

# Summary and conclusions

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## Recommendations

The Workshop process led to a set of proposed actions that have been summarised in the following three recommendations:

1. The Meat Research Corporation should lead a process of concerted effort for the use of monitoring procedures to assist in improving the management of grazing properties in Northern Australia
2. This process should involve the use of a Coordinating Group with producer leaders in pilot groups working as focal points in selected action regions
3. Research and agency service providers should assist in developing monitoring and management protocols that create positive opportunities and incentives to raise the management practices and resource status on grazing properties.

These recommendations were arrived at through an iterative sequence of sessions that discussed why, what and how of monitoring on pastoral lands in the Northern Australia Program Phase 3.

## The rapporteur's task

It was my task to summarise the individual sessions and then draw these together in a synthesis that led to the above recommendations.

### 1. Why monitor?

Working groups agreed that monitoring:

- is essential for good resource management and use
- is a tool to be used in a manner appropriate to the manager's needs and scale of operation, rather than an end in itself
- provides *base-lines* from which to assess deliberate or inadvertent change over time
- is a valuable learning process for improving management of both resource use and enterprise success
- must thus be developed in the context of the operator's goals.

Areas of controversy or unresolved issues included:

- Some producers thought descriptors of land condition should be value-free (e.g. Class A, B, C, rather than terms such as 'degraded' and 'vulnerable to degradation').
- Nearly all participants assumed that pastoral properties would nearly always be producing the same products—predominantly beef—and that monitoring was almost solely for a beef-cattle feed-base. This is questionable, and some attributes for monitoring may need to include heritage or wilderness values in some districts.
- Closely allied to this, there was little appreciation of the need to use *land-use suitability* as the basis to a monitoring frame-work.
- And further to both of these issues, little consideration was given to the idea of developing indicators or measurements for *multiple land-uses*.

I noted that little attention was given to financial and social indicators proposed as desirable for measurement, and that monitoring still appears to be considered as a threat (from government intervention) in some quarters. There was concern over who will interpret the results and how will this be done.

### 2. What to monitor

There was consensus from most of the working groups that the essential attributes needing monitoring were:

- vegetation and soil aspects of the resource base
- vertebrate grazing animals (both total and domestic)
- pests and weeds
- financial aspects of the business
- rainfall and temperature
- risks - fire risk relative to management needs
- maybe environmental audit procedures.

Observation of some aspect in the landscape does not, in itself, provide understanding of what is happening; it can be wasteful of time and resources if the underlying knowledge of causation is missing.

This is a point of particular concern in environments that are relatively poorly understood, and

where there are so few people available to assist in monitoring. In those regions where the climatic regime is extremely variable (especially in the seasonality and amount of rainfall), meaningful measurements of reference sites and other ground-based monitoring procedures require very long time-spans —which is not relevant to tactical management needs.

The working groups also brought forward a number of constraints to effective monitoring.

Constraints to monitoring include:

- inconsistent government policies that send different signals to producers on the value of sustainable land management
- genuine difficulty in knowing what the monitoring means
- difficulties in comparing results across varying methods of monitoring
- debate as to whose responsibility it is to care for the 'public-good' aspects of rangelands
- few obvious, incentive-linked benefits to monitoring (such as premium prices, tax deductions).

My own observation from the evidence presented was that only a few pastoralist enterprises are run as professional businesses, and the biggest gap lies between the minority of 'top' performers (including the corporate sector) and the majority of family properties.

Thus, it is crucial for the success of a monitoring program that an entry point is found for the middle family enterprises that are not self-motivated to use monitoring as an aid to property management, and that the major enterprises (principally the corporate sector) provide leadership.

The third session considered the technical aspects of methodologies to use, and the contribution that modern satellite, computer and electronic technologies could offer the monitoring of such large, remote regions.

### 3. How to monitor

Government R&D programs such as GRASP, WARMS, VEGIWATCH and FIREWATCH all demonstrate the enormous potential for regional to national scale monitoring operations that can benefit resource use in the rangelands, but these are not primarily applicable at the individual property scale.

Property-scale monitoring will still rely on ground sites, with repeated recording, and use of local knowledge (such as identification of vegeta-

tion types or species). Most pastoralists need help in linking biomass and feed-quality estimates to management decisions.

