

# Managing a carbon project for long term production and environmental outcomes



In addition to the project auditing and monitoring requirements, it is important to consider long term production and natural resource management goals during the 25 or 100 year contracted period.

## So you have a carbon project: what next?

Most of the Local Land Services Western region is semi-arid rangelands which require ongoing management to maintain the long term health of soil and vegetation.

Good management is crucial for the land to be able to produce an economic return in the longer term and maintain value. Carbon projects should not reduce landscape diversity through a significant change of vegetation composition or structure.

### **Best practice for long-term production and natural resource management: the importance of groundcover**

The main land use in the rangelands is grazing, which means the key resource is groundcover and native perennial grasses.

In the rangelands land management has historically meant that production and natural resource management go hand-in-hand. Landholders in Western NSW have always understood the importance of maintaining or restoring the landscape as it has the dual benefit of improving productivity and income.

The common issues facing landholders in the rangelands are drought, woody thickening, pest animals and plants, erosion, total grazing pressure and a variable climate.

The long term approach to best practice land management in this region has always focused on improving groundcover which provides drought resilience and helps to prevent erosion and maximise production incomes.

In addition, increasing groundcover has the added benefit of increasing carbon sequestration in soils.

# Managing a carbon project

Research has shown that a reduction in groundcover levels is the primary cause of wind erosion throughout the rangelands.

Improving groundcover is the most cost-effective means of controlling this soil loss.

For the NSW rangelands, research has shown a minimum 50% groundcover is necessary to protect soil from wind erosion in dry times and 60% groundcover to protect from water erosion.

## **Carbon projects should avoid resulting in a reduction of groundcover below 50%.**

*Figure 1 (right): The left side of the fence has been rotationally grazed while on the right side the total grazing pressure was unmanaged.*



## **Managing total grazing pressure**

The main tool landholders have for improving groundcover and regenerating rangeland landscapes, is controlling grazing pressure by implementing grazing systems including fences, water points and periods of rest.

Total grazing pressure management involves accounting for managed grazing such as from sheep, cattle and managed goats as well as unmanaged grazing from unmanaged goats, kangaroos and rabbits.

Western Local Land Services can provide advice, support and training on a range of land management issues such as total grazing pressure fencing, grazing management, water spreading, water ponding and other rehabilitation techniques.

Contact your local office for advice.

Local Land Services can also provide advice regarding the prevention and management of erosion associated with fence-lines and other infrastructure.

## **Impact on the environment**

Carbon projects should avoid having adverse impacts on biodiversity or long term production. There should also not be negative impacts on:

- ground or surface water
- high conservation value asset areas
- sites of Aboriginal cultural importance
- neighbouring landholders.

## **Pest and weed management**

Regardless of whether you have a carbon project or not, all landholders have an obligation to manage pest animals and weeds on their property.

If pests are not managed, they can have adverse impacts on native vegetation, soil stability, water quality and disease management. Carbon projects should adhere to relevant invasive species plans and avoid resulting in an introduction or increase in pest animals, disease or weeds.

Pest management is often more effective if approached from a group perspective. As well as taking a more effective, coordinated approach pest management groups offer training and support and are well placed to access funding opportunities if and when they arise. If you are not already part of a pest management group it may be worthwhile looking into groups in your area.

## **Managing for fire and other emergencies**

Working alongside NSW Department of Primary Industries (DPI) Local Land Services provides useful information and advice to landholders about property planning and preparedness for an emergency.

Fire is part of the rangelands system and helps to maintain a balanced landscape but poses risks for the maintenance of permanent carbon projects.

Local Land Services and the NSW Rural Fire Service can provide advice on appropriate fire management on your property. This includes the use of prescribed burning and the placement of firebreaks to protect your carbon project as well and to manage other areas of your property.

# Ensuring the long term resilience of your business enterprise

As well as looking after your land it is important to ensure that your business is resilient in the long term. This in turn can help to ensure that you achieve the lifestyle goals you deserve.

## Planning

Planning will help you to achieve the long-term goals of your enterprise and ensure that decisions made day-to-day are consistent with where you want to be in the future.

