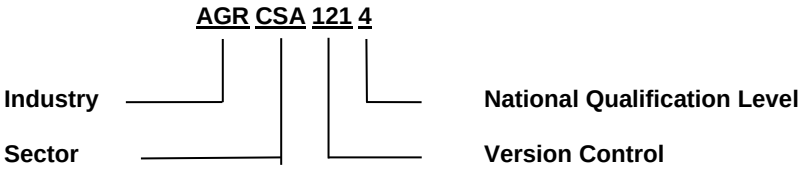
Competency Standards for Caribbean Vocational Qualifications (CVQ)

AGRCSA1214 CVQ Level 4 in Climate-Smart Agriculture

Unit Number	Unit Title	Requirement
UA14304	Establish agricultural health and safety processes	Mandatory
UA14404	Conduct a climate-smart agriculture compliance audit	Mandatory
UA14504	Manage eco-systems for climate-smart agricultural systems	Mandatory
UA14604	Develop climate-smart solutions for an agricultural operation	Mandatory
UA14704	Coordinate the conservation and management of agricultural genetic resources	Mandatory
UA14804	Plan and coordinate the implementation of climate-smart agriculture solutions	Mandatory
UA14904	Improve cost factors in work practices	Mandatory
UA15004	Procure funding	Mandatory
UA15104	Develop climate risk management strategies	Mandatory
UA15204	Implement a monitoring, evaluation and reporting program	Mandatory
UA15304	Support project life cycle management processes	Mandatory
UA15404	Apply project stakeholder engagement techniques	Mandatory
UA15504	Conduct an independent climate-smart improvement verification	Mandatory
UA15604	Lead and motivate teams	Mandatory
U68402	Contribute to the protection of the environment	Mandatory

To obtain a Caribbean Vocational Qualification (CVQ) all Mandatory Units must be achieved.

Legend to Unit Code



Key: AGR – Agriculture; CSA Climate Smart Agriculture

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Country of Origin
Barbados

Qualification Overview

Who is the qualification for?

The qualification in Climate-Smart Agriculture Level 4 is aimed at persons who function at the senior level providing long-term agricultural consulting and project management services or those who operate in a technical, supervisory or operational capacity in an agricultural operation who may or may not have whole of enterprise responsibilities. It also applies to specialist roles such as an agricultural officer or sustainability/climate response project assistant.

Jobs within the occupational area

- Farmers
- Agriculture officers
- Agricultural/rural specialists
- Natural resources consultants

Where could it be used

Employers can use this qualification to support employees in acquiring the required skills and knowledge to develop, implement and report on climate-smart agricultural initiatives at a range of scales (farm to landscape) and levels (small enterprise to large enterprise).

Employees at this level must have an understanding of what skills and knowledge are required to effectively assist farmers and owners of agricultural enterprises to implement appropriate, feasible and sustainable measures to:

- increase agricultural productivity in a sustainable manner
- effectively adapt agricultural and food security systems to build resilience against the effects of climate change
- reduce enterprise greenhouse gas emissions
- meet obligations under sustainability related regulatory arrangements and government or similar incentives or other initiatives.

Occupational Standards can also be used to:

- Prepare job descriptions and specifications
- Determine recruitment criteria
- Appraise staff performance objectively
- Identify skill and training gaps and needs
- Conduct labour market analyses
- Develop curriculum
- Assess the effectiveness of training programmes
- Determine compensation and rewards

The benefits of acquiring the CVQ to candidates

- Provide a basis for articulation and accreditation
- Provides a broad-based preparation for employment
- Is an alternative route to further/higher education
- Complements and has parallel standing with academic qualifications
- Provides enhanced employability and higher earning potential
- Facilitates an apprenticeship with actual work experience
- Equips candidates with the knowledge, skills and attitudes for the workplace
- Past work experience and skills can count towards achieving the CVQ
- Allows for continuity whereby if a candidate cannot complete the CVQ at a centre or school, they can continue at another approved centre
- CVQ's are recognised qualifications and facilitates free movement of labour throughout CARICOM

The benefits of the CVQ to employers

- Provides a larger cadre of skilled employees/candidates to choose from
- Reduces cost of recruiting and selecting the ideal job candidate
- Reduces cost for training workers
- Ensures higher levels of productivity

The benefits of the CVQ to the Caribbean region:

- Produces a higher skilled workforce that is ready to adapt to ever-changing global demands
- Provides greater access for persons to achieve higher qualifications
- Contributes to the region's human resource capacity development

Establish agricultural health and safety processes

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to plan, support and contribute to work health and safety processes in an agricultural environment. Candidates are expected to demonstrate duty of care for other workers while maintaining and contributing to the compliance of workplace health and safety processes in accordance with relevant health and safety regulations, legislation and standards.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Plan and conduct work	1.1 Locate and access relevant workplace health and safety information pertaining to work area and work activities.
	1.2 Plan work activities in accordance with relevant health and safety legislation, industry standards, codes of practice/compliance codes and organisational policies and procedures.
	1.3 Select suitable personal protective equipment (PPE), checking that it is in good working order before use.
	1.4 Identify hazards, including signs of common animal and zoonotic diseases and report to relevant persons.
	1.5 Address identified hazards and select appropriate risk controls prior to starting work in accordance with organisational policies and procedures.
	1.6 Report incidents and injuries in accordance with organisational policies.
	1.7 Undertake workplace health and safety housekeeping in work areas in accordance with organisational procedures.
	1.8 Monitor levels of stress and fatigue in work group members to ensure ability to work safely and sustainably.

2.	Support others to work	2.1	Provide information on safe work practices and procedures to members of the work group in accordance with organisational policies and procedures.
		2.2	Monitor workplace health and safety practices of less experienced members of the workgroup in accordance with organisational procedures.
		2.3	Provide guidance to less experienced members of the team to support them in working safely.
		2.4	Provide support to members of the team to accurately record incidents and complete associated workplace documentation.
3.	Contribute to workplace health and safety participative processes	3.1	Raise workplace health and safety issues promptly in accordance with organisational timeframes and procedures.
		3.2	Contribute to workplace meetings, workplace inspections or other consultative activities in a constructive manner to improve safety.
		3.3	Foster a safe working environment in accordance with industry best practices.
4.	Contribute to hazard identification, work health and safety risk assessment and risk control activities	4.1	Inspect workplace for hazards using itemised checklists in accordance with organisational requirements.
		4.2	Contribute to risk assessments in accordance with organisational requirements.
		4.3	Report identified hazards and inadequate risk controls in accordance with organisational procedures.
		4.4	Provide input in the development and implementation of control measures, with reference to the hierarchy of risk control.
5.	Participate in the control of emergency situations	5.1	Identify emergency signals and alarms and respond to them appropriately in accordance with organisational procedures.

5.2 Take action to control and confine emergencies, accounting for the nature and scope of the emergency within scope of own work role in accordance with organisational policies and procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Hazards** may include but not limited to:

    - Animals (e.g., bites, kicks, stings, trampling, etc.)
    - Plants (e.g., thorns, sharp edges, etc.)
    - Chemicals (e.g., fumes, spills, mists, etc.)
    - Electricity
    - Infection hazards
    - Noise
    - Slip and trip hazards (e.g., wet or oily surfaces, obstacles)
    - Moving parts of machinery
    - Confined spaces
    - Weather
    - Heights
    - Vehicles
    - Airborne particles/contaminants (e.g., dust, pollen, grass trimmings, hair, etc.)

2. **Emergencies** may include but not limited to:

    - Injuries
    - Chemical exposure
    - Death
    - Fire
    - Natural disasters
    - Security breaches

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the relevant workplace health and safety legislation, standards and codes of practice.
2. What are the basic hazard identification procedures.
3. What are the procedures for identifying and reporting hazards, including signs of common animal diseases.
4. How to correctly use appropriate personal protective clothing (PPE).
5. What is meant by hierarchy of risk control.
6. What are appropriate risk controls and what are the procedures for their selection and implementation.
7. What are the common hazards that occur in an agricultural environment.
8. How to carry out workplace health and safety housekeeping tasks.
9. How to support work group members to work safely.
10. What are the basic methods used in the prevention and control of common zoonotic diseases.
11. How to contribute to workplace health and safety meetings or participative processes.
12. What are the various basic risk control measures.
13. What are the relevant safety signs and their meanings.
14. How to respond to emergency situations that may occur in an agricultural environment.
15. What are the roles and responsibilities of health and safety representatives and workplace health and safety committees.
16. What are the relevant kinds of health and safety information within the workplace.
17. What are the external sources of workplace health and safety information.
18. What are the standard emergency signals, alarms and required responses.
19. What are the types of emergencies that occur in an agricultural environment.
20. What are the legal rights and responsibilities of the relevant workplace parties.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **is allowed.**

UA14404 Conduct a climate-smart agriculture compliance audit

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to implement holistic auditing/assessment schemes to ascertain the degree of climate-smart agriculture (CSA) compliance with respect to agricultural operations, projects, processes and products. Candidates are also expected to use assessments to establish priority areas for climate-smart improvements. Candidates must be able to convert qualitative assessment results into simplified rating/grading systems.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Determine the scope of the climate-smart audit	1.1 Establish the objectives and scope of the audit of the agricultural production system in accordance with organisational protocols.
	1.2 Confirm the expectations of the client or organisation in accordance with organisational procedures.
	1.3 Determine the pattern of random or non-random audit events.
	1.4 Identify individual and personal actions for audit requirements.
	1.5 Identify groups and processes for audit requirements.
	1.6 Prepare a list of audit items in accordance with audit scope and organisational requirements.
	1.7 Identify legislative, regulatory and industry requirements for audit.
2. Specify audit requirements	2.1 Prepare a suitable auditing/assessment instrument which identifies and documents precise parameters of acceptable conditions and results for each audit item in accordance with organisational and legislative requirements.

