

# The Growing Extension Patchwork - Not Dying but Morphing!<sup>1</sup>

Jeff Coutts

Coutts J&R, PO Box 2681, Toowoomba Qld 4350

**Abstract.** Questions continue over the value and role of extension in the Australian Innovation System. This paper explores the rationale for investment in extension and the implications for evaluation of such intervention. It is asserted that investment in extension intervention should be based on how this increases the rate, breadth and effectiveness of change. This then provides the parameters for evaluation of the investment. It is argued that the focus should be on the extension *function* rather than a specific role of agency. The paper concludes that we need to develop this extension function further and that we need to better evaluate and demonstrate its investment value.

**Keywords:** Innovation System; Agricultural Extension; Evaluation

## Introduction

*"[Public sector extension] is arriving at a worldwide turning point...undergoing an institutional attack by politicians and economists concerned with the costs and financing of public sector extension [and] heightened competitive interests from the private sector [with criticisms that extension was not] doing enough, not doing it well, and for not being relevant, insufficient impact in effectiveness, inefficient and for not pursuing programs that fostered equity."* (Rivera, 1991)

This sounds very contemporary – but it was an assessment in 1991 by Bill Rivera – an international writer and expert on extension – on the challenges facing agricultural extension then. At this time in Australia we were going through this soul searching with debates around 'market failure' and 'public versus private goods' and hence the role of government in agricultural extension. User-pays had been spearheaded by New Zealand, the United Kingdom and by our own Tasmania! There was a pessimism about the future for extension and where its niche might be.

The 1993 Australian Pacific Extension Conference – a launch pad for APEN and a precursor to future APEN conferences – provided a forum to explore these issues and look to the future. A New Zealand speaker (Walker 1993) described the New Zealand privatisation experience at the time as having resulted in:

*Less interaction between organisations, reduced feedback from farmers to science providers, and more limited information distribution – particularly to less well-off and poorer performing farmers - and a loss of extension experience for farmers.* (Walker, 1993)

What we seemed to be seeing was a break down in public sector extension and a resulting fragmentation of the Agricultural Knowledge System – and it wasn't valued! The future was looking bleak all around.

So where have we got to in the subsequent years to now? Where are we going in the future with this profession and practice of extension?

*My contention is that extension has morphed and is now stronger and needed more than ever!*

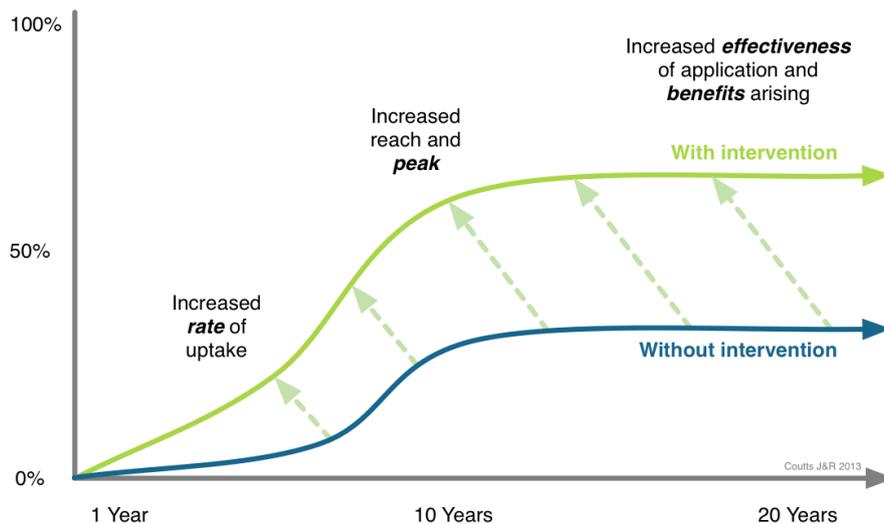
*And it is incumbent on us to demonstrate this through more effective evaluation!*

## Why Invest in Extension Intervention Anyway?

In my work in evaluation over the last decade or so, I have been increasingly faced with determining what it is that we are evaluating about extension intervention. In this market driven world with access to information and people being bombarded with messages and products and ways to improve business and life – why do we need to invest in something like 'extension' – in any form? Without any such intervention, change would percolate over time – as shown by the bottom line in the diagram below (Coutts, 2014).

