- MANAGEMENT OF ORGANISATIONS AND BUSINESS DEVELOPMENT -

COMMERCIAL AND FINANCIAL RISK MANAGEMENT

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COLEACP implements two intra-ACP Fit For Market programmes. The Fit For Market programme, co-funded between the EU and the AFD, now in its fifth year, aims to strengthen the competitiveness and sustainability of the African, Caribbean and Pacific (ACP) horticultural sector, primarily for the private sector.

Fit For Market SPS began in January 2019 and focuses on strengthening the sanitary and phytosanitary (SPS) systems of the ACP horticultural sector, primarily for the public sector.

Both programmes form part of the intra-ACP indicative programme (2014-2020) ofcooperation between the EU and the OACPS.

COMMERCIAL AND FINANCIAL RISK MANAGEMENT

DEAR TRAINERS, SOME ADVICE... 1

MATERIALS TO BE DELIVERED 7

TRAINING LEAFLET 11

LEAFLET 1: Risk identification processes and tools with taxonomy of risks 13

LEAFLET 2: Financial risks 17

LEAFLET 3: Risk diversion principles and strategies 21

LEAFLET 4: Risk management strategies 25

SUMMARY OF THE MANUAL 29

Dear trainers, some advice...

WHY A TRAINING NOTEBOOK?

The "Manuals" edited by COLEACP are valuable training materials. To write them, COLEACP approached the best experts in the field with the aim of producing a technical document for a large public on a given theme that brings together and structures most of the current knowledge. These manuals are intended to be as accurate and complete as possible, adapted to the ACP context and focused on cross-cutting issues in horticulture. But the objective was also to make them affordable, understandable and enjoyable to read by people who are not necessarily experts in the field. Nevertheless, it is a **considerable effort to** assimilate all the material collected in a short time.

The training manuals, which are aimed primarily at experts and the most qualified people, are **often voluminous and complex**, and **it was necessary to help the expert trainers to identify the most important elements to retain**, and to collect for them a list of "key messages" to be disseminated to learners during COLEACP training. This Training Notebook is therefore **a valuable and practical tool** that is at your disposal to **help you prepare your training on the** topic covered in this booklet.

WHAT DOES THE TRAINING NOTEBOOK CONTAIN?

Each Training Notebook contains:

1. The list of materials to be delivered to participants during the training

This is a summary table of contents of the Training Manual. This list allows you to have an **overview of** all the **main points that** will have to be covered during the training. The **order of the list does not necessarily have to be respected**, as the organization of the sequences is left to your discretion and may depend on other factors (e.g. availability of an expert trainer; timing of the training sequences; space reserved for exercises;...).

In some cases, **only certain aspects** (or chapters) of the **subject will be covered** (for example: if the participants have a perfect command of certain parts of the subject covered in the training, it is not necessary to present them in detail; a small reminder may be sufficient and effective to cover the rest).

However, when you cover part of the material (a chapter), the main 'points' listed for each chapter allow you to organize your presentations and animations in a logical and relevant way for the learner. **You are also advised to present all the points of a chapter**.

2. Training leaflets

A Training Notebook contains as many 'leaflets' as there are chapters in the training manual (only the "case study" is not included). Each sheet contains, on the one hand, the **Training objectives of** this part of the subject to be delivered (what the learner must be able to deliver...), and on the other hand, according to the structure of the table, the '**key messages**' (what the learner must absolutely have assimilated at the end of the training). It is therefore very important to ensure that **all messages are well distributed during the training sequence.**

3. A summary of the content of the manual

A summary of the manual has been included in this Training Notebook. Structured in the same way as the manual, it contains most of the content in 15-20 pages but remains much less complete (the summary does not include figures or case studies).

This summary is **primarily intended for the trainer**:

- *At the beginning of the mission*, when preparing its intervention sequences and supports, it allows you to quickly become familiar with all the content you will need to address and to visualize the links between the different parts of the material to be delivered.
- *During the training*, you can use this summary **to prepare your daily summaries**, reminding participants of the essential elements seen during a day (15-20 minute summary at the end of the day with answers to questions).
- *At the beginning or end of the training,* if you wish, you can give participants a copy of this summary. If the summary is distributed at the beginning of the training, it is advisable to ask participants to highlight the passages mentioned in your end-of-day summary (benchmarks in the subject).

The summary is also useful for learners at the end of the course: it will allow them to **remember in a** few minutes the **main part of the topic covered** (for example before an assessment of prior learning), whereas reading the entire manual could be tedious.

HOW CAN THIS TRAINING NOTEBOOK HELP YOU PREPARE YOUR TRAINING INTERVENTIONS?

The intention of making this Training Notebook available to you is to **help you prepare your training sequences and structure your program day by day**:

- **Consider that each leaflet represents a whole**: if there are for example 4 leaflets, it means that there must be 4 distinct parts in your training. Sufficient time must therefore be allowed in the programme for each of these 4 parts. Each part of the subject will also have to be subject to a competency assessment.
- **Then consider the training objectives**: this will help you to choose: (a) the most appropriate training method for achieving your objectives (e.g. should you plan exercises, simulations, group activities, etc.); (b) the method for evaluating the learning acquired in this part.
- **Finally, prepare your materials** (e.g. power point, flipcharts or animation sheets, evaluation questions) by ensuring that all key messages are included (have I planned to discuss all these points? have I planned an evaluation on each key point?).

DON'T FORGET TO COMPLETE THIS TRAINING NOTEBOOK!

This Training Notebook is made **for you**... It is **a tool that must live!**

At the end of each leaflet, a space was left free to add **your personal notes**: as a trainer you can note some thoughts on how to get messages across, note your questions, participants' reactions, points that raise difficulties... *i.e.* **capitalize on your experience as a trainer!**

You can also **note the types of media you have used.** This will be very useful when you have a new session to facilitate on the same theme. COLEACP provides you with many tools and materials, but do not hesitate to create others or use other existing materials that may be available... the **rule is to master each of the materials used in training** and to ensure that they help to convey key messages more effectively than in their absence.

Materials to be delivered

CHAPTER 1 – RISK IDENTIFICATION PROCESSES AND TOOLS WITH TAXONOMY OF RISKS

- Identifying risks
- Avoiding risks
- Transferring and hedging risks
- Taxonomy of risks

CHAPTER 2 – FINANCIAL RISKS

- Financial risks
- Counterparty risk
- Liquidity risk
- Foreign exchange risk
- Interest rate risk
- Conclusion

CHAPTER 3 – RISK DIVERSION PRINCIPLES AND STRATEGIES

- Risk diversification
- Customer diversification
- Market diversification
- Product diversification
- Contractual clauses

CHAPTER 4 – RISK MANAGEMENT STRATEGIES

- Risk management planning
- Operationalising the risk management plan

Training leaflet

LEAFLET 1: Risk identification processes and tools with taxonomy of risks . . . 13

LEAFLET 2: Financial risks . . . 17

LEAFLET 3: Risk diversion principles and strategies . . . 21

LEAFLET 4: Risk management strategies . . . 25

LEAFLET 1

Risk identification processes and tools with taxonomy of risks

TRAINING OBJECTIVES

At the end of this training sequence, the participant must be able to:

- Identify and assess risk and determine risk tolerance levels.
- Determine whether a political, financial, legal, environmental or commercial risk exists.
- Learn to assess the threat level of the risk/s identified.
- Gain an understanding that will guide in selecting and implementing appropriate methods for responding to risk.

KEY MESSAGES

1. Definition of risk, its importance and the different types of risk

- Risk is the exposure a business has to factors that threaten its ability to achieve its financial goals or lead it to fail.
- Risk may be internal or external to the business and need to be understood in order to apply the appropriate remedy.
- The five major types of risk that most organisations face are financial risk, operational risk, strategic risk, compliance risk and reputational risk.
- Risk assessment is the overall process of risk identification, risk analysis and risk evaluation. Risk assessment provides an understanding of risk, the causes, consequences, and the probabilities of occurrence.
- Risk management processes include the elements of communication and consultation, establishment of context, risk assessment (comprising risk identification, risk analysis and risk evaluation), risk treatment, and risk monitoring and review.

2. Understanding the different concepts and categories related to risk

- Financial risk is associated with financing and financial transactions. It refers to an organisation's ability to manage its debts ad financial leverage (liquidity, credit, interest and currency rate movements).
- Operational risk may arise from inadequate or fail procedures, systems, processes and policies.
- Strategic risk refers to risk that might arise from pursuing an unsuccessful business plan, poor business decisions or inadequate resource allocation.
- Compliance risk results from exposure to material loss from failure to act in accordance with industry laws, regulations, policies of best practice.
- Reputational risk has the potential to lead to loss resulting from damage to the organisation's reputation (loss of financial capital, loss of market share).
- Within these concepts, organisations are advised to establish a comprehensive common and stable set of risk categories, e.g. capital infrastructure, financial management, human resource management and the many classifications of commercial risk.