		2.2	Establish a suitable rating or grading scale for each audit item on the auditing/assessment instrument and for the overall assessment in accordance with organisational requirements.
		2.3	Communicate written guidelines to the audited group and individual staff members in accordance with organisational procedures.
		2.4	Provide detailed information to audit groups in a durable format for working conditions in accordance with organisational procedures.
3.	Define the audit process	3.1	Identify and delegate responsibilities for audit implementation and evaluation in accordance with organisational procedures.
		3.2	Establish the timing and frequency of audit events in accordance with client and organisational requirements.
		3.3	Confirm schedules and logistical arrangements and make contingency arrangements in accordance with organisational procedures.
		3.4	Confirm expectations with the audited group and individual staff members in accordance with organisational procedures.
		3.5	Document audit process and communicate to appropriate persons in accordance with organisational procedures.
4.	Manage audit implementation	4.1	Coordinate a pre-audit meeting with relevant persons at a mutually agreed time and establish confidentiality agreements in accordance with organisational procedures.
		4.2	Examine the activities of the audited group and individual staff members in accordance with audit protocols.
		4.3	Identify and record items of compliance and non-compliance in accordance with audit protocols.
		4.4	Interview appropriate persons for detailed information, clarification and feedback in accordance with audit protocols.

		4.5 Gather and record relevant information and sample documentation in accordance with audit protocols.
		4.6 Undertake contingency activities as required and record relevant information in accordance with audit protocols.
5.	Evaluate and document assessment findings into a report	5.1 Examine results and findings against audit objectives, identify priority areas and present finalised outcomes to the audited group or individual in accordance with organisational procedures.
		5.2 Establish baseline data on client's operation, where required, in accordance with industry best practices.
		5.3 Confirm agreement with relevant persons on corrective action reports in accordance with audit protocols.
		5.4 Explain and discuss the context and consequences of audit during follow-up meetings in accordance with organisational procedures.
		5.5 Provide feedback on results to the client or audited organisation where required in accordance with organisational policies and procedures.
		5.6 Document the final audit report and present to the client or audited organisation in accordance with audit protocols.

RANGE STATEMENT

All range statements must be assessed:

1. **Objectives** may include but not limited to:

    - To assess organisational approach to:

        - resource conservation (e.g., land, water, inputs, labour)
        - energy efficiency (e.g., production energy loads, lighting, transportation)
        - safety management (e.g., working conditions, state of machines and equipment)
        - biodiversity support (e.g., ecosystem services, control of invasive species, agrochemical inputs)
        - green-house gas emissions reduction (e.g., soil management, use of fossil fuels, waste management)
        - implementation of policies and procedures to mitigate the effects of climate change

2. **Scope** may include but not limited to

    - Cultural practices
    - Agricultural infrastructure (e.g., equipment, machinery, vehicles, facilities)
    - Agricultural production cycle phases (e.g., pre-production, production, harvest, post-harvest, storage, distribution)

3. **Agricultural production systems** may include but not limited to:

    - Crop rearing
    - Livestock rearing
    - Aquaculture

4. **Audit events** may include but not limited to:

    - Site inspections
    - Interviews (management and workers)
    - Review of plans and processes
    - Review of procedures, policies and systems

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to identify client or organisation audit expectations.
2. What are the relevant audit methodologies and techniques.
3. How to determine the scope of items for audit.
4. What are the key products or services of the target organisation.
5. How to specify the parameters of audit requirements.
6. What are the relevant quality principles and techniques.
7. How to define the audit process.
8. What are the relevant interview techniques.
9. How to identify compliance and non-compliance items.
10. What are the relevant workplace documentation and policies.
11. What are the relevant confidentiality concerns that must be addressed and what are the confidentiality agreements that must be observed.
12. How to implement an audit.
13. What are the logistics of the operations of the target organisation.
14. How to effectively manage the implementation of audits.
15. What are the legal issues and terminology relating to quality auditing.
16. How to plan for and act on contingencies.
17. What are the various award and enterprise agreements and relevant industrial instruments.
18. How to evaluate audit findings.
19. What are the relevant legislations and regulations from all levels of government.
20. How to organise scheduling and meetings.
21. What are the relevant codes of practice, regulations and standards.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

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- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used,** except in exceptional circumstances where natural work evidence is unlikely to occur.

UA14504 Manage ecosystems for climate-smart agricultural systems

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to develop and implement an ecosystem management program responding to climate related matters. Candidates are expected to use the "landscape approach" to sustainably manage production systems and natural resources in an area large enough to produce vital ecosystem services, but small enough to be managed by the persons using the land producing said services to achieve climate-smart agriculture objectives.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Prepare an inventory of natural systems and components	1.1 Identify the natural systems and components that make up the landscape in accordance with accepted methods.
	1.2 Specify the significance of extant natural systems in accordance with scientific and cultural criteria and community expectations.
	1.3 Source and review relevant data to specify characteristics of extant natural systems and extant ecosystems.
	1.4 Compile a comprehensive inventory of extant natural systems and ecosystems with appropriately detailed descriptors.
2. Identify the potential for sustainable community and landscape development	2.1 Identify relevant opportunities and challenges for the adoption of climate smart approaches and sustainable community development and landscape development.
	2.2 Identify potential involvement of individual and group stakeholders.
	2.3 Identify the agricultural production systems that are present in the landscape.
	2.4 Identify community and stakeholder needs and expectations using appropriate means.

3. Develop processes to consult with stakeholders	3.1 Identify and follow relevant cultural protocols to ensure contacts with individuals and communities are successful.
	3.2 Identify key individuals in the community who may influence relationships.
	3.3 Formulate steps to develop and maintain contacts with community groups in a manner that encourages an atmosphere of trust and collaboration.
	3.4 Develop consultation processes that ensure stakeholder engagement and are inclusive of an equitable involvement of various sections of the community and their perspectives at all decision-making stages.
	3.5 Adjust processes and communication modes for culturally diverse groups in accordance with inclusivity policies.
	3.6 Manage instances of conflict between stakeholders in accordance with implemented conflict management mechanisms and procedures.
4. Facilitate the development of strategies for the establishment of vital eco-systems services.	4.1 Consult with the community and relevant stakeholders to establish project-specific climate-smart objectives and determine levels of performance in a manner that addresses identified opportunities and challenges.
	4.2 Discuss and evaluate options in consultation with community using agreed parameters.
	4.3 Contribute to the development of practical and appropriate strategies to incorporate production systems with natural systems to create new or strengthen existing ecosystems.
	4.4 Identify the relevant vital ecosystem services landscape that management strategies seek to produce.
	4.5 Facilitate or demonstrate the benefits of new practices or methods to stakeholders where required, in accordance with organisational procedures and community needs.

	4.6 Assess the effectiveness of each strategy through comparison with methods in practice elsewhere and against local experiences.
	4.7 Identify proven techniques for the conservation and re-establishment of natural systems within accepted procedures and environmental standards.
	4.8 Develop alternative and innovative approaches, where appropriate, to meet local requirements.
	4.9 Present strategies to relevant personnel for endorsement and forward to relevant personnel for implementation.
5. Monitor and review the effectiveness of strategies to establish vital ecosystems services.	5.1 Audit the condition of land, water and other natural resources in a manner that quantifies the impact of climate change.
	5.2 Assess the performance and the progress of the implemented strategies by monitoring key indicators.
	5.3 Compare strategy outcomes to strategy objectives to assess effectiveness.
	5.4 Consult with community and stakeholders, in a timely manner, to discuss required changes to implemented strategies to ensure outcomes are achieved.
	5.5 Conduct ongoing follow-up planning sessions with stakeholders to address information obtained from the monitoring and review process to develop new strategies that are based on accumulated knowledge and experience.
	5.6 Promote and contribute to the development of harmonised policy, legal, finance and institutional frameworks using the lessons learned in project review as recommendations.

RANGE STATEMENT

All range statements must be assessed:

1. **Natural systems** may include but not limited to:

    - Flora
    - Fauna
    - Secies
    - Communities
    - Habitats
    - Regeneration
    - Revegetation

2. **Challenges and opportunities** may include but not limited to:

    - Political emphasis
    - Economic rationalisation
    - Community attitude
    - Interest groups
    - Non-native species invasion
    - Degradation factors

3. **Stakeholders** may include but not limited to:

    - Local farmers/landowners
    - Regulatory bodies
    - Community members

4. **Agricultural production systems** may include but not limited to:

    - Crop rearing
    - Livestock rearing
    - Aquaculture

5. **Climate smart objectives** may include but not limited to:

    - Increasing productivity (e.g., higher yields, larger profits)
    - Increasing adaptability and resilience of agricultural production and food security systems to climate change
    - Reducing greenhouse gases
    - Reduced environmental degradation (e.g., reduced runoffs leading to damage to coral reefs, reduced pollution of ground water etc.)

6. **Strategies** may include but not limited to:

    - Pattern-oriented management strategies (e.g., maintaining and creating large, structurally complex patches of native vegetation throughout the landscape; creating corridors, steppingstones and buffers around sensitive areas)
    - Developing land and water resources
    - Maintaining heterogeneity across environmental gradients
    - Controlling aggressive, over-abundant and invasive species
    - Maintaining species of particular concern
    - Minimising threats (such as pollution, harmful chemicals, etc.)