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**Figure 1: Rate of change over time**

The only reason that I could find for why a government, organisation, NGO or Rural Development Corporation would invest in an 'extension' project, program or intervention is because they see the need for a specific change to occur more quickly and more effectively than it would otherwise based on market forces alone (top line). This would involve an:

1. Increased rate of change (over what would have happened anyway);
2. Increased reach (peak) of those engaging in change; and
3. Increased effectiveness of the change that is taking place and hence increased benefits.

#### 1. Increased rate of change

I have used the term 'change' rather than 'adoption' deliberately. What we have learnt over many years is that 'extension' as opposed to 'selling' is about working with people in the change process to ensure that innovation and change draws on their experience, needs and context.

What we called the 'Agricultural Knowledge and Information System' (AKIS) back in the 80s and 90s, is now referred to as the 'Agricultural Knowledge and *Innovation* System (still AKIS!) (Klerkx, van Mierlo & Leeuwis, 2012). The difference is the recognition that *all* of the actors in the system are part of the *innovation* process – regardless of their individual role within it. The notion is – with some good evidence – that if this type of engagement effectively occurs, then the rate of change will increase!

This thinking has started to break down the hierarchical and one-way flow thinking about RD&E. This led, for example, to the funding of the five year Primary Innovation Project (the "Co-innovation project") across the agricultural sector in New Zealand (Coutts, Botha & Turner, 2014) – which was designed to "contribute to an increase of productivity growth in biological industries and 30% decrease in environmental impact in RS&T investments by **quadrupling of adoption rates of technologies**, through networks of players working effectively together in a policy and organisational environment that fosters innovation". This process was 'different' in that technical and social researchers took on a role of facilitating interaction between stakeholders – across sectors and between producers, consulting staff, researchers and policy makers. The extension role has become blurred – but the extension process is being undertaken!

#### 2. Increased Reach

The earlier quotes made an issue of equity – and the perceived failure of extension (public and private) to adequately deal with producers 'out of the loop' either for social, location, resource or preference reasons. In terms of change leading to improved productivity and profitability, this means that there is a danger of them being left behind and unable to compete and survive as the gap widens. In terms of changes addressing environmental or food safety issues it means that some people will be in danger of impacting negatively on an industry, issue or region.

When dealing with issues such as water quality affecting the Great Barrier Reef, Murray Darling Basin or New Zealand's lakes for example, it is not a desirable option for landholders to be out of the loop and choose to avoid making needed changes. In the ReefPlan extension project in North Queensland (DAF), one of the performance indicators was to increase the number of producers engaged in ReefPlan extension activities who do not normally engage in extension activities. The ReefPlan Extension and Education Strategy Update, however, noted that:

*The issue is not one of targeting the 'middle 60 per cent' (producers who do not regularly participate in extension and education programs) as such, but rather targeting those producers who most impact on the identified priorities in the nominated catchments/regions—regardless of their former level of interaction with extension and education programs. This would include engaging those in priority areas who have had limited interaction with extension and education programs. (p14)*

### 3. Increased effectiveness

Here is where extension stands out on its own. 'Effectiveness' embodies both the appropriateness of an innovation or change and how well this is implemented and used. It marries the role of facilitating stakeholders in developing innovation and better practices with capacity building in developing the skills and understanding to implement them optimally!

Many of us are familiar with Bennett's Hierarchy (Rockwell & Bennett, 2004) where a critical step prior to practice change is shown as impacting on KASA (Knowledge, Attitudes, Skills and Aspirations). Although we understand that this is only part of the story in enabling change, it is never the less a critical component. The logic was that for change to happen, people needed to: understand the reason for change and the thinking behind it (K); believe that this was important and worth making a priority (A); have the skills to undertake and implement the change (S); and be motivated to take the steps needed to make the change happen (A).