3. Understanding risk assessment and risk management in agriculture

- Risk in the context of the agricultural/horticultural sector may be defined as the uncertainties inherent in weather, yields, prices, Government policies, global markets and other factors that impact farming and cause wide swings in income.
- Assessing and managing risk brings together processes which involve communication and consultation, identifying the risk and evaluating the possible causes, consequences and treatments.
- It is important that stakeholders are consulted as part of the Risk Management process. Their interest, views, experience, and support will assist in identifying, analysing and evaluating the various risks.
- A clear register of the organization's assets helps to clarify potential vulnerabilities in each category so that there can be clearly defined roles, responsibilities and accountability.
- The identification, ranking and awareness of each risk will enable the business to develop a Risk Management Plan that is understood and owned by the team.

4. The various threats and how to avoid them

- Threats are anything which have the potential of causing harm to the organisation's assets, e.g. information, processes, and systems.
- Threats may be natural or man-made and could be accidental or deliberate. They may arise from within or from outside the organisation.
- Major threats to the fruit, vegetable and horticultural sectors include weather, disease, environmental factors, increased costs, price and market volatility and competition.
- Treatment must begin by identifying vulnerabilities such as susceptibility to disease, genetic sources that cause decrease in yields, price and market volatility, environmental issues and human error.
- Risk treatment involves developing a range of options for mitigating the risk some of which are avoidance, reduction, transfer and acceptance.
- The cost of managing the risk needs to be commensurate with the benefits obtained.

PERSONAL NOTES AND MEDIA USED

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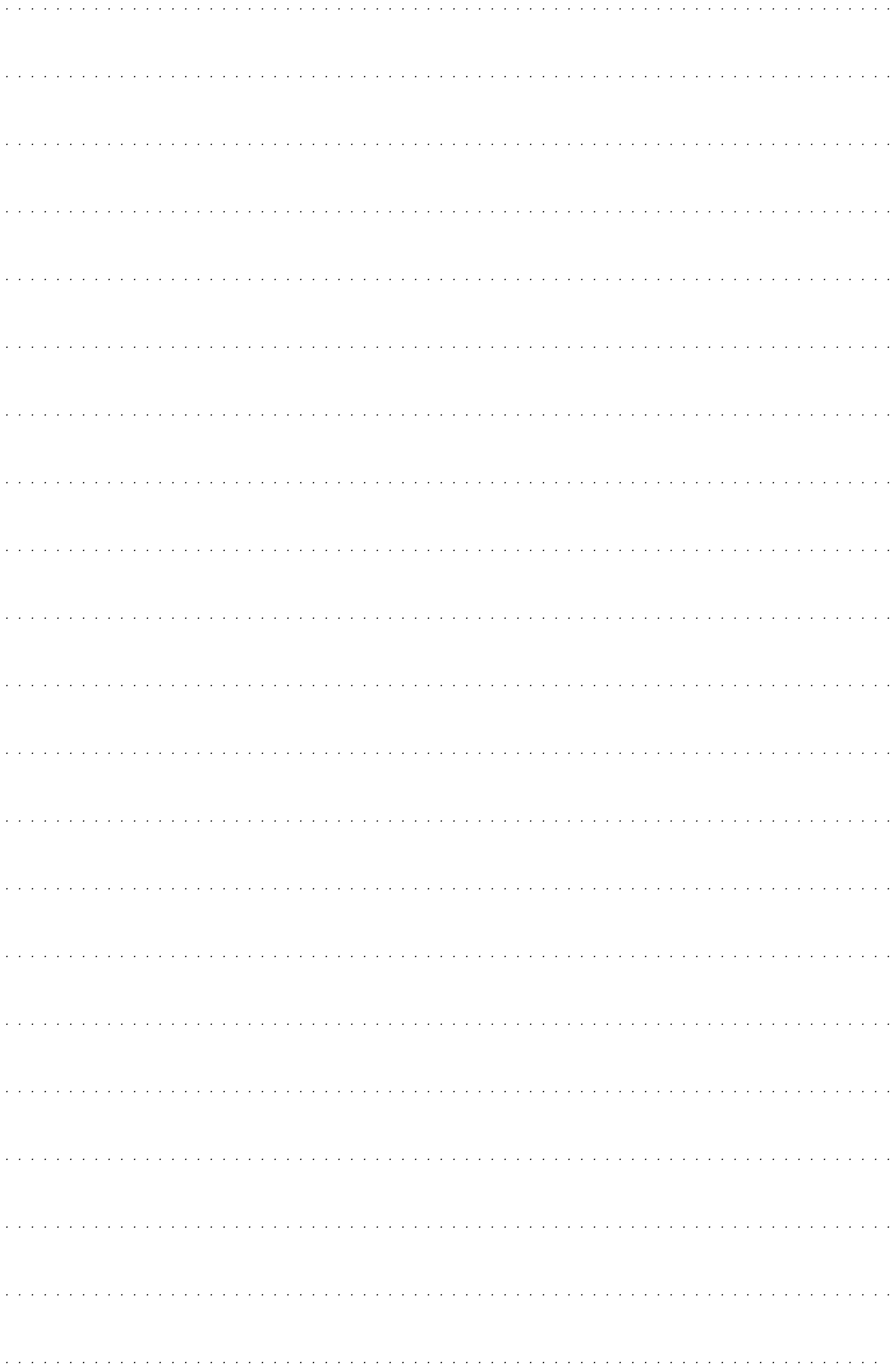


LEAFLET 2

Financial risks

TRAINING OBJECTIVES

At the end of this training sequence, the participant must be able to:

- Understand a range of financial risks to which their enterprises may be exposed.
- Recognise financial risk indicators.
- Understand financial risk assessment methods.
- Propose and institute measures for managing or mitigating financial risks.

KEY MESSAGES

1. Understanding the different concepts and categories related to financial risk

- Financial risk is the risk of losing money or valuable assets when trading or investing.
- There are four broad categories of financial risk: market risk, credit risk, liquidity risk and operational risk.
- Subsets of financial risk include counterparty risk, foreign exchange risk, interest rate risk, inflation risk, currency risk and legal risks.
- The standard market risk factors include equity risk, currency risk, inflation risk, commodity risk and interest rate risk.
- Currency risk or exchange rate risk refers to the potential for unpredictable gains or losses due to changes in the value of one currency in relation to another currency.
- Contingent risk may arise when bidding for foreign projects, negotiating contracts or handling direct foreign investments.

