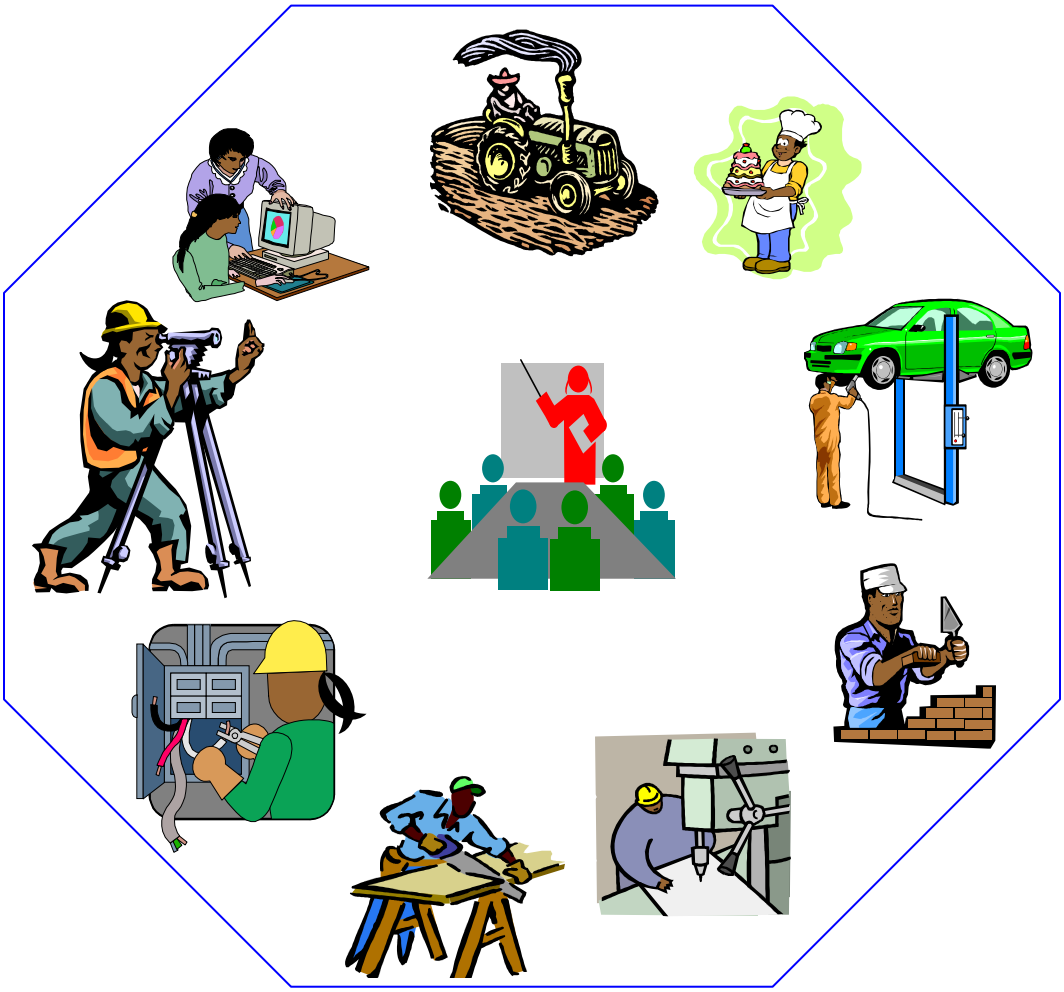
Federal Democratic Republic of Ethiopia

OCCUPATIONAL STANDARD

RUBBER TREE LATEX HARVESTING & PROCESSING MANAGEMENT

NTQF Level V



Ministry of Education
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Introduction

Ethiopia has embarked on a process of reforming its TVET-System. Within the policies and strategies of the Ethiopian Government, technology transformation – by using international standards and international best practices as the basis, and, adopting, adapting and verifying them in the Ethiopian context – is a pivotal element. TVET is given an important role with regard to technology transfer. The new paradigm in the outcome-based TVET system is the orientation at the current and anticipated future demand of the economy and the labor market.

The Ethiopian Occupational Standards (EOS) is the core element of the Ethiopian National TVET-Strategy and an important factor within the context of the National TVET-Qualification Framework (NTQF). They are national Ethiopian standards, which define the occupational requirements and expected outcome related to a specific occupation without taking TVET delivery into account.

This document details the mandatory format, sequencing, wording and layout for the Ethiopia Occupational Standard which comprised of Units of Competence.

A Unit Title describes a distinct work activity. It is documented in a standard format that comprises:

- Occupational title and NTQF level
- Unit title
- Unit code
- Unit descriptor
- Elements and Performance criteria
- Variables and Range
- Evidence guide

Together all the parts of a Unit Title guide the assessor in determining whether the candidate is competent.

The ensuing sections of this EOS document comprise a description of the occupation with all the key components of a Unit Title:

- chart with an overview of all Units of Competence for the respective level including the Unit Codes and the Unit Titles
- contents of each Unit Title(competence standard)
- occupational map providing the Technical and Vocational Education and Training (TVET) providers with information and important requirements to consider when designing training programs for this standards and for the individual, a career path

UNIT OF COMPETENCE CHART

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management		
Occupational Code: IND RLM		
NTQF level V		
IND LPM5 01 0616 Plan and Monitor Production Processes	IND LPM5 02 0616 Develop and Implement Sustainable Land Use Strategies	IND LPM5 03 0616 Develop and Manage a Chemical Use Strategy
IND LPM5 04 0616 Develop Climatic Risk Management Strategies	IND LPM5 05 0616 Develop a Whole Farm Plan	IND LPM5 06 0616 Plan and Manage Stored Rubber Seed and Grain
IND LPM5 07 0616 Plan and Manage Stored Dry Rubber Sheet	IND LPM5 08 0616 Plan and Manage Long-Term Weed, Pest and/or Disease Control	IND LPM5 09 0616 Manage People's Performance and Relationship
IND LPM5 10 0616 Evaluate and Select Materials and Processes	IND LPM5 11 0616 Prepare and Monitor Budgets and Financial Reports	IND LPM5 12 0616 Manage Trial and/or Research Material
IND LPM5 13 0616 Monitor and Review Business Performance	IND LPM5 14 0616 Manage Project Quality	IND LPM5 15 0616 Facilitate and Capitalize on Change and Innovation
IND LPM5 16 0616 Manage Continuous Improvement Process (Kaizen)		

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Plan and Monitor Production Processes**
Unit Code	**IND LPM5 01 0616**
Unit Descriptor	This competency standard covers the process of assessing land requirements and improving the land under production. It includes the requirements to apply a range of sustainable growing practices according to the enterprise codes of practice and conduct, and consistent with legislate on. When achieved, the work in this standard leads to the long-term economic viability of land under production. Plan and monitor production process use is likely to be under limited supervision from others, with checking only related to overall progress. It is usually done within routines, methods and procedures where some discretion and judgment is required in the selection of equipment and materials, organization of work, services, actions, and the achievement of outcomes within budgetary constraints.

Elements	Performance Criteria
1. Plan and monitor production processes	1.1 Plan and monitor production processes are identified and accepted where possible. 1.2 Legislative and regulatory requirements and imperatives are identified and adhered to throughout the conduct of operations. 1.3 Specific requirements for plan and monitor are identified from the organizations production and management plans.
2. Prepare plan and monitor to improve production	2.1 Plan and monitor are inspected and measured, key features noted, and pegs or markers are placed as appropriate for the improvement required. 2.2 OHS hazards are identified and appeased, and responsible action is taken throughout the preparation process. 2.3 Materials required for the construction of the ***improvement(s)*** are calculated from the plans, observations and discussions with colleagues. 2.4 Materials, personnel and ***equipment*** are obtained and organized to be on site at the appropriate times. 2.5 Equipment to be used is checked and calibrated, if necessary, prior to commencement & Improve land use.

	2.6 Suitable personal protective equipment is selected, used and maintained. 2.7 OHS hazards are identified, risks assessed, and suitable controls are implemented. 2.8 ***Soil structure*** and balance is corrected according to the results of the ***soil samples*** tests. 2.9 Organizational chemical application procedures and processes are reviewed to reduce contamination of soils, ground water & ***Soil conservation*** measures are implemented.
3. Complete operations	3.1 Equipment is ***cleaned*** in accordance with manufacturer's specifications, organizational procedures and regulations. 3.2 Attachments and other ancillary equipment are cleaned and stored to minimize damage and maximize hygiene according to manufacturer's specifications, organizational procedures and regulations. 3.3 All containers, leftover fluids, waste and debris from the maintenance and servicing work are disposed of safely and appropriately. 3.4 All required records and ***documentation*** are completed accurately and promptly in accordance with organizational requirements.

Variables	**Range**
Improvement(s)	May include: • The need for improvement may be caused by rising water tables • wind eroded areas • saline areas • weed infestations • unstable soils • Poorly drained areas or shelter requirements.
Equipment	May include: • Boots • hat/hard hat • Overalls • Gloves • protective eyewear • hearing protection • respirator or face mask • and sun protection (sun hat, sun screen).

Soil structure	May include: • Such practices as green cane harvesting, trash retention, • minimum/zero tillage, green manure crops, spray out fallow fields to leave subterranean roots and organic surface cover, and maintaining vegetation cover as long as possible. Spray out rations or sown crops during the fallow period.
Soil samples	May include: • The range of actions are both systemic and at an operational level. • Systems should be in place to ensure the safe operation and maintenance of machinery and equipment. • Precautions should also be in place to minimize exposure to noise, and organic and other dusts. • Fixtures should be in place in all silos and storage sheds, including appropriate access ladders, hand rails and ladder cages. • Personal protective equipment should be selected, used and maintained. • Environmental conditions should be controlled. For example, keeping moisture levels as low as possible will reduce the likelihood of fire. • Procedures should be in place and used for working on harvesters, working with Seed mass movement and stability, working within confined working spaces, moving vehicles, and working at height. • Recordkeeping should ensure that requirements in relation to properly observing and using product labels and MSDS sheets, instruction manuals and written organizational procedures.
Soil conservation	May include: • The preparation of grassed waterways • construction of contour banks at specific sites • maintenance of contour banks and waterways • and stabilizing and re-vegetating land by planting grasses/trees where soil erosion has taken place. • There may also be the use of dams • banks and drains, waterways • land clearing, land rehabilitation • water ponding schemes • water ponding banks • Sand owing completed areas on banks. • Carrying out irrigation practices to ensure crop needs aremet, by matching irrigation inputs with soil water

	holding capacity to minimize excess applications that may result in rising water tables, leaching of nutrients or excessive run-off.
Cleaning	May include: • Detrimental environmental impacts may result from excessive noise and exhaust emissions, the incorrect use and disposal of maintenance debris (oils containers, chemical residues), and hazardous substances (fuel). • Impacts may also include run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities.
Documentation	May include: • Paper-based or digital • Information will be recorded into logbooks or other records.
Equipment required for land improvements	May include: • Vehicles might include tractors • Trucks and four-wheel drive vehicles. • Ploughs • cultivators, • Scarifies • fertilizer spreaders • spraying equipment • mulchers or rakes.
Natural features	May include: • Natural features include hills • Depressions and waterways.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Perform operations within the guidelines for sustainable land use. • Describe sustainable land and water use principles and practices applicable in the region • Identify and apply environmental controls and codes of practice applicable to the business and to the improvement works

Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • tree planting techniques • sustainable land and water use principles and practices applicable in the region • environmental controls and codes of practice applicable to the business and to the improvement works • the whole farm plan • relevant legislation and regulations relating to soil and water degradation issues and chemical use, building construction, and relevant OHS legislation, regulations and codes of practice:
Underpinning Skills	Demonstrates skills to: • use communication systems • assess requirements for • prevent land degradation improved land use • complete pre- and post-operational checks on tools and equipment • perform routine safety, service and maintenance procedures on tools and equipment • read and interpret manufacturers specifications, work and • maintenance plans, and material safety data sheets • interpret and apply task instructions, communicate with work team • and supervisor, and record and report faults, workplace hazards and accidents • communication of ideas and information by preparing and amending plans that may be implemented by other people • collect, analyze and organize information in assessing the land and interpreting plans for what should be done • plan and organize activities in working with others to improve land use according to prepared plans calculate and calibrate equipment and measuring quantities
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Develop and Implement Sustainable Land Use Strategies**
Unit Code	**IND LPM5 02 0616**
Unit Descriptor	This competency standard covers the process of assessing land requirements and improving the land under production. It includes the requirements to apply a range of sustainable growing practices according to the industry's codes of practice and conduct, and consistent with legislate on. When achieved, the work in this standard leads to the long-term economic viability of land under production. Implementing sustainable land use is likely to be under limited supervision from others, with checking only related to overall progress. It is usually done within routines, methods and procedures where some discretion and judgment is required in the selection of equipment and materials, organization of work, services, actions, and the achievement of outcomes within budgetary constraints.

