

The 'Profitable perennials' project: a case study

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ABSTRACT: The 'Profitable perennials' project delivered by the Department of Agriculture and Food WA in the south coast natural resource management (NRM) region aimed to facilitate the long term adoption of perennial pastures. NRM is the management of natural resources, such as soils, waterways and biodiversity, to ensure long term sustainability of the resource. The project included the following components: i) research; ii) funding to implement targeted works to protect high-value natural assets in strategic catchments; iii) a devolved grant to support establishment of perennial pastures outside of strategic catchments and; iv) technical support across the whole region to help farmers get perennials on the ground. In 2007 the project was evaluated to determine how the process used, particularly the grant and technical support in strategic catchments, affected adoption of perennial pastures by participants. Barriers and drivers to adoption of perennials were also identified. The project had a varied influence on participant capacity. Key learnings from the delivery and evaluation of this project include: i) genuine landholder involvement in decision making is valuable; ii) technical support at all levels (catchment to paddock) and the strategic use of incentives facilitates accelerated adoption; and iii) evaluation is a useful tool to inform project development.

Introduction

The 'Profitable perennials' project delivered by the Department of Agriculture and Food WA (DAFWA) in the south coast NRM region was designed to facilitate the long term adoption of perennial pastures to contribute to the sustainable management of agricultural, natural and cultural resources. The project commenced in 2006, was implemented in seven 'Strategic Catchments' and finished in June 2008. The project was funded through the Natural Heritage Trust and the National Action Plan for Salinity and Water Quality, with DAFWA providing matching funds for salary and operating expenses. Funds for on-ground works were matched by growers at least dollar for dollar and in many cases by much more. DAFWA delivered the project under contract to South Coast Natural Resource Management Incorporated (SCNRM).

The project was evaluated in 2007 to provide information to guide the planning of further stages of the project. This paper documents a study of the project through the planning stage to evaluation and beyond and provides lessons we have learnt that may be useful to people undertaking similar work in the future.

Background

The clearing of native bush for agriculture has created a range of on- and off-site natural resource management issues and Australian federal and state governments have funded a number of programs over many years to address these. Programs such as the National Action Plan for Salinity and Water Quality, the Natural Heritage Trust and the National Landcare Program have encouraged landholders to adopt more sustainable practices to mitigate or reverse the impacts of agriculture on the natural resource base. Landholders have also contributed substantial resources to addressing these issues.

From 2002 the Australian Government applied a regional delivery model to achieve environmental objectives. Regional NRM groups were supported to engage the community and develop regional strategies and investment plans to better target allocation of resources. At the time 'Profitable perennials' was delivered, SCNRM was the group guiding investment and delivery on the south coast of Western Australia.

Strategic catchments

SCNRM developed the concept of 'Strategic Catchments' as a means of prioritising investment in natural resource management across the south coast region. 'Strategic Catchments' received significant funds to support the adoption of sustainable land management practices such as biodiversity revegetation, remnant vegetation fencing, stock crossings, riparian revegetation and fencing, earthworks for water control, soil health work and perennial pastures.

Catchments were selected by identifying where biophysical processes were negatively impacting on high-value assets such as rivers, estuaries, wetlands and waterways and where it was felt that there was a reasonable chance of containment or recovery of these assets. Projects were delivered in these catchments using a cross theme approach to tackle a number of NRM issues.

These projects used catchment and farm planning as a means to plan and fund large scale implementation works. 'Profitable perennials' was one of these projects.

'Profitable perennials' - the project

Perennial pastures have often been promoted as one option farmers can use to manage land degradation. Many perennials have attributes that impact on the biophysical processes leading to degradation. In most cases the adoption of perennials and other practices has been slow and not at a scale that would impact on land degradation. There are a number of reasons for this but overlying themes are that conservation practices generally do not provide enough relative advantage in economic terms, and that there are difficulties in trialling and observing the impact of these practices (Pannell 2006).

'Profitable perennials' was developed with the aim of increasing the adoption of perennial pastures across the region to reduce the impact of agriculture on high value assets as well as provide economic and environmental benefits to landholders. The project included the following components i) research into perennial pasture systems, ii) funding to implement targeted works to protect high-value natural assets in strategic catchments, iii) a devolved grant to support establishment of perennial pastures outside of strategic catchments and, iv) technical support across the whole region to assist farmers get perennials established. This case study focuses on the funding to implement targeted works in strategic catchments and the technical support provided within those catchments.

Initially, a participatory approach to facilitate increased adoption of perennial pastures was preferred. However federal and state government guidelines meant that a large percentage of funds made available had to be spent on on-ground works. Given the paucity of other resources this, to a large extent, influenced the methods that could be used to bring about the change required. The majority of funds were allocated to paying for on-ground works.