7. **Vital eco-systems services** may include but not limited to:

    - Provisioning services (e.g., the provision of food, fibre, energy and water)
    - Regulating services (e.g., the regulation of erosion or pest and disease outbreaks, the cycling and purification of water or regulation of greenhouse gas [ghg] emissions and carbon sequestration)
    - Supporting services (e.g., pollination and nutrient recycling)
    - Cultural services

8. **Indicators** may include but not limited to:

    - Revenue/income
    - Biomass
    - Biodiversity

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to prepare landscape project documentation.
2. How to determine community needs and expectations.
3. How to collect and collate quantitative and qualitative data.
4. What are the principles and practices of managing landscape projects.
5. How to implement sustainable community and bioregional development, such as:
    - local food security initiatives
    - community gardens and city farms
    - climate action and energy efficiency initiatives
    - community education and outreach
    - sustainable enterprise and business development
    - land care and environment programs
    - sustainable agriculture and land use
    - sustainable forestry and reforestation
    - catchment and water resources management
    - waste reduction and recycling.
6. What are the relevant principles of project management.
7. What are the relevant planning, implementation and review processes.
8. What impact does particular disturbances have on ecosystems.
9. How to develop a schedule of works.
10. How to conduct consultations both internal and external to organisation.
11. What are the requirements pertaining to public liability and legal responsibilities.
12. What are the relevant environmental issues.
13. How to conduct environmental planning and management.
14. How to coordinate the re-establishment of environments.
15. What is the relevant legislation.
16. What are the relevant council policies and procedures.

EVIDENCE GUIDE

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The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used,** except in exceptional circumstances where natural work evidence is unlikely to occur.

UA14604 Develop climate-smart solutions for an agricultural operation

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to develop strategic plans for climate-smart improvements to agricultural enterprises. These sustainability related improvements often affect all or major parts of an agricultural operation and its value chain and as a result, detailed strategic planning is usually required to ensure the support of all stakeholders to minimise disruption to the organisation's business.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Determine the current status of the operation's adaptability to climate change	1.1 Identify main organisational motivations and drivers for improved sustainability and climate-smart operations.
	1.2 Identify the impact of current regulatory environment.
	1.3 Confirm the current availability of baseline data required for climate-smart performance indicators.
	1.4 Conduct audits of agricultural operational practices, production systems, infrastructure, and production cycle phases to determine level of adaptability to climate change.
2. Identify priority areas for improvement	2.1 Identify strategic goals of the organisation and assess how these are impacted by climate change.
	2.2 Analyse audit outcomes to identify gaps in climate adaptability/resilience and to establish a basis for all improvement suggestions.
	2.3 Suggest climate-smart improvements to practices, production systems, infrastructure and production cycle phases to achieve climate-smart objectives.
	2.4 Suggest climate-smart improvements to agricultural inputs and agricultural outputs to achieve climate-smart objectives.

	2.5	Recommend climate-smart improvements to the management of operational resources to achieve climate-smart objectives.
	2.6	Identify climate-smart improvements to operational waste management to achieve climate-smart objectives.
	2.7	Recommend measures to improve energy efficiency and reduce losses/risk in energy systems across production cycle phases.
	2.8	Suggest measures and improvements to mitigate the effects of climate risks.
	2.9	Rank suggestions and adaptive measures by need, cost-benefit and strategic impact.
	2.10	Identify potential “double-win”, “triple-win” and “no-regret” climate smart solutions in accordance with industry best practices.
3.. Prepare the final strategy	3.1	Select appropriate suggestions to be implemented in accordance with organisational sustainability goals.
	3.2	Liaise with relevant stakeholders to present proposed climate-smart interventions and determine levels of performance in a manner that addresses identified opportunities and challenges.
	3.3	Evaluate the final combination of improvement suggestions to confirm that climate-smart objectives may be achieved and implementation risks could be avoided.
	3.4	Evaluate the final combination of improvement suggestions to determine means of implementation requirements.
	3.5	Prepare a final strategy outlining complete climate-smart interventions based on the evaluated climate-smart improvement suggestions.
	3.6	Arrange for project designs to be developed in accordance with organisational procedures.
4. Develop the strategic plan	4.1	Identify the implications of a strategic climate-smart plan for the organisation.

		4.2 Identify the impact of a strategic climate-smart plan on the environment.
		4.3 Develop an action plan for the implementation of priorities, including costs, task allocations and timetables in accordance with organisational procedures.
		4.4 Identify and obtain strategic approvals required for intervention implementation in accordance with organisational and legislative requirements.
		4.5 Identify and obtain required documentation in accordance with organisational and legislative requirements.
		4.6 Establish and present a plan outlining the process for taking the final strategy proposal for sanction in accordance with organisational procedures.
5.	Establish the project team	5.1 Arrange for a team leader to be allocated for each short-listed suggestion in accordance with organisational procedures and capacity.
		5.2 Establish a project team for each intervention suggestion in accordance with organisational procedures and capacity.
		5.3 Define and present expected outcomes and climate-smart performance indicators for each intervention suggestion.
		5.4 Contribute to the development of project plans for each suggestion in the climate-smart intervention strategy.
6.	Develop continuous improvement strategies	6.1 Identify the likely factors contributing to sub-optimal performance by reviewing relevant information sources.
		6.2 Identify options for removing or mitigating the risk of sub-optimal performance.
		6.3 Assess the adequacy of existing control and quality methods and systems in accordance with organisational procedures.
		6.4 Identify opportunities and develop strategies to continuously improve performance.

6.5 Implement continuous improvement strategies through consultation with appropriate personnel.

6.6 Document implementation of continuous improvement strategies in accordance with organisational requirements.

RANGE STATEMENT

All range statements must be assessed:

1. **Climate-smart performance indicators** may include but not limited to:

    - Increased biomass/yields
    - Reduced water consumption
    - Reduced energy consumption

2. **Agricultural production systems** may include but not limited to:

    - Crop rearing
    - Livestock rearing
    - Aquaculture

3. **Infrastructure** may include but not limited to:

    - Buildings (e.g., nurseries, pens, stores, shelters, etc.)
    - Equipment
    - Machinery
    - Vehicles
    - Facilities (e.g., drainage, irrigation, road networks, storage, etc.)

4. **Production cycle phases** may include but not limited to:

    - Pre-production
    - Production
    - Harvest
    - Post-harvest
    - Storage
    - Distribution

5. **Climate-smart objectives** may include but not limited to:

    - Increasing productivity (e.g., higher yields, larger profits)
    - Increasing adaptability and resilience of agricultural production and food security systems to climate change
    - Reducing greenhouse gases
    - Reduced environmental degradation (e.g., reduced runoffs leading to damage to coral reefs, reduced pollution of ground water, etc.)

6. **Agricultural inputs** may include but not limited to:

    - Consumable (e.g., soil ameliorants, seeds, feeds, medicines, bedding, etc.)
    - Capital (e.g., artificial mulching, arbours, trellises, tillage, etc.)

7. **Agricultural outputs** may include but not limited to:

    - Positive (e.g., crops, meat, food by-products, non-food by-products)
    - Negative (e.g., erosion, water pollution, wastes, GHG emissions, etc.)

8. **Operational resources** may include but not limited to:

    - Water (e.g., harvesting, consumption and distribution)
    - Soil
    - Land

9. **Climate risks** may include but not limited to:

    - Droughts
    - Floods
    - Extreme weather events
    - Saltwater intrusion
    - Heat
    - Sea spray

10. **Implementation risks** may include but not limited to:

    - Over reliance on technology
    - Over reliance on external inputs
    - Maladaptation
    - Yield losses

11. **Means of implementation** may include but not limited to:

    - Financial resources
    - Trade agreements
    - Capacity building
    - Science, technology and innovation

12. **Climate-smart interventions** may include but not limited to:

    - Sustainable production intensification (SPI)
    - Holistic agricultural production management
    - Introduction of new farming practices (e.g. Crop rotations, schedules, intercropping, etc.)
    - Introduction of new technology (climate information systems, renewable energy, etc.)
    - Introduction of high yield/resilient/tolerant species (better suited crop varieties, livestock breeds, etc.)
    - Establishing new value chains

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to determine the sustainability drivers of an organisation and its value chain.
2. How an organisation's strategic goals could be impacted by climate change.
3. How organisational motivations and drivers for implementing climate-smart operations impact the decision making process.
4. What are the legislative and regulatory requirements impacting the implementation of climate-smart agriculture interventions.
5. What kind of data is used to generate agricultural performance indicators.
6. How to conduct audits of agricultural production systems for sustainability and adaptability/resilience to climate change.
7. What are the relevant strategic planning tools, such as SWOT analysis, etc.
8. What considerations must be made when determining climate-smart improvements to:
    - agricultural practices
    - production systems
    - infrastructure
    - production cycle phases
    - agricultural inputs and outputs
    - water resource management
    - soil and land use management
    - waste management
    - energy management
    - climate risk management
9. What are the applicable methods of identifying possible sustainability improvements.
10. How closing the carbon and nitrogen cycles can reduce environmental degradation (such as damage done to coral reefs).
11. What are "triple-win", "double-win", "low-regret" and "no-regret" adaptation actions with regards to designing climate smart agricultural interventions.
12. How to develop sustainability project plans, including key performance indicators and timelines.
13. How to integrate sustainability improvement plans with other goals and strategic directions of the organisation.
14. What are the cost-benefit determination processes.
15. How to determine sustainability improvement options and rank by benefit/cost.
16. What is the appropriate process for selecting an appropriate combination of adaptation actions to form a final intervention strategy.
17. What is the appropriate format for presenting the final intervention strategy.

