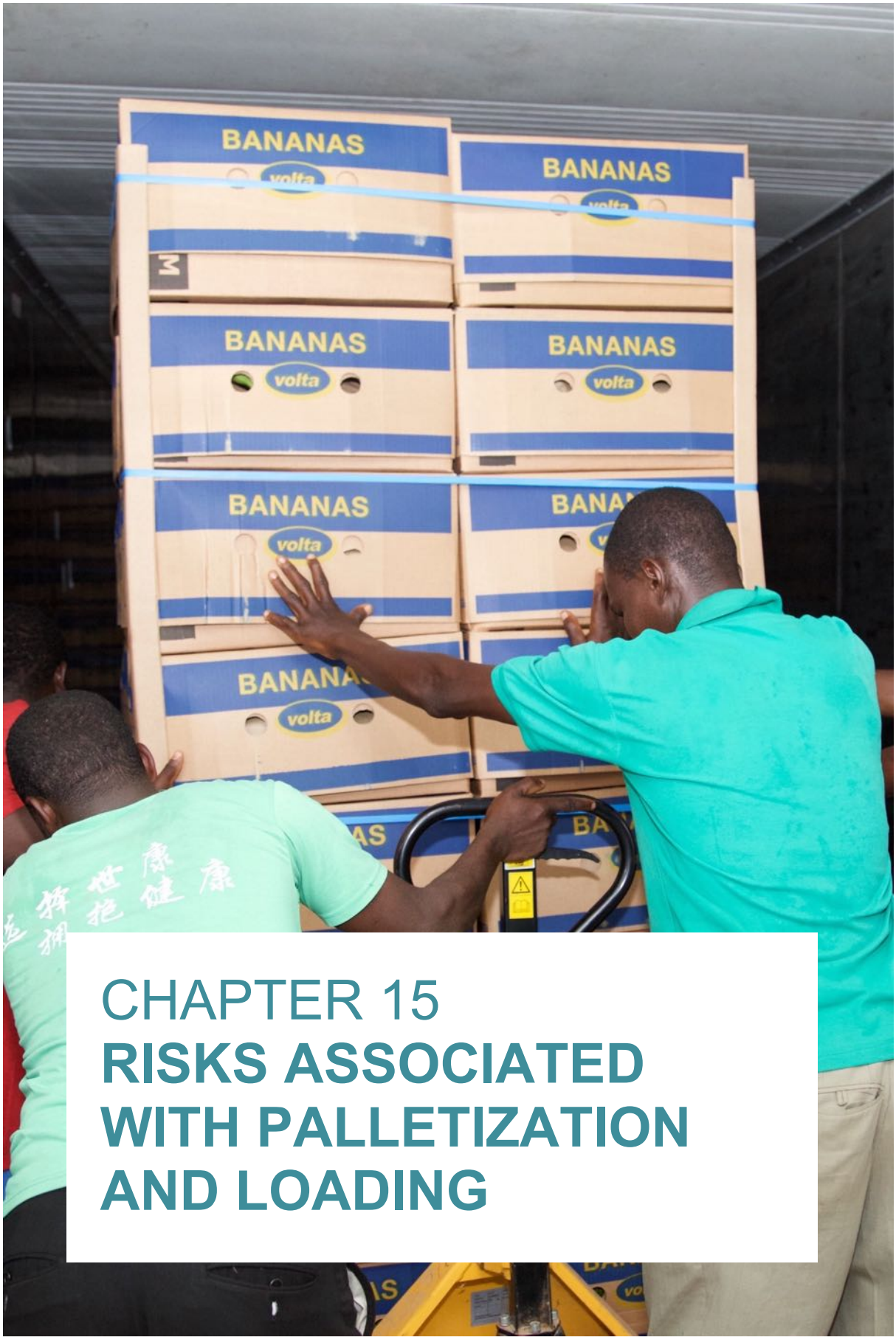
3. Personal hygiene is very important: skin irritations that are experienced can be due to a person’s lack of cleanliness during and after work.

4. The workers responsible for weighing the trays must be provided with appropriate respirators.

Personal protective equipment

- Workers must use work clothes consisting of trousers, a short-sleeved shirt, and rubber boots.

- For their personal protection, workers must use rubber or nitrile gloves, and a cap or net over their head. In addition, for selection work, workers must wear waterproof apron.



CHAPTER 15
RISKS ASSOCIATED WITH PALLETIZATION AND LOADING

Palletisation involves stacking together boxes of banana fruits to form a standardized pallet for loading onto trucks and subsequently shipping. The activity involves manual lifting and repetitive body movement especially bending up and down. It also involves the use of strapping equipment/tools to fasten and secure the boxes.