Elements	Performance Criteria
1. Assess requirements for improved land use	1.1 Potential sources of additional requirement are identified and accepted where possible. 1.2 Legislative and regulatory requirements and imperatives are identified and adhered to throughout the conduct of operations. 1.3 Specific requirements for ***improvement*** are identified from the organizations production and management plans. 1.4 ***Soil samples*** are taken according to the requirements of the organizations production and management plans. 1.5 Plans and reports are annotated as required in preparation for action.
2.Prepare to improve land use	2.1 Sites are inspected and measured, key features noted, and pegs or markers are placed as appropriate for the improvement required. 2.2 ***OHS*** hazards are identified and appeased, and responsible action is taken throughout the preparation process. 2.3 Materials required for the construction of the improvement(s) are calculated from the plans, observations and discussions with colleagues.

	2.4 Materials, personnel and equipment are obtained and organized to be on site at the appropriate times. 2.5 Equipment to be used is checked and calibrated, if necessary, prior to commencement Improve land use 2.6 Suitable ***personal protective equipment*** is selected, used and maintained 2.7 OHS hazards are identified, risks assessed, and suitable controls are implemented. 2.8 ***Soil structure*** and balance is corrected according to the results of the soil tests. 2.9 Organizational chemical application procedures and processes are reviewed to reduce contamination of soils and ground water. 2.10 ***Soil conservation*** measures are implemented
3.Prevent land degradation	3.1 Suitable personal protective equipment is selected, used and maintained. 3.2 OHS hazards are identified, risks assessed, and suitable controls are implemented. 3.3 Fences or boundaries are realigned to land classes and soil conservation works. 3.4 Contour banks are protected and repaired as necessary. 3.5 Water carrying structures are repaired as necessary. 3.6 Tree, other vegetation and shelter belts are established for crop and stock protection. 3.7 Soil cultivation and planting practices are reviewed and amended to prevent erosion and minimize soil run-off. 3.8 ***Chemical applications*** are planned using methods and times when maximum uptake and minimum run-off may be achieved. 3.9 Equipment needed for chemical applications is calibrated and serviced to maintain optimum working condition.
4.Complete operations	4.1 Equipment is ***cleaned*** in accordance with manufacturer's specifications, organizational procedures and regulations. 4.2 Attachments and other ancillary equipment are cleaned and stored to minimize damage and maximize hygiene according to manufacturer's specifications, organizational procedures and regulations.

	4.3 All containers, leftover fluids, waste and debris from the maintenance and servicing work are disposed of safely and appropriately. 4.4 All required records and ***documentation*** are completed accurately and promptly in accordance with organizational requirements.

Variables	**Range**
Improvement	May include: • rising water tables • wind eroded areas • saline areas • weed infestations • unstable soils • poorly drained areas or shelter requirements. • vehicles might include tractors, trucks and four-wheel drive vehicles. • equipment might be mounted or trailing and may include ploughs cultivators • scarifiers • fertilizer spreaders • spraying equipment • mulchers or rakes.
Soil samples	May include: • It may be tested for pH • Salinity • texture or nutrient status
OHS	May include: • The range of actions are both systemic and at an operational level. • Systems should be in place to ensure the safe operation and maintenance of machinery and equipment. • Precautions should also be in place to minimize exposure to noise, and organic and other dusts. • Fixtures should be in place in all silos and storage sheds, including appropriate access ladders, hand rails and ladder cages. • Personal protective equipment should be selected, used and maintained. • Environmental conditions should be controlled. For example, keeping moisture levels as low as possible will reduce the likelihood of fire.

	• Procedures should be in place and used for working on harvesters, working with Seed mass movement and stability, working within confined working spaces, moving vehicles, and working at height. • Recordkeeping should ensure that requirements in relation to properly observing and using product labels and MSDS sheets, instruction manuals and written organizational procedures.
Personal protective equipment	May include; • Boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, respirator or face mask, and sun protection (sun hat, sun screen).
Soil structure	May include; • Such practices as green cane harvesting, trash retention, • minimum/zero tillage, green manure crops, spray out fallow fields to leave subterranean roots and organic surface cover, and maintaining vegetation cover as long as possible. Spray out ratoons or sown crops during the fallow period.
Soil conservation	May include; • The preparation of grassed waterways, construction of contour banks at specific sites, maintenance of contour banks and waterways, and stabilizing and re-vegetating land by planting grasses/trees where soil erosion has taken place. There may also be the use of dams, banks and drains, waterways, land clearing, land rehabilitation, water ponding schemes, water ponding banks, sand owing completed areas on banks. • Carrying out irrigation practices to ensure crop needs are met, by matching irrigation inputs with soil water holding capacity to minimize excess applications that may result in rising water tables, leaching of nutrients or excessive run-off.
Chemical applications	May include the availability of the fertilizer and amendments, their physical and chemical characteristics, and the suitability of fertilizer and amendments to the type of soil, climate, crop and field topography.
Cleaning	May include: • Detrimental environmental impacts may result from excessive noise and exhaust emissions, the incorrect use and disposal of maintenance debris (oils containers, chemical residues), and hazardous substances (fuel). • Impacts may also include run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities.

Documentation	May include record keeping systems used may be either paper-based or digital, and information will be recorded into logbooks or other records.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Perform operations within the guidelines for sustainable land use. • Describe sustainable land and water use principles and practices applicable in the region • Identify and apply environmental controls and codes of practice applicable to the business and to the improvement works
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • tree planting techniques • sustainable land and water use principles and practices applicable in the region • environmental controls and codes of practice applicable to the business and to the improvement works • the whole farm plan • relevant legislation and regulations relating to soil and water degradation issues and chemical use, building construction, and relevant OHS legislation, regulations and codes of practice
Underpinning Skills	Demonstrates skills to: • Skills include the ability to: • use communication systems • assess requirements for • prevent land degradation improved land use • complete pre- and post-operational checks on tools and equipment • perform routine safety, service and maintenance procedures on tools and equipment • read and interpret manufacturers specifications, work and • maintenance plans, and material safety data sheets • interpret and apply task instructions, communicate with work team and supervisor, and record and report faults, workplace hazards and accidents • communication of ideas and information by preparing and amending plans that may be implemented by other people • collect, analyze and organize information in assessing the land and interpreting plans for what should be done • plan and organize activities in working with others to improve land use according to prepared plans

	• calculate and calibrate equipment and measuring quantities
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Develop and Manage a Chemical Use Strategy**
Unit Code	**IND LPM5 03 0616**
Unit Descriptor	This competency standard covers the process of developing, Implementing and managing a chemical use strategy. High level skills include risk analysis, risk control; risk management, use of Integrated Pest Management, Integrated Resistance Management, Animal Health Management and communication are required. Extensive knowledge of equipment and its use, legislation, regulations and safety procedures associated with chemical use is also needed..

Elements	Performance Criteria
1. Identify and evaluate need for chemical use	1.1 Integrated Pest Management (IPM) and Integrated Resistance Management (IRM) strategies are interpreted and the organizational chemical requirements are identified. 1.2 ***External requirements*** for chemical use are identified and relevant information obtained and interpreted. 1.3 Requirements for chemical use are documented. 1.4 Chemicals available to meet requirements are identified and information concerning their application is reviewed.
2. Develop a chemical use risk management strategy	2.1 Hazards in the transportation, storage and handling of chemicals are identified and assessed. 2.2 ***Risk factors*** associated with the use of chemicals are identified and documented. 2.3 ***Risk control measures*** are identified and developed in accordance with regulatory requirements. 2.4 A risk management strategy for chemical use is developed in accordance with ***legislation and regulations*** Integrated Pest Management, Integrated Resistance Management, and Integrated Animal Health Management principles. 2.5 Appropriate insurance policies covering intended chemical use are researched and documented according to enterprise guidelines.
3. Develop and implement procedures	3.1 ***Procedures*** for management and use of chemicals are developed in accordance with ***directions and standards***.

	3.2 Required precautions and risk control measures are documented. 3.3 Procedures for communicating and negotiating with the community are developed. 3.4 Information on procedures and precautions in the management and use of chemicals is distributed to relevant staff.
4. Identify training and supervision needs and solutions for chemical use in the workplace	4.1 An appropriate strategy is developed for the ***training***, ***assessment*** and supervision of staff involved in chemical use including correct use/fit of personal protective equipment. 4.2 Suitable internal on-the-job training and monitoring of performance in the implementation of the chemical use strategy is organized and provided. 4.3 Appropriate external training and assessment in the management and use of chemicals is organized.
5. Monitor and evaluate the implementation of a chemical use strategy	5.1 The implementation of the established chemical use strategy is monitored in terms of regulatory requirements and established ***criteria***. 5.2 The effectiveness of the established chemical use strategy is evaluated. 5.3 Appropriate action is initiated where there are identified problems or where required procedures/precautions are not being correctly followed.

Variables	**Range**
External requirements	May include: • Chemical use regulations and legislation, best practice • systems, mandatory Codes of Practice, chemical • manufacturer's instructions, labels and Material Safety • Data Sheets (MSDS).
Risks factors	May include: • pollution of ground or surface waters • Damage to habitats, damage to sensitive land, or damage to community amenity due to spray drift. • Risks associated with the produce include chemical residue in plant produces, livestock or water. • Risks associated with OHS include exposure to chemicals during handling and application, and public health risks.

Risk control measures	May include providing instructions for handling, transport, storage, obtaining appropriate insurance policies, application and disposal of chemicals in the workplace, ensuring workers read and follow instructions on product label and MSDS, ensuring use, maintenance and storage of correct personal protective equipment, training and accreditation of all staff using chemicals, and ensuring all staff using a chemical understand the specific risks involved and the associated precautions required.
Legislation and regulations	May include: • Legislation Pesticide Acts • OHS Acts regarding hazardous substances and application equipment • Dangerous Goods Act • Poisons Act or Protection of the Environment Acts.
Procedures	May include: • identifying needs for specific chemical use as part of IPM/IRM, reading and interpreting product labels and MSDS • mixing chemicals • calibration of application equipment • application of specified products • disposal of unused product • Checking • Maintenance • repair and disposal of equipment and containers • procedures and precautions for transport and storage emergency procedures in event of spillage • Contamination • Accidental contact or ingestion, procedures for keeping records (e.g., chemical inventory, details of chemical use), training and assessment strategy for staff.
Directions and standards	May include a risk management strategy, registration requirements and IPM/IRM strategies
Training and assessment	May include: • Internal training may include on-job coaching and instruction by qualified trainers, performance appraisal by supervisors, training programs conducted in the workplace • External training and assessment options may include training programs conducted by registered training organizations, or workshops
Criteria	May include monitoring pest levels over time from an established benchmark

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Identify and consider the requirements for chemical use at a workplace • Develop a chemical use management strategy based on a consideration of the available suitable chemicals, and the hazards and risks in their use. • Describe a range of chemicals and the factors that need to be taken into account when carrying out a risk management analysis. • demonstrate a chemical use management strategy that details chemical use requirements, details of selected chemicals (including specific identification and justification for chemicals selected),any special accreditation requirements for the use of any chemicals identified in the strategy, • Demonstrate procedures and precautions for the transport, storage, handling and application of the identified chemicals including disposal of unused product, emergency procedures including first aid and reporting requirements, training or assessment arrangements and record keeping arrangements.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Develop a chemical use management strategy based on a consideration of the available suitable chemicals, and the hazards and risks in their use. • Describe a range of chemicals and the factors that need to be taken into account when carrying out a risk management analysis. • demonstrate a chemical use management strategy that details chemical use requirements, details of selected chemicals (including specific identification and justification for chemicals selected),any special accreditation requirements for the use of any chemicals identified in the strategy,
Underpinning Skills	Demonstrates skills to: • Hazards to human health, agricultural produce, and all aspects of the environment and non-target species of flora and fauna associated with the transport, storage, handling, application and disposal of chemicals. • Factors that contribute to spray drift, measures to assess the potential for spray drift and prevent or control its occurrence, and the elements of a spray drift management strategy.