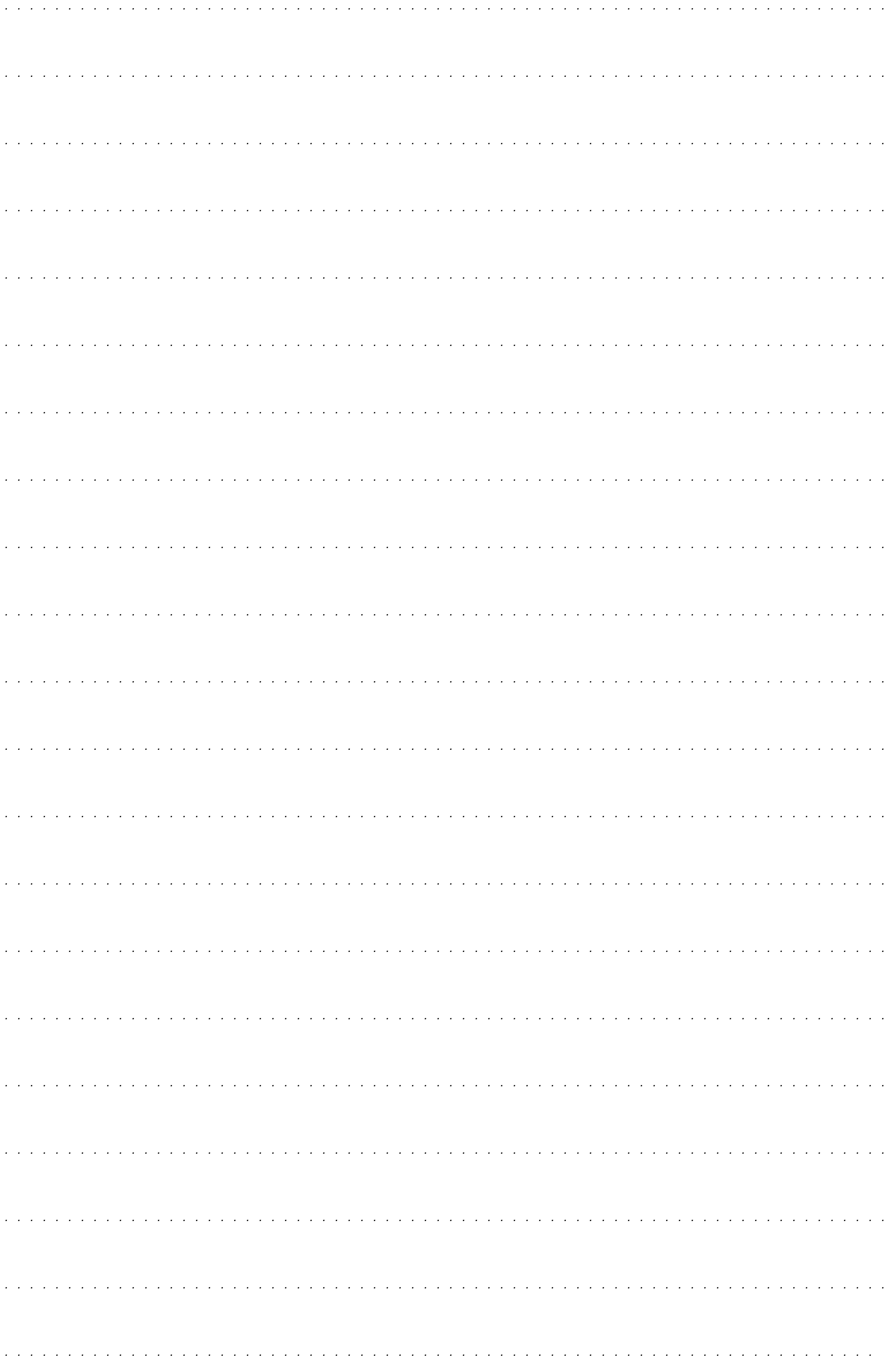
2. Understanding financial risk factors

- Most companies at some point will need to seek outside capital to grow.
- Financial risk is primarily a function of the relative amount of debt the firm uses to finance its assets.
- Events risk is primarily a function of the relative amount of debt the firm uses to finance its assets.
- Business owners must have an understanding of the dangers such risks pose and know what measures to take.
- Companies need to be vigilant and monitor fluctuations in external factors that affect their profitability, e.g. currency exchange rates, interest rates and unfavourable price movement.
- Most operational risks are incurred within and by the company and include such risks as fraud, poor work ethic, low productivity, failed financial model, risk of adverse legal claims.
- Companies need to be aware of potential vulnerabilities when entering into financial transactions such as loans, contracts and collaborations.

3. Understanding financial risk avoidance and mitigation

- Financial risks like all other risks cannot be totally eliminated but the harm they may cause can be mitigated.
- Companies should undertake a robust due diligence process before entering into transactions, contracts and collaborations with third parties.
- Risk can be mitigated by trading with multiple counterparties.
- Liquidity risk can be mitigated by diversifying the company's investment portfolio and avoided by minimizing debt exposure to only what is needed to cover short term debts.
- Economic risk is one of the most difficult risks to foresee and hence mitigating or formulating plans to control it is very difficult.
- Mitigation strategies for the range of financial risks may include diversifying investment options, purchasing insurance and hedging against exchange rate fluctuations, currency forward contracting and due diligence.
- A good place to start risk management is with the company's balance sheet in order to gain an indication of debt, liquidity, foreign exchange exposure, investment rate risk and commodity price vulnerability the company faces.

PERSONAL NOTES AND MEDIA USED



LEAFLET 3

Risk diversion principles and strategies

TRAINING OBJECTIVES

At the end of this training sequence, the participant must be able to:

- Understand the main principles of risk diversification.
- Understand that managing risk begins with identifying the most critical risks.
- Understand how risk diversification can lead to increase in market share and sales volume.
- Understand the different types of diversification strategies.

KEY MESSAGES

1. Definition and principles of risk diversification

- The main principle behind risk diversification is to spread the risk by adding products and services, locations, customers and markets.
- Diversification is often understood as the corporate strategy implemented by a company to increase the market share and sales volume by introducing new products in new markets which are distinct from its core business.
- Understanding of the advantages and disadvantages of diversification provides the basis for the examination of the types of diversification strategies that can be applied.
- Types of risk diversification include concentric diversification, horizontal diversification and vertical diversification.

2. Why and how to broaden the client base through customer diversification

- When a business relies on a single client for the majority of its income, its destiny is inextricably tied to that client. Thus diversification will hedge against over exposure.
- Overdependance on too few customers has significant commercial risk.
- Prior to finding new customers, obtaining information about them and are their needs is critical for decision-making.
- Government support for customer diversification is important for small businesses.

- Many countries have a government-funded trade promotion agency which often has an office in the overseas markets which is in direct contact with potential buyers and importers.
- Government support may include training programmes to help exporters understand costing and pricing in the overseas markets and link them to trade fairs.

3. Market diversification methods and risks

- Market diversification reduces the risk of loss of income when sales decline in one market.
- Firms typically look for growth opportunities by expanding their range of target markets.
- To achieve successful market it is wise to use the current successful marketing strategies and tactics to inform additional strategies and tactics.
- Several strategies for managing marketing risks are discussed.

4. Product diversification methods and risks

- Product diversification refers to any change in a current product that serves to expand the current or potential market.
- Product diversification is a process by which businesses attempt to expand their market reach and customer base by delivering products somewhat different from the ones for which they are known.
- Product diversification can be achieved by entering into additional markets, repositioning the product/ service and or by pricing strategies.
- Product diversification carries inherent risks associated with too few or too many products.
- A business producing horticultural products for the domestic and export markets runs the risk that the yield or output levels will be lower than projected.
- Other production risks arise from adverse weather conditions, damage due to pests, equipment and machinery failure.
- Five strategies for minimizing production risks involve setting up systems for establishing and monitoring: i) a quality management system; ii) supplier prequalification screening and selection processes; iii) intellectual property protection; iv) contractual risk transfer and, v) quality inspections.
- Supply chain risk relates to the probability that an inbound supply problem will disrupt the business operation.
- The five main issues that can potentially disrupt production, operation and sales are i) price, ii) quality, iii) delivery, iv) legal and v) reputation.

5. Categories and uses of contractual clauses

- Contractual clauses are specific provisions or sections in a contract that address a specific aspect of the agreement.
- Such contracts are at several levels – supplier, transport, production, external warehousing, customer and may result in commercial litigation.
- Contract clauses are enforceable, can take many forms and can cover nearly all aspects of the business and commercial interests.
- Contract clauses may be used to mitigate against such risks as commercial risks, customer risk, risk of incomplete documentation, terms of delivery risk and risk of variation in production in costs.

PERSONAL NOTES AND MEDIA USED

LEAFLET 4

Risk management strategies

TRAINING OBJECTIVES

At the end of this training sequence, the participant must be able to:

- Understand the management of commercial risks that have been explored in the previous chapters by considering a range of risks that are largely associated with natural disasters and extreme weather events and the repercussions of climate change.
- Understand the risks that may affect enterprises in the fruit, vegetable and horticultural sectors in ACP countries.
- Understand the need to create and document risk management plans.
- Understand best practices in the design and development of these plans.
- Define, identify and prepare for risks to which these sectors are particularly vulnerable.
- Gain an understanding of how to create and operationalise risk management plans.

KEY MESSAGES

1. Managing and mitigating the major occurrences to which businesses in the fruit and vegetable sectors are likely to be exposed

- The impacts of disasters generally exceed the firm's, community's or nation's capacity or ability to respond adequately.
- Disaster management encompasses all aspects of planning for and responding to disasters, including before, during, and after disasters occur.
- The most common types of disaster in ACP countries are flooding, hurricanes, earthquakes, landslides and fires.
- Risk management planning helps businesses to operate with greater assurance when they are prepared better to deal with eventualities by reducing threats.
- The risk management process needs to follow structed steps: identify, evaluate, plan and control.
- When planning mitigating strategies the sources and specific nature of risks need to be considered.
- The process should involve the key stakeholders of the firm so that the plan that is eventually developed benefits from a wide range of perspectives and insights.

- The main issues in evaluating the risks identified are: i) likelihood, ii) extent and duration, and iii) impact on the business.
- A risk management plan has to be understood and owned by the team as a whole, with specific persons having ownership for responding in ways that benefit the business.
- Four q basic ways to handle risk are: i) avoidance (walk away), ii) mitigation (minimize the damage), iii) transference (e.g. buy insurance), and iv) acceptance.
- The risk management plan should be carefully documented, accessible and shared with the members of the team. It should be updated regularly to remain aligned with a changing operating environment.