This is, for example, increasing emphasis on training and support for those who take up incentives to make changes in environmental and Best Management Practice programs. It is part of the recognition that making changes is more than just having the resources and motivation to do it – but it needs to be accompanied by having the understanding and skills to maximise the effectiveness and hence benefits of the changes.

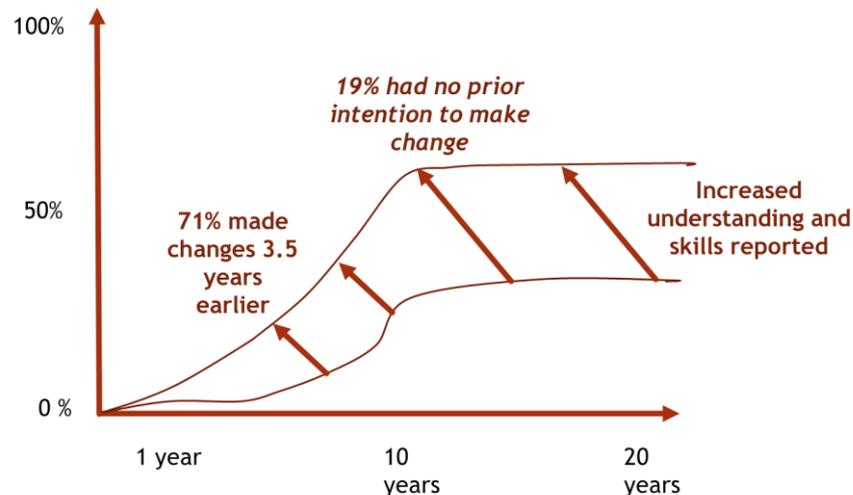
### Implications for Evaluation

If these are the key reasons for investing in 'change' activities, then it makes sense to me to base evaluation of intervention programs around this. For this reason, I ask the corresponding evaluation questions:

- What impact has the intervention had on the *rate* of change?
- To what extent has the intervention *engaged* the full range of people relevant to the change process?
- How has the intervention increased the *capacity* of people to engage in the change process and to implement change relevant to their situation?

Of course there are the follow on questions which centre on the *consequences/benefits* of the change – and learning about *barriers and enablers* for change.

A recent impact evaluation of an extension program showed the following impact on those with whom the project engaged:



These statistics provide some compelling evidence and reasons for why you would invest in such programs. It is exciting information to bring together.

A common issue raised is about 'attribution' and for that reason, as well as asking people about how a particular intervention impacted on their awareness and timing of change I also ask them to rate the comparative influence of the intervention in relation to other (complementary) influences on their change decision. I find that producers have no problem with coming up with such ratings – and I have growing confidence in their assessments. Likewise, in assessing the impact of workshops and other capacity building activities, specifically asking participants about the impact of the activity on their understanding, skills, attitudes and motivation around the specific topic areas gives us a basis for confidence in their ability to implement change more effectively than they might have otherwise.

I also find that a critical part of 'telling the story' and understanding influence is through the use of narratives. I am a big fan of the power of narratives and thank Jessica Dart for championing their use over many years in evaluation in Australia. Narratives are not concerned about 'statistical significance'. Each one is a real event – and each one tells its own story – and shows the program 'logic' in practice!

*Maurice and Linda are landholders in Western Queensland whose property was suffering from extended drought.*

- *They attended an on-going landholder group where landholders discussed their strategies with each other facilitated by a consultant. At one meeting, the local MP attended with a grazing researcher and the group explored options with them.*
- **Following the meeting**, Maurice and Linda considered their situation in the light of what was discussed and decided to apply for a government grant to subsidise supplementary feeding while implementing an improved pasture management approach.
- **As a result**, they were able to maintain their breeder herd numbers through the dry while maintaining cash flow and were ready to rebuild their herd when the rain came. This made the difference between staying on the property and leaving, reduced stress and provided them with an income they would not have otherwise had.