	• Routes of entry of chemicals into the body and the implications of this on chemical use management strategies. • Safety procedures including the maintenance, use, fit and decontamination of personal protective clothing and equipment. • Influence of meteorological factors (temperature, humidity, rain) on quality of chemical application, drift potential, effectiveness and efficacy of use. • Precautions and risk control measures that may be used to minimize risks and hazards associated with the use of chemicals. • Principles of IPM/IRM/IAM and their benefits in terms of chemical use risk management. • Emergency procedures for safety incidents involving chemicals. • Requirements and options for the keeping of records on chemical use and equipment maintenance and repair. • Principles of residue effects and their management including persistence in soil and water, accumulation in agricultural produce, rate of breakdown of residues in produce and in the environment, withholding periods, and ways in which residues can occur. • Movement of and persistence and degradation of different types of chemicals in various areas of the environment such as soil, air and water. • OHS legislative requirements and Codes of Practice. • Appropriate insurances covering chemical use, transportation and storage. • Correct wearing/fit of personal protective equipment. • Use of chemicals as part of a comprehensive Quality Assurance (QA) system, Industry QA programs and performance standards.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Develop Climatic Risk Management Strategies**
Unit Code	**IND LPM5 04 0616**
Unit Descriptor	This competency standard describes the work function associated with developing climate risk management strategies for an agricultural, horticultural or land management enterprise. It requires the ability to research climate and enterprise data analyze and interpret climate and enterprise data, prepare risk management strategies, and integrate climate risk and opportunities for management strategies at a business management level. Developing climate risk management strategies requires knowledge of current forecasting techniques, impact of weather and climate phenomena on rainfall, plant growth and yields, livestock production, causes of general patterns of weather and climate over Ethiopia, climate variability and climate change, and direct and indirect impacts of climate variability on land management and sustainability.

Elements	Performance Criteria
1.Survey climate and enterprise data	1.1 Historical climate date is obtained and interpreted from a range of sources. 1.2 Weather and climate ***risk factors*** are identified. 1.3 Information on normal and ***significant climate events*** and their impact on natural and rural system is collected. 1.4 Current and historical property and ***enterprise situation*** is detailed according to enterprise guidelines. 1.5 Short and long term enterprise goals are reviewed. 1.6 Climate and enterprise date is sourced, presented and updated according to enterprise requirements.
2.Identify and analyze Climate risk and opportunities	2.1 Forecasted chances of seasonal climate are analyzed. 2.2 ***Climate risks and opportunities*** are identified. 2.3 Impact on production of different weather and climate risk factors are determined according to enterprise requirements. 2.4 Qualitative and quantitative risk and opportunity factors are identified and developed. 2.5 Importance of climate variability and significant climate events is evaluated.

	2.6 Tactics to address a range of different climate variability risks and opportunities are outlined according to enterprise requirements. 2.7 ***Contingency options*** for enterprises and the business.
3. identify impact of climate change and its management	3.1 Climate variability and seasonal climate forecasts are analyzed. 3.2 Insurance and other options are addressed in strategies. 3.3 Major climate risk factors are addressed in strategies. 3.4 Financial outcomes for all strategies are prepared according to enterprise guidelines. 3.5 Impacts on the environment, ***property values*** and equity are predicted for the preferred strategies. 3.6 Preferred production, enterprise or alternative strategies are reviewed, and options selected according to enterprise requirements. 3.7 A planned strategy to cope with variable climate and climate risk management is presented in a format according to enterprise guidelines.

Variables	**Range**
Risk factors	May include: • soil erosion, tree cover, flooding, • drought, fire management, • pests and diseases, • changing nutrient levels
Significant climate events	May include • floods, droughts • periods of extreme temperature
Enterprise situation	May include: • stock • pasture • crops, climate, • Vegetation • Waterways • slope, aspect and growing season.
Climate risks and Opportunities	May include: • above average production, • market opportunities, • refining enterprise mix decisions, and alternative enterprises.

Contingency options	May include: • Marketing • cropping strategies • plant production • animal husbandry and health, • removing stock • re-stocking property, • provision of food supplements, • changing enterprises, and other emergency planning
Property values	May include: • economic • enterprise sustainability • improvement in natural resource base, and Other benefits.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Research, collate and interpret climate data in order to develop and present rational, achievable and effective strategies. • Explain direct and indirect impacts of climate variability on land management and sustainability • Explain potential impacts of greenhouse warming on land and natural resource management • Identify strategic options and planning in response to climate variability for a range of seasons (normal, drier or wetter than normal), and other risks and opportunities • Calculate financial returns for different strategic options
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Current forecasting techniques and phenomena such as El Nino. • the impact of weather and climate phenomena on rainfall, plant growth and yields • causes of general patterns of weather and climate • climate variability and climate change • direct and indirect impacts of climate variability on land management and sustainability • property and enterprise management decisions affected by the variable climate • recognition of climate risks and opportunities • seasonal climate forecasting systems and related indicators • drought planning and strategies • flood planning and strategies

	• climate and weather issues pertaining to sustainable agriculture • potential impacts of greenhouse warming on land and natural resource management • strategic options and planning in response to climate variability for a range of seasons (normal, drier or wetter than normal), and other risks and opportunities • calculating financial returns for different strategic options • computer applications and Internet to access, record and analyze data • Principles of decision-making based on the variable climate and seasonal climate forecasts.
Underpinning Skills	To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to: • research climate and enterprise data • analyze and interpret climate and enterprise data • prepare risk management strategies • Integrate climate risk, and opportunities and management strategies at a business management level.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Develop a Whole Farm Plan**
Unit Code	**IND LPM5 05 0616**
Unit Descriptor	This competency standard covers the process of developing a whole farm plan for a rural enterprise. It requires the ability to determine directions for the business, audit the natural resources of the property, monitor legal requirements impacting on the management of the property, and develop management strategies to address natural resource management issues. Developing a whole farm plan requires knowledge of SWOT analysis, sustainable land management practices, property planning processes and approaches, land capability, conservation management strategies, legal requirements and risk management.

Elements	Performance Criteria
1. Determine directions for the business	1.1 Long-term directions and purposes of the business are established through identification and analysis of the values, expectations and personal goals of the people involved. 1.2 Business and personal strengths, weaknesses**,** opportunities and threats are identified (SWOT analysis). 1.3 Strategies to address the SWOT are developed consistent with the business vision.
2. Audit the natural resources of the property	2.1 ***Physical characteristics*** of the soil resource are identified and recorded. 2.2 Soil map of property is drawn and land classes are recorded using classification terminology. 2.3 Land capability is determined and land management options for each land class identified. 2.4 Natural property features and ***infrastructure*** are shown on property map. 2.5 Areas at risk of soil degradation are identified. 2.6 Native vegetation is classified and condition is assessed. 2.7 Endangered species are identified as appropriate. 2.8 Other ***natural resource issues*** are identified as appropriate to the property.
3. Monitor legal requirements	3.1 Current knowledge of relevant Acts and regulations impacting on the property is maintained.

	3.2 Legal requirements are addressed through management plans.
4. Develop management strategies	4.1 Property improvement plans to assist natural resource management are developed, coasted and prioritized. 4.2 Plans to repair land degradation are developed. 4.3 Strategies to address water supply and water management, vegetation and revegetation management, and wildlife management are prepared as appropriate to the property. 4.4 Strategies for weed and pest management are developed. 4.5 Plans to address fire risk/fire management are developed as appropriate. 4.6. Plans are reviewed and revised to meet changing circumstances

Variables	**Range**
Physical characteristics	May include moisture content, ph levels, nutrient levels, salinity, erosion, germination rates, aggregate stability, color, texture, structure, and pest and disease prevalence.
Infrastructure	May include buildings, sheds, shelters, stock yards, stock handling structures, fences, water supply systems, roads, tracks, soil conservation works, irrigation and drainage channels, silage pits and/or Seed and fodder storage, and dams.
Natural resource issues	May include issues stock grazing pressure, feral animals, wildlife, weeds, human impact, cultural practices, contamination, agricultural chemical drift, fire, reintroduction of native animals, legislation, management advice, and initiation of heritage agreements and other issues.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to: • Undertake SWOT analysis • audit the natural resources of the property • determine directions for the business • audit the natural resources of the property • monitor legal requirements impacting on the management of the property • Develop management strategies to address natural resource management issues. • Communicate ideas and information through the development of whole farm plans.

Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • business objectives and plans, • plans for sustainable land • relevant data from a natural resources audit and build on and contribute to other plans, such as the business plan, human resources plan and risk management plan. • SWOT analysis • the natural resources of the property • legal requirements impacting on the management of the property • management strategies to address natural resource management issues. • ideas and information through the development of whole farm plans.
Underpinning Skills	Demonstrates skills to: • Determine directions for the business • Audit the natural resources of the property • Monitor legal requirements impacting on the management of the property • Develop management strategies to address natural resource management issues. • Communicate ideas and information through the development of whole farm plans. • Organize information in accordance with whole farm planning processes. • Plan and organize activities in accordance with whole farm planning processes. • Apply team work during the development of whole farm plans. • Use mathematical ideas and techniques when collecting and using primary data about farm resources. • Solve problems in the analysis and decision-making process. • Use appropriate data collection and storage technology.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Plan and Manage Stored Rubber Seed and Grain**
Unit Code	**IND LPM5 06 0616**
Unit Descriptor	This competency standard covers the process of planning seed and other grains storage for the long, medium and short term to maximize returns for the organization. This includes pest control and OHS planning as well as ensuring that appropriate records are kept throughout the operation. This standard also covers the work required to identify and solve problems as they occur throughout the Seed and other grain storage operation. Planning for, and managing Seed storage is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Planning for, and managing Seed storage involves the self-directed application of extensive knowledge including effective management of pests and/or diseases in stored Seed and others . It requires a range of technical and other skills such as planning, establishing procedures and control for implementation by others, and the estimation of the financial effects of a range of problems.

Elements	Performance Criteria
1. Plan rubber Seed and other grain storage program	1.1 Relevant organizational ***documentation and information*** is obtained and analyzed for input to the storage program. 1.2 The available storage facilities are identified, recorded and ***assessed*** for suitability and capacity. 1.3 The projected seed and other grains production and delivery quantities, types and timeframes are calculated and analyzed against storage capacity. 1.4 Temporary storage if required, is arranged 1.5 Timeframes and scheduling for delivery of seed and other grains to storage facilities on- and ***off-site*** are estimated. 1.6 The program includes plans for annual, seasonal and short-term periods, and is prepared to achieve the goals and objectives of the organization. 1.7 The program, including scheduling and key responsibilities, is clearly documented. 1.8 The program includes the type, format, frequency and detail of any reporting required by both managers and operators.

2. Plan integrated pest control for the storage area	2.1 Seed and other grains is sampled for pest infestation and ***testing*** is organized. 2.2 The results of samples and tests for pest infestation are recorded and analyzed. 2.3 An integrated pest management program is developed and implemented to control ***seed and other grains insects and other pests*** in storage. 2.4 Monitoring points, targets and methods are determined to identify possible development of resistance in insects. 2.5 The pest control strategies selected relate to the requirements of the end use, and to the customers' expectations. 2.6 Record keeping requirements are determined and procedures are put in place to ensure compliance with the range of applicable regulations. 2.7 The program, including scheduling and key responsibilities, is clearly documented. 2.8 The program includes the type, format, frequency and detail of any reporting required by both managers and operators.
3. Implement OHS program for seed and other grains storage area	3.1 ***OHS hazards*** are identified within and surrounding the seed and other grains storage area(s). 3.2 Procedures to minimize OHS risks are developed and documented for use by all people operating around the storage facilities. 3.3 Procedures to minimize OHS risks are communicated clearly to all people operating around the storage facilities, and confirmation of the clear communication is sought. 3.4 The OHS program clearly describes the ***personal protective equipment*** and safety gear required to be used around the storage facilities. 3.5 Record keeping requirements are determined and procedures are put in place to ensure compliance with the range of applicable regulations. 3.6 The program includes the type, format, frequency and detail of any ***reporting*** required by both managers and operators.