2. Operationalising the risk management plan

- The true value of the risk management plan is only fully realised when the plan is successfully implemented.
- The most important conditions to successful implementation include: i) a strong sense of ownership by the entire team; ii) persons have the authority to carry out their responsibilities; iii) financial and personnel resources should be in place, and iv) the information is known and understood by all concerned.
- The team should meet biannually to review, update and monitor implementation of the plan.

3. Production risks specific to fruit and vegetable growers and exporters

- International trading requirements demand that producers and exporters implement policies that ensure the safety of the foods their people consume.
- HACCP, the most significant of the international trading protocols, requires that risk management measures be in place.
- HACCP can provide customers, the public, and regulatory agencies assurance that a food safety program is well managed, so it is important for traders in vegetables, fruit and horticultural crops to be familiar with its principles and requirements.

PERSONAL NOTES AND MEDIA USED

Summary of the manual

Commercial and financial risk management

1. Risk identification process and tools 31
2. Definitions and types of financial risks 34
3. Risk diversification principles and strategies 41
4. Risk management planning 46

1. RISK IDENTIFICATION PROCESS AND TOOLS

Risk is the probability or threat of damage, injury, liability, loss or any other negative occurrence that is caused by external or internal vulnerabilities that may be avoided by pre-emptive action. Risk In the context of the horticultural sector may be defined more particularly as "The uncertainties inherent in weather, yields, prices, Government policies, global markets and other factors that impact farming and cause wide swings in income" (USDA Economic Research Services).

The types of risk associated with the agricultural sector are production risk, price or market, financial, institutional, human or personal. Risk assessment is the overall process of risk identification, risk analysis and risk evaluation and provides an understanding of the various risks, their causes, consequences, and the probabilities of occurrence. The risk management process includes communication and consultation, establishing the context, assessing the risk, treatment, monitoring and review. It is important that stakeholders are consulted as part of the risk management process because the risk tolerance and appetite, the risk impact criteria or the risk evaluation criteria must be agreed. Risk assessment determines the assets of the organisation and their value, identifies the threats and vulnerabilities that exist or could exist, identifies the existing controls and their effects on the risk identified, determines the potential consequences and then ranks the risk against the risk evaluation criteria. Risk controls are whatever activities or measures need to be taken to protect a vulnerability or inhibit or stop a threat to an asset. Checks should be made to ensure that the controls are effective. Risk analysis involves consideration of the causes and sources of risk, their consequences, the probability of those consequences occurring and the impact on the business if they do. Risk evaluation is the process used to compare the estimated risk against the given risk criteria so as to determine the significance of the risk.

1.1. Some options available to treat risks

Controls to reduce, retain, avoid, or share the risk should then be selected and a risk treatment plan produced. Risk treatment involves developing a range of options for mitigating the risk; assessing those options; and then preparing and implementing an action plan. Available options include the following.

- Avoidance – choosing not to take on a risk by avoiding the actions that cause the risk (avoid, sidestep, or discontinue the actions that trigger a particular risk). Risk avoidance is the risk assessment technique that entails eliminating hazards, activities and exposures that place an organisation's valuable assets at risk. This may include removing the hazard, engaging in alternative activities or ending a specific exposure. While the elimination of all risk is not possible, a risk avoidance strategy is designed to deflect as many threats as possible in order to avoid the costly and disruptive consequences of a damaging event. Risk avoidance and mitigation can be achieved through policy and procedure, training and education and technology implementation. Risk avoidance examples include: i) business strategy, ii) Investments and iii) Health and safety.
- Reduction measures to reduce the frequency or severity of losses. These may include management controls, organisational arrangements, safety inspections; Examples include employees wearing protested clothing to avoid injury, introducing an audit process to detect fraud to reduce financial loss.

- Transfer all or part of the risk to a third party. The two main types of transfer are insurance and outsourcing. (a) Insurance- the paying a premium to a third party to protect against loss from a particular eventuality. (b) Outsourcing – this is a business practice in which services or job functions are contracted out to third parties as a cost cutting exercise. If the functions which have been outsourced suffer loss such loss is absorbed by the third party.
- Acceptance – residual risk which the organisation knowingly agrees to take.
- Sharing – the distribution of risk to multiple organisations or individuals. The two main strategies for sharing risk are outsourcing and diversification. Outsourcing has been explained above. Diversification is the spreading of risk from a specific area to (different geographic production units) or activities (different products and services, market segments etc.) to prevent a total loss of production, markets and by extension revenues.

There are many inherent risks in doing business internationally and failures on a global basis can be extremely costly. Where trade policies are in different countries, the degree of difficulty is magnified and the potential for loss increases significantly. Issues of different laws, languages, cultures, currencies, custom policies may come into play. Two common forms of risk mitigation strategy often employed when trading globally are hedging and the purchase of general liability insurance.

A commercial general liability policy protects an organisation from financial loss should it be liable for property damage, personal and advertising injuries caused by products/ services, business operations or its employees. However, there are other specific types of insurance that an enterprise can consider including civil liability insurance, crop Insurance, and cargo or freight Insurance.

Hedging is a risk management strategy used in limiting or offsetting probability of loss from fluctuations in prices of commodities, currencies or securities. It is a transfer of risk without buying insurance policies and is done to fix consistent and stable cash flows, determine or fix a sale or purchase price for a commodity and reduce the existing cash position risk exposure.

Risk taxonomy assists in ensuring that all types of risk which could affect that organisation are identified. It facilitates the aggregation of risk across the organisation and it enable a comparative analysis of the organization's risk over time. A risk taxonomy is a comprehensive, common and stable set of risk categories, that is used within an organization. The categories should be sufficiently generic that they can be used to aggregate risk from other parts of the organization.

1.2. Types of commercial risks

Commercial risk is the potential for loss with a trading partner and the various types can be categorized as follows.

- Country risk – trading country has policies, unrest, labour strikes, trade wars, tariffs on inputs or quotas, technical standards requirements, bureaucratic procedures and regulations.
- Political risk – events that may apply as force majeure for your customers in other countries and they are unable to pay. War, revolutions, insurrections, natural disasters, economic difficulties fall in this category.
- Legal risk – threats and opportunities associated with the organisation's management of its legislation, advisory and litigation activities, including the development and renewal of compliance with laws, regulation, treaties, agreements and policies (risk of incurring loss because a contract is unenforceable due to unexpected changes in laws or regulations).
- Governance and strategic direction – threats and opportunities associated with the organisation's approach to leadership, decision making and management capacity, stakeholders and partnerships, demographics and activities.
- Interest rates risk – risk that rates will change.
- Currency risk – the risk that foreign exchange rates and or the implied volatility will change.
- Market risk – risk that the value of a portfolio will decrease due to the change in the value of the market risk factors.
- Commodity risk – the risk that commodity prices and/or implied volatility will change.
- Financial risk – risk associated with currency exchange rate, devaluation and inflation.

Risk events are discrete, specific occurrences that negatively affect a decision, plan or organisation, the impact of which would be loss of the value of the payments due. For example:

- the customer cannot pay for the goods and services you have supplied in accordance with the terms of the agreement;
- the trading partner does not live up to their obligation within the agreement (not meeting delivery dates etc.);
- the organisation and the trading partner have a difference in interpreting the agreement.

2. DEFINITIONS AND TYPES OF FINANCIAL RISKS

Financial risk is the risk of losing money or valuable assets when trading or investing. It is the risk that a firm will be unable to meet its financial obligations. Financial risk is primarily a function of the relative amount of debt the firm uses to finance its assets. Most companies at some point will need to seek outside capital to grow. This need for financing creates a financial risk to both the borrowers and any investors or stakeholders involved in the company. Financial risk is one of the major concerns of every business. A critical aspect of enterprise risk management (ERM) is to be aware of all the financial risks which may impact the enterprise. The business owner must have an understanding of the dangers such risks pose to the enterprise and more importantly must know what measure to take to manage these risks. Financial risks like all other risks cannot be totally eliminated but the harm they may cause can be mitigated.

The four broad categories of financial risk are market risk, credit risk, liquidity risk and operational risk. Included under those broad areas are many subsets, such as: counterparty risk, foreign exchange risk, interest rate risk, inflation risk, currency risk and legal risks.

