



YOU ASKED FOR IT...

HOT TOPICS IN NATIVE VEGETATION MANAGEMENT

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How to promote NRM practices and get them adopted

Promoting natural resource management (NRM) practices to landholders can be a daunting experience for extension officers particularly when new to the field. Landholders are essential stakeholders in natural resource management and agencies need to develop effective ways of working together for multiple benefits.

This fact sheet provides extension officers with practical information about how they can improve the way they work with landholders and better promote NRM practices - so they can increase the likelihood that these practices will be taken up by the community. It contains a summary of the latest research about extension and adoption in rural communities and advice from experienced extension officers from around the country.

Who are your landholders?

When NRM agencies promote new land management practices they often approach landholders as a single homogenous group. This approach is not effective as it can overlook large sections of the community. Landholders are typically a diverse group of people who come from mixed social and economic backgrounds. They vary in age and will gain some to all of their income from a farming business (see Figure 1). In any given region the land is utilised in different ways and properties vary considerably in size. It's these social, financial and personal factors that influence a landholder's values, willingness to change and capacity to undertake actions.

What factors influence adoption?

For an extension officer promoting new NRM practices the reluctance of landholders to adopt new practices can prove frustrating. Personal experience, attitudes and individual background are all factors influencing a landholder's willingness to take up a new management practice and must be considered in each case. Landholders are not irrational in their reluctance but instead

have valid reasons for not taking up new practices. Social researchers have asserted that by understanding the 'world view' of landholders, it is possible to tailor how you promote changes so that they are more attractive to landholders, thereby improving their rate of adoption.

Some of the more common barriers to adoption include:

- > **Lack of confidence or trust.** Your organisation's image is extremely important. The best source of credibility is a history of providing advice that turned out to be good advice. A negative experience through past attempts at adopting new practices is likely to contribute to making landholders reluctant to adopt. This suggests that you need to be careful about what practices you promote and that they are in the best interests of the landholder before you start promoting them.
- > **Knowledge constraints.** General awareness of land management issues has increased in recent years. However, landholders may have a limited understanding of the extent of NRM problems on their own farms and the level of remedial work required. This problem may have arisen in part from the use of 'worst case scenarios' by agencies to make landholders aware of land management problems.

Extension Top Tips:

1. Landholders are a diverse group with different social and economic backgrounds. A landholder's willingness to take up new ideas will be influenced by their background.
2. No single extension method will reach and convince all landholders. Make sure you deliver information and tailor incentives in a variety of ways to increase your capture rate.
3. A 'pro-environment' approach is not likely to influence many landholders to adopt new practices. Instead, delivery should outline more direct benefits such as: improving property quality and the economic viability or sustainability of the business.
4. Adoption is influenced by the 'credibility' of the idea and the organisation promoting it. Consider your image in the wider community and take the time to develop a good relationship with your landholders. Also, you need to be careful about what practices you promote and ensure that they are in fact in the best interests of the landholder *before* you start promoting them.
5. Be strategic and target all steps of the path to adoption: Awareness, non-trial evaluation, trial evaluation and adoption.
6. Deliver information and technical advice in a variety of formats. Don't rely solely on the traditional 'top-down' transfer methods where experts deliver information. Make sure to provide information in ways that allow landholders to take ownership of issues and become the drivers of solutions.
7. Technical advice needs to be tailored so that it is relevant to the landholder and their region.