This was a concern as it was felt that without providing landholders with technical support much of this investment could be wasted. As a result some funds were allocated to support farmers through planning workshops and farm visits. The project team endeavoured to work as closely as possible with local group coordinators to ensure as much successful pasture establishment as possible.

Project implementation

The project was delivered slightly differently in each strategic catchment. The different approaches across the region were developed through close consultation with grower groups. The western and central areas of the region preferred an integrated catchment management approach. The emphasis was very much on participative planning approaches, as much as resources would allow, to try to generate community ownership and engagement across the full range of activities.

For example in the Oyster Harbour catchment, a defined sub-catchment was selected and a coordinator funded to support delivery of the project. Information meetings were held to explain the project and planning meetings were conducted to help farmers identify preferred perennial options and select paddocks. Farmers were then provided with funding and a high level of support to get perennial pastures established. This support included assistance with field days and on-farm visits. A similar process was followed in the Bremer River catchment except that all farmers were eligible for the grant rather than those within a defined sub-catchment. The group coordinators played very active roles in project delivery. They formed an important link between the project and the community.

The approach was slightly different in the eastern part of the region however there were many similarities. In the Lake Warden catchment farm planning was still carried out; however it was not done in a group environment. Before the project began, a survey was conducted to capture farmers' proposed plans to establish a range of sustainable land management practices, including perennial pastures. A modelling approach based on identifying what parts of the catchment were having the greatest affect on the lake was then used to determine where investment should occur. There was not as strong an emphasis placed on engaging farmers and building ownership in the project. Support was still provided through individual farm visits by a perennial pastures specialist and a grant to establish pastures.

These differences across the region just reflect the differing approaches to planning and implementation. This is linked to both the social characteristics of the communities involved and the maturity of the landholder/catchment groups.

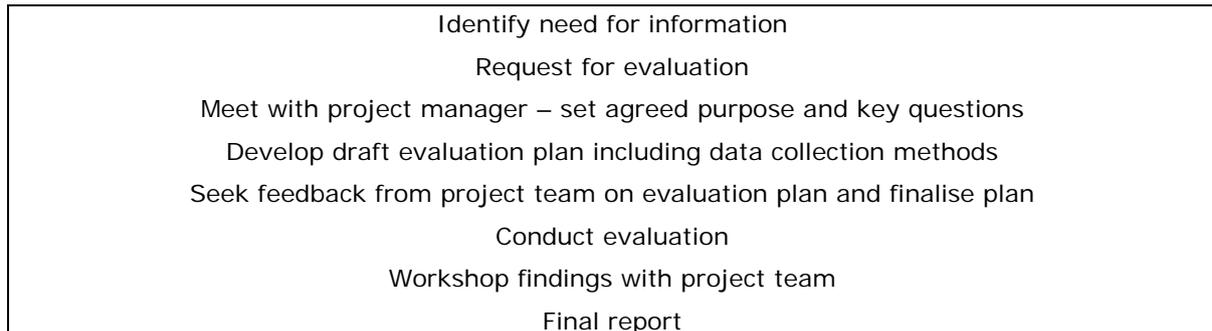
Evaluating our impact to plan for the future

Late in 2006, part way through implementation of the project, planning for the next round of NAP and NHT had commenced. It was expected that many of the projects funded at the time, including 'Profitable perennials', were likely to receive further funding to continue. Planning for future 'Profitable perennials' work was high on the agenda of the project team. At the time it was felt that more information was needed to guide planning of future work so an evaluation was commissioned with the purpose of gathering this information.

Evaluation planning and methodology

Planning for the evaluation commenced early in 2007 and included several meetings between the project manager and the evaluation team who were external to the project. Figure 1 outlines the evaluation planning steps.

Figure 1. Evaluation planning steps



The evaluation sought to determine what influence the project had on adoption of perennial pastures. In particular we wanted to find out what role the grant and technical support played. We also wanted to identify the barriers and drivers to adoption of perennial pastures across the south coast. Bennett's Hierarchy (Bennett 1975, Bennett and Rockwell 1995) was used to frame the evaluation questions and interviews conducted with farmers.

In August and September 2007, twenty-two landholders were interviewed using a semi-structured technique. Semi-structured interviews were used as the method to collect data as we wanted to get an in depth perspective of each farmers experience with the project and barriers and drivers to adoption of perennial pastures.

Project influence on capacity to adopt

Involvement in the project increased interviewees' levels of awareness, knowledge and skills in relation to perennial pastures. This influence on capacity to adopt was not the same for all. Those farmers who had little perennial pastures experience and consequently little awareness, knowledge and skills before the project showed greater capacity development than those who already had more experience and capacity. The influence of the project on capacity to adopt is summarised here.