4. Manage the seed and other grains storage program	4.1 Checks are made to ensure that the performance indicators, targets and specifications are being met and amendments to the program are made where necessary. 4.2 Operational personnel are communicated with regularly throughout the storage, transport, sampling and chemical application operations to ensure efficient and safe operation and progress. 4.3 The impact and risk of existing and potential problems are assessed. 4.4 Where a potential problem is identified, investigation is made into its likely causes. 4.5 Alternative ***solutions*** are analyzed and reviewed, and the most appropriate is recommended to the appropriate personnel for a decision.
5. Maintain records of stored seed and grains movements	5.1 Records and documentation are created, maintained and kept as described in the seed and grains storage program, the integrated pest management program, and the OHS requirements. 5.2 Records and documentation are completed clearly and accurately throughout the storage program. 5.3 The record keeping system that is used ensures that required information is available, accessible, reliable, meaningful, and useful.

Variables	**Range**
Documentation and information	May include: • The documents that outline the organizations production planning for the specified period, those that outline the policies and procedures in relation to chemical handling and OHS, as well as the way in which potential environmental impacts should be approached.
Assessment	May include: • Seed and grains storages are generally assessed in relation to capacity, suitability for fumigation, state of repair and their current use.
Off site	May include: • They may be at one large site or a group of smaller sites, which may be operating a single shift or multiple shifts, especially during harvest.

Testing	May include: • Testing of samples would generally take place off-site by a • specialist organization, which would then prepare analysis • results to be used as a basis for decision-making within the organization
Seed and grains insects and other pests	May include: • They are both vertebrate and invertebrate and might include mites, rodents and birds
OHS hazards	might exist where a person is working at height, in an enclosed space, on the seed mass, using fumigants, around seed and grains dust, desiccants and pesticides residues, or working near belts, augers and pulleys.
Personal protective Equipment	should be used around the storage facilities would include respirators, overalls, safety boots, head protection, gloves, goggles, dust mask and an apron.
Reporting	May include the use and application of pesticides and fumigants, and any individual exposure records
Solutions	May include: • organizational policies or production planning will give direction to the solutions recommended, and aspects to consider would include safety of personnel and public, loss and damage control, risk management, maintenance of quality, cost control, cost estimates and savings reporting requirements, OHS integrated pest management programs, and market standards and requirements.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Prepare plan that takes all potential OHS impacts into consideration while determining how, where and when Seed and grains should be stored, • Calculate appropriately the resource requirements for the operation. • Explain silo layout and operations, configuration, and maintenance procedures • identify and describe safe working practices, especially in confined spaces and at heights • Explain organizational priorities and policies in relation to production planning, OHS, chemical use, and quality • Perform reporting and recording requirements within the organization and as required by external authorities • Calculate the resource requirements for the seed and grains storage operations from the plan.

	• Prepare estimate costs of problems and cost savings in improvements • plan, schedule, monitor and amend plans for operations
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • silo layout and operations, configuration, and maintenance procedures • safe working practices, especially in confined spaces and at heights • organizational priorities and policies in relation to production planning, OHS and chemical use • organizational priorities and policies in relation to quality, personnel and operations • pest control principles • reporting and recording requirements within the organization and as required by external authorities • general seeds and grains market and commodity prices • specific electronic systems used within the organization • integrated pest and weed management techniques • relevant legislation and regulations relating to OHS, contractor engagement, chemical use and application, site management, and vehicle and plant use • Sound management practices and processes to minimize noise, odors, and debris from seeds and grains storage operations.
Underpinning Skills	Demonstrate skills to: • Estimate costs of problems and cost savings in improvements • Plan, schedule, monitor and amend plans for operations • Administer and co-ordinate operations on a site • Prepare written plans and procedures for implementation by others • Explain, and deliver instructions about the plans and scheduling of the seeds and grains storage operations to both staff and contractors • Observe, identify and react appropriately to environmental implications and ohs hazards. • Collect, analyze and organize information as input to the implementation plan. • Plan and organize activities by scheduling for the people, materials and equipment to be in the right place at the right time. • Manage and monitor the operation. • Calculate the resource requirements for the seeds and grains storage operations from the plan.

Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Plan and Manage Stored Dry Rubber Sheet**
Unit Code	**IND LPM5 07 0616**
Unit Descriptor	This competency standard covers the process of planning dry rubber sheet storage for the long, medium and short term to maximize returns for the organization. This includes disease control and OHS planning as well as ensuring that appropriate records are kept throughout the operation. This standard also covers the work required to identify and solve problems as they occur throughout the dry rubber sheet production. Planning for and managing dry rubber sheet is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Planning and managing dry rubber sheet involves the self-directed application of extensive knowledge including effective management of diseases in stored dry rubber sheet. It requires a range of technical and other skills such as planning, establishing procedures and control for implementation by others, and the estimation of the financial effects of a range of problems.

Elements	Performance Criteria
1. Plan dry rubber sheet storage program	1.1 Relevant organizational ***documentation and information*** is obtained and analyzed as input to the storage program. 1.2 The available storage facilities are identified, recorded and ***assessed*** for suitability and capacity. 1.3 The projected dry rubber sheet production and delivery quantities, types and timeframes are calculated and analyzed against storage capacity. 1.4 Temporary storage if required, is arranged 1.5 Timeframes and scheduling for delivery of dry rubber sheet facilities on- and ***off-site*** are estimated. 1.6 The program includes plans for annual, seasonal and short-term periods, and is prepared to achieve the goals and objectives of the organization. 1.7 The program, including scheduling and key responsibilities, is clearly documented. 1.8 The program includes the type, format, frequency and detail of any reporting required by both managers and operators.

2. Plan integrated disease control for the storage area	2.1 Dry rubber sheet is sampled for disease infestation and ***testing*** is organized. 2.2 The results of samples and tests for disease infestation are recorded and analyzed. 2.3 An integrated disease management program is developed and implemented to control ***dry rubber sheet diseases*** in storage. 2.4 Monitoring points, targets and methods are determined to identify possible development of resistance in insects. 2.5 The disease control strategies selected relate to the requirements of the end use, and to the customers' expectations. 2.6 Record keeping requirements are determined and procedures are put in place to ensure compliance with the range of applicable regulations. 2.7 The program, including scheduling and key responsibilities, is clearly documented. 2.8 The program includes the type, format, frequency and detail of any reporting required by both managers and operators.
3. Implement OHS program for dry rubber sheet storage area	3.1 ***OHS hazards*** are identified within and surrounding the dry rubber sheet storage area(s). 3.2 Procedures to minimize OHS risks are developed and documented for use by all people operating around the storage facilities. 3.3 Procedures to minimize OHS risks are communicated clearly to all people operating around the storage facilities, and confirmation of the clear communication is sought. 3.4 The OHS program clearly describes the ***personal protective equipment*** and safety gear required to be used around the storage facilities. 3.5 Record keeping requirements are determined and procedures are put in place to ensure compliance with the range of applicable regulations. 3.6 The program includes the type, format, frequency and detail of any ***reporting*** required by both managers and operators.

4. Manage the dry rubber sheet storage program	4.6 Checks are made to ensure that the performance indicators, targets and specifications are being met and amendments to the program are made where necessary. 4.7 Operational personnel are communicated with regularly throughout the storage, transport, sampling and chemical application operations to ensure efficient and safe operation and progress. 4.8 The impact and risk of existing and potential problems are assessed. 4.9 Where a potential problem is identified, investigation is made into its likely causes. 4.10 Alternative ***solutions*** are analyzed and reviewed, and the most appropriate is recommended to the appropriate personnel for a decision.
5. Maintain records of dry rubber sheet movements	5.4 Records and documentation are created, maintained and kept as described in the dry rubber sheet, the integrated disease management program, and the OHS requirements. 5.5 Records and documentation are completed clearly and accurately throughout the storage program. 5.6 The record keeping system that is used ensures that required information is available, accessible, reliable, meaningful, and useful.

Variables	**Range**
Documentation and information	May include: • The documents that outline the organizations production planning for the specified period, those that outline the policies and procedures in relation to chemical handling and OHS, as well as the way in which potential environmental impacts should be approached.
Assessment	May include dry rubber sheet storages are generally assessed in relation to capacity, suitability for fumigation, state of repair and their current use.
Off site	May include: • They may be at one large site or a group of smaller sites, which may be operating a single shift or multiple shifts, especially during harvest.
Testing	May include samples would generally take place off-site by a specialist organization, which would then prepare analysis results to be used as a basis for decision-making within the organization

Dry rubber sheet diseases	May include: • It may be fungus.
OHS hazards	May include: • Such hazards might exist where a person is working at height, in an enclosed space, dry rubber sheet mass, using fumigants, around dry rubber sheet dust and fungicides residues.
Personal protective equipment	May include: • Personal protective equipment that should be used around the storage facilities would include respirators, overalls, safety boots, head protection, gloves, goggles, dust mask and an apron.
Reporting	May include the use and application of fungicides and fumigants, and any individual exposure records
Solutions	May include: • Organizational policies or production planning will give direction to the solutions recommended, and aspects to consider would include safety of personnel and public, loss and damage control, risk management, maintenance of quality, cost control, cost estimates and savings reporting requirements, OHS integrated pest management programs, and market standards and requirements.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Prepare plan that takes all potential OHS impacts into consideration while determining how, where and when dry rubber sheet should be stored, • Calculate appropriately the resource requirements for the operation. • Explain warehouse layout and operations, configuration, and maintenance procedures • identify and describe safe working practices, especially in confined spaces and at heights • Explain organizational priorities and policies in relation to production planning, OHS, chemical use, and quality • Perform reporting and recording requirements within the organization and as required by external authorities • Calculate the resource requirements for the dry rubber sheet storage operations from the plan. • Prepare estimate costs of problems and cost savings in improvements • plan, schedule, monitor and amend plans for operations

Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Warehouse layout and operations, configuration, and maintenance procedures • Safe working practices, especially in confined spaces and at heights • Organizational priorities and policies in relation to production planning, OHS and chemical use • Organizational priorities and policies in relation to quality, personnel and operations • Disease control principles Reporting and recording requirements within the organization and as required by external authorities • General dry rubber sheet market and commodity prices specific electronic systems used within the organization • integrated disease management techniques • Relevant legislation and regulations relating to OHS, contractor engagement, chemical use and application, site management, and vehicle and plant use • Foreign particles have to be minimized like odors, and debris from dry rubber sheet storage operations.
Underpinning Skills	Demonstrate skills to: • Estimate costs of problems and cost savings in improvements • Plan, schedule, monitor and amend plans for operations • Administer and co-ordinate operations on a site • Prepare written plans and procedures for implementation by others • Explain, and deliver instructions about the plans and scheduling of the dry rubber sheet storage operations to both staff and contractors • Observe, identify and react appropriately to environmental implications and OHS hazards. • Collect, analyze and organize information as input to the implementation plan. • Plan and organize activities by scheduling for the people, materials and equipment to be in the right place at the right time. • Manage and monitor the operation. • Calculate the resource requirements for the dry rubber sheet storage operations from the plan.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.

Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Plan and Manage Long-Term Weed, Pest and/or Disease Control**
Unit Code	**IND LPM5 08 0616**
Unit Descriptor	This competency standard covers the process of planning for long-term weed, pest and/or disease control, and then managing the implementation of such a plan. It includes the need to provide input to planning processes that may be occurring elsewhere in the organization, and to determine the scheduling for implementation. It requires the need to monitor and adjust the plan in response to changing situations, and to subsequently evaluate the outcomes of the weed, pest and/or disease control measures taken. Responsibility for the planning and management of the work of others may be involved. Planning for and managing weed, pest and/or disease control involves the self directed application of knowledge with substantial depth in some areas such as the effects on rubber tree of weeds, pests and/or diseases, including competitive effects on rubber tree and the effects of alternative methods of control. It requires a range of technical and other skills such as planning, establishing procedures and control for implementation by others, and the identification of the sign, symptoms of poor growth and lack of vigor in the rubber tree.

