

Do farmers and non-farmers manage land and water differently?



NATIONAL CENTRE FOR
GROUNDWATER
RESEARCH AND TRAINING

This resource discusses the changing face of rural Australia, as arable land is increasingly held by non-farmers. It looks at the differences between farming and non-farming landholders, their attitudes to water and land management practices, and the implications for NRM agencies and other organisations who wish to influence landholder behaviour.

CHANGING LANDSCAPES

The increasing prevalence of non-farmers in rural Australia highlights the changing face of Australian landscapes. High rates of rural property turnover has, in some places, led to the amalgamation of farmland resulting in larger farms and fewer people. In other places, it has led to the division of land into smaller properties with less focus on productive use.

Landholders who are focused on productivity (i.e. farmers) have different views on land management and water use than those who are focused on recreation, lifestyle and natural amenities. We can see this distinction in the way that individuals view themselves and the groups that they identify with.

FARMERS VERSUS NON-FARMERS

Farmers tend to be focused on productivity, and often specialise in food and fibre production. Generally speaking, these landholders own large tracts of land and spend large amounts of time there. They seek information from traditional sources, such as catchment management authorities, extension agents, and the radio. The working hours of NRM staff suit the farmer, who is often on the land, and has a good amount of flexibility.

Non-farmers tend to own smaller 'amenity' properties, purchased for



the beauty of the surrounding land, recreation, or for lifestyle purposes. They often work away from the property. Non-farmers tend to prefer to receive information from non-traditional sources (e.g. magazines) and may miss out on opportunities to connect with NRM agents.

Non-farmers often own land in ecologically important and sensitive areas, for example, along rivers. Improved land care practices by non-farmers may therefore benefit not only the immediate surroundings, but also other affected areas, such as downstream areas that rely on the river.

LAND MANAGEMENT PRACTICE DIFFERENCES

Previous research has indicated that farmers and non-farmers differ in their land management practices.

Farmers are more apt to:

- test water quality of the main water sources on property
- water stock from a trough/tank or dam
- know whether there is accessible groundwater that they can use to irrigate crops or water stock
- believe landholders should have the right to harvest water that falls on their property, even if it affects others.

Non-farmers are more likely to:

- believe that the construction of drains reduces wetland area
- agree that stock access to rivers/streams/wetlands should be carefully managed
- believe that 'environmental' water should be specifically allocated to rivers.

IDENTITY THEORY

Formal 'identity theory' explains the way that people view themselves, particularly as part of a group with shared values, and the implications of this.

Want to know more?

Ashmore, RD, Deaux, K, & McLaughlin-Volpe, T 2004, 'An organizing framework for collective identity: Articulation and significance of multidimensionality', *Psychological Bulletin*, 130.1, pp. 80–114

Curtis, A, & Mendham, M 2011, 'Bridging the gap between policy and management of natural resources', In D Pannell & F Vanclay (eds), *Changing land management: adoption of new practices by rural landholders*, CSIRO Publishing, Melbourne, pp. 377–397.

Curtis, A, & Mendham, E 2012, *The social drivers of natural resource management in the Wimmera region*, Institute for Land, Water and Society Report No. 68, Charles Sturt University, Albury, New South Wales.

For example, identity theory suggests that individuals modify their behaviour to align with what others in their group do, and what they believe others expect them to do.

Applying this to an agricultural context, for example, if the expectation is to spray for weeds, it is likely that a farmer will do so, if only to align their behaviours with that of other farmers. A non-farmer, who does not identify with this group, will be less likely to feel the need to comply with these expectations. Having an awareness of this mechanism, as well as the differences between farmers and non-farmers, is valuable for NRM agencies.

HOW THIS CAN HELP NRM AGENCIES

Understanding the social structure of a region can help NRM agencies and other organisations who wish to influence rural landholders' behaviour to make effective decisions on how best to approach landholders.

When working with farming and non-farming landholders, it makes sense to think about the values and goals of different landholders and of the ways they seek and receive information. For example, some non-farmers might be very interested in managing native bush on their property, while some farmers may be interested in various pastures or crop varieties that lead to greater profitability. It also makes sense for NRM staff wanting to engage those undertaking substantial off-property work to change their working hours so that they are available after hours or weekends.

CASE STUDY: the Wimmera region

Research has shown that a complex and diverse set of factors influence land use and management decisions by rural landholders. The increase in the Australian dollar, increases in labour costs, drought, increases in water prices and lowering of trade barriers have led farmers to adapt in the face of instability. Farmers are purchasing more property and owning multiple properties or taking off-property work.

Research has also shown that landholders who do not identify as farmers are increasingly purchasing predominately agricultural land for amenity or lifestyle purposes. These new landholders pose new challenges for those who are working toward environmental targets.

Research conducted in the Wimmera CMA region of western Victoria in 2011 achieved a 49% response rate from a mail survey sample of 1,003 landholders.

In this study, farmers and non-farmers showed distinct differences. On average, farmers were more likely to believe that the benefits of pumping groundwater outweigh the costs, and that pumping groundwater creates economic opportunities that will benefit the district. Non-farmers were more likely to agree that pumping groundwater will create lasting environmental problems but were less optimistic than farmers in believing that any negative impacts of pumping groundwater can be prevented if we proceed carefully. The research showed that, in this region, occupation is linked to behaviour.

Non-farmers were more likely to value the environmental and recreational aspects of their property, and to value being part of a rural community, while farmers expressed greater value for production, profitability and the economic aspects of owning a rural property.

Property size, Landcare and/or commodity group membership, property management planning and participation in short courses on land management practices also affected how likely landowners were to implement conservation measures and currently recommended practices.

Farmers and non-farmers varied in where they sought NRM information. Non-farmers gave higher ratings to the internet and magazines, while farmers gave higher ratings to 'traditional' sources such as CMAs, field days, newspapers, radio and extension officers.

Although this study focused on a particular region, the findings provide the basis for NRM agencies to successfully engage rural landholders.

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