

Getting research into use: problems

Research teams often lack the time and expertise to bring their findings to key user groups. So can professional extension workers perform this role? **John Kirkland** reports on a recent seminar.

A background paper prepared by the World Bank in advance of their major global conference on science and technology this month provides encouraging evidence of how innovation *can* really impact on the lives of the poor. Using an example from Mayange, Rwanda, it describes how 'substantial increases in crop yields can be generated by fairly simple improvements in cultivation practices, the use of improved seed varieties and fertilisers and low tech water retention/irrigation/soil erosion prevention mechanisms'.

Sadly, such take up is not inevitable – so what are the critical factors that determine success or failure? In Mayange, according to the paper, 'most of the practices were introduced by one well trained, local extension worker', as a result of which nearby villages and farmers, who had originally not taken up new ideas, were now clamouring to participate. The report concludes that 'the main STI capacity building task, at least in Mayange and the surrounding villages, would appear to be one of training and motivating extension agents, providing improved input packages, and diffusing known cultivation techniques to additional villages and farms'.

In the case of Rwanda, the new technologies being diffused were already well established, and the means of transmission did not involve higher education. But the example has implications for those in universities who are trying to get their research results into use. For many universities worldwide, 'community service' is regarded as a third leg of their mission, alongside teaching and research. Yet training and encouragement for those involved in such work, let alone mechanisms for evaluating impact, are thin on the ground.

In the response to this problem, the Association of Commonwealth Universities (ACU), in conjunction with the Commonwealth Scholarship Commission, Economic and Social Research Council and the University of the West

of England, recently convened a seminar to look at current practice, identify the barriers to successful extension work and identify policy implications. The seminar brought together academics in the field of university industry relations, young academics from Asia and Africa currently undertaking doctoral work at British universities, practitioners with first-hand experience of extension projects and policy makers.

A substantial list of barriers was identified, although these were not always the result of resource constraints. Universities often lacked the structures to identify and implement change, exhibiting what Michael Gibbons (former Secretary General of the ACU) termed a 'mode one' style of operating. There was a failure to update and innovate in the curriculum to embrace wider values. Outreach activity was often not sufficiently embedded in the career objectives of academics, or performance indicators, thereby creating a lack of incentive. As a result, extension work was often confined to individual enthusiasts. Too little thought has been given to the training of those involved in extension work, who were often unable to communicate effectively, and thus lacked credibility in the communities that they were seeking to assist.

Other problems came from outside the sector. The reluctance to change in key areas was often deep-rooted and understandable. One example was the reluctance to abandon subsistence methods in farming, which without appropriate guarantees would appear a huge risk. Industries sometimes lacked appropriate representative bodies to articulate and promote good practice. A common problem was the failure by all parties to involve key stakeholders in the process.

Other barriers were the responsibility of policy makers. Often there was an unrealistic expectation about the nature of innovation and knowledge transfer, including a failure to appreciate that this is often necessarily incremental in nature. There was also a failure to recognise that knowledge transfer is essentially a two-way process. Those undertaking extension work often have much to learn from those whose needs they are seeking to address.

Despite this, there was much good practice on which to build. A presentation from the Tanzanian Tea Research Institute described how an effort concentrated on a single industry could pay real dividends, provided that there was national leadership and real stakeholder involvement. In this case, the exercise was industry led.

Despite the barriers, it was agreed that universities, consumers and policy makers would be ill advised to ignore the potential of extension work. There was no single model that could be adopted to meet this potential. Sometimes universities would be well placed to help, either directly or by training practitioners, monitoring or continuation programmes. In other cases, such as that of the Tanzanian Tea Research Institute, stakeholder-led initiatives would be more effective. Whatever the precise model adopted in individual cases, the seminar identified key areas for wider policy action:

Incentives and empowerment

The first of these key areas can be defined as incentives and empowerment. This required attention at several levels. For university staff, to ensure that extension work is linked to career progression. For students – who played a major role in the successful Indian programmes reported – to ensure that such work is integrated into their assessments. For recipients, there is a need to ensure that the 'offer' is seen as a 'win-win' deal, rather than a high-risk venture.

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and possibilities

Developing relevant skills

Second, there was a need to develop relevant skills. This could start in the curriculum itself, particularly where students are involved in the process. More training for extension workers themselves is also critical, as is the development of norms and standards that might be expected of a 'profession'. More networking would also be desirable *between* extension workers, allowing common problems to be aired.

Recognition and credibility

Development of a clearly defined 'extension workers profession' was also vital to recognition and credibility. There was also a need to work with structures that were already tried and trusted, to ensure stakeholder involvement, use communication media that was appropriate to the target audience, and involve key players at the policy formation stage.

Integration with the wider environment

Finally, there was a need for better integration with the wider environment. Donors and gov-

ernments needed to create an 'enabling environment', in which responsibilities were clearly defined. Problems needed to be addressed from the user standpoint, recognising tacit, as well as codified, knowledge. More creativity was needed in establishing partnerships between universities and other key actors, such as NGOs. Where appropriate, specific extension projects needed to target specific markets and relate to wider policy aims – for example, the need to promote specialisation in agriculture, as opposed to subsistence farming.

As the World Bank paper recognised, the problems of extension activity are deceptively complex. Yet, as the case of Rwanda shows, the potential rewards are substantial. Researchers, universities and policy makers will ignore these at their peril. **RG**

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Proposed network for extension workers

The Association of Commonwealth Universities (ACU) would like to establish an Extension Workers Network over the next few months. The network would provide a forum for sharing best practice in outreach work, and a platform from which to organise regional seminars and events. The network would be free and open to all researchers, academics and experts involved in extension work.

If you are interested in joining this network, please send your details to resman@acu.ac.uk in the first instance.

continued from page 9

Early Years Research Program, Queensland University of Technology – Evaluation of the 'Preparing for School' trial

This research evaluated the effectiveness of a new full-time, prior to year one, play-based program. A comparison of the progress of children from the trial with children who were enrolled in alternative programs was undertaken.

The research found a benefit to children, in all domains of development, of attending a full-time program, which subsequently led to a change in government educational policy.

Conclusion

In summary, the ATN found that impact as defined above:

- is an important element in understanding the value of research

- requires a clear definition relating to measurable benefits
- can be described accurately through research group level case studies
- can be measured reliably by an expert panel applying judgement to a combination of the qualitative and quantitative indicators

The ATN trial has shown that the RQF provides an opportunity for Australian researchers to demonstrate the value of both excellent and relevant research. One of the remaining questions will be the extent to which the inclusion of both quality and impact measures in a national research assessment affects the research landscape in the future. Whatever that outcome, a robust and balanced approach to assessing research impact has been shown to be feasible. **RG**



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