Elements	Performance Criteria
1. Source information for input to weed, pest and/or disease control planning.	1.1 Historical ***data***, including recent data from organizational records is identified and accessed for input to ***weed***, ***pest*** and/or ***disease*** control planning. 1.2 Information from other enterprises within the district is sought and gathered. 1.3 Information regarding the characteristics of the rubber tree(s) planned for, or under production, is accessed. 1.4 Information regarding the local geography, soil and climatic conditions is accessed and gathered. 1.5 The environmental implications of pesticide/***herbicides*** use, alternative methods and non-chemical preventative or biological control methods are considered and documented. 1.6 Information is assessed to determine potential key information for input to planning decisions.

2. Determine long-term weed, pest and/or disease control strategies	2.1 Information gathered is analyzed for suitable methods of weed, pest and/or disease control. 2.2 Methods of control are considered in light of their ***impacts***. 2.3 Strategies for weed, pest and/or disease control are determined to integrate the most suitable ***control methods*** with the proposed rubber tree and the existing geography. 2.4 Environmental controls are established and specifically included in the plan. 2.5 OHS hazards are identified, risks assessed and suitable controls are incorporated into the plan.
3. Provide input to other planning processes	3.1 Details regarding selected weed, pest and/or disease control strategies are used as input to other organizational ***planning processes***. 3.2 Information regarding other planning processes is collected and used to inform the weed, pest and/or disease control planning process. 3.3 Information about the range of planning processes is communicated verbally and/or in writing according to the requirements of the circumstances and the people involved.
4 Determine scheduling and key responsibilities	4.1 ***Scheduling*** for weed, pest and/or disease control is determined taking the range of seasonal, geographic and resourcing factors into consideration. 4.2 Key responsibilities for specific implementation processes are determined. 4.3 ***Record keeping*** requirements are determined and procedures are put in place to ensure compliance with the range of applicable regulations. 4.4 The plan, including scheduling and key responsibilities, is clearly documented. 4.5 The plan includes the type, format, frequency and detail of any reporting required by both manager(s) and operators.
5. Monitor and adjust weed, pest and/or disease control strategies	5.1 The effectiveness of the weed, pest and/or disease control strategies is evaluated at key points, and adjustments made as necessary.

	5.2 Environmental impacts and ***OHS*** hazards relating to weed, pest and/or disease control are identified, monitored and assessed throughout the implementation process. 5.3 Modifications are made to the strategy as and when necessary for environmental, OHS, researching, or effectiveness reasons.
6. Evaluate weed, pest and/or disease control strategies and record results	6.1 Data, observations, and documentation from the implementation of weed, pest and/or disease control is analyzed against the plan according to organization guidelines. 6.2 Recommendations for future strategies are prepared based on the analysis of the data. 6.3 A report is prepared that documents the implementation of the strategies and includes, any difficulties or issues faced, the methods used for treatment ,impacts on environmental and OHS ,any recommendations for future work ,results and costs and any available data analysis.

Variables	**Range**
Data	May include: • From the distant or recent past, and might include the species and types of weeds that have affected the property. Aspects of the weeds may be the density and growth stage in relation to the rubber tree, distribution throughout the paddock, efficacy of herbicide applied prior to monitoring, and herbicide resistance control measures.
Weed and pest	May include: • Such pests as insects • Weeds • Pathogens • Vertebrates • Nematodes and molluscs. • Weeds may be those which are annual, perennial, broad leaf, narrow leaf, or grasses. • Invertebrate pests may be thrips, mites, nematodes, locusts or caterpillars, whereas vertebrate pests might include rabbits, rats, mice, macro pods and birds
Diseases	May include: • Foliar pathogens, e.g. rusts, chocolate spot, ascochyta, mildew, septaria, seferotina, soil borne pathogens, (for example, take-all, root disease ,tapping panel dryness,

	pink disease, mouldy rot ,leaf fall disease cereal cyst nematodes), rhizoctonia, pythium, fusarium, or phytophthora.
Herbicides	May include; • Pre- or post-emergence, and may be root/foliar absorbed. They may be used selectively or non-selectively, or combinations of these.
Impacts	May include; • Those that cause financial, environmental, labor, OHS and opportunity costs to the organization.
Control methods	May include • Amongst the invertebrate pest control methods that may be used are insecticides, biological agents, crop rotation and fallowing. Vertebrate pest control methods may include physical barriers, baiting methods, shooting, • Fumigation of burrows, trapping, netting, and biological control. • In the instance of weed infestations, the selection of herbicides involves the collection of information, evaluation of alternatives, purchasing arrangements, safe storage, and degree of risk to user and environment, • Proper application and disposal of residues, manufacturer's recommendations, and legislative and end user requirements.
Planning processes	May include : • The planning processes that deal with other discrete areas of the organization's production include those such as production planning, irrigation planning, pasture and crop management planning, rubber tree property management planning, business planning, marketing planning, and livestock production planning.
Scheduling	May include timing of treatments is planned to suit seasonal influences, weather and weather forecasts, as well as the local geography and the organization's resourcing situation.
Records keeping	May include be created and stored either manually or electronically. they may also be in the form of samples of weeds or pests, photographs or sketches
OHS	May include: • Safe systems and procedures for storage, handling and transportation of hazardous substances; chemicals selected taking into account toxicity levels and environmental effects; systems and procedures for the safe operation and maintenance of machinery and equipment, including hydraulics and guarding of exposed moving parts; safe manual handling systems and

	Procedures; safe systems and procedures for outdoor work, including protection from solar radiation; selection, use and maintenance of relevant personal protective clothing and equipment; and fire risk.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Identify and explain pest and weed species, • Explain integrated pest and weed management principles • Identify environmental controls and codes of practice applicable • Apply relevant legislation and regulations relating to OHS, chemical use and application, and vehicle and plant use • Plan land use incorporating appropriate weed, pest and/or disease control measures • Prepare written plans and procedures for implementation by others • Identify poor growth and lack of vigour caused by nutrient deficiency • Communicate of ideas and information with the full range of staff and industry participants
Underpinning Knowledge and Attitudes	Demonstrates knowledge and understanding of: • pest and weed species, including their life cycles and reproduction/multiplication capability • integrated pest and weed management • the effects on crops of weeds, pests and/or diseases • including competitive effects on crop yield; threshold levels; and the effects of alternative methods of control • environmental controls and codes of practice applicable to the enterprise • relevant legislation and regulations relating to OHS, chemical use and application, and vehicle and plant use • environmental controls and codes of practice applicable to the business, and to the weed, pest and/or disease control operations • Sound management practices and processes to minimize noise, odours, and debris from weed, pest and/or disease control operations.
Underpinning Skills	Demonstrates skills to: • interpret monitored information on pest and weed numbers, density and control • interpret, analyze and extract information from a range of sources and discussions • plan and manage long-term weed, pest and/or disease

	control including amending plans during the operations • plan land use incorporating appropriate weed, pest and/or disease control measures • establish processes/strategies, procedures and controls for long-term weed, pest and/or disease control • prepare written plans and procedures for implementation by others • explain, and deliver instructions about the plans and scheduling of the weed, pest and/or disease control operations to both staff and contractors, as well as suppliers, customers, and neighbors • recognize poor growth and lack of vigour caused by nutrient deficiency • Observe, identify and react appropriately to environmental implications and OHS hazards. • Communicate of ideas and information with the full range of staff and industry participants. • Collect, analyze and organize information using the variety of sources available for input to decision-making. • Plan and organize activities in developing plans and directions for the long-term control of weeds, pests and/or diseases. • Apply team work in working with colleagues during input to the range of other planning processes. • Use mathematical ideas and techniques in calculating quantities, ratios, the extent of infestations and the potential costs of activities. • Apply problem-solving skills in recognizing where and when amendment is required to plans. • Apply technology in operating any necessary equipment prior to, and during, the control operations – communication technology, calculating equipment, measuring equipment, and word processing/spread sheeting software.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Manage People's Performance and Relationship**
Unit Code	**IND LPM5 09 0616**
Unit Descriptor	This competence standard covers the process of Managing people's performance and relationships .It requires the ability to collect and analyze information on people's performance, application of skills and knowledge to provide information and guidance to personnel in the conduct of their duties, facilitate staff discussions and agreements, and provide constructive evaluation to staff members and all aspects of employee relations impacting on managers. It seeks to develop and maintain a positive and productive workplace environment at all times.

Elements	Performance Criteria
1. Communicate work roles	1.1 Roles and responsibilities of staff are clearly defined and documented. 1.2 Skills of staff are accurately identified and matched with available tasks and duties. 1.3 Requirements of jobs are clearly identified and communicated to personnel. 1.4 Information on activities are developed and provided to personnel. 1.5 ***OHS*** policy and procedures are effectively communicated and implemented.
2.Coordinate activities	2.1 Work activities are prioritized to ensure completion of outcomes in accordance with available timelines. 2.2 Work plans are developed to establish appropriate targets and objectives of activities. 2.3 Training and learning opportunities are identified and incorporated into work activities. 2.4 Supervisory and reporting responsibilities are clear and maintained in line with organizational requirements. 2.5 Enterprise environmental policy and procedures are effectively communicated and implemented.
3.Establish personal work goals	3.1 Personal qualities and performance serve as a positive role model in the workplace. 3.2 Personal work goals and plans reflect the organization's plans personal plans, responsibilities and accountabilities.

	3.3 Action is taken to achieve and extend personal work goals beyond those planned. 3.4 Consistent personal performance is measured and maintained in varying work conditions and work contexts priorities and commitments.
4. Set and meet own work priorities	4.1 Competing demands are prioritized to achieve personal, team and the organization's goals and objectives. 4.2 Technology is used efficiently and effectively to manage work.
5.Develop and maintain professional competence	5.1 Personal knowledge and skills are assessed against competency standards to determine development needs and priorities. 5.2 Feedback from clients and colleagues is used to identify and develop ways to improve competence. 5.3 Management development opportunities suitable to personal learning style(s) are selected and used to develop competence. 5.4 Participation in professional networks and associations enhances personal knowledge, skills and relationships.
6. Implement employee relations strategy and policies for own work area	6.1 ***Employee relations*** strategy is consistent with organizational strategic objectives. 6.2 Strategies/policies provide for consultation with and participation by, relevant groups and individuals. 6.3 Strategies and policies are developed through the application of a risk management approach and extensive consultation. 6.4 ***Strategy and policies*** take account of equal opportunity, family/work relationships and ensure the absence of discrimination and/or harassment. 6.5 ***Risk management*** strategies are developed which take account of the withdrawal of labour and other potential outcomes of disputes. 6.6 Strategies and policies take account of the objectives of relevant groups and individuals and identify potential areas of conflict (if any).
7. Build and maintain a productive culture	7.1 Awards, agreements, and contracts which balance organizational objectives and ***employee rights and obligations*** are negotiated.

	7.2 Conditions of employment meet all legal an organizational requirements are made conducive to job satisfaction. 7.3 Consultation and communication is regular, timely and engenders support for the productive culture. 7.4 Policies and practices ensure employee recruitment, retention and satisfaction objectives are met. 7.5 Induction and training develops competence and confidence to ensure work is performed safely and effectively. 7.6 Employees understand their role and how it contributes to the achievement of organizational objectives. 7.7 Individual and team development plans are in place and regularly reviewed and updated. 7.8 Employee relations policies are regularly evaluated and improved.
8. Resolve employee relations problems	8.1 Processes have been established for early intervention to identify and minimize problems/grievances. 8.2 Problem solving processes are communicated to, and supported by, all relevant groups and individuals. 8.3 Competence in managing conflict negotiation skills and dispute resolution is developed through appropriate training and preparation. 8.4 Specialist advice is taken where appropriate and/or where formal hearings are required. 8.5 Processes are fair and equitable and consistent with all relevant awards agreements and legislation. 8.6 Problem solving processes provide for external mediation and conciliation where appropriate. 8.7 Process provides for arbitration of disputes as a last resort and only where appropriate.