18. How to develop an effective action plan for climate smart intervention implementation.
19. What kinds of approvals may be required for the implementation of climate-smart interventions.
20. What kinds of documentation may be required for the implementation of climate-smart interventions.
21. How to establish and manage a project implementation team.
22. What are the relevant project planning and monitoring methods and principles.
23. What are the applicable project, product and process design principles.
24. What are the relevant evaluation methods.
25. What are the relevant planning principles.
26. What are the relevant codes, schemes and legislation/regulation.
27. How to develop and implement continuous improvement strategies.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used.**

UA14704 Coordinate the conservation and management of agricultural genetic resources

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to coordinate the conservation and management of genetic resources for germplasm as a basis for sustainable agriculture, climate resilience and food security through biodiversity. This involves the development of genetic resource management plans, including inventory, phenotypic characterisation and monitoring as a mechanism for coping with climate change and safeguarding food security.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Develop a genetic conservation strategy	1.1 Identify and access relevant sources of information relevant to the target species in accordance with industry best practices.
	1.2 Identify and confirm quantities, timing, provenances and desirable traits of specimens for the target species to be placed in conservation program.
	1.3 Identify and select an appropriate method of conservation for the target species.
	1.4 Assess the suitability and sustainability of conservation facilities and resources.
	1.5 Identify work health and safety hazards, assess risks and incorporate suitable controls into the conservation plan in accordance with industry best practices.
	1.6 Develop a public education and awareness program, where required, to educate members of the public about conservation efforts and how they may contribute in accordance with organisational requirements.
2. Implement a conservation strategy	2.1 Identify and acquire target species with desired traits for conservation in accordance with relevant organisational, industry and animal welfare requirements.

		2.2	Select and implement an appropriate method of conservation for the target species in accordance with conservation strategy and industry best practices.
		2.3	Maintain an appropriate inventory of target species in conservation in accordance with organisational requirements and industry best practices.
		2.4	Implement a public education program or establish communication with local community members to support awareness of conservation efforts.
3.	Develop a genetic management plan	3.1	Identify and review relevant organisational genetic resources policies and procedures in relation to the propagation process.
		3.2	Establish a suitable data capture and data management system in accordance with industry requirements.
		3.3	Formulate genetic management plan requirements taking into account relevant factors.
		3.4	Select and confirm quantities, timing, provenances, species and desirable traits of specimens for target species in accordance with genetic management plan and genetic diversity principles.
		3.5	Conduct phenotypic characterisation of genetic resources, where required, in accordance with industry best practices.
		3.6	Review site environmental protection measures and relevant legislation and regulations.
4.	Implement a genetic management plan	4.1	Select desired specimens and an appropriate method of propagation for the target species in accordance with genetic management plan and industry best practices.

		4.2 Obtain required permits or licences for production, collection and management of genetic resources in accordance with organisational procedures and legislative requirements.
		4.3 Direct operational propagation activities in accordance with industry best practices and relevant hygiene, animal welfare and environmental considerations.
		4.4 Schedule and coordinate personnel, materials, tools and equipment required for propagation in accordance with industry best practices.
		4.5 Inform staff of the genetic management plan, propagation methods and tending requirements in accordance with organisational procedures.
5.	Monitor and review the genetic resource plan	5.1 Implement relevant environmental protection measures, where necessary, for all propagation and conservation activities.
		5.2 Monitor the health and progress of target species in the genetic resource management plan and carry out all required measurements and inspections in accordance with relevant welfare requirements and industry best practices.
		5.3 Maintain communications with staff, clients and contractors about progress of propagation and conservation in accordance with organisational requirements.
		5.4 Review propagation and conservation methods and implement corrections where necessary in accordance with genetic diversity principles and industry best practices.
		5.5 Record and report on genetic management and conservation results, with recommendations for future improvement in accordance with industry best practices.

RANGE STATEMENT

All range statements must be assessed:

1. **Relevant factors** may include but not limited to:

    - Capacity of facility
    - Relevant characteristics of cultured or held stock
    - Marketing plans
    - Production plans
    - Budgetary constraints
    - Food security measures

2. **Target species** may include but not limited to:

    - Plants (e.g., crops, fruits, forestry, shrubbery, etc.)
    - Animals (e.g., livestock, pollinators, recyclers, pest predators, etc.)
    - Aquatic resources (e.g., fish, shellfish, crustaceans, etc.)

3. **Method of propagation** may include but not limited to:

    - Animals
        - natural (e.g., mating of select animals)
        - artificial (e.g., artificial insemination, embryo transfer, etc.)
    - Plants
        - sexual (e.g., seeds, spores, etc.)
        - asexual (e.g., tissue cultures, grafting, storage organs, cuttings, etc.)

4. **Method of conservation** may include but not limited to:

    - In situ (e.g., on-farm, reserves and protected areas)
    - Ex situ (e.g., germplasm banks, zoos, aquariums and botanical gardens)

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. Why it is important to increase the efficiency and resilience of food systems.
2. What are animal genetic resources.
3. Why loss of genetic diversity is a threat to the well-being of present and future generations.
4. What are the traits that may be important for climate change adaptation of various species.
5. Why the conservation and sustainable use of a wide range of genetic diversity are fundamental in developing resilience to shocks, shortening production cycles and generating higher yields, ideally with better quality and higher nutritional content.
6. What is the importance of maintaining diversity between and within the population of the target species.
7. How to identify and target species and specimens with the following traits which are important for climate change adaptation:
    - capacity to tolerate high temperatures and droughts
    - fire resistance and tolerance, especially for trees
    - resistance or tolerance to diseases and parasites
    - capacity to utilise scarce and poor-quality feed and soil;
    - tolerance to lower water quality, especially for aquatic organisms
    - capacity to range over harsh terrain in search of feed and water
    - phenotypic plasticity
    - fecundity and fertility rates
8. How to perform the following propagation techniques:
    - animals
        - natural (e.g., mating of select animals)
        - artificial (e.g., artificial insemination, embryo transfer, etc.)
    - plants
        - sexual (e.g., seeds, spores, etc.)
        - asexual (e.g., tissue cultures, grafting, storage organs, cuttings, etc.)
9. How to schedule resources, materials and equipment required for propagation.
10. How to schedule resources, materials and equipment required for conservation.
11. What are in-situ and ex-situ conservation practices.
12. Why it is important to involve the public and local community members in conservation efforts.
13. How to identify problems in the management/conservation of genetic resources and demonstrate appropriate response procedures.
14. How to efficiently and safely implement a genetic resource management plan and organise and obtain required permits or licences.

15. How to record and report on genetic resource management.
16. What are the relevant legislations (local and international) and organisational policies and procedures pertaining to processes for managing genetic resources.
17. What is meant by the provenance of genetic resources.
18. What is the importance of locally adapted breeds and hybrids to genetic resource management.
19. What are the relevant environmental protection requirements for managing genetic resources.
20. How to identify and classify plant specimens.
21. How to identify and classify animal specimens.
22. How to conduct phenotypic characterisation activities.
23. Why phenotypic characterisation is important in a genetic resource management plan.
24. What is the importance of ecology and ecological interactions in a genetic resource management plan.
25. What are the relevant nursery hygiene and sterilisation techniques.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used,** except in exceptional circumstances where natural work evidence is unlikely to occur.

UA14804 Plan and coordinate the implementation of climate-smart agriculture solutions

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to plan and supervise the implementation of climate-smart agriculture project works through preliminary planning, scope of works, work health and safety procedures, equipment and materials, works schedules, specifications and environmental impact and organising and supervising the implementation of project works.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Carry out preliminary activities for climate-smart project work	1.1 Confirm and verify client climate-change vulnerabilities, preferences and contract requirements for agriculture production system.
	1.2 Identify key milestones for the scope of works in accordance with industry practice.
	1.3 Identify specific statutory obligations relevant to the project.
	1.4 Conduct an initial site visit to verify the biophysical and other factors of the project area, including environmental considerations and historical modifications.
	1.5 Identify technical challenges and forecast required research and planning.
	1.6 Review the scope of works and contract requirements with respect to climate-smart principles and ethics.
	1.7 Identify work health and safety hazards and obligations.
2. Investigate resource issues associated with project work	2.1 Verify the availability, quantity and costs of plants and other materials listed in the project schedules.
	2.2 Identify and cost material resources, tools and equipment required for climate-smart project works.

		2.3 Confirm the availability of material resources, tools and equipment with suppliers, contractors and appropriate personnel.
		2.4 Investigate site access and establishment issues and adequately plan for environmental impacts.
3.	Prepare a climate-smart project work plan	3.1 Prepare a statement of scope of works document in accordance with organisational procedures.
		3.2 Prepare a safety plan for climate-smart project works in accordance with organisational procedures.
		3.3 Identify the types, amounts/numbers and sources of tools and materials required for climate-smart project works.
		3.4 Prepare a staged program of works to provide a sequential allocation of material resources and works tasks with specifications to meet determined project timelines.
		3.5 Evaluate the program of works with respect to accepted climate-smart practices.
		3.6 Confirm the establishment period and maintenance period of project works.
		3.7 Develop the staging strategy in a manner that incorporates seasonal factors and impacts.
		3.8 Identify special project works related to habitat resource development and enhancement in the staged implementation plan.
		3.9 Develop and prepare a consistently formatted climate-smart works plan document in accordance with established industry practices.
4.	Implement climate-smart project work plan	4.1 Supervise climate-smart project works in accordance with established industry practices.
		4.2 Take delivery of materials and equipment in accordance with established industry practices.

4.3 Assemble human resources on site in accordance with organisational and safety requirements.

4.4 Conduct project works and safety briefings in accordance with site, organisational and industry requirements.

4.5 Undertake and manage climate-smart project works in accordance with established industry practices.

4.6 Inspect work tasks for adherence to specifications, making corrections and modifications, where necessary, in consultation with staff.

4.7 Monitor the environmental impact of project works and modify works, where required, in accordance with environmental guidelines.

