



▶▶▶ Monitoring NRM projects: make monitoring meaningful

Good monitoring is the key to successful natural resource management; but it need not be complicated or time-consuming. Monitoring helps you to track progress towards one or more management goals. It should assess the outcomes of a management program and the results should directly trigger management actions. To achieve this, monitoring must include good data management, interpretation and reporting, and be more than just collecting data in the paddock.

Key considerations for a successful monitoring program:

Consideration	Example
Monitoring should be directly linked to management objectives	Improve pasture sustainability and reduce runoff by increasing ground cover of native pasture species
The project should have explicit, measurable targets	Achieve and maintain 60% cover of native perennial tussock grasses
There should be a well-defined end-point from the beginning of the project	Within five years
Monitoring records should include accurate descriptions of management activities	Year 1 - subdivision fencing October; summer spell; Year 2 - graze x ha/head 1 st April to 20 th October then spell; Year 3 - graze y ha/head 4 th January to 1 st March spell for cool burn end May, graze x ha/head 15 th October to 22 nd December, spell
Include natural and climatic events in your monitoring records	Monthly/seasonal rainfall, bush fire, feral pest incursions

The complete process (from data collection to data management and interpretation) should be fast and simple. It should fit within your time constraints and capabilities.

Regular data entry and review

If available, use simple computing applications (e.g. spreadsheet) to keep your monitoring data together. Graph your data to show trends and help determine how well your management program is travelling.

A note on photo points

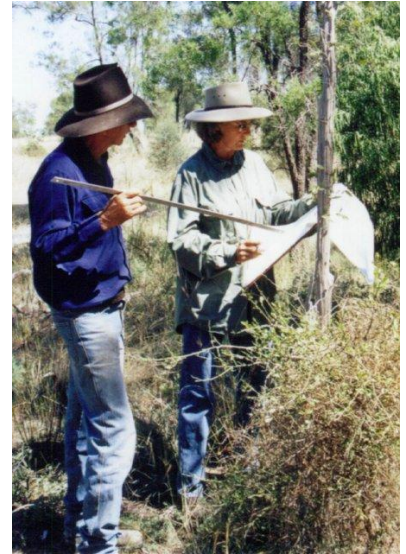
Photo points are a valuable monitoring tool, giving a pictorial record of how the appearance of a site changes over long periods (e.g. >10 years). They can be good for showing gross changes in vegetative cover (e.g. woody weed invasion of Mitchell grass pastures; recovery of scalded land to good pasture cover).

However, **photos cannot provide the level of accuracy required to demonstrate achievement against relatively short-term goals** (e.g. five to ten years), because most natural resource projects do not have significant change over this time period to determine an improvement through photos. Other monitoring tools need to be used in conjunction with photo points to demonstrate successful outcomes.



Questions to ask yourself when designing a monitoring program

- How much time do I have to carry out the monitoring?
- How will the monitoring results influence management decisions and activities?
- Why do I need to monitor (what is the aim / what outcome am I trying to demonstrate)?
- What should I monitor (what feature/event would best demonstrate that outcome)?
- Where monitoring should be carried out (single/multiple location, on/off farm)?
- How will I monitor (what measurements will be made and what records will I keep)?
- When will I monitor (season, time of day, how often)?
- Who will do the monitoring (can I do it myself or will I need technical help)?



Monitoring for multiple project outcomes

Perhaps one of the most frightening aspects of monitoring for NRM projects is the potential need to undertake many different monitoring methods to demonstrate outcomes for an array of project objectives (e.g. water quality, pasture improvement, weed management, biodiversity).

In fact, the monitoring required for many different project objectives often comes down to one or a few simple measures that can tell us a lot about different aspects of the landscape. These are called indicators or surrogates.

For example, you may have several projects in different or adjoining parts of your property/catchment relating to:

- improving water quality through reduced runoff
- increasing pasture stability and availability for stock
- reducing weed competition in pastures
- rehabilitating scalded areas
- improving habitat quality for woodland birds.

The common indicator relating to all of these objectives is ground cover of perennial (native) grasses. By increasing it and maintaining it at high levels, you can:

- reduce runoff and sediment entering waterways
- improve the amount of pasture available to stock and improve pasture sustainability
- have more competitive pasture that is less susceptible to weed invasion
- recover scalded land to productive pasture
- provide shelter, nesting sites and food sources to a large proportion of the woodland bird community.

So, progress towards all of the above objectives may be demonstrated by regular monitoring of ground cover, especially perennial native grasses, at a number of strategic sites within the property/catchment.