Variables	**Range**
OHS	May include: • maintaining knowledge of OHS legislation, principles and • practice within context of Organization's operations and plans • inclusion of OHS in personal work priorities within context of organization

Employee relations	May include: • all of the activities in an Organization which impact on the • employees' terms and conditions of employment and their • personal well-being and satisfaction with their work environment
Strategies and policies	May include: • selection/recruitment • induction and training • performance management • discipline • equal opportunity • sexual harassment • racial discrimination/vilification • industrial/labour relations • remuneration and benefits • human resource strategy • organizational values statement
Risk management	May include: • the process of identification of potential negative events and the development of plans to mitigate or minimize the likelihood of the negative event occurring and/or the consequences in the event it does occur
Employee rights and obligations	May include: • those contained within any award agreement or contract of employment, or implied terms of those agreements, together • with all rights and obligations under the laws of the commonwealth and the relevant state/territory

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate ability to: • Supervise and instruct staff to achieve work activities. • Delegate and allocate tasks. • Assess and evaluate staff competency. • Identify and provide training requirements. • Plan and monitor ongoing training needs. • Prepare personal work plan • Establish personal work priorities • Assess own performance • Identify and act on own management development needs
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Enterprise personnel processes. • Enterprise organizational structure and responsibilities. • Techniques for building trust and relationships.

	• Principles of team work and negotiation. • Performance appraisal systems and procedures. • Principles of time management. • Conflict management techniques. • Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, and industrial Principles and techniques of: • Identifying personal behavior, self awareness, personality traits • Establishing a personal development plan • The organization's policies, plans and procedures • The types of work methods and practices which can improve personal performance • The types of learning style(s) and how they relate to the Individual • Performance measurement systems utilized within the organization • Key result areas of the organization • Human resource specialist assistance available • Organizational plans and objectives
Underpinning Skills	Demonstrates skills to: • Skills include the ability to: ➢ Supervise and instruct staff to achieve work activities. ➢ Delegate and allocate tasks. ➢ Assess and evaluate staff competency. ➢ Identify and provide training requirements. ➢ Plan and monitor ongoing training needs. ➢ Interpret written and oral information about workplace requirements ➢ Research information to develop personal and work plans ➢ Elicite, analyze and interpret feedback ➢ Analyze culturally different viewpoints and taking them into account in personal and work plans ➢ Monitor workplace trends related to work role and responsibilities ➢ Use information systems to assist establish work plans ➢ Assess the effectiveness of own management development ➢ Develop and maintaining professional networks relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities analyze, identify and develop mitigation strategies for identified risks

	➢ Communicate to ensure all relevant groups and individuals are advised of what is occurring and are provided with an opportunity for input mediate, negotiate and/or attempt to obtain consensus between individuals/groups ➢ Networking skills to ensure support from key groups and individuals for concepts/ideas/products/services • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Evaluate and Select Materials and Processes**
Unit Code	**IND LPM5 10 0616**
Unit Descriptor	This competency standard covers the evaluation and selection of materials and processes related to Natural resources conservation. It requires the application of skills and knowledge necessary to review and evaluate material selection processes and ensure safety within organizational environmental guidelines.

Elements	Performance Criteria
1. Evaluate and select materials and equipments	1.1 ***Materials and equipments*** are evaluated and selected according to organizational requirements. 1.1 Selection of materials is done according to the organizations' benefits. 1.2 Selected materials and equipments are calculated to justify total purchasing price. 1.3 Materials and equipments evaluation, selection and purchase cycles are monitored to identify improvement options and maximize life cycles of purchased items.
2.Coordinate material selection and purchasing	2.1 ***Storing and housing*** of materials are organized. 2.2 Purchasing activities are documented and recorded to ensure organizational requirements. 2.3 OHS hazards in the workplace are identified, risk assessed and recorded according to organizational requirements. 2.4 Coordination methods of materials selection are developed, implemented and monitored according to enterprise specifications and organizations requirements.
3. Monitor operations of the selected materials and equipments	3.1 Vehicles, consumables and operational support materials are monitored according to organization requirements. 3.2 Environmental implications and workplace safety practices are monitored according to OHS and organization requirements. 3.3 Operational procedures are clear, documented and followed according to enterprise specifications. 3.4 Purchasers are provided with competent instruction and appropriate supervision according to organizations requirements.

Variables	Range
Materials and equipments	May include hydraulic equipment, agricultural and horticultural machinery and equipment, engines, irrigation equipment, earth moving equipment, spraying equipment, solar and wind powered equipment, lifting/elevated equipment, all vehicles/motorcycles, all types of park and turf maintenance machinery and equipment.
Storing and housing	May include on site, off site, seasonal, covered, open air, security and protected.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate ability to: • Plan and organize material evaluation and selection activities • Work with others and in teams • Solve problems of fake material supply • Examine the specific needs of material evaluation and selection • Conduct detailed testing and evaluation of materials • Demonstrate safe workplace practices
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Training and instruction techniques for material evaluation and selection • Relevant OHS issues, legislative requirements and Codes of Practice. • Fake material supply identification, assessment and control. • Environmental codes of practice with regard to materials evaluation and selection safety
Underpinning Skills	• Evaluate, select and monitor materials and processes. • Identify and remove potential workplace hazards. • Keep records, for material evaluation and selection • Plan and organize work arrangements. • Assessing, identifying, and controlling fake materials supply
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Prepare and Monitor Budgets and Financial Reports**
Unit Code	**IND LPM5 11 0616**
Unit Descriptor	This competency standard covers the process of preparing budgets and financial reports, and the implementation and monitoring of budgets in agricultural, horticultural or land management enterprise. Work is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Responsibility and defined accountability for the work of others may be involved. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Competencies are usually used independently and are substantially non-routine. Significant judgment is required in planning design, technical or supervisory functions related to products, services, operations or processes.

Element	Performance Criteria
1. Prepare a budget	1.1 Information on past receipts and payments is obtained from previous records, compared to current prices and cost trends, and compiled in a form that enables projections of future receipts and expenditures. 1.2 A plan is prepared for a period which allows for expected 1.3 Expenditure and financial reporting requirements, using the 'most likely' prices/ ***budget*** and costs.
2. Implement and monitor a budget	2.1 Receipts and payments are monitored and reconciled against the original budget. 2.2 Variances against the original plan are identified, and the impact on overall profit/loss and cash flow is calculated. 2.3 Accordance with budget objectives and parameters. 2.4 Adjustments are made where necessary to respond to unacceptable variations. 2.5 Budgets and plans are renegotiated/restructured where necessary to optimize enterprise performance.
3. Prepare financial reports	3.1 ***Records*** of financial performance are properly maintained within enterprise systems. 3.2 Information with source documents is assembled according to the requirements of the ***report recipients***.

	3.3 Documentation is forwarded in a timely and efficient manner. 3.4 ***Non-financial objectives*** are reported in the context of overall enterprise performance.

Variable	**Range**
Budget	May include recurrent operating or project based funds.
Records	May include: • Paper or computer based.
Report recipients	May include: • Taxation Commissioner, financing agencies, boards of management, committees, councils, and executive management.
Non-financial objectives	May include environmental, OHS, quality assurance, market share, or other key result area.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Collect, analyze and organize information through monitoring of budget performance • Prepare a budget • Implement and monitor a budget • Prepare financial reports that financial reports meet industry or enterprise standards in their content and structure.. • Communicate ideas and information through preparation of budgets and financial reports.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • budget formulation • financial information systems • business transactions • banking and reconciliation • standards for organizational recordkeeping and audit • requirements
Underpinning Skills	Demonstrate to: • prepare a budget • implement and monitor a budget • Prepare financial reports. • Communicate ideas and information through preparation of budgets and financial reports. • Collect, analyze and organize information through monitoring of budget performance. • Plan and organize activities through consultation with others in preparation and monitoring of budgets.

	• Work with others and in teams to review budget performance. • Use mathematical ideas and techniques through measuring budget performance, calculating variances and presenting outcomes. • Solve problems through identifying and addressing budget irregularities and non-compliance.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Manage Trial and/or Research Material**
Unit Code	**IND LPM5 12 0616**
Unit Descriptor	This competency standard covers the process of managing a trial and/or research materials as part of a designated research project. It requires the ability to define the purpose of the trial and the scope and extent of the work, oversee management of trial/research materials, collate data, and complete reports. Managing trial and/or research materials requires knowledge of scheduling and programming work within timelines, data collection and reporting, research procedures and best practice techniques, and enterprise work team management guidelines. It will also require specialist knowledge related to the area of research.

Element	Performance Criteria
1. Identify scope and extent of work	1.1 Trial/research hypothesis and parameters are identified according to researcher's requirements. 1.2 Trial/research is planned to meet ***research objectives***. 1.3 Data relevant to managing trial/research materials is assessed according to research parameters. 1.4 ***Data*** relevant to managing trial/research materials is assessed according to enterprise policy. 1.5 OHS ***hazards*** associated with managing trial/research materials are identified, risks assessed, and ***controls*** developed according to enterprise guidelines, coasted and documented in the survey design. 1.6 ***Tools, equipment and machinery*** required for managing trial/research materials are identified, coasted, and availability confirmed with suppliers, contractors and appropriate personnel. 1.7 Research design is determined according to the trial/research plan.
2. Oversee management of trial/research materials	2.1 Trial/research is prepared, maintained and monitored according to project parameters. 2.2 Field work is conducted to verify and collect data according to the trial/research design and research parameters. 2.3 Work activities are monitored for accuracy, validity and compliance to the parameters of the trial/research design.

	2.4 Staged data collection is undertaken according to trial/research design, scheduling and access requirements. 2.5 Monitoring and data is recorded faithfully, promptly and accurately according to the specifications of the trial/research design.
3. Prepare reports on work completed	3.1 Collected data is recorded according to trial/research requirements and guidelines 3.2 Data is statistically analyzed to determine significance of research results. 3.3 Hypothesis is accepted or rejected based on data collected. 3.4 Reports are produced which conform to the structure and content required by the researcher.

Variable	**Range**
Research objectives	May include: • The full range of research questions investigated by agricultural and horticultural researchers. More common areas will include monitoring and assessing the performance or characteristics of plants or animals, although work may also involve allied areas such as soil, chemical and irrigation research.
Data	May include: • Written or oral records, existing studies, and local and government policy. • Data may also relate to human intervention (such as clearance, • cultivation, grazing, settlements, re-vegetation), landscape • degradation (such as salinity, accelerated wind and water • erosion, edge die-back, species depletion), pest plant populations, pest animal activity, and animal and plant • Production.
Hazards	May include: • solar radiation, fire hazard air-, soil- and waterborne micro-organisms, chemicals, other communicable disease and hazardous substances, sharp hand tools and equipment, manual handling, slippery and uneven surfaces, and moving
Controls	May include: • Controls should be introduced according to enterprise • OHS policies and procedures and may include identifying

	hazards; assessing and reporting risks; cleaning, maintaining and storing tools, equipment and machinery; appropriate use of personal protective equipment including sun protection; safe operation of tools, equipment and machinery; safe handling, use and storage of chemicals and hazardous substances; correct manual handling; basic first aid available on site; personal hygiene, and reporting problems to managers.
Tools , equipment and machinery	May include: • Computers and appropriate software, photographic equipment, • potentiometer, tape measure, flagging tape, site or district maps, compass, recording implements, survey point markers and drivers, Global Positioning System (GPS), specimen bags, secateurs, leaf tissue collection
Constraints	May include: • Financial, time, scheduling, labour availability, seasonal, and government legislation and regulations.
Ethical issues	May include: • Those relating to rubber tree plantation, environmental and ethical practice in informing other parties of the research in process, or be concerned with intellectual property.
Clients	May include: • The enterprises management or a private individual, company, community group, government agency, or a combination of these entities.
Data collection Processes	May include: • the employment of staged visual assessments and checklists, photo points, aerial photography, plant/animal sampling, transect plant or associated animal counts, surveys and questionnaires, and examination of aerial or other existing photographs.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Identify, manage and monitor materials for a research project, and collect appropriate data requirements to research project requirements. • communicate and negotiate orally and in writing with the researcher, enterprise staff, managers and consultants • calculate the cost requirements of managing trial/research materials • produce written reports • oversee management of trial/research materials • Comply with legislative requirements.