Successful pastoral enterprises are increasingly embracing the 'triple bottom line'. For these businesses, financial gains are balanced against the social and environmental costs of the property's activities, products and services.

Sustaining the natural resource base of pastoral enterprises is now generally accepted as crucial for long-term success.

The ability of the land to produce forage for stock in the future will be dependent on how well the land is managed today.

However, implementing best management practices can often involve significant upfront costs and the results can take many years to achieve. There may be a number of steps to reach the final outcome and adequate planning is critical.

## Training

Completing a property management planning course will help to assess your situation now and identify relevant short-term actions to get you, your business and the environment where you want them to be in the future.

Good maps also assist in planning future development and management.

Simple, purpose-designed farm mapping software is now available and when used with GPS allows accurate mapping of property infrastructure and natural features.

Invest in yourself. You are a resource too!

Increasing your skills and knowledge is one of the best investments you can make.

Knowledge is a powerful tool, especially when you are dealing with pastoral enterprises where no one season or day is the same.

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Contact your Local Land Services office for information about training and workshops on emerging technologies and adaptive management.

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Seek out farm financial advice and take advantage of market research to find gaps in supply and demand.

Well-planned and structured enterprises can react positively to seasonal and market variability instead of being controlled by fluctuations.

## Financial planning

When seasons are good, make use of the various farm deposit/banking schemes or pay off debt.

The ability of enterprises to cope with future market or seasonal downturns can be improved by:

- investing in new management, business and technical skills
- implementing key actions in business and property management plans
- seeking out appropriate new or innovative technology
- allowing the natural resource base to develop greater resilience
- improving financial flexibility and stability
- improving and diversifying production
- increasing operational flexibility
- taking steps to address stress and building lifestyle requirements into your planning process.

## Permanence, succession and property value

If you already have a carbon project you will be aware that sequestration projects have a "permanence" period of either 25 or 100 years. This means there is a significant period after the contract ends for which your carbon project area must be maintained.

It is advisable to seek advice regarding succession planning and your long term goals for your business and property which factor in the ongoing maintenance of your carbon project area.

Permanent carbon projects may also be a factor in determining the value of your property.

# Considering a carbon project?



## Drought preparation

Long-term drought conditions have led to the development of climate risk modelling and pasture growth calculators.

Using these decision support tools may well give you the edge in anticipating how seasons will develop. Frequent dry seasons and droughts can be better managed through:

- Improving management of total grazing pressure through use of practical indicators, such as available forage, to make the critical early decisions on stocking rates to protect production potential
- Careful management during and after drought to ensure that pastures survive and recover well, which helps business recovery as well
- Building flexibility into the enterprise to limit the financial cost of dry season management responses.

## Innovation

Successful land managers actively seek new approaches to farm management and business planning.

Australian farmers have remained competitive in the global food market despite low levels of subsidies and low quality soils. Issues caused by climate variability will increase as climate change worsens and the ability to adapt and innovate will become increasingly vital for agricultural sustainability.

## Enterprise diversification

If you have a carbon project you have already diversified your enterprise! Perhaps some of your carbon income can be used to help you diversify even further?

If your income is not completely reliant on one type of production you are less vulnerable to market fluctuations and the impacts of drought. Enterprise diversification can take many different forms in the current trend towards “multi-function farms”. One example is the idea of exploring farm accommodation and small-scale tourism.

There are also opportunities around direct marketing and niche markets such as organic, hormone-free, free range products for which consumers are often willing to pay a higher price. Current trends indicate that there are a growing number of discerning consumers who are interested in the provenance of their food and this has created new opportunities for farmers to develop or tap into new markets for their produce.

Rangelands pastoralists are already producing excellent quality livestock fed on native grasses. There is potential to improve the marketing potential of this fantastic product.

Investment in management, training, substantial infrastructure and enterprise diversification can help to ensure the long term resilience of your business. Investment in natural resource management on your property through improving grazing management and encouraging groundcover can help ensure the long term resilience of your land.

**For any other information, contact your nearest  
Local Land Services office by calling 1300 795 299.**