The Workshop groups all came to the same general conclusion that a *sequence of steps* occurs in raising the management capacity on properties: Monitoring -> knowledge gain -> interpretation -> management decision based on resource status.

Similarly, success (equated to the producer's long-term goal) was more certain if:

- planning occurs from property scale downward to paddock scale
- paddocks are not allowed to deteriorate to, or beyond State B.

User-group representatives identified a strong demand for a more *coordinated, operational* application of remote-sensing, financial, and on-ground decision-support tools provided through research and extension government agencies.

Much of the district and regional remote-sensing information, for example, cannot service individual properties yet, and a real opportunity exists with the accelerated use of telecommunications to link each property to these services in the next few years.

A special need for educational packages for basic botanical and landform identification and financial management was emphasised in several group presentations.

## Action Plan

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The working groups proposed a producer-driven Action Plan that recognised the following key elements:

1. The Meat Research Corporation should play a coordinating role to develop a steering group that would identify specific 'action regions' with a 'pilot group' in each region.
2. The pilot-group leaders will deliver the monitoring scheme in conjunction with Property Management Planning activities, through collaborative projects with extension services.
3. It was strongly recommended that pilot group members be paid to attend the initial meetings to secure real commitment to the process.
4. Success with the scheme should be evaluated relative to a goal, such as achieving adoption by 5% of producers across northern Australia by the year 2000.

## Satellite action plans

1. Links with associated on-property activities such as development of Quality Assurance schemes are recommended. The model proposed was that being developed in the dairy industry.
2. Ensure industry and government joint acceptance of a standard Code of Practice or Accreditation scheme (possibly via *Cattlecare*) that gives real value and rationale for monitoring activities.
3. Develop close interpretive and educational links between the monitoring scheme and improved property and resource management that is embodied in the following slogans:

*“Reading the land sympathetically”*

*“Lifting our management game”*

*“Sustainability is keeping our options open”.*

As rapporteur, I suggested that this Action Plan required the following operative context.

First there needs to be leadership (as supplied through the MRC and industry leaders), but also champions who will articulate, drive and implement the scheme, demonstrating its relevance to the long-term sustainability of the northern meat industries. Leading companies and industry figures can set the example, popularise the scheme and assist pilot-leaders and landcare groups in ways that are not possible through institutional agency staff.

The goal for the program will need further work, in order to make the scheme relevant to producers; such goals could be:

*“no basal areas of less than 3%”, “no more extinctions of flora or fauna attributable to pastoral activities”, “showing a profit from reducing stocking rates”, ‘demonstrable recovery of damaged areas” and “how to live with or eradicate major weeds and feral pests”.*

Such goals would be developed by pilot-groups, researchers and industry leaders together for each of the action-districts. While these goals will not necessarily be the same in all districts, there is scope for specific relevance to different biogeographic regions.

## Useful activities from other rural industries

The northern meat industry is not alone among rural industries in attempting to improve sustainability, both financial and environmental, through monitoring and management programs. Sustainability itself is often considered to be a difficult and ill-defined concept, but the Standing Committee on Agriculture and Natural Resources (SCARM) of the Agriculture and Natural Resources Council of Australia and New Zealand has published



Plate 6.1. Levels of monitoring. Teaching the next generation of graziers to look at, and record, their pastures.