	• Collect, analyze and organize information according to research project guidelines. • plan and organize activities to effectively manage materials
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • communication with the researcher, enterprise staff, managers and consultants • identifying scope and extent of work • calculate the cost requirements of managing trial/research materials • writing reports • managing of trial/research materials • Identifying legislative requirements. • Organizing information. • Planning and organizing activities. • Measuring quantities, distances and times, calculating areas, resources, costs, and prepare reports. • using technology to record, store and communicate ideas and information
Underpinning Skills	Demonstrate skills to: • communicate and negotiate orally and in writing with the researcher, enterprise staff, managers and consultants • identify scope and extent of work • calculate the cost requirements of managing trial/research materials • produce written reports • oversee management of trial/research materials • Comply with legislative requirements. • Collect, analyze and organize information according to research project guidelines. • Plan and organize activities to effectively manage materials and accurately obtain objective data. • Use mathematical ideas and techniques to measure quantities, distances and times, calculate areas, resources, costs, and prepare reports. • Use technology to record, store and communicate ideas and information consistently, reliably and accurately.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Monitor and Review Business Performance**
Unit Code	**IND LPM5 13 0616**
Unit Descriptor	This competence standard covers the functions associated with identifying and reviewing the business performance of rubber tree latex harvesting. It requires analyzing and assessing market conditions and business data to determine the suitability of the business operational structures and the overall potential of the business. It requires an awareness of economic and accounting analysis methods. This work would be undertaken independently, and in some circumstances under broad supervision.

Element	Performance Criteria
1. Evaluate commercial performance	1.1 ***Data*** relating to ***enterprise*** performance is gathered and analyzed to identify ***historical*** and current performance. 1.2 ***Operational structures*** are reviewed and analyzed to determine the suitability of organizational processes to enterprise objectives. 1.3 Enterprise ***strengths and weaknesses*** are evaluated against ***market conditions*** to determine current and future capacities. 1.4 Enterprise objectives are evaluated to identify variations and scope for future development.
2. Allocate and co-ordinate business resources	2.1 Roles and responsibilities of personnel are identified and communicated. 2.2 Resource requirements for enterprise are identified and coasted using ***standard financial analysis techniques***. 2.3 Costs of ensuring ***sustainability of enterprise*** operations are calculated and factored into business planning for the enterprise.
3. Identify performance requirements	3.1 ***Performance indicators*** are developed and are realistic within available timeframes and resources. 3.2 Factors inhibiting performance against objectives are identified and minimized. 3.3 Market conditions are monitored and assessed based on relevant data and assumptions that are transferable and justifiable.

	3.4 Strategies and programs to promote the sustainability of operations are prepared and incorporated into enterprise procedures.
4. Review business performance	4.1 Enterprise operations are regularly reviewed to identify opportunities for improvements in performance. 4.2 Impact of ***natural conditions*** on enterprise are monitored and anticipated to assess ***sustainability of resource*** use. 4.3 Costs and estimates are compared with resource allocation. 4.4 Operational plans are reviewed to determine schedule of activities.

Variable	**Range**
Data	May include: • Sales data, expected revenues, expenditures, attributable • Costs, market share figures, trends in consumer purchases, borrowing costs, transport costs and delivery times.
Enterprise	May include those engaged in rubber tree plantation and development, latex harvesting, landscaping and wholesale nurseries.
Historical	May include: • Rainfall, fertilizer, stocking rates, soil tests, maintenance records, financial, enterprise plans and enterprise production records.
Operational structures	May include: • Management process, reporting arrangements, decision making • Authorities, financial accounting procedures, promotional activities, and operational resources.
Strengths and weaknesses	May include: • Recording systems, work practices, attitudes to risk, market profile, and debt to equity ratios, asset values, and productivity.
Market conditions	May include: • Product and service demand, availability of funds, cost of financing, supplier costs, delivery constraints, availability of substitutes and competitors.
Standard financial analysis techniques	May include: • Cost benefit analysis, 'what if' analyses, time series and trend, expenditure and revenue ratios, break-even analysis, accounting standards and cash flow schedules.

Sustainability of enterprise	May include: • Sustainable enterprises are economically viable enterprises that may be operated for an indefinite period without degrading natural resources.
Performance indicators	May include: • Sales targets, revenue estimates, waste reduction, erosion • Replacement and reversal, environmental sustainability, variable cost ratios, investment returns, and diversification.
Natural conditions	May include rainfall, soil erosion patterns, salinity, weather patterns (frost, fog), geographical aspect (sun), native vegetation, windbreaks, distance, natural pasture, water supply, and topography.
Sustainable resource practices	• For example, where applicable, the use of, intercropping, bee farming, and others.

Evidence Guide	
Critical Aspects of Competence	A candidate must be able to demonstrate the ability to: • Research, collate and manipulate business data in order to develop and present an image of the operations of rural businesses. • Forecast and estimate resource use and determining opportunity costs. • Identify and track the effects of natural conditions on economic performance.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • rates of return for products and/or services • financial analysis techniques • structure and operation of small businesses • relevant OHS legislative requirements • environmental conditions, positive environmental practices and negative impact minimization measures • human resource requirements for the enterprise • transport requirements for the enterprise • Enterprise/property improvement requirements. • In addition, where applicable to the activities of the enterprise: • market performance in commodities • statutory marketing requirements • Regulations related to exports of natural rubber product.
Underpinning Skills	Demonstrate skills to: • analyze market requirements • match the enterprise to resources • set enterprise objectives and make financial and economic determinations

	• monitor and manage resources (human, physical, environmental) • evaluate land capability and natural resources (where applicable to the enterprise) • research, analyze and evaluate enterprise information and requirements • communicate orally to present information to and negotiate with management or clients • document plans and write reports • Calculate and forecast financial and economic data.
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Manage Project Quality**
Unit Code	**IND LPM5 14 0616**
Unit Descriptor	This unit specifies the outcomes required to manage quality within projects. It covers determining quality requirements, implementing quality assurance processes, and using review and evaluation to make quality improvements in current and future projects.

Elements	Performance Criteria
1. Determine quality requirements	1.1 ***Quality objectives***, standards and levels are determined, with input from stakeholders and guidance of a higher project authority, to establish the basis for quality outcomes and a ***quality management plan***. 1.2 Established ***quality management methods***, ***techniques and tools*** are selected and used to determine preferred mix of quality, capability, cost and time. 1.3 Quality criteria are identified, agreed with a higher project authority and communicated to stakeholders to ensure clarity of understanding and achievement of quality and overall project objectives. 1.4 Agreed quality requirements are included in the project plan and implemented as basis for performance measurement.
2. Implement quality assurance	2.1 Results of project activities and product performance are measured and documented throughout the project life cycle to determine compliance with agreed quality standards. 2.2 Causes of unsatisfactory results are identified, in consultation with the client, and appropriate actions are recommended to a higher project authority to enable continuous improvement in quality outcomes. 2.3 Inspections of quality processes and ***quality control*** results are conducted to determine compliance of quality standards to overall quality objectives. 2.4 A quality management system is maintained to enable effective recording and communication of quality issues and outcomes to a higher project authority and stakeholders.
3. Implement project quality improvements	3.1 Processes are reviewed and agreed changes implemented continually throughout the project life cycle to ensure continuous improvement to quality.

	3.2 Project outcomes are reviewed against performance criteria to determine the effectiveness of quality management processes and procedures. 3.3 Lessons learned and recommended ***improvements*** are identified, documented and passed to a higher project authority for application in future projects.

Variable	**Range**
Quality objectives	May include but not limited to: • requirements from the client and other stakeholders • requirements from a higher project authority • negotiated trade-offs between cost, schedule and performance • those quality aspects which may impact on customer satisfaction
Quality management plan	May include but not limited to: • established processes • authorizations and responsibilities for quality control • quality assurance and continuous improvement
Quality management methods, techniques and tools	May include but not limited to: • brainstorming • benchmarking • charting processes • ranking candidates • defining control • undertaking benefit/cost analysis • processes that limit and/or indicate variation • control charts • flowcharts • histograms • pareto charts • scatter gram and run charts
Quality control	May include but not limited to: • monitoring conformance with specifications • recommending ways to eliminate causes of unsatisfactory • performance of products or processes • monitoring of regular inspections by internal or external agents
Improvements	May include but not limited to: • formal practices, such as total quality management or continuous improvement • improvement by less formal processes which enhance both the product quality and processes of the project, for

	example client surveys to determine client satisfaction with project team performance

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge in: • lists of quality objectives, standards, levels and measurement criteria • records of inspections, recommended rectification actions and quality outcomes • management of quality management system and quality management plans • application of quality control, quality assurance and continuous improvement processes • records of quality reviews • lists of lessons learned and recommended improvements • how quality requirements and outcomes were determined for projects • how quality tools were selected for use in projects • how team members were managed throughout projects with respect to quality within the project • how quality was managed throughout projects • how problems and issues with respect to quality and arising during projects were identified and addressed • how projects were reviewed with respect to quality management • how improvements to quality management of projects have been acted upon
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • the principles of project quality management and their application • acceptance of responsibilities for project quality management • use of quality management systems and standards • the place of quality management in the context of the project life cycle • appropriate project quality management methodologies; and their capabilities, limitations, applicability and contribution to project outcomes • attributes: ➢ analytical ➢ attention to detail ➢ able to maintain an overview ➢ communicative and positive leadership

Underpinning Skills	Demonstrate skills of: • ability to relate to people from a range of social, cultural and ethnic backgrounds, and physical and mental abilities • project and quality management • planning and organizing • communication and negotiation • problem-solving • leadership and personnel management • monitoring and review skills
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Facilitate and Capitalize on Change and Innovation**
Unit Code	**IND LPM5 15 0616**
Unit Descriptor	This unit specifies the outcomes required to plan and manage the introduction and facilitation of change; particular emphasis is on the development of creative and flexible approaches, and on managing emerging opportunities and challenges.

Elements	Performance Criteria
1. Participate in planning the introduction and facilitation of change	1.1 Concept, nature importance and objective of change are understood. 1.2 Steps tools and approaches of changes are planned and made in consultation with ***appropriate stakeholders***. 1.3 The relationship among innovation, quality, change and cost is understood. 1.4 Environments that facilitate the expedition of change are understood. 1.5 ***Change resistance reducing techniques*** are identified and implemented.
2. Manage growth and transition of business	2.1 ***Needs for growth*** are identified. 2.2 ***Growth strategies*** are identified. 2.3 Selected growth strategies are implemented.
3 Develop creative and flexible approaches and solutions	3.1 Concepts, types and nature of problem are understood. 3.2 Variety of problem solving techniques and approaches are identified and analyzed to manage workplace issues. 3.3 ***Risks*** are identified and assessed, and action initiated to manage these to achieve a recognized benefit or advantage to the organization. 3.4 Workplace is managed in a way which promotes the development of innovative approaches and outcomes. 3.5 Creative and responsive approaches to resource management are used to improve productivity and services, and/or reduce costs.
4 Manage emerging challenges and opportunities	4.1 Future challenges and opportunities are identified in reference to global business situation 4.2 The role of technology and its value additions are explained.

	4.3 Technology and innovation based system is introduced and implemented 4.4 Individuals and teams are supported to respond effectively and efficiently to changes in the organization's goals, plans and priorities. 4.5 Coaching and mentoring are made to assist individuals and teams to develop competencies to handle change efficiently and effectively. 4.6 Opportunities are identified and taken as appropriate to make adjustments and respond to the changing needs of customers and the organization. 4.7 ***Information needs*** of individuals and teams are anticipated and facilitated as part of change implementation and management. 4.8 Recommendations are identified, evaluated and negotiated for improving the methods to manage change with appropriate individuals and groups.