This work requires a good understanding of load lifting and body movements.

15.1 RISK IDENTIFICATION

This activity takes place on an embarkation platform and workers are therefore exposed to the following risks:

1. **Physical risks**: cuts and injuries to the hands caused by the tool used to cut the straps that secure the boxes. Workers also risk getting trapped and banging themselves whilst handling the boxes and falling from the platform, when safety ramps are not used.

2. **Biological risks**: caused by bites, from insects such as bees, that are in the environment.

3. **Ergonomic risks**: due to handling and moving the loads throughout the whole working day, which can lead to musculoskeletal consequences in the lower back.

15.2 PRECAUTIONS FOR RISK CONTROL

1. When loading the pallet in the vehicle, this must be done by several people so that the effort is split between them and the ergonomic risks are reduced for each person.

2. Before loading and moving loads, workers must know the principles of body mechanics.

3. When the platform is sloped, a chain or a safety rail must be fitted and the transit areas must be delimited to prevent falls from a height.

For more information, read ANNEX 1: HOW TO LIFT LOADS CORRECTLY

Personal protective equipment

- Workers must use work clothes consisting of trousers, a short-sleeved shirt, and industrial footwear.

ANNEX 1: WORKING WITH CHEMICALS

16.1 TO MANAGE CHEMICAL RISKS DURING WORK:

1. Collect information by checking the MSDS (Material Safety Data Sheet).
2. Analyse the exposure, its duration, intensity, and absorption mechanisms.
3. Classify the problems, identify the relevant issues and the action plan to reduce them.
4. The employer must provide formal training for all workers on Managing Chemical Risks in the workplace.
5. The plantation must set out written procedures for working safely when handling and using substances and make these procedures known to workers.
6. Workers must follow the procedures for working safely when handling substances, set out by the plantation.

There is sufficient information in the Material Safety Data Sheet (MSDS) on how to handle chemicals, the necessary protective equipment and what to do in case of exposure. Therefore, generalising is not recommended.

16.2 BEFORE APPLICATION

1. Before application, the worker must **check the product label** and the **Material Safety Data Sheet (MSDS)** to be aware of its correct use and the control measures that should be taken in case of an accident.
2. **Check the spray pump or other equipmen**t.
3. **Wear the Personal Protective Equipment** recommended on the label of the product being applied (look at the pictograms described on the bottom part of the product label).

4. **Review and check that the protective equipment** is in good working order, for example, **change the filters/ cartridges according the expiry date**, which must be checked by the worker. They must also be changed when breathing becomes difficult or when the chemical smell is detected during use. The expiration date is normally printed on the filter/cartridge.

5. Bear in mind the colours of each **label which indicate the substance's toxicity degree**.

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:

MEASURES TO PROTECT THE ENVIRONMENT

- *Toxic to livestock*
- *Toxic to fish and shellfish*
- *Toxic to bees*
- *Toxic to wildlife.*

In this case, spraying must not be carried out on flat land, less than 20 metres from rivers and streams.

16.3 DURING APPLICATION

1. Do not eat, rub your eyes, or smoke whilst using chemical products.

2. Do not remove the recommended personal protective equipment whilst working.

3. If personal protective equipment must be removed, stop the task immediately.

Refer to the section which corresponds with the task for more specific information on identifying and preventing chemical risks during use, and for more information on the appropriate personal protective equipment for each task.

16.4 AFTER APPLICATION

1. For personal hygiene, after use, workers must shower with water and soap and their clothes must be washed immediately after wearing them at their place of work. Wash skin with water and soap before eating or drinking.

2. Contaminated clothes must not be brought back to workers' homes to be washed; this is to avoid all forms of contamination that could affect the rest of the family.

3. The triple rinse decontamination technique must be employed for contaminated containers and equipment.

Puncture the empty container to prevent it from being reused. Store and take to the collection centre.

16.5 IN CASE OF ACCIDENTAL SPILLAGE

1. In case of spillage, isolate the area, contain the spillage and clean up by applying absorbent materials (such as sawdust or dry soil). Use the spillage clean up kit.

2. Place the contaminated materials in labelled containers and dispose of according to the procedures established by the plantation.

3. Do not allow the wash water from the spill or leakage to come into contact with other sources of water or go into the sewage system.

4. Do not pollute the environment with rubbish or empty containers. If the product were to pollute canals, sewers or water courses, immediately inform the plantation management.