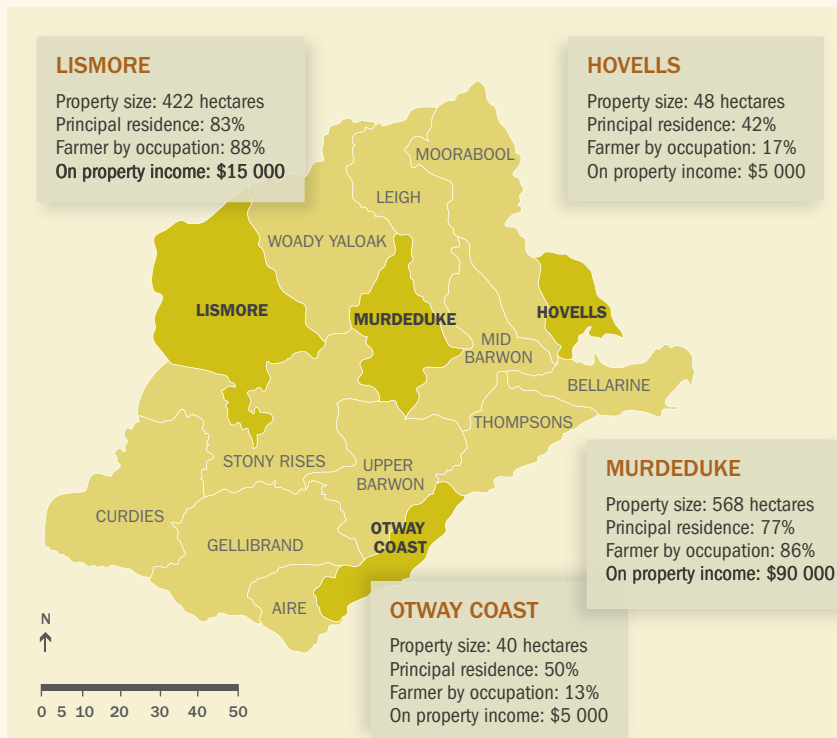


Figure 1: The Corangamite catchment management area (CMA) broken into land management units (LMU). Within the Corangamite CMA, the social and economic backgrounds of landholders vary widely between each LMU. Figure adapted from Curtis et al., 2006.

> **Personal attitude to NRM issues.**

Research suggests that in many cases appealing to a landholder's stewardship ethic or altruism is unlikely to encourage adoption. Instead, landholders are more likely to adopt practices that have direct benefits such as: improving their property 'quality', securing income, improving the business or sustainability of farming. By highlighting how an NRM practice might provide direct benefits to landholders, you can improve its adoption.

> **Social Capital.** Social capital is a product of how the wider community influences landholder decisions. Landholders have been shown to be strongly influenced by how an NRM practice is perceived by other community members. Investment into creating support within the community will improve the likelihood of adoption. Further, the presence of strong-community based networks that share information and resources are more likely to foster change.

> **The decision-making unit often entails the whole family.** The decision to adopt new practices results from consultation with family members and is influenced by their identity and lifestyle preferences.

> **Tradition.** New NRM practices that require a significant change from traditional management techniques are likely to meet with resistance due to sentimental or practical reasons. Acknowledgement and accommodation of tradition is likely to improve the perception of a practice.

> **Socio-demographic factors.** Factors such as age, gender, level of education, participation in training, level of income, size of property and whole farm planning can influence the likelihood of a landholder adopting a new practice. However, the relationship between adoption and socio-demographic factors is complex and should be considered carefully

> **Succession of landholders.** Properties that have a high likelihood of being transferred to the next generation often inspire long-term planning and a willingness to improve the land for the next generation.

> **Financial Constraints.** The financial capacity of a landholder will influence their willingness to adopt new practices. Whilst the provision of financial support may help, financial incentives alone will not foster adoption. Interestingly, a landholder's perception of their financial outlook may more strongly influence their adoption rate than their actual capabilities

The 4 steps to adoption

Landholders typically go through a series of four steps before they decide to adopt a new management practice or innovation.



When promoting a new practice, you should aim to provide information and technical advice for each step. **Simply making landholders aware that an NRM problem exists in their region, without clear and practical methods of implementing remedial action, will not promote change.** Similarly, the provision of financial assistance for establishing a new NRM practice is unlikely to be an effective driver of change if landholders are not aware of the extent of the NRM problem in their region and how it might affect them directly.

How landholders obtain information and learn

Recent reviews of the common methods of rural extension concluded that there is no single best method for delivering information to landholders. Instead, landholders are likely to obtain information from a variety of sources in a number of formal and informal learning environments. By using different methods to provide information, you will reach a greater number of landholders, appeal to different landholder learning styles and appear more consistent and credible.



Leith Hawkins, an extension officer in the Namoi CMA in northern NSW, suggests that there is no single answer as to why landholders don't adopt new practices. "It really comes down to the old saying 'horses for courses', different people don't adopt for different reasons. There is a level of mistrust in the community that has no doubt developed after a series of mixed messages coming from research and extension organisations"

Leith Hawkins' extension pointers

1. **Always say yes to a cup of tea.** Be prepared to take to time to get to know your landholders and develop good relationships.
2. **Walk the walk and talk the talk.** Tailor the way you deliver information so it's the way landholders want to hear it. Don't forget you are selling yourself to a sceptical audience.
3. **Women are the most underrated group of landholders.** They are the financial brokers, business advisors and are key decision-makers on many rural properties. Failure to engage women is a failure to fully capture your target audience.
4. **Treat landholders like business people.** Natural Resource Management agencies (NRM) at all levels need to treat landholders like business people. "Landholders are busy people, they're business people. The more we understand their business and find common grounds, then the more likely we are to be successful in our jobs and reach our targets"