Variables	**Range**
Appropriate stakeholders	May include but not limited to: • Organization directors and other relevant managers • Teams and individual employees who are both directly and indirectly involved in the proposed change • Union/employee representatives or groups • OHS committees • Other people with specialist responsibilities • External stakeholders where appropriate - such as clients, suppliers, industry associations, regulatory and licensing agencies
Change resistance reducing techniques	May include but not limited to: • Education and communication • Participation and involvement • Facilitation and support • Negotiation and agreement • Manipulation and cooptation • Explicit and implicit coercion
Needs for growth	May include but not limited to: • Survival • Economies of scale • Expansion of market • Owners mandate • Technology

	• Government policy and Self sufficiency
Growth Strategies	May include but not limited to: • Franchising • Outsourcing • Sub-contracting and Merging
Risks	May include but not limited to: • Financial and non-financial risks
Information needs	May include but not limited to: • New and emerging workplace issues • Implications for current work roles and practices including training and development • Changes relative to workplace legislation, such as OHS, workplace data such as productivity, inputs/outputs and future projections • Planning documents • Reports • Market trend data • Scenario plans and customer/competitor data

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • Participate in planning the introduction and facilitation of change • Manage growth and transition of business • Develop creative and flexible approaches and solutions • Manage emerging challenges and opportunities
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Relevant legislation from all levels of government that affects business operation, especially in regard to occupational health and safety and environmental issues, equal opportunity, industrial relations and anti-discrimination • Growth strategies • The principles and techniques involved in: ➢ Change and innovation management ➢ Development of strategies and procedures to implement and facilitate change and innovation • Use of risk management strategies: ➢ Identifying hazards, ➢ Assessing risks and implementing risk control measures ➢ Problem identification and resolution ➢ Leadership and mentoring techniques ➢ Management of quality customer service delivery

	➢ Consultation and communication techniques ➢ Record keeping and management methods ➢ The sources of change and how they impact ➢ Factors which lead/cause resistance to change ➢ Approaches to managing workplace issues
Underpinning Skills	Demonstrate skills on: • Communication, Planning, Managing and team works
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Rubber Tree Latex Harvesting & Processing Management Level V	
Unit Title	**Manage Continuous Improvement Process (Kaizen)**
Unit Code	**IND LPM5 16 0616**
Unit Descriptor	This unit describes the performance, outcomes, knowledge, attitude and skills required to sustain and develop an environment in which continuous improvement, innovation and learning are promoted, rewarded and managed.

Elements	Performance Criteria
1. Diagnose the current status.	1.1 ***Parameters*** used for study current situation are obtained. 1.2 Internal and external environment is analyzed. 1.3 Problems related to targeted environment is recognized and identified. 1.4 Problems regarding to current situation are analyzed. 1.5 Alternatives are generated. 1.6 Best alternatives are selected.
2. Design an effective continuous improvement process (kaizen).	2.1 The values, mission and goals of kaizen management system are clarified. 2.2 The ***kaizen management template*** and a visual management logo full of purpose and meaning are developed. 2.3 A clear action strategy (master and detailed plans) is defined. 2.4 The most effective and proven ***kaizen tools*** are chosen and applied. 2.5 A practical way is identified to involve all employees in ***Gemba activities*** (top, middle and bottom).
3. Develop change capability.	3. 1. Kaizen Promotion Team Structure is developed. 3. 2. The Kaizen Training Plan is defined and started. 3. 3. Supervisors' kaizen capability and habits are developed. 3. 4. Key people are developed in terms of ***Individual leadership capability***.
4. Implement improved processes.	4.1 ***Sustainability/continuous improvement*** are promoted as an essential part of doing business.

	4.2 Impacts of change and consequences are addressed for people, and transition plans implemented. 4.3 Objectives, time frames, measures and communication plans are ensured in place to manage implementation. 4.4 Contingency plans are implemented in the event of non-performance. 4.5 Failure is followed-up by prompt investigation and analysis of causes. 4.6 Emerging challenges and opportunities are managed effectively. 4.7 Continuous improvement systems and processes are evaluated regularly. 4.8 Improvements are communicated to all relevant groups and individuals. 4.9 Opportunities are explored for further development of value stream improvement processes.
5. Establish direction and control.	5.1 A ***system audit tool*** is defined and implemented. 5.2 The kaizen management system is deployed across all company levels and functions. 5.3 Results are checked and corrections made. 5.4 ***Standard operating procedures*** are developed and maintained. 5.5The recruit, training and evaluation systems are improved and ***HR practices*** compensated.

Variables	**Range**
Parameters	May include but not limited to: • Working condition • Resources may include: ➢ Human ➢ Material ➢ Machine • Kaizen elements
Kaizen management template	May include but not limited to: • Visual management board for: ➢ displaying characteristic figures, data and graphics ➢ depicting and controlling processes ➢ identifying and marking sources of risks, setting and standards

	➢ displaying company's values and goals of kaizen
Kaizen tools	May include but not limited to: • 5S (a visual workplace management) • 7 QC tools(Cause and Effect Diagram, Check Sheet , Pareto Diagram , Histogram, Scatter Diagram, Control Chart and Flow Chart) • Brainstorming • Basic Industrial Engineering (IE) tools such as time study, motion study, line balancing, work sampling • JIT(JUST IN TIME principles) • MUDA identification and elimination tools • Kanban • Poka-yoke • Takt- time
Gemba activities	May include but not limited to: • Value-adding activities to satisfy the customer • Employee autonomous operations (participating in team to identify nonconformity, propose solutions and implement them autonomously)
Individual leadership capability	May include but not limited to: • Personal and interpersonal skills • Courage • Honour and integrity • Energy and drive • Strategic skills • Operating and Organizational positioning skills
Sustainability/continuous improvement	May include but not limited to: • Improvements made by following PDCA (Plan, Do, Check and Act) cycle for: ➢ Improvements in one's own work ➢ Saving in energy, material and other resources ➢ Improvements in the working environment ➢ Improvements in machines and processes ➢ Improvements in jigs and tools ➢ Improvement in office work ➢ Improvements in product quality ➢ Ideas for new products ➢ Customers services and customer relations
System audit tool	May include but not limited to: • 5S audit • Patrol system • Kaizen board • 5M check lists AND Key Performance Indicators (KPIs)

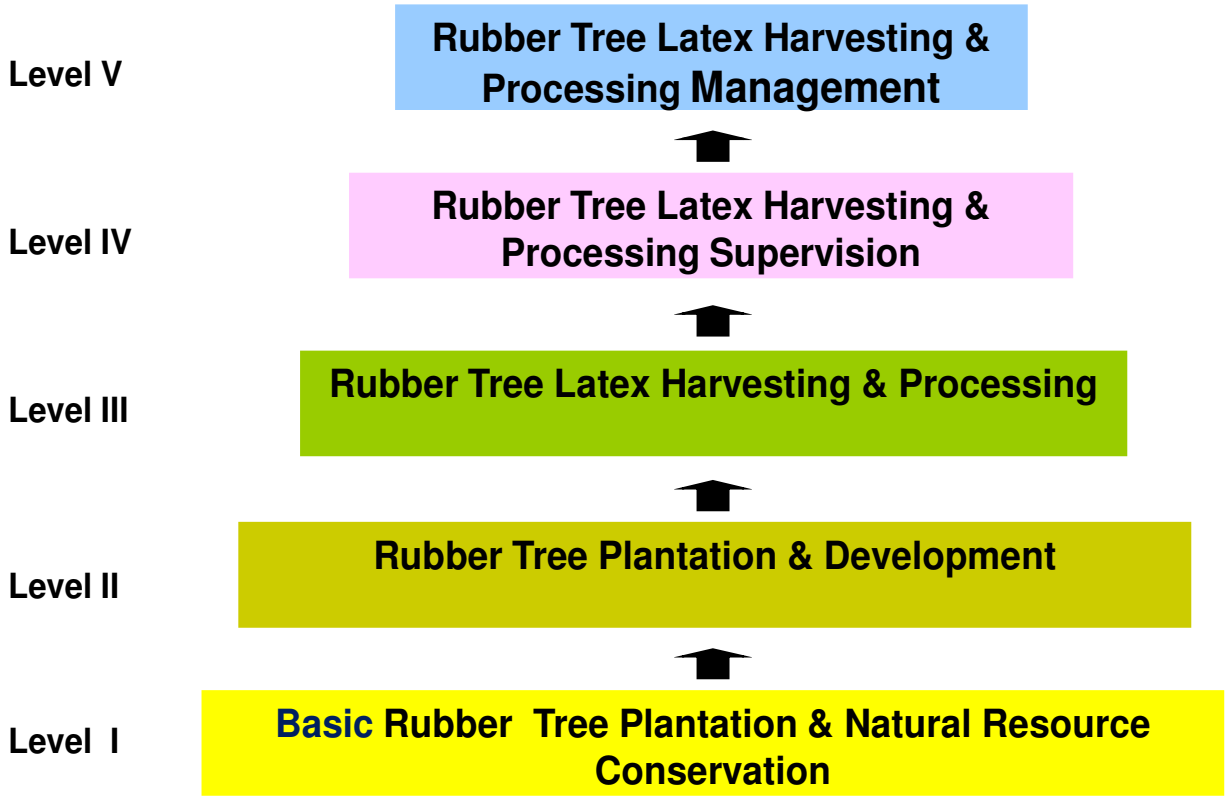
Standard operating procedure	May include but not limited to: • Administrative standards for: ➢ Managing the business ➢ Administration ➢ Personnel Guidelines ➢ Job Descriptions ➢ Guidelines for preparing cost information • Operation standards for: ➢ Describing the way a job is done. ➢ Help realising Quality, cost, delivery. ➢ Addressing the need to satisfy customers. ➢ Using the process that's the best. ➢ Producing work in the most cost effective manner. ➢ Assuring total quality for the customer.
HR practices	May include but not limited to: • Resources may include: ➢ Recruit and retain high quality people with innovative skills and a good track, record in innovation • HR development is used for: ➢ strategic capability and provide encouragement and facilities for enhancing innovating skills and enhancing the intellectual capital of the organization • Reward will: ➢ Provide financial incentives and rewards and recognition for successful innovation

Evidence Guide	
Critical Aspects of Assessment	Demonstrates skills and knowledge competencies to: • Establish policy and cross-functional goals for kaizen • Deploy and implement goals as directed through policy deployment and cross-functional management. • Realize goals through deployment and audits. • Build systems, procedures, and structures conducive to kaizen. • Use kaizen in functional capabilities. • Introduce Kaizen as a corporate strategy • Provide support and direction between allocating resources • Establish, maintain and upgrade standards. • Make employees conscious through training programs. • Assist employees develop skills and tools for problem solving.
Underpinning Knowledge and Attitude	Demonstrates knowledge of:

	• Quality management and continuous improvement theories • creativity/innovation theories/concepts • competitive systems and practices tools, including: ➢ 5S ➢ JUST IN Time (JIT) ➢ mistake proofing ➢ process mapping ➢ establishing customer pull ➢ setting of KPIs/metrics ➢ SOP ➢ Kaizen elements/targets. ➢ identification and elimination of waste/MUDA ➢ continuous improvement processes including implementation, monitoring and evaluation strategies for a whole organization and its value stream ➢ Difference between breakthrough improvement and continuous improvement ➢ organizational goals, processes and structure ➢ approval processes within organization ➢ methods of determining the impact of a change ➢ customer perception of value ➢ Define, Measure, Analyze, Improve and Control (DMAIC) to sustain process
Underpinning Skills	Demonstrates Skills to: • Use leadership skills to foster a commitment to quality and openness to improvement. • Analyze training needs and implementing training programs • Prepare and maintain quality and audit documentation • Undertake self-directed problem solving and decision-making on issues of a broad and/or highly specialized nature and in highly varied and/or highly specialized contexts • Communicate at all levels in the organization and to audiences of different levels of literacy and numeracy • Analyze current state/situation of the organization. • Analyze individually and collectively the implementation of competitive systems and practices tools in the organization and determining strategies for improved implementation • Solve highly varied and highly specialized problems related to competitive systems and practices implementation and continuous improvement to root cause

	• Negotiate with stakeholders, where required, to obtain information required for implementation and refinement of continuous improvements, including management, unions, employees and members of the community. • Review relevant metrics, including all those measures which might be used to determine the performance of the improvement system, including: ➢ Key Performance Indicators (KPIs) for existing processes ➢ Quality statistics ➢ Delivery timing and quantity statistics ➢ Process/equipment reliability ('uptime')
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Sector: INDUSTRY DEVELOPMENT
Sub-Sector: RUBBER TREE DEVELOPMENT



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This Occupational Standard was developed on June 2016 at Center of Excellence for Engineering (CEE), Addis Ababa, Ethiopia.

COMMENT TEMPLATE

The Federal TVET Agency values your feedback of the document.
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