Report card on sustainable natural resource use in the rangelands: status and trend in the pastoral rangelands of Western Australia

by Department of Agriculture and Food, Western Australia

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3 Baron-Hay Court, South Perth WA 6151
Telephone: +61 (0)8 9368 3333
Email: enquiries@agric.wa.gov.au
Website: agric.wa.gov.au
Section 4 Conclusion
4.1 Principles of rangeland management

The global demand for food and fibre brings many opportunities and challenges for the agrifood sector. One of these challenges is to achieve productivity growth while ensuring we use our natural resources in a sustainable way.

Opportunities and challenges in the rangelands need to consider the principles of sustainable rangeland management:

**Stewardship of natural resources in pastoral rangelands is critical**

The economic and environmental sustainability of the rangelands requires that we meet the needs of the present without compromising the ability of future generations to meet their needs. Sustainable natural resource use in pastoral areas means maintaining — and where possible improving — the productive capability of the land which underpins pastoralism while mitigating off-site impact.

Therefore, stewardship of natural resources in the pastoral rangelands is essential. Those who directly manage the land need to have access to the information, resources and support to carry out this critical role.

**Managing for longer-term climate variability and trends is important**

Management for the long term in a highly variable climate is essential for sustainability in the pastoral areas.

Climate varies across the rangelands from a reliable tropical monsoon in the north Kimberley to the erratic desert climate of the arid interior. Rainfall variability is a defining characteristic of much of the non-Kimberley pastoral rangelands, as is increasing aridity in the inland Southern Rangelands. Highly variable rainfall causes wide fluctuations in the quantity and quality of forage for livestock and can lead to depletion of the critical palatable perennial pasture component.

**Current, evidence-based resource information is important**

Understanding the current state and trend in rangeland condition is important to optimise business outcomes while sustaining the long-term productivity of the resource.

Information and knowledge about pastoral systems are the basis for sound adaptive management. Baseline surveys and long-term monitoring provide the evidence needed to generate management strategies for sustainability. DAFWA works with a range of stakeholders to assess pastoral rangeland condition trends and to produce management information.

**Management practice will determine sustainability of resource use**

Well-managed rangeland pasture is fundamental to environmental and economic sustainability. Important management strategies include:

- monitoring rangeland vegetation condition
- balancing the short-term nutritional needs of livestock with sustaining the pasture base in the long term
- using information and technologies

**Viable pastoral businesses are needed for sustainable resource management**

Sustainable use of the pastoral rangeland resource requires a viable rangeland economy. It is difficult to manage the long-term resource condition without viable pastoral businesses.
Innovation for sustainable resource use is important

Innovation is important for solving problems faced by the pastoral sector. Adopting new technologies and systems can improve the productivity of the rangelands resource, reduce costs of production and produce high quality products for increasingly discerning customers. For example, innovation in irrigation development can mitigate grazing pressure on the natural resource base.

Pastoral participants need to work together

Achieving sustainable pastoralism is the responsibility of all participants in the system, including pastoral managers, supporting businesses, policymakers, researchers and consumers.