16.6 STORAGE

1. Keep the product in its original packaging, sealed and labelled.

2. Do not repackage the product in another container.

3. Do not store in homes.

4. Store the product in a safe place, away from food and feed. Store in an area that will ensure long-term preservation (dark, fresh, dry and well ventilated).

5. When transporting agrochemical products, **NEVER** mix with products meant for human or animal consumption.

16.7 FIRST AID

Symptoms of **poisoning**: if there is contact with a harmful substance, workers can feel weak, experience headaches, pains, tightness in the chest, excessive sweating, blurred vision, constricted

pupils which do not react to changes in light, excessive salivation, convulsions, nausea, vomiting, diarrhoea and stomach cramps.

The first aid that must be administered to the worker will depend on the way the substance entered the body:

1. If the product is **swallowed**, seek medical advice immediately from a doctor and show them the safety sheet or the product label. Never administer anything by mouth to an unconscious person. Do not induce vomiting if the product that has been swallowed is corrosive (as in the case of pesticides).

2. If the substance is **inhaled** and there is a risk of poisoning, the victim must be removed from the contamination zone, take the victim outside and keep the person in a resting position, on their side whilst monitoring their breathing.

An unconscious person who is still breathing can be positioned in the recovery position whilst seeking medical attention.

If breathing is irregular or stops, administer artificial respiration and consult a doctor immediately.

3. **If the substance comes in contact with the skin**, remove contaminated clothing immediately and wash the affected area of skin with sufficient water. If skin irritation persists, it is preferable to call a doctor. Contaminated clothes must be washed before reusing them.

4. **If the substance comes in contact with the eyes**, flush the eyes thoroughly with water for at least 15 minutes and wash under the eyelids and cover the affected eye before taking the patient to a doctor.

ANNEX 2: HOW TO LIFT LOADS PROPERLY

If workers must lift loads that are on the ground or almost at the same level as they are, they must use techniques to handle these loads. Loads are lifted by using the leg muscles rather than back muscles. The technique is as follows:

1. Separate your feet to ensure that you have a stable and balanced position to lift the load.
2. Bend your legs while keeping your back constantly straight and your chin tucked in. Do not bend your knees too much.
3. Do not turn your torso or adopt forced positions.
4. Hold the load firmly with two hands by holding it near your body. The best type of hold is the hook hold, but this depends on individual preferences, most importantly this must be performed without risk. When you need to change the hold, do this slowly and rest the load on something to reduce the risk.
5. Straighten yourself slowly, by extending your legs and keeping your back straight. You must not throw the load or move it quickly or suddenly.
6. Avoid turning or twisting your upper body at all costs. It is better to move your feet to position yourself correctly.

ANNEX 3: HOW TO USE LADDERS PROPERLY

If workers need to use a ladder, they must use the following precautions:

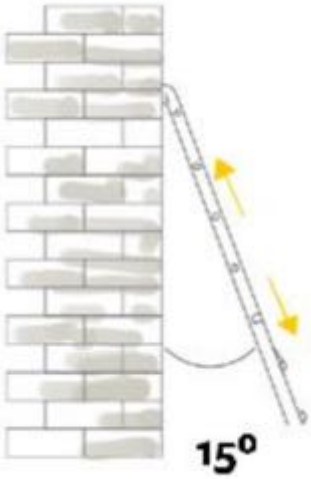
1. Examine the ladder BEFORE and AFTER work.
2. Do not carry ladders that weigh more than 25kg.
3. Do not carry the ladder horizontally, carry it with the front part tilted down.
4. Do not pivot or carry the ladder on your back.
5. Do not place the ladder on uneven surfaces.
6. Place the ladder on the floor so that the supports rest on something solid enough that it will not slide.

The surface must be flat, horizontal, strong and non-slippery. Not respecting these precautionary measures can lead to serious accidents.

The ladders must not be used for purposes other than those for which they were designed.

The ladders must be stored horizontally, attached to fixed mounts that are nailed to the wall.

Climbing and descending the ladder, and tasks from the ladders must be performed from the front of the ladder.



To correctly position the ladder, the ladder must be inclined approximately 15 to 20 degrees, and the space between the wall must be ¼ of the lon-gitude of the ladder.

ANNEX 4: ACTIVE PAUSE

“Active pauses” are recommended as the main activity for the prevention of ergonomic risks involved in each task or job in banana production.

The ILO’s encyclopaedia of Health and Safety recommends 5-minute breaks or changing your posture every hour. Under no circumstances should you keep the same working position for more than two hours, in this case an active pause of no less than 15 minutes is required.

These are some recommended movements to include in active breaks.

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.

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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