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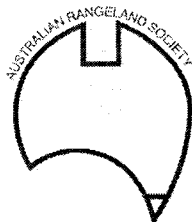
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KEY PERSONAL ATTRIBUTES AND AREAS OF KNOWLEDGE FOR FUTURE SUCCESS IN THE RANGELANDS

John A Taylor

Rangelands Australia, c/o University of Queensland - Gatton Campus, Gatton Q 4343

ABSTRACT

The overwhelming majority of rangeland stakeholders, consulted in a series of focus groups around Australia, foresee significant changes in the way the rangelands will be used and managed. This paper reports on the personal attributes and attitudes that will be critical for success in the 'likely' future scenario, as defined by these stakeholders, and the key areas of knowledge that will be critical for enterprise and community success in these circumstances. It appears that capacity to manage change could be limited by personal attributes such as open-mindedness and attitude to change, and the availability of education and training opportunities that meet expressed needs for business, social and integration/systems skills. This information is being used by Rangelands Australia to develop the framework for new education and training offerings in rangeland management, to build capacity for a bright future for our rangelands.

INTRODUCTION

Rangelands Australia is a unique joint-venture committed to building a strong future for Australia's vast rangelands. It aims to improve rangeland management by providing teaching and learning programs that are relevant, accessible, innovative and world class. In the course of consulting widely to define the education and skills that will be needed for individual, business and community success in 5-10 years time, Rangelands Australia has developed a unique and broad-based perspective of: i) the 'likely' scenario for the rangelands, ii) personal attributes and attitudes for success in that situation, and iii) areas of knowledge that will be required for people to be successful in rangeland enterprises and communities. These perspectives have been derived from the views of over 350 'forward-looking' individuals representing the pastoral (147), mining (15), tourism (15) and 'new' (8) industries; Commonwealth (15), State (73) and Local (15) government agencies; education and training providers (26); indigenous (18) and other community groups (36). These individuals were engaged in the needs analysis through more than twenty focus group meetings across Australia in 2001-02. For each meeting, a mix of 'wise heads' and 'youth', and gender balance, was sought.

The consultation process is not complete, therefore this paper only provides a preliminary report on the anticipated scale of change, stakeholder perceptions of the 'likely' future scenario for the rangelands, the personal attributes and areas of knowledge that will be needed for success in the rangelands in 5-10 years time.

LIKELY SCENARIO FOR THE RANGELANDS IN 5-10 YEARS TIME

The overwhelming majority of the participants in focus group meetings to date believe that there will be significant change over the next 5-10 years. Less than 1% stakeholders consulted expect little or no change.

From a collation of stakeholder responses (and using their words where possible), the most likely scenario for enterprises and their operating environment in 5-10 years time will be as follows:

i) Nature of Enterprises

- Enterprises will focus on excellence/'best practice' in quality assured products (eg. food, fibre or rangeland experiences) and in demonstrating sustainability.
- Enterprises will be more complex (because of diversity in business type and in geography), and more business like and professional in their operations.

- New products or services, value adding and off-farm investments will provide opportunities for diversification and risk management.
- Larger enterprises will develop through increasing corporate ownership and new partnerships (geographically and along the supply chain).
- Younger, more educated and informed managers will take control as an outcome of succession planning, but there may be less of them.

ii) Operating Environment

- Greater environmental awareness and responsiveness will be expected of land users and managers, probably driven by market specifications (global and national) and environmental regulations and restrictions (eg. biodiversity, pest control) at the catchment or regional level.
- Greater scrutiny and accountability will be expected of land users and managers by banks, investors, insurers, government and other stakeholders.
- Decision-making will be more complex, especially in monitoring, evaluating and managing for multiple uses and values at enterprise and catchment scales.
- Traditional knowledge, 'best practice' and new knowledge will be accessed and integrated in decision-making.
- Urban attitudes and perceptions will drive rangeland policy, but urbanites will have a greater empathy with the rangelands through tourist experiences.
- Land degradation will increase as the longer-term consequences of salinity, pests and weeds become evident.
- Social decline will continue through out-migration and cessation of major social events, but people in rural and remote Australia will be better connected nationally and internationally.

While most of the stakeholders consulted seemed comfortable with and accepting of the degree of change anticipated, it is expected that these circumstances will provide significant challenges for many rangeland users and managers, government advisers/facilitators, etc. For some, the likely scenario will be threatening and confronting. From Strachan's (2001) work on the personality types in the northern pastoral industry, we can anticipate that many pastoral managers will probably be resistant to new ideas and uncomfortable with the pace of change. This presents challenges in motivating people for change and in equipping them with appropriate knowledge and skills to be more proactive about change.

KEY ATTRIBUTES OF INDIVIDUALS FOR SUCCESS IN THE FUTURE

Key attributes of individuals were defined as the personal attributes or attitudes that would be critical for success in 5-10 years time. Stakeholders were then asked to reflect on a) the current issues and challenges in the rangelands, and b) the likely scenario in 5-10 years time, and then to deduce the personal attributes that would be critical for success in the future.

Stakeholders were prompted by a list of personal attributes deemed important to improve the employability of graduates, viz. communication, computer literacy, critical thinking, cultural and historical appreciation, ethics, in-depth knowledge, information management, inter-disciplinary perspective, life-long learning, problem solving and team work (AC Nielsen Research Services 2000). These are to be progressively incorporated in all vocational education and training (VET) and higher education courses and programs (West 1998).