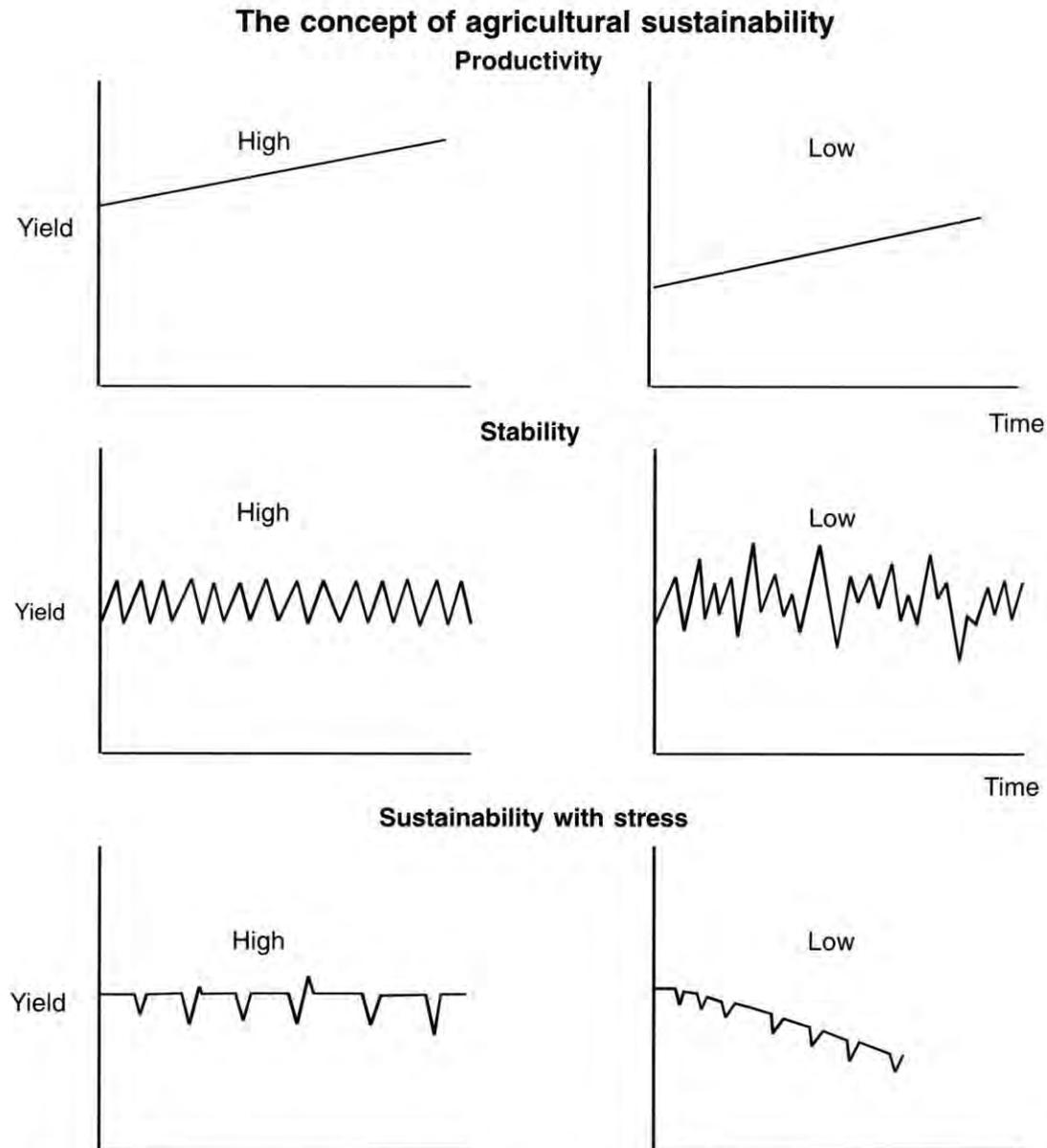


Figure 6.1. The distinction between productivity, stability and sustainability (after Conway 1985)

a widely adopted definition that is now being developed in a national monitoring and indicator scheme (SCARM 1993). Distinction between productivity, stability and sustainability attributes of inputs and outputs from farms has been most clearly described by Conway (1985). Figure 6.1 is adapted from his work, defining the elements of agricultural sustainability.

These concepts have been incorporated into Australian developments on indicators of sustainable agriculture.

These will be part of a regular national report, with its first edition planned for 1997, developed from the SCARM discussion paper (SCARM1993). At property scale, a study undertaken for the FAST Project (FM 500) of seventy eight central Victorian

farmers (Rendell *et al.* 1996) shows how this national scheme can be interpreted at individual farm level.

## References

- CONWAY, G. (1985). Agroecosystem analysis. *Agricultural Administration*. **20**. 31-55
- RENDELL, R., O'CALLAGHAN, P., and CLARK, N. (1996). Families, farming and the future. A report of the FAST Project FM 500 and Sustainable Technology. ISDN 7306 6501 1.
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