In the Johnstone River catchment in Queensland, a major barrier to the success in restoring riparian vegetation in the region was the wider community's negative perception of feuding NRM organisations and the continual turn-over of project officers (Thomson & Pepperdine, 2003)

Tips for providing information to landholders

- > It is important to acknowledge and accept the personal and/or business goals of landholders in order to develop credibility and trust.
- > Landholders are unlikely to make a decision about an NRM practice based on a single source of information. Instead, landholders continuously access and evaluate a wide body of information to make decisions.
- > Make sure other advisors used by your landholder are also informed. For example, a landholder's financial advisor should know about the subsidies available for a particular practice.
- > Landholders often have to sort through and assess large volumes of information to make decisions. Providing information in accessible and relevant formats will improve its uptake. Coordinating the delivery of information with other NRM agencies will also help.
- > Group facilitation methods have proven to be a powerful extension tool as it allows communities to take ownership of issues, drive discussion and provide opportunities to develop relevant and practical solutions.
- > One-on-one learning is also an important extension style as some landholders find group situations uncomfortable and prefer one on one contact.
- > If landholders perceive that they do not have sufficient technical resources to address NRM issues they are unlikely to adopt remedial action.
- > Extension involves making people aware of an issue and providing information for making decisions. The sources where landholders obtain information for awareness and decision-making may vary greatly.

How to improve the adoption of new practices

There are several key features of a practice or innovation that will influence the likelihood of its adoption by landholders. By considering the following characteristics and tailoring your delivery you can improve its uptake in your region.

- > **Relative Advantage** – the degree in which an innovation is perceived as superior compared to the practice (or idea) it supersedes (which may include lifestyle advantages). Where the potential advantages of a new practice are high, then it is more likely to be adopted. The potential advantages of a new practice may vary with location and land use, and what works in one region may not necessarily work in another. In addition, if a landholder stands to gain a direct personal advantage, then they are more likely to adopt a practice than if the benefits are enjoyed by the wider public.
- > **Associated Risk** – Risks involve the potential failure of an innovation to deliver expected outcomes which are dependent on:
 - > costs of establishment
 - > disruption to other land uses
 - > an innovation's compatibility with existing technologies, practices and resources.
- > **'Triability' & 'Observability'** – New practices that are easily trialled and that have observable and tangible outcomes are more likely to be adopted by landholders.

Practices should:

- > be able to be implemented on a small scale, allowing evaluation without the risks associated with full implementation.
- > complement a landholder's current management plan
- > have benefits that are easily observable within a short timeframe. For example, the benefit of a switch to a new pasture species is more easily observable than the remediation of dryland salinity by establishing farm forestry plots.
- > **Complexity** – Innovations or practices that are perceived as complex are less likely to be adopted. Factors that increase complexity may include:
 - > landholders needing to acquire high levels of knowledge and information;
 - > long time scales required to implement innovations;
 - > require an expansion of their farming portfolio; and
 - > increase in management skills or intensity.



Rae Talbot as a fourth generation resident of the small township of Minyip in Western Victoria, views her role as Wimmera Project Officer for Greening Australia since 1999 as an integral part of the community. Generally she finds that landholders are quite receptive to undertaking new practices but in the past few years the ongoing drought has made it difficult for farmers to take on new work. “ Due to the severity of the drought in our region, the uptake of farm practices has been hindered by a lack of financial capital.”

Rae Talbot's extension pointers

1. **'Sow the Seeds'** - I take the attitude of 'sow the seed' and step aside and wait for the ideas to be taken up. As soon as you tell a landholder what to do, you've lost them.
2. **It's a respect thing.** Respect the knowledge of landholders and be prepared to learn from them.
3. **Get out into the paddock.** Don't make appointments with farmers in your office. Talk to farmers in their settings where they're comfortable. This will help you get an idea of where they're coming from.

Rae suggests that “Natural Resource Management organisations need to think about their staff in order to improve their image in the community. If you work local, you've got to live local. NRM organisations need to have a well-connected workforce. In regional areas, it is harder to keep project officers on. Organisations should be investing to provide incentives to keep their staff.”

