

## RANGELANDS MANAGEMENT

**ISCED UNIT CODE:** 0522 541 27A

**TVET CDACC UNIT CODE:** HE/CU/AHP/CC/28/6/MA

### Relationship to Occupational Standards

This unit addresses the Unit of Competency: Manage rangelands.

**UNIT DURATION:** 50 Hours

### Unit Description

This unit describes competencies required by animal health and production technologist to manage rangelands. It involves managing rangeland resources, applying knowledge of biotic and abiotic environmental factors, determining use of livestock as a management tool for range land and managing rangeland complexity.

### Summary of Learning Outcomes

By the end of this unit, the learner should be able to:

S/No	Learning Outcomes	Duration (Hours)
1.	Manage range land resources	15
2.	Apply knowledge of biotic and abiotic environmental factors	10
3.	Determine use of livestock as a management tool for range land	15
4.	Manage rangeland complexity	10
<b>Total</b>		<b>50</b>

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. Manage range land resources	1.1. Basic principles of rangeland management 1.2. Rangeland resources 1.2.1. Grasslands	<ul style="list-style-type: none"><li>● Practical</li><li>● Project</li><li>● Portfolio of evidence</li></ul>

	<p>1.2.2. Shrub lands</p> <p>1.2.3. Woodlands</p> <p>1.2.4. Wetlands</p> <p>1.2.5. Savannas</p> <p>1.2.6. Chaparrals</p> <p>1.2.7. Steppes</p> <p>1.2.8. Tundra</p> <p>1.2.9. Forest canop</p> <p>1.2.10. Semi-arid lands</p> <p>1.2.11. Arid lands.</p> <p>1.3. Rangeland resources distribution</p> <p>1.4. Soil types</p> <p>1.5. Vegetation types</p>	<ul style="list-style-type: none"> <li>● Third party report</li> <li>● Written assessment</li> <li>● Oral questioning</li> </ul>
2. Apply knowledge of biotic and abiotic environmental factors	<p>2.1. Biotic and abiotic environmental factors</p> <p>2.2. Biotic and abiotic interaction</p> <p>2.3. Control measures of invasive spp. in rangelands</p>	<ul style="list-style-type: none"> <li>● Practical</li> <li>● Project</li> <li>● Portfolio of evidence</li> <li>● Third party report</li> <li>● Written assessment</li> <li>● Oral questioning</li> </ul>
3. Determine use of livestock as a management tool for range land	<p>3.1. Grazing management systems</p> <p>3.1.1. Paddocking</p> <p>3.1.2. Rotational grazing</p> <p>3.2. Definition of terms</p> <p>3.2.1. Stocking density</p> <p>3.2.2. Land degradation</p> <p>3.2.3. Range land resilience</p> <p>3.2.4. Conflicts in land use</p> <p>3.3. Geographical Information System</p> <p>3.3.1. Microchip in Ear Tag</p> <p>3.3.2. Digitalized collar</p>	<ul style="list-style-type: none"> <li>● Practical</li> <li>● Project</li> <li>● Portfolio of evidence</li> <li>● Third party report</li> <li>● Written assessment</li> <li>● Oral questioning</li> </ul>
4. Manage range	4.1. Water availability, quality and conservation	<ul style="list-style-type: none"> <li>● Practical</li> </ul>

land complexity	4.2.Endangered species 4.3.Rangeland inventory 4.4.Rangeland health	<ul style="list-style-type: none"> <li>• Project</li> <li>• Portfolio of evidence</li> <li>• Third party report</li> <li>• Written assessment</li> <li>• Oral questioning</li> </ul>
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### Suggested Methods of delivery

- Practical
- Projects
- Demonstrations
- Group discussion
- Direct instructions
- Field trips

### Recommended Resources for 25 Trainees

S/No.	Category/Item	Description/ Specification	Quantity	Recommended Ratio (Item: Trainee)
	<b>Learning materials</b>			
1.	Projector		1	1:25
2.	Whiteboard/Smart board		1	1:25
3.	Desktop/computer		1	1:25
4.	Lecture/Theory room		1	1:25
5.	Animal farm	As guided by KVB	1	1:25
6.	Library		1	1:25
7.	E-Library		1	1:25