4.8 Complete climate-smart project works and confirm a satisfactory outcome with client in accordance with organisational procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Agriculture production systems** may include but not limited to:

    - Crop rearing (e.g., food crops, cash crops, horticulture etc.)
    - Livestock rearing (e.g., ruminants, non-ruminants, poultry, bees, etc.)
    - Aquaculture

2. **Climate-smart project work** may include but not limited to:

    - Establishing new infrastructure
    - Removing old infrastructure
    - Modifying extant infrastructure
    - Site plan modifications
    - Application of treatments
    - Introduction/removal of species
    - Adoption and implementation of new technology/equipment

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to determine and review a project's scope of work.
2. How to assess a site for opportunities and constraints associated with the implementation of climate-smart works.
3. How to prepare schedules for implementation of climate-smart works.
4. How to prepare a staged climate-smart works plan.
5. How to conduct a work health and safety briefing.
6. How to prepare a statement of environmental effects.
7. How to supervise climate-smart project works.
8. What are the relevant climate-smart principles and practices.
9. What considerations must be made when planning and implementing climate-smart project works, such as:
    - food gardens
    - community gardens
    - urban/rural climate-smart systems
    - aquaculture systems
    - horticultural systems
    - forest systems
    - grazing and pasture systems
    - animal systems
    - tractors
    - integrated food, fibre and energy systems
    - climate smart structures
    - soil treatments
    - preparation of soil surfaces
    - installation of irrigation and/or drainage systems including earthworks
    - planting methods such as hand sowing, direct seeding, tube planting, hand or machine assisted planting of seedlings, planting of divisions and transplanting
    - natural area regeneration
    - fencing of stock and pest animals
    - the cultural or biological control of weeds and feral animals
    - protection of plants by staking, typing and guarding
10. How are project works impacted by the following biophysical factors of a site:
    - location and availability of the site
    - site boundaries
    - environmental considerations
    - access issues
    - potential hazards

11. What are the environmental issues associated with undertaking climate-smart works, such as:
    - use of materials that come from sustainable sources
    - duty of care in conserving sites' natural values
    - work practices
    - the use and movement of machinery, storage of materials, removal of weeds and movement of soil and other materials into, across and beyond the site.
12. What are the relevant principles of ecology, including specific plant and animal relationships and habitat requirements
13. What are the relevant statutory compliance and obligations, such as:
    - compliance with legislation, ordinances, regulations or by laws relating to the works or the work site
    - site responsibilities, including OHS, industrial relations and equal opportunity and employment
14. What are the relevant site evaluation techniques and how to perform them, including methods of analysing soils, waterways and their condition.
15. What techniques must be used to control unwanted plant and animal species.
16. What are the various soil conservation, erosion control and enhancement techniques and what are their advantages and disadvantages in reference to specific sites and habitats.
17. How to select and use appropriate combinations of relevant machinery and tools.
18. What are the relevant work health and safety hazards and the controls necessary to remove or minimise risks associated with them.
19. How to use relevant contract documentation, including specifications, plans of climate-smart works, services, supplies and surveyors' documents.
20. How to break down project works into tasks.
21. How to perform scheduling and timeline generation.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

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- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

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UA14904 Improve cost factors in work practices

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to evaluate the product or process outcomes of a team in terms of their cost components and to be able to determine, in general terms, the cost impact of alternative actions.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Analyse the cost components of the work area or team function	1.1 Establish cost components and factors within the purview of the work area or team members.
	1.2 Examine the causes of variability in costs relevant to product or work processes.
	1.3 Evaluate the impact of costs on production or process activities and rank them in terms of severity.
2. Improve cost-efficiency of processes and procedures	2.1 Identify methods of improving productivity and/or reducing costs within the purview of the work area or team.
	2.2 Identify alternative methods of improving productivity and/or reducing costs and rank them in terms of cost/benefit ratio.
	2.3 Consult with all relevant stakeholders regarding possible changes to operating procedures and solicit feedback using appropriate means.
	2.4 Recommend changes which will increase productivity and reduce cost and variability.
	2.5 Implement recommended changes in consultation with relevant stakeholders.

RANGE STATEMENT

All range statements must be assessed:

1. **Cost components** may include but not limited to:

    - Fixed costs
    - Variable costs
    - Taxes
    - Hidden costs

2. **Variability in costs** may include but not limited to:

    - Normal fluctuations (related to different volumes of sales, production or operations)
    - Abnormal fluctuations (due to poor design of product or process, poor scheduling, faults, breakdowns and other waste)

3. **Operating procedures** may include but not limited to:

    - Work instructions
    - Standard operating procedures
    - Drawings and specifications
    - Manuals
    - Formulas/recipes
    - Batch sheets
    - Temporary instructions
    - Government regulations
    - Quality assurance

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to identify fixed and variable costs in products or processes.
2. How to identify cost components of products made.
3. How to analyse costs and determine those that can be controlled by the individuals in an area or team.
4. What are the relevant costs concepts, such as expense, income and cost/benefit.
5. How to analyse costs over time and identify variability in cost components.
6. What are the major cost contributors to product/process (e.g. energy, materials, labour and distribution and so on) depending on the product and process.
7. How to determine cost/benefit ratios.
8. What are the differences between internally and externally controlled costs.
9. How to communicate and negotiate with others on changes using a variety of mediums.
10. What are the differences between the terms: overhead, labour and consumables.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
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- Witness testimony
- Personal statement
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- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used,** except in exceptional circumstances where natural work evidence is unlikely to occur.

UA15004 Procure funding

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to procure funding for an organisation, program or project. Candidates are responsible for determining the amount of funding required, identifying funding sources, developing funding proposals and managing ongoing compliance with funding agreements. This role would typically be undertaken by a senior worker or manager.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Identify funding requirements and context	1.1 Identify the scope and purpose of required funding in accordance with organisational requirements.
	1.2 Calculate funding requirements, including budget, current funding arrangements and future projections in accordance with organisational requirements.
	1.3 Identify potential avenues and sources of funding in accordance with client requirements and organisational procedures.
	1.4 Research and gather information on all potential funding avenues and sources in accordance with organisational procedures.
	1.5 Confirm funding requirements are feasible and sustainable in accordance with client requirements and organisational procedures.
2. Develop a funding submission	2.1 Identify funding source requirements using appropriate research methods.
	2.2 Prepare funding submission in accordance with funding source requirements.
	2.3 Identify the optimum method of presenting the proposal to identified funding sources using appropriate research methods.

		2.4	Seek legal, taxation and regulatory advice, where required and confirm the submission meets compliance requirements through feedback from funding source representatives.
		2.5	Identify how deliverables and outcomes will be evaluated and measured through feedback from funding source representatives.
3.	Present proposal and negotiate with funding sources	3.1	Present the proposal to funding sources using appropriate presentation methods and techniques.
		3.2	Negotiate with funding source representatives to clarify the terms and conditions of the funding agreement.
		3.3	Evaluate the submission to identify strengths and weaknesses to inform subsequent submissions.
4.	Manage funding agreement	4.1	Advise client regarding the finalisation of funding agreement documentation and its circulation to relevant parties.
		4.2	Establish procedures to monitor ongoing compliance and reporting requirements in accordance with funding agreement and organisational requirements.
		4.3	Maintain ongoing relations with the funding source in a manner that maintains mutual satisfaction with funding arrangement.
5.	Evaluate funding agreement	5.1	Evaluate project outcomes against predetermined measures in accordance with client requirements and organisational procedures.
		5.2	Identify lessons learned and opportunities for continuous improvement in accordance with client requirements and organisational procedures.
		5.3	Identify opportunities for future funding arrangements, where appropriate, in accordance with client requirements and organisational procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Avenues and sources of funding** may include but not limited to:

   - Public
   - Private
   - Local
   - Regional
   - International

2. **Funding agreement** may include but not limited to:

   - Ongoing
   - One-off
   - In kind contributions
   - Co-payments

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to find sources of funding.
2. How to determine the feasibility and sustainability of different sources of funding.
3. How to develop funding proposals in accordance with funding source requirements.
4. How to navigate the funding environment.
5. How to develop or modify organisational funding strategy.
6. How to implement government tender processes.
7. What are the available private and corporate sources/avenues of grants and funding.
8. What are the relevant compliance issues with each source of funding.
9. What are the various types of funding, including:
    - ongoing
    - one-off
    - in kind contributions
    - co-payments
10. What are the channels where funding and grant opportunities are publicised.
11. What are the main funding issues and challenges.
12. What is the relationship between funding and strategic direction of an organisation.
13. What are the relevant feasibility and sustainability principles.
14. What are budgets and budget pitfalls.
15. What are the relevant negotiation techniques.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used,** except in exceptional circumstances where natural work evidence is unlikely to occur.

UA15104 Develop climate risk management strategies

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to develop climate risk management strategies for an agricultural enterprise and covers how to research, analyse and interpret climate and enterprise data; prepare risk management strategies; and integrate climate risk and opportunities for management strategies at a business management level.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Survey climate and organisational data	1.1 Obtain and correctly interpret historical climate data from a range of relevant and credible sources in accordance with industry practices.
	1.2 Identify all relevant weather and climate risk factors in accordance with industry best practices.
	1.3 Collect information on normal and significant climate events and their impact on natural and rural systems.
	1.4 Detail current and historical property and organisational production.
	1.5 Review short-and-long-term organisational goals to ensure they fit within climatic constraints.
	1.6 Source, present and update climate and organisational data according to organisational requirements.
2. Identify and analyse climate risks and opportunities	2.1 Analyse forecasted changes of seasonal climate in accordance with established industry guidelines.
	2.2 Identify the relevant risks and opportunities presented by climate and climate change.
	2.3 Determine the impact of different weather and climate risk factors on production in accordance with organisational requirements.

		2.4 Identify and develop relevant qualitative and quantitative risk and opportunity factors.
		2.5 Outline suitable tactics to address a range of different climate variability risks and opportunities.
		2.6 Identify suitable contingency options in accordance with organisational requirements.
3.	Prepare climate risk management strategies	3.1 Analyse and correctly interpret climate variability and seasonal climate forecasts.
		3.2 Develop a business strategy that addresses major climate risk factors, insurance and other options in accordance with organisational requirements.
		3.3 Prepare financial outcomes for all strategies in accordance with organisational requirements and guidelines.
		3.4 Determine the impact on the environment, property value and equity for the preferred strategies.
		3.5 Review preferred production, organisation or alternative strategies and select suitable options in accordance with organisational requirements.
		3.6 Present a complete strategy to cope with variable climate effects and climate risk management.

