

Translating Research Into Real-Life Results: Making River Research Relevant

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SUMMARY

There is a growing trend across Australia to devolve responsibility for many aspects of natural resource management to local 'communities'. The communities may be represented by local government, by catchment management committees or local boards, by landcare or rivercare groups, and eventually the buck stops with individual landholders. The trend for this devolution of responsibility is accelerating as the higher levels of government reduce their resources available to directly support sustainable management of natural resources. In some States, the local communities have been given additional powers to raise levies in order to pay for natural resource management; the Catchment Management Authorities in Victoria are a prime example. But is this on its own enough?

Increasingly, the recipients of these new responsibilities are beginning to question whether they have the resources necessary to undertake the tasks being devolved to them. Resources might include finance, equipment, personnel and technical skills. It can be argued that although the higher levels of government in Australia are moving quickly to devolve responsibility for natural resource management, they have so far done rather little to build the capacity needed by local groups to take on those responsibilities.

In this changing organisational landscape, what is the role of research in supporting sound management? The paper will explore this issue with particular reference to river and riparian management.

THE MAIN POINTS OF THIS PAPER

- There is growing awareness of the need to actively manage our river systems and surrounding riparian land to maintain their health and ecological values and the provision of quality water supplies for human use.
- Higher levels of government are actively seeking to devolve responsibility for many aspects of resource management to local 'communities' in the form of local government, ICM committees, Landcare groups and individual landholders.
- Many of these 'communities' are concerned that they do not have the resources in finance, staff or technical knowledge to undertake the tasks now being asked of them.

1. INTRODUCTION

There is increasing evidence that many of Australia's rivers are in poor and worsening condition. European settlement and in particular, extensive land clearing and grazing for agriculture, have resulted in major changes to river systems and their ecology and functioning. Australian attitudes to rivers and river management can be considered in three phases:

- For a long period, perhaps 150 years or more, rivers were considered primarily as a source of water for human use and national development.
- Following the Second World War, and with increasing demand to provide safe and secure water supplies for growing urban populations, greater attention has been paid to protecting water quality.

- Only in recent times, perhaps over the last 15 years or so, has there been a significant interest in the health and functioning of our rivers as ecosystems that are an essential component of healthy landscapes.

This somewhat simplistic generalisation may help to explain the current situation where there is clearly a need for active management to prevent or reverse further degradation of river systems. At the same time, however, we have only a limited basis of knowledge and understanding to underpin that management.

It is within this context of uncertainty that we find ourselves. Many problems now confront those of us involved in river management. We believe that these problems can be traced to three key factors, and it is these factors that form the central argument of this paper.

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1. There is growing awareness of the need to actively manage our river systems and surrounding riparian land to maintain their health and ecological values and the provision of quality water supplies for human use.
2. Higher levels of government are actively seeking to devolve responsibility for many aspects of resource management to local 'communities' in the form of local government, ICM committees, Landcare groups and individual landholders.
3. Many of these 'communities' are concerned that they do not have the resources in finance, staff or technical knowledge to undertake the tasks now being asked of them.

This is a broad national problem, and the authors are not convinced that it has yet been widely recognised, let alone acted upon. For the purposes of this Conference, however, we want to focus the discussion on river management and, particularly, on how to deal with the third issue - access to technical knowledge, skills, and finance. To put it another way, we are really concerned with how best to help 'communities' build their capacity for sound river restoration and management.

2. BUILDING CAPACITY FOR RIVER MANAGEMENT

This paper is mercifully short, partly because the authors certainly do not have all the answers (or perhaps any), and partly because we would rather use the time available to hear the views and proposals of Conference participants, a unique mix including:

- people involved in collecting data and generating knowledge and understanding of river management;
- people responsible for developing legislation, policies, and (most importantly) funding programs for river management; and
- people confronted with practical problems related to water quality, algal blooms, flooding, bank collapse and so on.

We believe there is a unique opportunity at the Conference to address the topic of how we are going to build effective national capacity in river management.

To help encourage your participation, we invite you to consider, prior to the Conference, the following questions in relation to your own State or Territory:

- *Is there one organisation or group that clearly has the ultimate responsibility to the community for ensuring sound management of healthy river systems?*

- *Is there a single piece of encompassing legislation that describes the outcomes required from river management, the processes to achieve them and how progress will be monitored?*
- *Are legislative provisions codified into a simple, plain English form, readily accessible to ICM/Landcare members and individual landholders?*
- *Has a State- or Territory-wide survey been conducted of river condition and trend, and priorities for management action identified and agreed?*
- *Is there some kind of framework that catchment committees, local government or Landcare groups can use to help them assess priorities between stream problems, and to identify appropriate management responses?*
- *Do people involved in on-ground river management have ready access to technical advice and support?*
- *Are there links established between research organisations and those involved in day-to-day river management?*
- *Is there an adequate program in place to fund priority river management projects?*
- *Is there a well-developed evaluation program to assess and understand the successes and failures in river management?*

Examples from the Northern Hemisphere will be used to provide information about experience overseas in dealing with these questions. However, we want to hear from you, the conference participants, as to whether these are the important questions to ask, and what your answers are. If the answers are "no", what needs to happen to improve capacity for river management?

3. LINKING RESEARCH AND MANAGEMENT

Given the changing organisational landscape, with increasing devolution of responsibility for river management, is there a need to rethink the way in which we identify, conduct and manage river research? In Australia, we have been rather good at compartmentalising research in organisations that have limited interaction with those involved in management. Is this the case for river research? Do we have sufficient technical understanding and capacity (especially in trained people) to manage the rivers of a large continent? Even if we do, is this technical capacity linked effectively with those confronted by the need for management intervention?

The authors' assessment is that the skills base in understanding river processes is only just being developed in Australia, and even then most of the work is being conducted on the coastal rivers of the south-east and south-west. The functioning of our inland and tropical rivers is still largely a mystery, although people are starting at last to tackle these issues. We also consider that links between the scientific knowledge and understanding held by researchers, and that of on-ground managers and the general community, are poorly developed. In addition, although considerable sums have been spent on river restoration and management works in the past, there has generally been little effort in evaluating the outcomes in order to understand the reasons for successes or failures.

Our conclusion is that, confronted by an urgent need to greatly improve efforts in river management, but with an imperfect knowledge base and poor development of skills and understanding in the wider community, we need to rethink the way that river research is conducted in Australia. In particular, we need to find ways of building bridges between the separate boxes that envelop researchers, policy/program managers, and the people involved in day-to-day management issues. The only way to build these bridges, in our opinion, is through people. Personal contact, and action learning, are by far the most effective ways of transferring knowledge and understanding between groups. Reliance on the provision of written materials, while it may be a necessary and useful step, is not, on its own, sufficient to achieve improved understanding or skills capacity.

We would like to hear your views about the issues and problems raised in this paper, as we each have different perspectives to bring to the discussion. We believe for research to be translated into real life results, those the research is designed to assist must be involved in deciding what the priorities are and where investment should be targeted. We look forward to discussing these issues with you.