21. Led to a greater awareness of landscape processes that lead to degradation and the perennial pasture options to address these and other production related issues.
22. Increased knowledge and understanding of the role of perennial and their management
23. Increased confidence to include perennial pastures as part of the farming system.
24. Changed attitudes towards perennial pastures and
25. Built skills in establishing and managing perennial pastures.

Project influence on adoption of perennial pastures

In general, involvement in the project accelerated interviewees along the path to adoption of perennial pastures. The degree of impact depended largely on the stage of adoption farmers were at when the project started. Farmers in the very early stage of adoption generally moved further along the path than those who had already adopted perennials. Involvement in the project has motivated farmers to explore perennial pastures as an option for their farm, increased awareness of perennial pastures, increased skills at establishing perennials and allowed some to make a decision to continue trialling perennials. The impact of the project on long-term adoption was difficult to assess because most interviewees had only just established pastures, or were yet to do so.

Role of the grant

The financial grants made available to growers effectively engaged them with the project. The availability of the grant got farmers' attention. It overcame the key barrier of establishment cost and allowed them to trial perennial pastures or, for those more experienced growers of perennials, allowed them to trial new techniques or species. It essentially reduced the financial risk associated with trialling and establishing perennial pastures.

The grant directly contributed to increased hectares of perennial pastures on the ground. Without the grant more than half the interviewees said that they would not have planted as many hectares and others would not have planted any. Often farmers who had already decided to trial perennials before the project said that they put more hectares in because of the grant.

The grant proved to be a very effective tool at engaging the farmers and quickly leading them to trial perennial pastures. Trialling the pastures enabled them to build skills, see results on their farms and this helped to change attitudes to and build confidence in perennial pastures.

Role of the technical support

The technical support provided farmers access to a broad information network that allowed them to learn quickly about perennial pastures. They were able to talk about perennial pastures with technical experts from government, industry experts and other farmers who had more experience with perennial pastures. Individual farm visits by experts built on knowledge gained at meetings and planning days and helped to reassure that they were doing the right thing. The support was critical in ensuring the farmers built their capacity to adopt perennial pastures

Barriers and drivers

Many factors motivating interviewees to consider adopting perennial pastures were identified. All wanted to restore, maintain or improve the productivity and profitability of their farms. This was often in response to factors that were negatively impacting on production such as salinity, poor sandy soils, the summer feed gap and herbicide resistance. Some were also looking to capture perceived opportunities to increase production capturing summer rainfall and turning it into green feed or planned changes to the farm enterprise mix that required increased production. Environmental protection was also a driver but more so from a farm perspective than the off-farm environment. Interviewees often had more than one factor driving them to consider using perennial pastures.

Many barriers were identified, with risk being a key theme. Perennial pastures were considered to be risky and a number of factors contributed to this, including up-front cost, risk of establishment failure, recent dry seasons impacting on financial situations, and lack of knowledge. Other barriers identified were lack of time, incompatibility with current farm practices, cultural influence and lack of need.

So what happened next?

Recent changes in government at federal and state levels led to major changes in the way natural resource management is supported and funded across the nation. The federal government has set its own priorities and is using a competitive process to select organisations to deliver projects to achieve natural resource management outcomes. The state government has commenced a planning process to set its' priorities that was still underway at the time of writing this paper. Unfortunately this meant that the 'Profitable perennials' project was not going to continue.

Having said this, the evaluation findings, along with our experience and knowledge working with farmers and farmer groups, contributed to a decision to use participatory methods in similar future work. The focus of this approach will be working with farmers and industry to develop local solutions. On-farm technical support will be a key element and incentives will be targeted to engage farmers new to perennial pastures or the farm practice being developed. This approach has already been used to guide the development of new projects in perennial pastures, wind erosion and extension of sustainable agriculture along the south coast.

Conclusion and lessons

The extension methodologies employed through the 'Profitable perennials' project had a mixed influence on participant farmers. Farmers with less perennial pastures knowledge, skills and experience were influenced more than those who already had higher levels of knowledge, skill and experience. The grant and technical support provided played important roles in engaging farmers with the project and building their capacity to adopt perennial pastures.

Some useful lessons about extension and evaluation have been learnt through this project and include

- Technical support at all levels (catchment to paddock) and the strategic use of incentives facilitates accelerated adoption.
- Locally based catchment coordinators with a high profile in the community are highly valuable.
- Genuine landholder involvement in decision making is important.
- A participative extension approach does involve a big commitment in time and resources; however the result is long term activity, even in the face of adverse conditions.
- The evaluation was invaluable for helping to direct future activities and approaches, regardless of where potential funding is coming from.
- Evaluation is a useful tool in project development and should be included early in project development.
- The development of a sound project logic is essential for evaluation planning
- A mentor would be useful for less experienced evaluation teams.
- Gaining evaluation experience by having a go is a great way to learn.

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