1. **Market risk**, also known as systemic risk refers to the risk that an investment may face due to fluctuations in the market. Market risk is the risk associated with losses due to unfavourable price movement that affects the market as a whole. The risk is that the investment value will decrease. Types of events or situation which may enhance market risks are civil unrest, hurricane, floods, political instability, economic sanctions and recession. The standard market risk factors include the following.
    - Equity risk is the financial risk involved in holding equity in a particular investment. It frequently refers to equity in companies through the purchase of common or preferred stocks. Equity risk is the risk of loss because of a drop in the market price of shares.
    - Currency risk or exchange rate risk refers to the exposure faced by companies that operate across different countries in regard to unpredictable gains or losses due to change in the value of one currency in relation to another currency. When money is converted from one currency to another its gains or losses value depending on the exchange rate.
    - Inflation risk or purchasing power risk is the probability of loss resulting from erosion of an income or in the value of assets due to the rising cost of goods and services. Inflation causes the purchasing power of a nation's currency to fall, thus costing more to buy goods and services. The negative impact this could have on the company's investment is called inflation risk.
    - Commodity price risk is the possibility that commodity price changes will cause financial losses for the buyer or purchaser of a commodity. The buyer faces the risk that the commodity prices will be higher than expected whilst lower commodity price is a risk to the producer. Increase in commodity prices will result in reduced profits margins for the buyer whereas a reduction in commodity price will lead to losses for producers.
    - Interest rate risk is the probability of a decline in the value of an asset resulting from unexpected fluctuations in interest rates. Interest rate risk is mostly associated with fixed income assets rather than equity investments. If interest rates rise, then the value of the fixed income investment will decline.

2. **Credit risk** is the risk of default on a loan of collecting debt that may arise from the borrower/debtor failing to make the required payments. The risk is that of the lender/creditor and includes loss of principal and interest disruption to cash flow and increased collection cost. Circumstances where losses from credit risk may arise include failure to make due payments on a mortgage loan or credit card or line of credit etc., nonpayment of trade invoice when due, and a legitimate insurance claim not paid by the insurance company. Types of credit risk include the following.

   - Default risk – the risk of loss arising from a debtor being unlikely to pay its loan/debt obligations in full or the debtor is more than 90 days past due on any material debt obligation.
   - Country risk – refers to the uncertainty associated with investing or lending in a particular country arising from possible changes in the business environment that may adversely affect operating profits or the value of assets in that country. For example, financial factors such as currency controls, devaluation or regulatory changes or stability factors such as civil war, riots or protracted unrest.
   - Sovereign credit risk is the risk of a government becoming unwilling or unable to meet its loan obligations. A sovereign risk may also arise where political turmoil may cause the business environment in that country to collapse and render investments in that country worthless.
   - Concentration risk is the potential for a particular investment or class of investment to cause harm/losses to a financial institution/enterprise or investment portfolio. Risk arises where there is an uneven distribution of exposure (loan or credit) to borrowers or debtors. It also arises from uneven distribution of exposure to a particular sector, region, industries or products.
   - Counterparty risk is the likelihood or probability that one or more of the parties involved in a transaction may default on its contractual obligation. Counterparty risk can exist in – financial transactions including credit, loan, investments and trading transactions. Means of mitigating against counterparty risk include the following.
     - Undertaking a robust due diligence process in selecting counterparties; *i.e.*, to reduce its counterparty risk a firm may trade only with high quality counterparties with high credit ratings (such as AAA).
       - Netting – where there are multiple trades between two (2) counterparties, some will have negative values, and some will have positive values. By netting, such position then loss can be reduced, thus reducing the counterparty risk.
       - Diversification – by trading with multiple counterparties, there will not be a single counterparty with which the firm will have a large exposure. This will help in reducing the risk.
       - Shifting from bilateral trade to centralised trade whereby all trade is undertaken with a centralized counterparty.
       - Collateralisation – that is, having the trade backed by high quality collateral such as cash or liquid securities.

Strategies for managing credit risk

- Thoroughly check a new customer's credit record.
- Use that first sale to start building the customer relationship.
- Establish credit limits.
- Make sure the credit terms of your sales agreements are clear.
- Use credit and/or political risk insurance.
- Use factoring.
- Develop a standard process for handling overdue accounts.
- Self-insurance.
- Use of letters of credit.
- Trade credit insurance.

3. **Liquidity risk** is the risk that a company or bank may be unable to meet short term financial demands. This usually occurs due to the inability to covert a security or hard asset to cash without a loss of capital and/or income in the process. Liquidity risk generally arises when a business or individual with immediate cash need holds a valuable asset that it cannot trade or sell at market value due to lack of buyers or due to insufficient market where it is difficult to bring buyers and sellers together. Purchasers and owners of long-term assets must take into account the sale-ability of assets when considering their own short-term cash needs. Assets which are difficult to sell in an illiquid market carry a liquidity risk since they cannot be easily converted to cash at a time of need. This may lower the value of certain assets or business due to the increased potential of capital loss.

   There are two main types of liquidity risk, marketing and funding.

   - Market liquidity risk is the possibility that when you need to trade, the market liquidity is poor, making it difficult to buy or sell assets. For example, assume you own an expensive car. You need to sell it quickly. However, due to bad market conditions, it can only be sold at a low, discounted price. In this case, the asset does have a value, but owing to the temporary lack of buyers, this value cannot be realised.
   - Funding liquidity risk is the possibility that when a company needs to pay off its bills, it may fail to do so on time due to a lack of funding. For example, during the period of slowdown, the business may be exposed to funding liquidity risk if its obligations due at that time are greater than the operating cash flows generated.

   The two main strategies for mitigating liquidity risk are the following.

   - Diversification – A diversified investment portfolio can help avoid liquidity risk. A firm's investment portfolio should comprise both easy to sell instruments such as bonds as well as long term instruments, keeping enough assets liquid to meet short term obligations so as to avoid selling long term investments below value when the firm is desperate for cash. This may result in loss of profit.
   - Minimise the debt – Liquidity is required specifically to meet debt repayments so a firm can avoid liquidity risk by minimizing their debt. They should only borrow as much as they need to cover short term debts.

4. **Operational risks** are the uncertainties and hazards a company faces when it attempts to do its day-to-day activities within a given field or industry. It is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Some examples of events where losses from operating may arise are the following.
   - Internal fraud: misappropriation of assets, tax evasion, bribery.
   - External fraud: theft of information, hacking damages; third party theft and forgery.
   - Employment practices and workplace safety: discrimination, workers compensation, employees, health and safety.
   - Client's product and business practice: market manipulations, improper trade, product defect, fiduciary breaches.
   - Damage to physical assets: natural disasters, vandalism.
   - Business disruptions and systems failures: utility disruptions, software failures, hardware failures.
   - Execution, delivery and process management: data entry error, accounting errors, failed mandatory reporting negligence.

   Types of operational risks

   - Fraud risk – The risk of loss arising from fraudulent behaviour. Fraud exposure can be classified in three broad categories: asset misappropriation, corruption and fraudulent financial statements.
   - People risk – The risk of loss arising from the outcome or non-actions of employees. The employee of an organisation is its most important asset, but they can also be its greatest risk. Employees are humans and as such will make mistakes/bad decisions. Their mistakes on occasion can result in millions of dollars of losses to the company involved and even harm or loss of life.
   - Model risk occurs when a financial model used to measure the firm's market risk or value transactions fails or performs inadequately.
   - Legal risk – This is the potential loss that a company or individual could face as the result of a legal issue. It could be a claim made against them, a change in the law or failure to take the appropriate legal measures to protect themselves.
   - Political risks are the risks associated with changes that occur within a country's policies, business laws or investment regulations and any other situation which may have an influence on the economy of a country.
   - Valuation risk is the financial risk that an asset is overvalued, and it is worth less than expected when sold. This could be as a result of market instability, financial modeling uncertainties, poor data analysis, etc.

5. **Foreign exchange risk** is also known as exchange rate risk or currency risk. Currency risk or exchange rate risk refers to the exposure faced by companies that operate across different countries in regard to unpredictable gains or losses due to change in the value of one currency in relation to another currency. When money is converted from one currency to another its gains or loses value, depending on the exchange rate. There are four types of foreign exchange risk.