RANGE STATEMENT

All range statements must be assessed:

1. **Climate data** may include but not limited to:

    - Temperature
    - Humidity
    - Atmospheric pressure
    - Wind
    - Rainfall

2. **Sources** may include but not limited to:

    - Academic reports
    - Computer software
    - Internet sources
    - Journals
    - Industry publications
    - Industry specialists and experts

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to research, analyse and interpret climate data.
2. What are the current forecasting techniques and phenomena.
3. How to prepare risk management strategies.
4. What is the impact of weather and climate on organisational activities.
5. How to integrate climate risk with opportunities and management strategies at a business management level.
6. What are the causes of general patterns of weather and climate.
7. How to implement organisational sustainability policies.
8. What is the importance of climate variability and significant climate events.
9. What is the direct and indirect impact of climate variability on land management and sustainability.
10. What property and organisational management decisions are affected by climate variability.
11. How to identify climate risks and opportunities.
12. What are the relevant seasonal climate forecasting systems and related indicators.
13. How to conduct natural disaster planning.
14. What are the relevant climate and weather issues pertaining to sustainable agriculture.
15. What is the potential impact of greenhouse warming on land and natural resource management.
16. How to strategically plan in response to climate variability for a range of seasons (normal, drier or wetter than normal) and other risks and opportunities.
17. How to calculate financial returns for different strategic options.
18. What are the relevant computer applications and Internet sources to access, record and analyse climate data.
19. What are the relevant principles of decision-making based on the variable climate and seasonal climate forecasts.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

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Simulation **must not be used,** except in exceptional circumstances where natural work evidence is unlikely to occur.

UA15204 Implement a monitoring, evaluation and reporting program

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to implement a monitoring, evaluation and reporting program for an organisation to collect and manage data, measure progress against targets and complete reporting responsibilities. This unit addresses activities at the sub-national level to the farm or project level.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Prepare to implement a monitoring and evaluation strategy	1.1 Identify and select an appropriate monitoring and evaluation method in accordance with defined strategy.
	1.2 Consult with stakeholders and the community regarding the process of monitoring and evaluation.
	1.3 Brief colleagues, staff and contractors who will be involved in implementing the program on the monitoring and evaluation methods to be used and rationale behind their selection.
	1.4 Collect relevant baseline data in accordance with established methods.
	1.5 Check and confirm that standard procedures and recording templates are available for use in the design of evaluation instruments.
	1.6 Communicate program timelines to appropriate stakeholders and monitor them in accordance with organisational procedures.
2. Collect and analyse data	2.1 Collect data and information in accordance with relevant standards and formats.
	2.2 Adjust design, where required, in consultation with key stakeholders if further data or information is required to answer key evaluation questions.

		2.3 Store data appropriately in accordance with organisational procedures and in a manner that allows data to be accessible when required.
		2.4 Coordinate colleagues and contractors involved in the monitoring and evaluation process in accordance with organisational procedures.
		2.5 Evaluate the effectiveness, efficiency and appropriateness of investment and project priorities as required by the evaluation design.
3.	Prepare reports and information products	3.1 Report against milestones and outputs in accordance with organisational procedures.
		3.2 Inform and engage stakeholders using appropriately produced information products.
		3.3 Communicate findings and activities to stakeholder groups in accordance with program schedule.
		3.4 Negotiate changes to projects and programs with stakeholders, based on evaluation outcomes.
		3.5 Recommend improvements to the delivery and alignment of projects and policy decisions with organisational goals based on evaluation outcomes.
		3.6 Finalise the report in accordance with organisational reporting style, audience needs and information purpose.
4.	Review the monitoring and evaluation process	4.1 Consult and communicate with stakeholders in a manner that fosters a culture of self-evaluation and learning through encouraging ongoing participation.
		4.2 Review and adapt an ongoing evaluation strategy and processes and provide feedback on the implementation and the evaluation design.

RANGE STATEMENT

All range statements must be assessed:

1. **Monitoring and evaluation methods** may include but not limited to:

    - Performance indicators
    - The logical framework (log frame) approach
    - Formal surveys
    - Rapid appraisal methods
    - Participatory methods (e.g., focus groups)
    - Public expenditure tracking surveys
    - Cost-benefit and cost-effectiveness analysis
    - Impact evaluation
    - Budget management

2. **Information products** may include but not limited to:

    - Reports (e.g., progress, monthly, quarterly etc.)
    - Seminars
    - Videos
    - Publications

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to implement a monitoring and evaluation strategy.
2. What are the various quantitative and qualitative methods for monitoring and evaluation.
3. How to apply monitoring and evaluation methods to ensure integrity and validity of data.
4. What are the relevant data management processes and systems.
5. How to collect and manage data related to the monitoring program according to enterprise procedures.
6. What are the relevant policy and program management processes.
7. How to analyse complex information related to the monitoring program according to enterprise requirements.
8. What are adaptive management and review cycles.
9. How to prepare reports and information products to enterprise standards and to meet audience needs.
10. How to develop a Monitoring, Evaluation, Reporting and Improvement (MERI) framework to manage human, social, natural, physical and financial assets.
11. How to review the monitoring and evaluation process to contribute to continuous improvement.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

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Simulation **must not be used,** except in exceptional circumstances where natural work evidence is unlikely to occur.

UA15304 Support project life cycle management processes

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to support the implementation of project life cycle management processes. It applies to individuals who are project practitioners working in a project support role.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Contribute to establishing the project	1.1 Identify and clarify project initiation documentation in accordance with project authority requirements.
	1.2 Participate in negotiations to establish project objectives, outcomes and benefits and document final outcomes in accordance with organisational requirements.
	1.3 Contribute to establishing the project governance structure in accordance with project authority requirements.
	1.4 Contribute to drafting a project charter for project authority approval.
2. Participate in project planning and design processes	2.1 Contribute to the process of breaking down the project's objectives into achievable project deliverables.
	2.2 Contribute to the process of identifying project stages and key requirements for the completion of each project stage.
	2.3 Identify project milestones and map them clearly against time and objectives.
	2.4 Contribute to consolidating associated plans and baselines in the project management plan.
	2.5 Support negotiations with relevant stakeholders and project authority to gain approval of project plan.
3. Contribute to project control and execution	3.1 Maintain and update records against project deliverables and plans at required intervals.

	3.2 Prepare status reports on project progress and identified issues in accordance with project authority requirements.
	3.3 Contribute to conducting an impact analysis of proposed changes to the project.
	3.4 Maintain relevant project logs and registers accurately and regularly to assist with project audit in accordance with organisational requirements.
	3.5 Update associated plans to reflect project progress against established baselines and approved changes.
4. Contribute to project finalisation	4.1 Manage and assist with project finalisation activities in accordance with project requirements.
	4.2 Prepare project products/sites and associated documentation for handover to client in accordance with project authority and legislative requirements.
	4.3 Contribute to completing financial, legal and contractual obligations where required.
	4.4 Contribute to project review assessments by submitting perspectives on project performance.

RANGE STATEMENT

All range statements must be assessed:

1. **Project initiation documentation** may include but not limited to:

    - Client or customer requirements
    - Concept proposal
    - Contract documentation
    - Executive team instructions
    - Feasibility study

2. **Project governance structure** may include but not limited to:

    - List of key roles (e.g., boards, committees, working groups, reference groups, advisory groups, sponsors, project managers, project team members and stakeholders)
    - Issue-escalation procedures
    - Project organisation chart with authority levels
    - Statements of roles for project management bodies and participants

3. **Project charter** may include but not limited to:

    - Approvals and sign-off
    - Broad scope and project boundaries
    - Broad stakeholder identification
    - Documents
    - Objectives
    - High-level product deliverables
    - High-level risk assessment
    - Project brief or proposal
    - Project mandate
    - Source of project authority
    - Terms of reference

4. **Associated plans and baselines** may include but not limited to:

    - Communications plan (stakeholders and information)
    - Human resources plan
    - Procurement plan
    - Project budget
    - Project timelines
    - Quality-management plan
    - Risk plan
    - Scope-management plan
    - Monitoring and evaluation

5. **Impact analysis** may include but not limited to:

    - assessment against project quality requirements
    - Forecasting against triple constraints (scope, time and cost)
    - Review of project baselines against proposed change

6. **Project logs and registers** may include but not limited to:

    - Change log
    - Correspondence log
    - Daily log
    - Issues log
    - Non-conformance log
    - Quality log
    - Risk register
    - Task completion log
    - Budgets/expenditures

7. **Project finalisation activities** may include but not limited to:

    - Completing financial transactions
    - Consolidating and storing project data
    - Documenting outstanding project issues
    - Obtaining or providing certifications
    - Preparing final project reports
    - Updating organisation knowledge management

8. **Associated documentation** may include but not limited to:

    - As built design specifications
    - Certificates, guarantees, indemnities and warranties
    - Product or service specifications
    - User, training and installation manuals

9. **Project review assessments** may include but not limited to:

    - Benefits realisation review
    - Outcomes evaluation
    - Post-implementation review
    - Project lessons learned

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to interpret potentially complex project plans and documentation.
2. How to apply numeracy skills to conduct forecasting.
3. How to plan, monitor and respond to project issues.
4. How to measure project progress against agreed plans.
5. How to effectively liaise with other members of the project team.
6. How to use software common to work office products for documentation and analysis.
7. What are the basic project governance models.
8. What are the relevant project finalisation and evaluation products.
9. What are the relevant project life cycle stages, phases and structures relevant to industry and project context.
10. What are the various project planning documents and formats relevant to industry and context.
11. What are the relevant types of organisational documentation of strategies and goals.
12. What are the relevant types of project initiation documentation, including charter documentation.
13. What are the relevant types of project logs and registers in use in the industry sector and context.