- > **It's not all about \$\$** – Financial assistance alone will not ensure the adoption of new practices, however incentives will support those willing to make a change without sufficient financial capital. There are some key points to consider:
 - > Incentive schemes should be flexible and tailored to meet individual landholder requirements.
 - > Applications for incentives should be simple and assistance should be provided.
 - > Poor public perception of incentive schemes will result in poor uptake.
 - > Simple, readily available information about different types of incentives, anticipated outcomes, targets and applicability should be promoted amongst landholders.

Further Reading

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Thinking Bush: Science for managing native vegetation in Australian landscapes. Issue 4. September 2006

Social Dimensions of Managing Mixed Farming Systems – Grain and Graze Discussion Paper. www.grainandgraze.com.au/library/scripts/objectifyMedia.aspx?file=pdf/82/74.pdf&siteID=11&str_title=Grain%20&%20Graze%20Discussion%20Papers%20Nov%2006.pdf

Where to obtain additional information

APEN – Australasia Pacific Extension Network: www.apen.org.au/index.htm

CRRI-Q – Centre for Rural and Regional Innovation Qld: www.crriq.edu.au

CVCB – The Cooperative Venture for Capacity Building for Innovation in Rural Industries, RIRDC (Rural Industries Research and Development Corporation): www.rirdc.gov.au/capacitybuilding/index.html

Exchange www.greeningaustralia.org.au

ILWS – Institute of Land, Water and Society, Charles Sturt University: www.csu.edu.au/research/ilws/

LWA – Land and Water Australia: www.lwa.gov.au

Frank Vanclay: www.agsci.utas.edu.au/vanclay.htm

David Pannell: cyllene.uwa.edu.au/~dpannell/

Alan Curtis: athene.riv.csu.edu.au/~acurtis/index.htm



Amanda Keesing has done a lot of research into the promotion of NRM issues through her involvement with a SCRIPT (South Coast Regional Initiative Planning Team) funded biodiversity education project and her work with the Coordination Unit of the ambitious Gondwana Link project in the south-west of Western Australia. Amanda suggests that the community must feel that they have ownership of a programme if they are going to become engaged. "To force landholders to address issues that they aren't passionate about will have little success. You have to promote an idea that is a priority for landholders, otherwise it is a lost cause."

Amanda Keesing's extension pointers

1. **Listen.** You need to have an understanding of your landholder's attitudes and priorities and work from there. When I try to promote biodiversity I start from topics the landholder is comfortable with. Once you have the landholder engaged in the issue, then you can start to introduce other less obviously related issues.
2. **You need to be part of the community.** Being part of the community engenders trust.
3. **One-on-one conversation is powerful.** You never know where conversations might arise. When you are part of a community a casual conversation in the supermarket or at a sports club might achieve a change that would take six months from an office.

Amanda suggests that NRM organisations could improve their image by providing a united and cohesive front when promoting new practices. "Landholders are typically busy people, they don't have time to evaluate the different viewpoints from different NRM organisations. They want to hear one integrated voice. If agencies work together to provide a more coordinated and holistic package, they could be far more effective". She also reckons that local context is important, "Issues have to be locally relevant and solutions must be tailored for a region".



Feeling lost under a cloud of information? Exchange can help.

YOU ASKED FOR IT...

You asked for it... showcases hot topics in native vegetation management drawn from enquiries made to Exchange – the national vegetation knowledge service. Each fact sheet is developed with assistance from Greening Australia staff, Land & Water Australia, CSIRO, Bureau of Rural Sciences and other experts to give you the latest information about all aspects of native vegetation management.

Please send any feedback about this fact sheet to: exchange@greeningaustralia.org.au

Feel free to copy and distribute this fact sheet, provided its original format is retained.

What is Exchange?

Exchange - the national vegetation knowledge service helps regional groups and land managers to locate information, look at new ways of doing things, tap into research and meet people who are addressing similar issues managing vegetation. Exchange is an Australian Government initiative supported by the Natural Heritage Trust and managed by Greening Australia.

The FREE Exchange Service

Enquiry Service – Telephone or email Exchange with a question and you'll be introduced to your own native vegetation private detective helping locate information and resources.

Resource Directories - The most current and comprehensive information about native vegetation management issues nationally.

Bush Tracks online - Hundreds of key resources about native vegetation management reviewed and rated and important R&D contacts. Click on the Exchange link on the Greening Australia website (www.greeningaustralia.org.au).

The Exchange Incentive Fund - The Incentive Fund provides small grants to help you develop a better understanding about an issue, look at different management techniques and/or aid your communication efforts about native vegetation. The Incentive Fund is jointly funded by Greening Australia and Land & Water Australia.

Go to: www.greeningaustralia.org.au and click on Exchange for more information.

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