The story takes us through the levels of 'Bennett's and links the change process to the activities in which they were engaged. These 'stories' don't replace broader based evaluation approaches and quantitative analyses where they are needed – but they do ground the evaluation in real life changes and their triggers and benefits – and demonstrate cause and effect.

### **The Morphing of Extension**

So where is the investment occurring now in extension? What is happening?

Firstly, let's stop thinking about 'extension' as only a distinct **role** – and certainly not only as in the domain of the public sector (although there are specialist extension roles and many still reside in the public sector). Rather, let us think about extension as a **function** – the function of facilitating innovation and change.

The earlier example of the Primary Innovation Program in New Zealand demonstrates that the technical researchers and social scientists are playing a pivotal role in enacting this function – while bringing together the broader stakeholders within the innovation system to make this happen – more quickly and more effectively! What we are seeing in Australia (and in other countries) is this blurring of the extension function. The GRDC EATS (Extension and Adoption Training Support) program (Grains Research and Development Corporation, 2015) focuses on strengthening the relationship between private consultants and research and strengthening their communication and facilitation skills to better fulfil this *extension function*. Dairy Australia has directly appointed Regional Coordinators to better bring the dairy innovation system together to better drive positive change in the industry. ReefPlan in Queensland also has Regional Extension Coordinators with the aim of maximising interaction and effort to improve water quality outcomes for the Reef. Natural Resource Management Bodies continue to play a role in coordinating Best Management Practice approaches for industry to improve environmental outcomes.

It is pleasing to see the recent Federal Government Rural Research and Development for Profit (Australian Government Agriculture and Water Resources, 2015) program is based around collaborative efforts and includes a focus on the extension function: Stimulating private sector extension in Australian agriculture to increase returns from R&D (lead by Dairy Australia); Consolidating targeted and practical extension services for Australian Farmers and Fishers (lead by RIRDC); and Market and Consumer Insights to Drive Food Value Chain Innovation and Growth (lead by Meat and Livestock Australia).

These examples are a recognition that intervention *is needed* if we are to have the type of change that is needed, occurring more quickly, more equitably and more effectively than otherwise might happen with normal market forces!

## Conclusions

The questions about the need for extension, who is responsible for it, its effectiveness and its value continue. The trend in the downsizing of state extension agencies is on-going and there is competition within rural development corporations and private sector companies between investment in research, extension or marketing. There is, however, a general recognition of the need to drive innovation and the adoption process. It is here where the extension function comes in on its own – and it is a shared responsibility!

For us to make the best use of this extension function we need to do two key things.

**Firstly**, we need to learn and understand how extension can most effectively be deployed to drive innovation, engage stakeholders and meet individual and national goals. We need to learn from our own experiences as well as what the world has to offer. When something like the ‘co-innovation’ wave comes through from Europe to New Zealand, for example, we need to be in there to learn and see how it can add to what we are currently doing.

Sadly, Australia has largely lost its international lead in extension studies, research and training. It is a huge gap that is not being effectively addressed – to the detriment of the Australian Agricultural Innovation System. APEN is a light that is providing a forum for exploring and supporting this function!

**Secondly**, we need to improve our evaluation of the extension function and our investment into intervention programs. We need to be able to “tell the story” – demonstrate the process, quantify and qualify the impacts – and learn from it to inform on-going investment. We need to be able to articulate the case for stronger extension skills, a more robust and better resourced extension function – at the project and organisational levels!

It has been great to see a number of the rural development corporations focusing on this in recent years – but we all have a way to go to be able to fully clearly and convincingly ‘tell the story’ and demonstrate the full value of investment in the extension function.

And finally, we need to accept that the extension function is not owned only by state government departments – but by all of us in the Agricultural Innovation System. We need to understand and develop our individual roles within it and learn to undertake it as effectively as we can.

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