The above list was strongly endorsed by stakeholders, but they also highlighted a number of attributes as being particularly important for future success in the rangelands. In decreasing frequency of occurrence, these were expressed as:

- Commitment and passion for the rangelands
- Acceptance of /sensitivity to other cultures and values
- Strong inter-personal skills
- Strong communication skills (incl willingness to listen, articulate, presentation skills)
- Practical

- Self-confident
- Adaptable
- Positive attitude to change
- Thinking ability (incl. in order, holistic/systems, critical, strategic and lateral thinking)
- Willingness to learn/life-long learning
- Determination/persistence
- Open-minded
- Networked and connected
- Innovative.

There is some consistency, but differences in perceived order of importance, with the top five skills for work in agriculture and related fields nominated by rural-based tertiary students; viz. communication, practical, social skills, listening and commitment to agriculture (Hemmings *et al.* 2000).

A number of the attributes listed by rangeland stakeholders are closely linked (eg. open-minded and acceptance of other values), and these linkages draw attention to two fundamental personal characteristics that could limit capacity to change in the rangelands – open-mindedness and attitude to change. Given the very high proportion (62%) of pastoral managers with a traditional or conservative (SJ) personality type (Strachan 2001), this highlights a major gap in capacity to respond to the challenge of change.

KEY AREAS OF KNOWLEDGE FOR SUCCESS IN THE FUTURE

Key areas of knowledge were defined as the ‘things people would need to know about and be able to do’ to be successful in the likely scenario in 5-10 years time. Overall, the 10 most frequently listed areas of knowledge required (in decreasing frequency) were:

- Business management and planning,
- Marketing (incl. market requirements, supply chains, benchmarking),
- Basic understanding of natural resources (eg soils, water, vegetation, biodiversity),
- Cultural and historical appreciation,
- Stakeholder values and perceptions,
- Recruiting, managing and coaching people, facilitation,
- Communication, negotiation and conflict management,
- Multi-criteria assessment (ie. monitoring, integrating and managing for multiple uses and values),
- Landscape processes and function,
- Diversification.

There are some consistencies with the main skills deficiencies identified in University and VET graduates overall (AC Neilsen Research Services 2000), and the skills deemed important for work in agriculture and related areas (Hemmings *et al.* 2000). However, the above list indicates a strong need for more ‘people’ and ‘business’, rather than technology or discipline, focused education and training programs for greater relevance in the future.

As ‘sustainability’ is the state desired by all rangeland stakeholders, the areas of knowledge required for success are listed (using the stakeholders words where possible) under the three elements of the ‘triple bottom line’ (viz. economic, environmental and social), with a separate section to cover integrating or over-arching issues. Only the five most frequently raised areas of knowledge are listed (in decreasing frequency) under each heading.

- Economic
 - Business management and planning
 - Marketing
 - Diversification
 - Livestock husbandry (eg. behaviour, nutrition, genetics, health & welfare)

- Sustainable production systems
- Environmental
 - Basic understanding of natural resources (eg. soils, water, vegetation, biodiversity)
 - Landscape processes and function
 - Management of pests and weeds
 - Legislation and regulations
 - Environmental management systems/certification
- Social
 - Cultural and historical appreciation
 - Stakeholder values and perceptions
 - Recruiting, managing and coaching people, facilitation
 - Communication, negotiation and conflict management
 - Self-awareness and management
- Over-arching
 - Multi-criteria assessment (ie. monitoring, integrating, decision making and managing for multiple uses and values)
 - Property, catchment and regional planning
 - Basic bush skills (ie. four-wheel driving, plant and machinery maintenance, first aid, fencing, etc)
 - Awareness of forces driving change and emerging issues
 - Systems/holistic management

Again, there are some consistencies with the needs identified for the northern beef industry (NABRC 1999), savanna management (Wearne *et al.* 1996) and Australian agriculture in general (Hemmings *et al.* 2000), especially in the economic and environmental dimensions of the 'triple bottom line'. However, the above list, derived from a broad group of rangeland stakeholders, gives much greater emphasis to large-scale issues (ie. global, national, regional, catchment and landscape), multiple-use, integration, systems/holistic management and social issues, rather than the disciplines and/or technology focus of traditional agricultural science courses.

A quick scan of the outlines of Australian courses/programs potentially relevant to the rangelands (ie. agriculture, environmental management) reveals a major gap between the education and skills offerings and the needs expressed by rangeland stakeholders, particularly in the areas of business, people and integration/systems skills.

CONCLUSIONS

Stakeholder consultations have highlighted the personal attributes, skills and knowledge that will be important for future success in the rangelands. A preliminary analysis suggests personal attributes that may limit the rate of change, and areas of knowledge that would improve the relevance of education and training offerings to future needs. At present, these represent gaps in capacity that must be closed if rangeland communities are to be more proactive about change.

Rangelands Australia is using these findings to develop the framework and content of new and more relevant courses, postgraduate and undergraduate programs. These offerings will progressively be available from 2003, and will be delivered by the national network of excellence in rangeland management education, training and research, that is Rangelands Australia.

However, two issues must also be addressed if we are to build capacity in rural and remote Australia: a) retaining and attracting youth and professionals, and b) lifting the relatively low participation rate in education and training. I suspect that if there was a more positive attitude to change, more emphasis on the opportunities rather than the threats, and greater encouragement of education, careers in

rangeland management might be more attractive and capacity to manage change would be greatly improved.

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