



Extending Horizons

# EXTENSIONNET

December 2001

Vol. 9 No. 2

Newsletter of the Australasia-Pacific Extension Network (Inc)

ISSN 1445-2111

A0029919P

Contact: 61 2 6024 5349

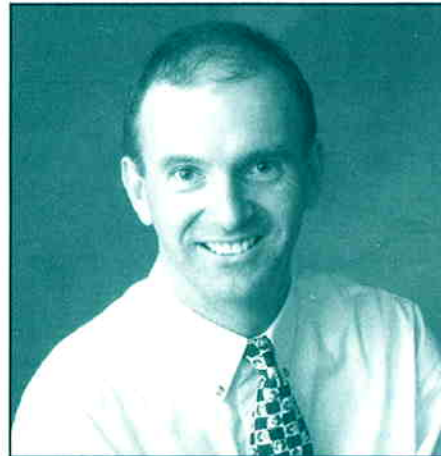
Australia Post approved PP347637000014

## From the new APEN President - John James

The challenge for us as an organisation of change management and communication specialists is to "walk the talk" ourselves. This was well demonstrated at Toowoomba during our international conference where we used the Open Space process for the first time at an APEN event to drive us towards our goals.

Similarly, when we focus on our network, we need to continue taking calculated risks and venture where we haven't gone before. One of the hot topics of conversation at Toowoomba was for APEN to get out of the "agricultural rut." The Indonesians refer to insular activities as being "like a frog beneath a coconut shell", where you have a limited perception of your universe. We have opportunities to interact with change management and communication specialists from health, transport and other areas. To involve them in our network would bring new understandings and improved perspectives... enriching and challenging us all.

As with most change, there may be some sacrifices involved to achieve the desired outcomes. The non-agricultural participants at our conference challenged us about the "E word" in our name, in that it is meaningless or, worse, confusing to their understanding of what we are on about. As we all know, it is sometimes better to change ourselves than try



to change those around us. For how many years have we been trying to better educate the people we work with about the true meaning of extension? Indeed, how many of us have grappled with our own understanding of what extension is and is not?

I relish the opportunity to lead our network into uncharted waters, using participative and consultative processes along the way. The **APEN National Executive** (see page 13) had a two day retreat at the beginning of December, where we pushed ourselves to explore beyond the boundaries. Over the coming months we will share with you our vision for the future. As Dr Lin, the conference keynote speaker said, "Choose your preferred future and plan to be there!" I look forward to a rich discussion as we embark on the journey together.

### From the Editor

This issue is my last as editor. I have enjoyed my role over the past two years and thank all of you who have contributed articles and provided feedback to improve the standard of our newsletter. Your new editor will be Darren Schmidt who combines a background in journalism with his current role in extension for QDPI. I'm looking forward to reading future issues of ExtensionNet under Darren's editorial guidance.

The approach in this issue differs from my previous newsletters as the focus is on a

group rather than a theme. We have a number of very interesting groups who are dotted around Australia, New Zealand and the Pacific. Our intention is to profile the work that is carried out by teams of workers as a way of promoting the innovation that is occurring in extension. As you will find in these articles, often it is only when several projects come together in an overall program of extension that we grasp the interdependence between disciplines, approaches and people.

Season's Greetings.

Mark Paine

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**APEN is pleased to acknowledge the support of:**



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Horticulture Australia

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What this means is that when a farmer adopts an improved natural resource practice it will often be because of these other benefits, not just for an environmental improvement.

# Untangling change

## The Product Development Group, Department of Natural Resources and Environment, Tatura, Victoria

### Introduction

Irrigated dairy and horticulture are the major users of northern Victoria's harvested water resources. Over the past 20 years the dairy and horticultural industries have made significant improvements in their irrigation practices and thus reduced their impact on the environment. The increasing importance placed on the environment by the general community, government and industry funding bodies however, is raising questions about the rate of change and whether the environmental improvements are satisfactory. With many options available for government and industry to facilitate change, communities and others are asking what are the best tools to accelerate change? The Product Development group within the Department of Natural Resources and Environment (NRE) uses a multidisciplinary approach to understand and demonstrate change in line with NRM objectives. The group uses a mix of disciplines, including technical research, economics, extension and marketing. These disciplines are sourced from within NRE or may be contracted from Universities and the private sector. Key stakeholders are engaged in developing strategies to achieve realistic outcomes for the local/regional context.

This article describes the Product Development group's approach by outlining why getting change on farms to improve natural resource management outcomes can be difficult. The rest of the article describes a range of available adoption mechanisms and discusses the importance of stakeholder involvement. Further articles in this newsletter deal with some of these issues in more depth.