   - **Economic risk** is the chance that macroeconomic conditions like exchange rates, Government regulations or political stability will affect an investment or trade in a foreign country. A firm is exposed to economic risk once its market value is influenced by unexpected exchange rate fluctuations, which can severely affect its market share with regard to its competitors. Economic risk can affect the present value of a firm's future cash flow. Economic risk impacts international trade and has the potential to create lasting effects on the business activities of all participants. It can cause the downfall of not just the busines but the whole market. There are three types of economic risk – sovereign risk, unexpected sovereign exchange rate, credit risk.
   - **Sovereign credit risk** is the risk of a government becoming unwilling or unable to meet its loan obligations. A sovereign risk may also arise where political turmoil may cause the business environment in that country to collapse and render investments in that country worthless. This type of economic risk is one of the most import risks that can have a direct impact on investment and or trade in a foreign country since the repercussions arising out of these risks can trigger others that are related to the business.
   - **Unexpected swings in exchange rates** – These types of economic risk occur where there is a drastic move in the market that impacts the exchange rate. This can be due to speculation or due to conditions which may cause a fall in the demand for a particular product or currency. For example: oil prices can significantly impact the market movement of other traded products. Change in inflation, interest rate, import – export duties and taxes can also impact the exchange rate since they all have a direct impact on trade.
   - **Credit risk** These types of economic risk occur where there is a drastic move in the market that impacts the exchange rate. This can be due to speculation or due to conditions which may cause a fall in the demand for a particular product or currency. For example: oil prices can significantly impact the market movement of other traded products. Change in inflation, interest rate, import – export duties and taxes can also impact the exchange rate since they all have a direct impact on trade.

   Economic risk is one of the most difficult risks to foresee and hence mitigating or formulating plans to control it is very difficult. However, actions which can be taken to mitigate economic risk include the following.

   1. Investment options such as international mutual funds which facilitates diversification by attracting investment in a variety of products at a time.
   2. Purchasing insurance to cover losses arising out of a counterpart default to pay.
   3. Hedging activities against exchange rate fluctuation.

Contingent risk is risk of loss arising from a potential credit risk exposure that may appear in the future such as drawdown on a revolving credit facility, or payment under a letter of credit. A firm has contingent risk when bidding for foreign projects, negotiating contracts or handling direct foreign investments. Such risk arises from the potential of a firm to suddenly face a transnational or economic foreign exchange risk contingent on the outcome of some contract or negotiation. Contingent risk insurance is the main option for mitigating against contingent risk.

Transactional risk is the exposure to uncertain factors that may impact the expected returns from a deal or transaction that could include foreign exchange risk, commodity risk, interest rate risk, time risk, counterparty risk.

Common transaction risks

- **Foreign exchange risk** – These are the unforeseen fluctuations of foreign exchange which can affect the expected transaction value. Foreign exchange risk is especially important to consider for cross borders transactions or dealing with countries that have high currency volatility.
- **Commodity risk** – These are the unexpected fluctuations of commodity prices.
- **Interest rate risk** – This relates to how interest rate fluctuations can affect transaction value. Changes in interest rate can affect a firm's ability to raise capital for a transaction. Interest rate risk is the probability of a decline in the value of an asset resulting from unexpected fluctuations in interest rates. Interest rate risk is mostly associated with fixed income assets rather than equity investments. If interest rates rise, then the value of the fixed income investment will decline.
- **Time risk** – The longer a deal takes to finalize, the longer the transaction is exposed to other risks. Market conditions change with time and there is a higher possibility that the initial transaction agreement conditions could become unfavourable the longer the negotiation process takes.
- **Counterparty risk** – In any deal or transaction there is a risk that one or more of the parties will not live up to their contractual obligations.

The following mitigation technologies can be used to manage transaction risk and are often included.

- **Hedging** – Firms will engage in hedging arrangements to reduce the level of potential risk that comes from the price movement of various assets. Hedging provides companies with protection against adverse changes to asset prices that can negatively affect investments. Hedging arrangements are used to reduce the effects of foreign exchange and commodity risks.
- **Refinancing** – Debt refinancing allows firms to reduce their debt obligations by borrowing at more attractive rates. This is particularly so in a fluctuating interest rate environment.
- **Due diligence** – To reduce the possibility of counterparties defaulting on their contractual obligations, parties will undergo an extensive due diligence process before coming to an agreement. Where there is a high risk of defaulting, a default risk premium may be included into the transaction agreement.

Translation risk or accounting exposure is the risk of change in the financial position of the company (assets, liability, equity, income) due to exchange rate changes. Translation risk applies, particularly to firms which do business internationally or hold assets in foreign countries which will eventually be repatriated to the country of domicile and converted. If there is large fluctuation in the exchange rate, then this could result in significant changes in the value of the foreign asset or income stream. Translation risk occurs when a firm denominates a portion of its equity, assets, liabilities or income in foreign exchange. Strategies for managing translation risk include the following.

- **Hedging** – Firms with exposure to foreign exchange may use a number of hedging strategies to reduce the risk including money markets, foreign exchange derivates (forward contracts, options, future contracts and swaps). Operational technologies such as currency invoicing, leading and lagging payments, may also be considered.
- **Currency invoicing** is the practice of invoicing transactions in the currency that benefits the firm. It, however, does not eliminate foreign exchange risk but rather moves its burden from one party to another.
- **Leading and lagging** refers to the movement of cash inflows or outflows either towards or backwards in time so that unexpected inflows can coincide with expected overflows.

How to mitigate against exchange risk?

1. **Contractual arrangements** might include tariffs and public payments linked to the exchange rate, directly transferring the exchange rate risk to the public side. A peg of user fees or subsidies to exchange rates has not, however, proved promising in the past.
2. **Matching payment streams** involves companies matching their revenue streams to expenditure streams for inputs/supply in the same currency.
3. **Derivative contracts** include forward contracts, currency futures, swaps and options.
4. **Give the investor the right** but not the obligation to buy and sell a currency at a specific rate on or before a specified date.
5. **Use forward contracts**, currency forward contract – an agreement between two parties to buy or sell a specific asset on a particular future date at a particular price.
6. **Hedge the risk with specified exchange traded fund.** There are many exchange traded funds that provide long and short exposure to different currencies. Such funds can be used to mitigate exposure against different currencies.
7. **Review your operation cycle.** Find out where foreign exchange risk exists in order to understand how sensitive the profit margin is to currency fluctuations.
8. **Measure and manage your exposure to currency risk.** Examine the risk exposure to currency fluctuation when entering into a deal or making a purchase to decide on whether you need hedging and at what level.
    - Making sure the right people are given the right jobs with the right degree of supervision, to reduce the risk of fraud.
    - Performing due diligence on projects, for example, considering the uncertainties associated with a partnership or joint venture.

3. RISK DIVERSIFICATION PRINCIPLES AND STRATEGIES

Diversification is often understood as the corporate strategy implemented by a company to increase the market share and sales volume by introducing new products in new markets which are distinct from its core business. It expands the business by entering into a completely new segment and or making an investment in a segment which is outside of the scope of the existing product line. Businesses can use this strategy to manage risk and potential threats during economic slowdown. Several types of diversification strategies have been used to expand businesses. Three types will be examined, namely; concentric, horizontal and vertical diversification. There are disadvantages of diversification and some are listed below.

- It can limit growth opportunities for a business because of the cost involved in pursuing this model. Some businesses may not have the financial resources to pump into it.
- New skills are required and the lack of expertise in the new field can retard the business.
- Mismanaged diversification can lead a business to over-expand into too many new directions simultaneously.
- A widely diversified company may be unable to respond quickly to market changes, and operational focus will be limited.

The understanding of the advantages and disadvantages of diversification provides the basis for the examination of the types of diversification strategies that can be applied. The main principle behind risk diversification is to spread the risk by adding product/service, location, customers and markets to the business. In so doing, the company reduces its reliance on any one of the factors identified. Risk diversification is a technique used to maximise returns by investing in different aspects of the business that will respond differently to the same stimulus/event to generate a positive outcome. The three types of risk diversification are outlined below.

- **Concentric diversification** refers to a company entering a new business which is closely related to its current business, or the company develops products or services that are closely related to its current core products or services. The newly entered product is a spin-off from the already existing facilities. Hence, there are advantages of synergy with the existing operations. The accumulated experience is used to introduce other products /services without major investment in new learnings. Current staff can be used to bring to the market the new products/services. However, this also assumes that the existing staff is competent and has spare capacity for such an undertaking. The strategy can also create variations of a well- established product line..
- **Horizontal diversification** occurs when the business acquires or develops new products or offers new services that can appeal and add value to their current customers. The focus of the strategy is not to attract new customers, but to offer a wider range of products/services to an existing loyal customer base. This results in an expansion of the product/service range.

- **Vertical diversification** occurs when the company goes back to a previous stage in its production cycle or moves forward to a subsequent stage of the same cycle to produce intermediate goods, finished products or ventures into distribution for its own account. In this way, the firm stays in the same business and moves ahead or reverses in the supply chain to introduce a new product so as to create a new business. This move is to reduce cost and increase revenue.