EVIDENCE GUIDE

For assessment purposes:

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(2) Methods of Assessment

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Evidence may be collected in a variety of ways including:

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- Witness testimony
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(3) Context of Assessment

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UA15404 Apply project stakeholder engagement techniques

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to manage stakeholder relationships during a project. It involves ensuring timely and appropriate involvement of key individuals, organisations and groups throughout the project.

It applies to individuals who are project practitioners working in a project leading or support role.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Identify and address stakeholder interests	1.1 Identify and confirm stakeholders relevant to project objectives.
	1.2 Identify and categorise stakeholder interests and select suitable forms of engagement for each category in accordance with industry best practices.
	1.3 Advise on project operations in a manner that takes into consideration the interests of stakeholders.
2. Participate in stakeholder engagement	2.1 Engage stakeholders effectively using appropriate interpersonal skills.
	2.2 Engage stakeholders effectively in accordance with agreed and defined project roles.
	2.3 Identify and address development needs and opportunities to support stakeholder engagement.
	2.4 Solicit and respond appropriately to feedback from stakeholders on own performance.
3. Encourage stakeholder communications	3.1 Identify and document stakeholder communication needs appropriately.
	3.2 Negotiate agreement on project communication method and content and timing of stakeholder engagement.

3.3 Identify and address variances in planned communication of information within one's scope of authority.

RANGE STATEMENT

All range statements must be assessed:

1. **Stakeholders** may include but not limited to:

    - Associated organisations (public or private)
    - Clients
    - Community
    - Sponsors
    - Suppliers
    - Team members

2. **Forms of engagement** may include but not limited to:

    - Collaboration
    - Empowerment
    - Informing
    - Involvement

3. **Interpersonal skills** may include but not limited to:

    - Conflict management
    - Dealing with emotions and stress
    - Decision making
    - Demonstrating sensitivity to diversity issues (e.g. Gender differentiation and other forms of cultural sensitivity)
    - Emotional intelligence
    - Leadership
    - Modelling desired behaviour
    - Negotiating
    - Trust building
    - Verbal and non-verbal communication
    - Team building

4. **Roles** may include but not limited to:

    - Accountabilities
    - Authorities
    - Delegations
    - Reporting arrangements
    - Responsibilities

5. **Communication needs** may include but not limited to:

    - Communication method used
    - Confidentiality requirements
    - Required content
    - Cultural differences
    - Privacy and other relevant legislation
    - Protocols
    - Required approvals

6. **Communication methods** may include but not limited to:

    - Direct
    - Indirect

7. **Variances** may include but not limited to:

    - Incorrect or misleading content (e.g., third party miscommunication)
    - Missing reports
    - Stakeholder complaints
    - Un-timely distribution

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the relevant analytical skills and methodologies needed to identify and segment stakeholder engagement.
2. What interpersonal skills are needed to facilitate stakeholder engagement.
3. What are the relevant ways to acquire and disseminate relevant project information.
4. What are the software and communication technologies relevant to the industry and project context.
5. How to generate project communications content with stakeholders.
6. What are the common problems leading to variances in stakeholder engagement.
7. What are the interests and expectations of stakeholders.
8. What are the levels and means of stakeholder engagement in projects.
9. What are the various types of project stakeholders.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis

(3) Context of Assessment

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The candidates must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used.**

UA15504 Conduct an independent climate-smart improvement verification

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to verify and ensure that the gains which have been made by using improved, climate-smart methods, processes and/or equipment are sustained as the new standard for an agricultural operation and so prevent regression to former practices, or digression to less adaptive practices.

This unit applies to individuals who must work effectively with others implementing climate-smart systems and practices to ensure that performance improvement gains are sustained.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Assess baseline data	1.1 Source and assess any available baseline data established prior to the implementation of climate-smart interventions.
	1.2 Identify the impact of previous climate-smart improvements on agricultural production systems against established climate-smart performance indicators using an appropriate assessment method.s.
	1.3 Identify previous climate-smart improvements that have not met specified targets for climate-smart objectives.
	1.4 Document assessment outcomes in accordance with organisational requirements.
2. Contribute to the implementation of corrective actions	2.1 Identify climate-smart improvements that have not met objectives and recommend appropriate corrective actions.
	2.2 Identify relevant persons and communicate with them effectively regarding the corrective action.
	2.3 Obtain relevant approvals, where required, in accordance with organisational procedures and legislative requirements.

		2.4 Arrange for the supply of resources in accordance with organisational procedures and legislative requirements.
		2.5 Identify the impacts of corrective action on work health and safety (WHS), quality and environmental systems in work area and take appropriate action in accordance with procedures.
		2.6 Identify skills gaps in self and team members for the implementation of corrective actions.
		2.7 Monitor the implementation of corrective action in accordance with organisational procedures.
		2.8 Make adjustments to corrective actions, where required, to ensure objectives are met.
3.	Verify systems support improvement	3.1 Verify current procedures to ensure they reflect climate smart improvements.
		3.2 Verify training and assessment activities in team or work area to ensure they reflect climate smart improvements.
		3.3 Confirm the support of relevant persons for the adoption or implementation of the new or modified system(s).
4.	Audit the change	4.1 Establish a timeline indicating the proposed audit period or cycle that has been agreed upon by relevant persons.
		4.2 Identify suitable measures and indicators for the improvements that have been agreed upon by relevant persons.
		4.3 Measure performance at agreed times using agreed measures.
		4.4 Identify causes of under-performance using appropriate investigative methods in accordance with industry best practices.
		4.5 Take appropriate corrective action to improve performance, where required, in accordance with industry best practices.
		4.6 Re-audit the improvement on an agreed basis.

RANGE STATEMENT

All range statements must be assessed:

1. **Climate-smart improvements** may include but not limited to:

    - New farming practices (e.g., crop rotations, schedules, intercropping, etc.)
    - New technology (e.g., climate information systems, renewable energy, etc.)
    - New high yield/resilient species (e.g., crop varieties, livestock breeds etc.)
    - New value chains
    - New approaches to resource management (e.g., water, soil, energy etc.)
    - New approaches to waste management
    - Conservation efforts

2. **Agricultural production systems** may include but not limited to:

    - Crop rearing
    - Livestock rearing
    - Aquaculture

3. **Climate-smart performance indicators** may include but not limited to:

    - Revenue/income
    - Biomass
    - Biodiversity

4. **Climate-smart objectives** may include but not limited to:

    - Increasing productivity (e.g., higher yields, larger profits)
    - Increasing adaptability and resilience of agricultural production and food security systems to climate change
    - Reducing greenhouse gases
    - Reduced environmental degradation (e.g., reduced runoffs leading to damage to coral reefs, reduced pollution of ground water etc.)

5. **Relevant persons** may include but not limited to:

    - Management/owners
    - Employees
    - Officials

6. **Approvals** may include but not limited to:

    - Authorisations from administration
    - Government permits
    - Licenses

7. **Resources** may include but not limited to:

    - Equipment
    - Consumables
    - People
    - Suitable work area
    - Time
    - Money (expense/capital)

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to identify reasons and causation for recommendations/solutions that were implemented but may not have met project objectives.
2. What are the relevant kinds of action which will correct project underperformance without adverse impact on other areas.
3. How to audit and validate the improvement from the change.
4. What are the relevant processes and procedures for the organisation relevant to the work area.
5. What are the relevant sustaining approaches.
6. What are measures of performance relevant to the work area and the improvement.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Methods of Assessment

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UA15604 Lead and motivate teams

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to lead and motivate team members.

It also deals with developing cohesion, facilitating team work and managing follow up.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Develop and facilitate cohesion and teamwork	1.1 Develop strategies to ensure team members have input into planning, decision making and operational aspects of teamwork.
	1.2 Develop policies and procedures that allow team members to take responsibility for their own work and assist others.
	1.3 Provide feedback to team members that encourages, values and rewards individual and team members.
	1.4 Develop processes for recognising and addressing issues, concerns and problems identified by team members.
2. Facilitate teamwork	2.1 Encourage team members and individuals to participate in and take responsibility for team activities.
	2.2 Contribute to teamwork to serve as a role model for others and enhance the organisational image.
3. Reduce and manage conflict within a team	3.1 Identify potential conflict between team members and take pre-emptive action to avoid these.
	3.2 Encourage team members to resolve their own problems and conflict amongst themselves.
	3.3 Deal with conflict promptly when team members are unable to resolve the conflict.

	3.4 Acknowledge and respect team members' emotions regarding conflict and manage any negative emotions.
	3.5 Investigate causes of conflict and give persons involved the opportunity to present the facts and perceptions about the conflict.
	3.6 Identify and agree with team members how to resolve conflict without apportioning blame.
	3.7 Comply with organisational policies and procedures when resolving conflict and seek help from others when necessary.
	3.8 Document and maintain complete, accurate and confidential records of conflict and outcomes.
4. Manage follow-up	4.1 Communicate information from team members to relevant persons.
	4.2 Communicate unresolved issues, concerns and problems raised by team members to relevant persons.
	4.3 Evaluate issues, concerns and problems raised and assist with the implementation of corrective action to resolve these matters.

RANGE STATEMENT

All range statements must be assessed:

1. **Others**:

    - Colleagues (internal)
    - Specialists (external)

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What strategies to develop to ensure team members have inputs into the planning and decision making of the team and how to develop them..
2. Which policies and procedures would allow team members to take responsibility for own work and that of team.
3. What type of feedback to provide that encourages and values individual and team efforts.
4. How to recognise and address issues and problems identified by team members.
5. How to serve as a role model to others and enhance the organisational image.
6. How to identify conflicts between team members and what pre-emptive actions to take to avoid these.
7. How to encourage team members to resolve conflicts amongst themselves.
8. What actions to take to deal with unresolved conflicts between team members.
9. How to acknowledge and show respect for team members' emotions.
10. How to investigate the causes of conflict amongst team members.
11. How to agree on resolutions of conflict without apportioning blame.
12. What are additional sources of help and how to source them.
13. What are the documentation and recording procedures for conflicts and their outcomes.
14. What information to communicate from team members to others.
15. How to evaluate the issues, concerns and problems raised by team members and how to implement necessary corrective actions.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

U68402 Contribute to the protection of the environment

Unit Descriptor: This unit deals with the knowledge, skills and attitudes required to conduct work activities in a manner that protects the environment. Candidates should take steps to minimise any negative impact on the environment by completing tasks and activities in a way which causes as little damage or disturbance as possible to the environment while following organisational procedures.