### Achieving natural resource outcomes isn't always easy.

Achieving on farm change for natural resource management outcomes is often very different to achieving changes that increase productivity. These differences need to be recognised and addressed.

### *Balance between public and private good*

Improvements in natural resource management practices on farm often benefit the community (public good) more than the farmer (private good). This is because the benefits may be gained over a longer time frame than is relevant for the farm business or may occur at a different location. In order for farmers to change their natural resource management practices an overall private benefit must be evident. This benefit may be productivity increases, but could also include benefits such as labour savings, alignment with personal values or reduced risk.

What this means is that when a farmer adopts an improved natural resource practice it will often be because of these other benefits, not just for an environmental improvement. This has two consequences. The first is that potential environmental outcomes may not be achieved because farmers will be driven to maximise their private benefit (eg labour saving) and in the process compromise some environmental outcomes. Secondly, there is a need to understand the farmer's situation and identify when, how and if an overall private benefit can be achieved for adoption to occur.

### **Complexity**

The changes required to improve natural resource management on any given farm can be complex. Often there is no one solution that will provide desirable outcomes at a catchment scale that will also provide farmers, who might be using unsustainable practices, with sufficient private benefits to act as incentives for change. In addition, investments to improve natural resource management are often complex and impact on a number of areas of the farm business. Simple, cheap, tactical options to substantially increase natural resource management are often not available.

### **Scale**

Improved natural resource outcomes impact beyond the farm gate. Therefore, there needs to be consideration of the

outcomes needed at the farm, sub-catchment, industry and catchment scales. For example, to effectively reduce nutrients entering natural waterways, catchment scale recycling is required for rainfall events in addition to on-farm recycling. The methods of analysis, implementation and evaluation also vary considerably between these different scales. For example in program development, demographic information could be extremely useful at a catchment scale while an understanding of learning styles might be more relevant at the target group scale.

### **How can change be achieved - mechanisms**

There are three broad types of mechanisms available to use in programs to achieve change. They are -

**Voluntary** – effective where a farmer has already identified that there is an overall benefit for them to change ie. the private benefit is sufficient. Common mechanisms to facilitate this change are incentives, provision of information, extension, research.

**Compulsory** – effective in creating an environment where adoption becomes preferable to non-adoption. Common mechanisms include audit and accreditation, preferential pricing, regulation.

**Mixed** – involves both compulsory and voluntary mechanisms. Market mechanisms are sometimes an example of these.

There is a cultural preference in Australia to first use voluntary mechanisms to achieve improved natural resource management before using compulsory or mixed mechanisms. As the balance between public and private good for many natural resource management issues favours public good there is usually a need to use a range of mechanisms that not only achieves positive environmental outcomes but that also minimises negative social impacts.

### **Multidisciplinary approach**

Considering the issues involved in achieving natural resources management improvements, what is the approach of the Product Development Group? Broadly the work fits under four separate areas which when combined, we believe, heads us towards a more holistic approach to natural resource management project design and implementation.

#### **• Stakeholder involvement**

The Product Development group runs programs that assist stakeholders to work through NRM issues and develop strategies to achieve change. These issues are addressed at a local level and consider the biophysical, social and political context. Ongoing discussions are also held with funding bodies and other stakeholders on the outcomes that can be achieved given the unique balance between public and private benefit, project progress and the appropriate mix of change mechanisms that are required. This is important for many reasons but particularly because the outcomes achieved are more significant and sustainable over time.

#### **• Organisational change**

Natural resource management issues are complex and require broad input to achieve acceptable outcomes for all stakeholders. Such an integrated approach is often in contrast to the organisational culture and structure of public and private bodies. Therefore to achieve the required outcomes, organisational change is also required to support the project team to change much like the way we support farmers to change.

#### **• Understanding the farmer**

With the majority of natural resource management programs, achieving the outcomes requires changes in practices by farmers. It is therefore fundamental to the selection and implementation of a mix of change mechanisms to understand what factors will drive farmers to change their practices, what barriers will inhibit change, and what consequences of change will emerge socially, environmentally, economically and politically.

#### **• Understanding change mechanisms**

A wide range of mechanisms exist that can increase the rate of change on farm. These may be voluntary, compulsory or a mixture of both. Understanding what mechanisms are appropriate for the targeted group and the needs of stakeholders is important in terms of designing socially, environmentally and economically viable programs.

The following articles cover some of the projects in the Product Development group that are addressing parts of the approach described above. Feedback, comments or contrary views are welcomed and an important part of developing our discipline area and the APEN network!

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