Customer diversification is the broadening of the client base to reduce over reliance on one or few customers. However, diversification should be understood in the context of the adage "don't put all of your eggs in one basket". The current advances and use of technology to conduct business do not erase the credibility of the adage as it cautions against placing all sales expectations and company potential in a single client. When a business relies on a single client for the majority of its income, its destiny is inextricably tied to that client. Thus diversification will hedge against over exposure. There are major risks associated with a limited customer-base as overdependence on too few customers has significant commercial risk. It can also lead to lower profit margin since the single customer may demand higher discounts. The focus also causes the business to neglect other sales opportunities.

To assist in reaching new customers, many countries have invested in a government funded trade promotion agency. This type of agency oftentimes has an office in the overseas markets which is in direct contact with potential buyers/importers. When organised effectively the agency is a source of invaluable support to producers/ exporters at a nominal cost or without charge. There is also private sector support which may be in the form of groupings of businesses such as manufacturers' and exporters' associations and chambers of commerce. These are member driven organisations with a secretariat which provides information and training similar to the government agency.

Market diversification – Firms use market diversification to get additional income/revenue and to compete with other companies. Spreading the sales over wider markets reduces the risk of loss of income when sales decline in one market. Expanding into an existing market makes good sense because customers are already purchasing the products or services being sold by the business or its competitor. Consequently, customers are familiar with the product/service. Like the risks inherent in a limited customer base, a small number of markets can have negative repercussions for businesses. These limitations are examined along with strategies for market diversification and management. As a general rule, the usual starting point for any new business is to select just one domestic or foreign target market. However, as firms become successful and move up the curve from being newly startup they typically look for growth opportunities by expanding their range of target markets. Looking for expanded market opportunities also indicates that the business has both the production capacity and capability for expansion. Marketing is all about revenue growth. It is therefore wise to use the current successful marketing strategies and tactics to inform additional strategies and tactics to expand in order to achieve successful marketing.

Product diversification refers to any change in a current product that serves to expand the current or potential market. Product diversification is a process by which businesses attempt to expand their market reach and customer base by delivering products somewhat different from the ones for which they are known. Diversification may be achieved by entering into additional markets, repositioning the product/ service and/or by pricing strategies. Often, the product may be improved, altered or changed, and new marketing

activities are developed around it prior to its introduction. Aligned with customer and market diversification is the management of the business's commercial risks to ensure an appropriate degree of product diversification to reduce overdependence on a narrow product line. Product diversification carries inherent risks associated with too few or too many products. The benefits of diversification are achieved with the right balance of products however, a business producing horticultural products for the domestic and export markets runs the risk that the yield or output levels will be lower than projected. This will have an immediate impact on total revenue, as lower volumes would be reaped. Production quality risks can be minimised by producers using the following measures.

- **Quality management system** is simply a collection of business processes and functions aimed at continuous improvement in the quality of the product or service to ensure that customer expectations and requirements are met or exceeded. The competitive edge in production requires an understanding of, and commitment to, established product quality specifications and standards. Farmers and food manufacturers can improve quality and decrease the potential for future product liability cases in several ways, including these elements.
  - **Supplier prequalification screening and selection processes** which will preclude those without established criteria, such as required quality inspections that demonstrate compliance with International Consumer Product Safety Standards. This is important with seed selection, to ensure that seeds purchased for planting are internationally acceptable. Some producers request the importer to select and send seeds for planting. This may be seen as a 'good thing' but, the downside is that those seeds may not be viable in your territory. With regard to packaging, the market's criteria may include adherence to a specified reduction of packaging materials (pure and recycled) or compliance with specific percentages in product packaging.
  - **Intellectual property protection** efforts provide a defense against copyright, trademark or patent infringements. Intellectual Property rights include the formulae for producing manufactured products, manufacturing techniques, technologies, and software programmes that produce products.
  - **Contractual risk transfer** includes specified insurance coverage and limits, indemnification requirements, specific timelines to report issues with goods and hold-harmless agreements.
  - **Quality inspections** are conducted during and after production to verify that finished product quality matches specifications and inspection forms.

Supply Chain Risk relates to the probability associated with an event that an inbound supply problem will disrupt the business operation. It is therefore critical for organisations to build programmes for managing both known and unknown supply-chain risks. Upstream of an organisation are the suppliers who create goods and services that the business needs for its operations. These include raw materials or components that go directly into the manufacturing of goods. In addition are the indirect products and services that facilitate the company's actual operations. The downstream supply chain distributes a company's products or services to its customers. All contracted suppliers, both upstream and downstream, must be proactively managed to minimise financial, confidentiality, operational, reputational and legal risks. Supply chain risks include the following.

- **Price risk risque de prix** – Inflation and volatility are the main causes of price risk exposure in the supply chain.
- The second area to manage price risk is in relation to volatility. Since price is a function of supply and demand, it follows that volatility is a result of the underlying supply and demand characteristics of the market.
- **Quality risk** – Bearing in mind that quality defines the value of the products and services, quality risk occurs when there is the potential for losses due to quality that fails to meet the established quality criteria, products and services not fit for the planned or intended purpose, failure to meet or adhere to production specification.
- **Delivery risk** – When delivery fails to materialise, then all eyes are focused on the logistics and purchasing teams who are the first to be considered responsible. This does not only operate within the sphere of the delivery of physical goods, but also in the provision of intangible goods as well.
- **Legal risk** refers to damage or any loss incurred to a business due to negligence in compliance with laws related to the business activity. When a supplier does something illegal, organisations may find themselves liable. Training suppliers and purchasing managers to be aware of the law and to adopt a zero tolerance attitude to illegal actions is the only way to avoid the foregoing liabilities.
- **Reputational risk** relates to practices which the general public believes that businesses should observe. As a consequence, brands may be tarnished when it is the view that a moral code, even though not a legal obligation has been contravened.

3.1. Contractual clauses

The customary contractual clauses such as *force majeure* found in standard contracts to be introduced and examined, along with their potential implications and the preparation that businesses can make to manage these clauses to benefit their company as a means of reducing risk. These contracts are at several levels – supplier, transport, production, external warehousing, customer – and may result in commercial litigation. Contract clauses can take many forms and can cover nearly all aspects of the business and commercial interests.

- **Commercial risk** – Risk taken by a business offering credit to a customer without collateral security. Risk is something all businesses must face regardless of their size or years of operation. Certain core principles such as assessing business processes, resource organisation, financials, systems analysis, and potential threats are all essential in identifying potential areas of success and failure.
- **Customer risk** – For any business to thrive and progress it must have good customer service. The selection of reliable, credit worthy customers is the basis on which a business will succeed. The business needs to understand every aspect of selling and servicing a customer, pre-sale and post-sale. In addition, merchandise questions, credit card/payment security and delivery status of goods to processing refunds, exchanges, and returns are also important concerns. Using established and reliable channels to get new customers e.g. trade organisations and referrals, are important to the survival of a business entity. Strategic use of terms of payment can also minimise the risk of non-payment.

- **Risk of incomplete documentation** – Care must be taken by the seller to ensure that they provide the necessary and accurate documentation to the buyer to avoid expensive delays in clearing goods as this be detrimental to the business relationship. One of the easiest and best solutions to ensure compliance is to enlist the assistance of the buyer to determine and provide information about the documents required by that jurisdiction. Charged with the information provided, the seller through his Customs Broker/ Freight Forwarder can prepare the necessary documents to submit to the client. It is good risk-management to specify in the contract of sale who is responsible for obtaining permits and the penalties or remedies that will apply should something go wrong.
- **Risque of variation in transport cost** – The choice of a transportation mode to ship freight between origins and destinations is important and is dependent several factors such as:
  - the nature of goods;
  - the available infrastructure to handle cargo at origin and destination;
  - available and appropriate technology;
  - the quantity of goods being transported;
  - availablility of back haul;
  - the mode of transport;
  - most importantly, the distances between supplier and receiver.

All of the foregoing factors are used to determine transportation cost. Variations may occur if one of the factors is out of synch and this normally results in cost variation. If there is a cost increase someone has to bear it. Cost increases can either e planned or unplanned. Measures to address cost increases will be examined to assign responsibility and to show how they can be minimised using proper pricing, long term contracts or pooling cargo.

- **Terms of delivery** – In accepting an order for delivery the seller must clearly state in the contract which party bears the transport cost. Where businesses, as in some African countries are in territories that are land-locked the transport costs to get the cargo to a port must be identified and factored in the pricing, otherwise the seller will have to absorb the loss.
- **Risk of variation in production input costs** – Input cost is the set of costs incurred to create a product or service. Examples of these costs are direct materials, direct labour and factory overhead. All other costs incurred by a business are related to general and administrative activities. Variation in production costs can occur due to increases in the cost of raw material, transport, utilities, technology and wages thus impacting factory overheads. To minimize the risk of production and input cost variation businesses can forward buy on some inputs.