ELEMENT	PERFORMANCE CRITERIA
Candidates must be able to:	
1. Work in an environmentally conscious way	1.1 Perform duties in accordance with relevant policies and legislation.
	1.2 Execute duties in a manner that minimises environmental damage.
	1.3 Operate and handle equipment and materials in a manner that minimises environmental damage.
2. Contribute to continuous improvements in protecting the environment	2.1 Identify instances of possible or actual environmental damage and take appropriate action.
	2.2 Identify improvements to procedures and practices in terms of good environmental practice and report to relevant persons.
	2.3 Dispose of hazardous and non-hazardous waste safely according to approved legislative procedures and practices.
	2.4 Contribute to sustainable development particularly in the conservation of energy, water, use of resources and equipment to minimise environmental damage.

RANGE STATEMENT

All range statements must be assessed:

1. **Relevant policies and legislation** may include but not limited to:

    - Organisational policies
    - Health and safety at work
    - Environmental legislation
    - Solid waste management policies
    - Recyclable policies

2. **Manner that minimises environmental damage** may include but not limited to:

    - Using recycled/reused items and materials where appropriate
    - Disposing of polluting substances safely
    - Reducing the volume of waste
    - Using biodegradable and eco-friendly chemicals
    - Planning tasks to reduce the use of fuel and electricity

3. **Equipment and materials** may include but not limited to:

    - Hand tools
    - Power tools
    - Personal protective equipment
    - Cleaning chemicals
    - Soaps and sanitisers
    - Paper towels
    - Garbage disposal bags
    - Cloths and towels
    - Containers
    - Access equipment

4. **Hazardous waste** may include but not limited to:

    - Oils
    - Chemicals and solutions
    - Harmful materials (asbestos, fibreglass)
    - Electronic equipment
    - Organic hazards (pest excrement, pest carcasses)

5. **Non-hazardous waste** may include but not limited to:

    - Food
    - Plant matter
    - Paper

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the relevant policies and legislation governing environmental protection.
2. How to recognise any likely or actual environmental damage.
3. What are the appropriate actions to take in the discovery of likely or actual environmental damage.
4. What are the ways in which tools and materials should be used in order to minimise environmental damage.
5. What are the different types of pollution.
6. What are the consequences of pollution.
7. How to recognise wastage of energy, water, equipment and materials.
8. What are the methods of working that will minimise pollution and wastage of resources.
9. What are the types of damage which may occur, the impact these can have on the environment and corrective actions to be taken.
10. What are the methods of waste disposal which will minimise the risk to the environment.
11. What are the organisational requirements to prevent wastage.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on no less than three (3) occasions**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Personal statement
- Written evidence (projects or assignments)
- Case study and scenario analysis
- Role play/simulation

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, products and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **must not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

Level 4 Glossary of Terms

Assessment methods

The methods which can be used to determine competence in performance and underpinning knowledge.

Assessors

The Assessor guides and assesses the candidate. His/her role is to determine whether evidence presented by a candidate for assessment within the programme, meets the required standard of competence in the relevant unit or element. The Assessor needs to be competent to assess to national standards in the area under assessment.

Approved Centre

Organisation/Centre approved by the TVET Council/National Training Agency to offer full Caribbean Vocational Qualifications.

Case Studies

In situations where it is difficult for workplace assessment to take place, case studies can offer the candidate an opportunity to demonstrate potential competence.

A case study is a description of an actual or imaginary situation presented in some detail. The way the case study is presented will vary depending upon the qualification, but the most usual methods are written, taped or filmed.

The main advantage of a case study is the amount of evidence of underpinning knowledge they can generate and the specific nature of the evidence produced.

Competence

In the context of vocational qualifications, competence means: the ability to carry out prescribed activities to nationally pre-determined standards in an occupation. The definition embraces cognitive, practical and behavioural skills, underpinning knowledge and understanding and the ability to react appropriately in contingency situations.

CVQ

National Vocational Qualifications (CVQs) are work-based qualifications that assess an individual's competence in a work situation and certify that the individual can perform the work role to the standards expected in employment.

CVQs are based on national occupational standards of competence drawn up by standards-setting bodies known as Industry Lead Bodies. The standards describe the level and breadth of performance that is expected of persons working in the industry or sector which the CVQ covers.

Level 4 Glossary of Terms

CVQ Coordinator

The CVQ Coordinator is the centre contact within each approved Centre offering CVQs. He/she has overall responsibility for the operation and administration of the CVQ system

Element

An element is a description of an activity which a person should be able to do. It is a description of an action, behaviour or outcome which a person should be able to demonstrate.

Explanation of CVQ Levels

CVQs cover five (5) levels of competence, from entry level staff at Level 1 through to senior management at Level 5.

Level 1 - Entry Level

Recognises competence in a range of varied work activities performed in a variety of contexts. Most work activities are simple and routine. Collaboration with others through work groups or teams may often be a requirement. Substantial supervision is required especially during the early months evolving into more autonomy with time.

Level 2 - Skilled Occupations

Recognises competence in a broad range of diverse work activities performed in a variety of contexts. Some of these may be complex and non-routine and involve some responsibility and autonomy. Collaboration with others through work groups or teams and guidance of others may be required.

Level 3 - Technician and Supervisory Occupations

Recognises competence in a broad range of complex, technical or professional work activities performed in a wide variety of contexts, with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources are often a requirement. The individual is capable of self-directed application, exhibits problem solving, planning, designing and supervisory capabilities.

Level 4 - Technical Specialist and Middle Management Occupations

Recognises competence involving the application of a range of fundamental principles and complex techniques across a wide and unpredictable variety of contexts. Requires very substantial personal autonomy and often significant responsibility for the work of others, the allocation of resources, as well as personal accountability for analysis, diagnosis, design, planning, execution and evaluation.

Level 4 Glossary of Terms

Level 5 - Chartered, Professional and Senior Management Occupations

Recognises the ability to exercise personal professional responsibility for the design, development or improvement of a product, process, system or service. Recognises technical and management competencies at the highest level and includes those who have occupied positions of the highest responsibility and made outstanding contribution to the promotion and practice of their occupation.

External Verifier

The External Verifier is trained and appointed by the TVET Council/National Training Agency and is competent to approve and ensure an approved Centre's quality of provision.

Internal Verifier

The Internal Verifier acts in a supporting role for Assessors to ensure consistent quality of assessment and competence. They need to be competent to assess to national standards in the area under assessment.

Observation

Observation of the candidate carrying out his/her job in the workplace is the assessment method recommended in the vast majority of units and elements. Observation of staff carrying out their duties is something that most supervisors and managers do every day.

Performance Criteria

Performance criteria indicate what is required for the successful achievement of an element. They are descriptions of what you would expect to see in competent performance.

Product of Work

This could be items produced during the normal course of work, which can be used for evidence purposes such as reports, menus, promotional literature, training plans, etc.

Questioning

Questioning is one of the most appropriate ways to collect evidence to assess a candidate's underpinning knowledge and understanding.

Questioning can also be used to assess a candidate in those areas of work listed in the range which cannot be assessed by observation. Guidance on when this assessment method can be used is given in the assessment guidance of each individual element.

As an assessment method, questioning ensures you have all of the evidence about a candidate's performance. It also allows you to clarify situations.

Level 4 Glossary of Terms

Range statements

The range puts the element of competence into context. A range statement is a description of the range of situations to which an element and its performance criteria is intended to apply.

Range statements are prescriptive therefore each category must be assessed.

Role-plays

Role-plays are simulations where the candidate is asked to act out a situation in the way he/she considers "real" people would behave. By using role-play situations to assess a candidate you are able to collect evidence and make a judgment about how the candidate is most likely to perform. This may be necessary if the range specified includes a situation in which the candidate is unlikely to find himself/herself in the normal course of their work, or where the candidate needs to develop competence, before being judged competently, for example, in a disciplinary situation,

Simulations

Where possible, assessment should always be carried out by observing **natural performance** in the workplace. **Simulated performance,** however, can be used where specified to collect evidence about an aspect of the candidate's work which occurs infrequently or is potentially hazardous; for example, dealing with fires.

By designing the simulated situation, briefing the candidate and observing his/her performance, you will be able to elicit evidence which will help you judge how a candidate is **most likely** to perform in real life.

Supplementary evidence

Supplementary evidence can be used to confirm and support performance evidence. Types of supplementary evidence include witness testimonies, reports, journals or diaries, records of activities, personal statements, simulation (see note in glossary).

Underpinning knowledge

Underpinning knowledge indicates what knowledge is essential for a person to possess in order to successfully achieve an element and prove total competence.

Units

A unit of competence describes one or more activities which form a significant part of an individual's work. Units are accredited separately but in combination can make up a vocational qualification. There are three categories of units:

Mandatory units - are core to a qualification and must be completed.

Optional units - candidates must choose the required number of individual units, specified in the qualification structure, to achieve the qualification.

Work-based projects

Work-based projects are a useful way for you to collect evidence to support any decision you make about a candidate's performance. They are particularly appropriate in determining the level of a candidate's underpinning knowledge and understanding where it may be insufficient to rely only on questioning observation.

A project often involves the identification of a solution to a specific problem identified by you and/or the candidate (such as looking at ways to redress a recent drop in sales), or may be a structured programme of work built around a central situation or idea (such as the introduction of a new job rostering process)