4. RISK MANAGEMENT PLANNING

Disasters are rare or extreme events in the environment that adversely affect human life and property. The impacts generally exceed the firm's, community's or nation's capacity or ability to respond adequately. They usually result in a significant disruption of the functioning of an enterprise, community or a society, causing widespread human, material, economic and environmental losses that exceed the ability of the affected enterprises, community or society to cope through the use of the resources that are customarily available. Disaster Management encompasses all aspects of planning for and responding to disasters, including before, during, and after disasters occur. It refers to both the risk and consequences of disaster. ACP countries, because of their location, geology, geography and economic circumstances – mountainous terrain, and cultural practices, are often prone to several natural hazards. The major threats include landslides, hurricanes, floods, droughts, earthquakes, bush fires, lightning, fires, and storm surges. These hazards, when combined with vulnerable situations such as hillside farming, usually result in disasters of varying severity. There are several types of disaster; however, those most common in ACP countries are:

- flooding: damage to roofs; damage to crops; damage to buildings; blocked roads; damage to roadways;
- hurricanes: loss of livelihood; damage to structures; blocked roads; loss of lives; power supplies affected that create loss of pumping, cooling and other equipment important for holding fruit, flowers and vegetables at appropriate temperatures;
- earthquakes: damage/loss of structures; lack of access to different places; damage/loss of bridges;
- landslides*:* blocked roads and drains; damage to fields and structures;
- fires: Loss of lives and buildings and livelihood (crops).

Risk management is a deliberative procedure through which enterprises identify what are the risks to which they are most vulnerable. Once they have identified the risks, they are in a position to plan how to respond and manage them once they arise. This is a structured process in which the risks are identified, assessed for their level of risk, and a plan made for managing them. The risk management process (identify, evaluate, plan and control) is important because it requires businesses to take the time, in a structured way, to examine the range of aspects of the environment in which they operate and so envisage the risks that are inherent in the wider operating environment in order to plan to take the actions necessary to mitigate them. Risk management planning helps businesses to operate with greater assurance since they are prepared better to deal with eventualities by reducing threats. In addition, Risk Management planning plays a critical role in businesses since it documents and rehearses the steps required for mitigation and helps to reduce financial losses as well as addressing the risks discussed in chapters 1 to 3. Risks come from different sources and need to be considered in relation to their sources and specific nature.

4.1. Identifying risks

1. The risk management process begins by identifying the risks that the firm is liable to face. The process should involve the key stakeholders of the firm so that the plan that is eventually developed benefits from a wide range of perspectives and insights. Further, the engagement of stakeholders in the development of the plan, helps to make them feel personally invested in the implementation of the plan, with a greater sense of ownership if and when it becomes necessary.
2. The group needs to agree the method for determining what constitutes a risk. For example, if you are a grower of fruit that you supply to an exporter, you may face the risk that you are unable to satisfy the traceability requirements for your papaya. In this case, you face market and regulatory risks for which specific mitigation measures must be in place and continuously observed. On the other hand, if you grow flowers in greenhouses and there is a windstorm that blows your greenhouses down, this is likely to be an infrequent occurrence for which a different approach to selecting risk is required.
3. At this stage, more detailed attention is paid to identifying and categorising the risks the business faces. It is useful for the team to develop a checklist of the risks that have been discussed in (1) and (2) above, and any others that may surface. This checklist can include past occurrences, as well as those anticipated. Table 2, above, will be helpful in categorising the risks. Categorising risks is important because different kinds of risk require different responses, as was the case of the traceability risk for the papayas above versus the windstorm risk to the greenhouses.
4. Not all members of a team are equally suited to manage risks and respond optimally so it is important to allocate ownership of risks to the most appropriate persons. In the case of the papaya, cited above, the team member responsible for quality control would be more appropriate to monitor the traceability risk, while the person responsible for maintaining infrastructure would lead the team that responds to windstorm damage to the greenhouses.
5. Having brainstormed, identified and categorised risks; having allocated ownership of risk to specific persons, all these steps must be clearly documented to keep track of risks and share their status with members of the team.
6. The output of these steps is a risk register in which the risk is described, its consequences noted, the probability of its occurrence acknowledged; the level of its likely impact assessed; its ranking established; the planned response noted; and its owner recorded.

The key questions asked are intended to evaluate three main issues:

1. How likely is it that the particular risk will occur?
2. If the risk occurs, what is the impact likely to be (including an assessment of the extent of the impact and its probable duration)?
3. What will the overall impact on the business be (cost, resumption of the business, loss of market, proceeds from insurance)?

Once you have evaluated and categorised the risks, it is necessary to rank them so that the relative likelihoods and impacts are clear. The reason for doing this is so that attention can be appropriately paid to those risks with the highest probability of occurrence and highest impact on the business.

The identification, ranking and awareness of each risk enables the business to assign responsibility for responding to the eventuality, should the risk materialise, and develop a Risk Management Plan that is understood and owned by the team as a whole, with specific persons having ownership for responding in ways that benefit the business. It is also helpful to begin to develop mitigation strategies that are related to the individual risks that have been identified and ranked.

4.2. Plan and control: developing a risk management plan

1. **Avoid**: the best thing you can do with a risk is avoid it. If you can prevent it from happening, it definitely will not hurt your business. The easiest way to avoid this risk is to walk away from the cliff, but that may not be an option for your business.
2. **Mitigate**: if you cannot avoid the risk, you can mitigate it. This means taking some sort of action that will cause it to do as little damage to your business as possible.
3. **Transfer**: one effective way to deal with a risk is to pay someone else to accept it for you. The most common way to do this is to buy insurance, as was discussed in previous chapters.
4. **Accept**: when you cannot avoid, mitigate, or transfer the risk, then you have to accept it. But even when you accept a risk, at least you've looked at the alternatives and you know what will happen if it occurs. If you can't avoid the risk, and there's nothing you can do to reduce its impact, then accepting it is your only choice. A structured risk management plan provides the business with a roadmap for all stakeholders, especially the people engaged in the day-today operations of the business. The risk management plan should be carefully documented, accessible and shared with the members of the team. It should be updated regularly to remain aligned with a changing operating environment.

In addition to the frameworks introduced above (relevant terms, risk management process, risk source, identification of risks, risk register, evaluation, ranking and probability impact, risk management options, description of risks and mitigation measures), the preparation of the risk management plan will be strengthened by documenting the data required in the templates provided in the training manual – these are business details, emergency contacts, personnel register, key customers, key suppliers, asset register, information backup systems and communication plan checklist. The data documented in these templates are particularly helpful in the event of an event and accelerate the capacity to recover.

4.3. Operationalising the risk management plan

The true value of the risk management plan is full realised when the plan is successfully implemented and is not viewed as just another set of exercises that result in another document. There are certain conditions that must be met as precursors to successful implementation the most important of which are:

1. The team must have strong sense of ownership of the plan, with senior management committing to supporting the plan with clear leadership.
2. The persons who have been allocated tasks must have and be seen to have the authority to carry out their responsibilities.
3. The resources, financial and personnel, should ideally, be in place to enable the implementation of the plan.
4. The information that underpins the Plan should be widely disseminated so that it is understood and more readily adopted.

Even when an occurrence has not occurred, there are steps that should be followed in an ongoing way. The team should meet no fewer than two times per year to review the Plan and propose updates where necessary and confirm that the details set out in the Plan are still valid and current. These meetings should be organised as workshops, preferably including facilitators, subject matter experts, someone with strength in logistics and as many members of the team as are available without disrupting the work of the business. The outcomes of the workshops should be documented and may become an addendum to the risk management plan as long as there are no fundamental changes. If fundamental changes are necessary, this requires a reworking of the risk management plan.

Production Risks Specific to Fruit and Vegetable Growers and Exporters – Hazard Analysis Critical Control Points (HACCP).

International trading requirements demand that producers and exporters implement policies that ensure the safety of the foods their people consume. The most significant of these require that risk management measures be in place. The HACCP Plan presented in this chapter is based on the seven principles of Hazard Analysis Critical Control Points (HACCP), as outlined in the *Codex Alimentarius*. As part of a risk management plan it is important for traders in vegetables, fruit and horticultural crops to be familiar with its principles and requirements.

PERSONAL NOTES AND MEDIA USED

REF.: 00496-03

SUSTAINABLE PRODUCTION AND TRADE

PLANT HEALTH

FOOD SAFETY

AGRICULTURAL PRODUCTION AND PROCESSING

SOCIAL ACCOUNTABILITY AND EMPOWERMENT

ENVIRONMENTAL MANAGEMENT

MANAGEMENT OF ORGANISATIONS AND BUSINESS DEVELOPMENT

TRAINING METHODOLOGIES

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