‘How to work with knowledge providers’ workshops Brisbane 5-6 November

Record of science & research providers workshop

Introduction

Workshops in Brisbane on 5-6 November brought together representatives of regional NRM bodies, science and research providers, Indigenous knowledge providers and local knowledge providers. The aim of the workshops was to develop content for a new "How to work with knowledge providers" section of the RKRK in relation to:

- How regional NRM bodies can find research to close knowledge gaps.
- Identifying who are the knowledge providers to regions.
- How can regional NRM bodies best engage with these knowledge providers, including identifying any barriers to engagement.
- Identifying how to increase collaboration across regional bodies so they might jointly identify knowledge requirements and jointly fund knowledge providers to close these gaps.

Agenda for science & research providers workshop

1. Opening and introductions
2. What is a knowledge provider?
3. Discussions in large groups
4. Identify issues arising from discussion groups
5. Work on issues in table groups (intervention design)
6. ‘Reverse’ World Café to articulate and refine group work
7. ‘Nuggets’ from the day and closing

What is a knowledge provider?

- Relationships
- Any trusted point of reference proximity
- Credibility (person, org, database)
- Knowledge versus science
- Push-pull of knowledge and info – converted into usable
- Generates or transfers
- Brokers – language
- Someone who translates
- Knowledge provider = knowledge user
- Power in sharing knowledge rather than holding it
- Next door neighbour!
- Importance of two-way flow

Objectives of research and science – regional representatives' view

- Funding justification
- Transparency in decision making
- Better prioritising
- Proof of "triple bottom line"
- Problem solving – adoption of practices (aiding decision making)
- Informing policy
- RBs facilitate research from R&D orgs
- Evaluate appropriateness of action to address NRM priorities
- For application into adaptive management strategies
- Making institutional change to collaborate to address specific priorities
- Science R&D needs to be multi-disciplinary to address triple bottom line – eg non-traditional, practitioners, traditional owners etc
- Using appropriate language to a range of users
- Info has to be accessible to the users and transferred throughout the whole process

Objectives of NRM-related science and research – knowledge providers' view

- Provides baseline data, tools, knowledge, information
- Provides insights, understandings, perspectives
- Provides cause and effect understandings
- Making pure science accessible for NRM purposes
- Integration between resources; social and physical sciences; scales; organisations; economics (triple bottom line)
- Adaptive understanding leading to adaptive management leading to planning; monitoring and evaluation; indicators. Implementation
- Interpretation
- Accessibility and communication and preservation for the future

Frustrations and barriers – regional representatives' view

- Gap between research organisations and regional bodies and their priorities
- Gap of engagement in adaptive management
- Integration of social science with R&D (info alone won't achieve adoption)
- Are farmers, project officers etc scientists?
- R&D/science is often too narrow – need to ensure the right question is asked/answered
- Limited funding for linking research info leading to on-ground adoption (translation and tool development)
- Capacity of science community to evolve to address scientific gaps leading to successional planning and skill development
- No long term funding security to plan for scientific future priorities (training and education)
  - science
  - interpretation (brokering)
  - extension
  - adoption
- Need high-level multi-disciplinary commitment and partners to advocate and influence the politics
- Science needs to be married with social science tools and farmers' needs/NRM priorities to achieve on-ground adoption and change.

Frustrations and barriers – knowledge providers' view

Differences:
- cultural (organisational – heritage uncertainty)
- spatial/scale
- disciplinary (biophysical, social, economic, cultural)
- time/corporate memory/preservation
- purposes
- interests/objectives/drivers/intent
- values
- language/terminology/meaning
- technology
- capacity
- institutional/roles and responsibilities (especially local govt) – collaboration
- resources
- government fabrication
- understanding and paradigms
- inequity across Australia and across NRM issues
- access to resources/information/people/systems/concepts
- unaddressed gaps
- uncertainty and risk
- intellectual property/rent seeking behaviour
- integration of different NRM resources
- ability to apply/drive NRM
- gatekeepers
- funding arrangements
- consistency and accuracy of reporting
- project isolation – lack of linkages
- sharing the "how to" for knowledge generation
- invisible knowledge (grey literature) – learnings not recorded
- staff turnover
- legacy website
- broken links
- time to do research and act after the need is identified
- new questions
- quality
- currency of information
- method of delivery
- researchers working within tight constraints and lack of peer review opportunities
- measurability
- pure versus applied science
- lack of brokers between the research and on-ground applications
- acceptance of researchers
- acceptance of failure
- acceptance of information that is unexpected or not desired
- achieving milestones due to unexpected finding – serendipity
- qualitative versus quantitative
- exploratory versus descriptive understanding

Intervention design 1

Issue

Landholder knowledge needs
Land manager

Intent: What do we want to achieve?

Connections driven by people on the land for NRM solutions

Ideas: What can be done? Small things and big ones

Small
Taking notice of what the landholders are saying and finding the most effective way of doing this
Using a range of techniques/tools to cover different scales
Facilitating face-to-face connections
Using existing connections and networks and maximising them, eg: resellers/agronomists (big resource issue – effective collaboration and engagements)
Stakeholder engagement
Surveys
Market based instruments
Landholders on research advisory groups
Research presence at field days/demo days etc
Useful range of country social infrastructure – cake competitions, wiggles
Using the tool for the communication of what the discovered needs are

Big
Community engagement programs allowing landholders to communicate their needs for it to be interactive
Making the three way connection with formal and informal:
- landholders
- regional bodies
- researchers

Disconnect – overcoming it
Changing "farmers are the receivers of information" to a two way interaction, they are also knowledge providers and vice versa
Trust building
Adaptive management
Feedback loops – how the information was used
What knowledge is implemented is then communicated
Integrating the information to test and peer review

Resources: What is out there? Good practices, information, people

Existing groups eg landcare, regional body staff that work with landholders
Existing regional knowledge that hasn't yet been communicated
Old extension programs – what happened to what was unpacked – could it be mined now?
Identify the gaps from past knowledge also
Existing tools (eg PIRSA, RS) (review based on currency) for communicating with and using the information from landholders/managers eg US, international, national

Next steps: (for the RKRK)

Assurance that the landholders have access to this and that it is simple to use
Using representation on boards to reduce the disconnect
Community/stakeholder engagement processes and tools
Resources
Effective project communication strategy

Intervention design 2

Issue

Capacity of the Toolbar to meet landholder needs (improve capacity for using information provided in Toolbar to make better decisions)

Intent: What do we want to achieve?

To ensure that the end user (landholder) can make decisions about the management of their land that lead to better NRM outcomes (using the best available information)

Ideas: What can be done? Small things and big ones

Multi-disciplinary
Link to other state and federal databases
Results displayed under themes – economic, social, environmental, cultural, legal
Feedback from users (landholders) on Toolbar format and usability (stories and anecdotes of use) (built into Toolbar)
Empowering landholders – easy to use – better transfer of knowledge
Information needs to have credibility – who answers "Gotta question"? (What is sustainability model for this system? June 08?) (Professional LAW librarians trained to pick authoritative sources OR link people to other orgs ie Greening Australia)
Different users have different information needs and preferences as to format and language

Resources: What is out there?

State and federal databases
RKRK users
Peak NRM organisations
Regional databases
NRM regional staff

Next steps: for the RKRK

Broaden toolbar to build capacity in landholders, eg Gotta question (Farmplus) – real language
Make information easily accessible to end users (landholders = 80% land area!)
Monitor usage and feedback – adaptive management
Get feedback from end users
Gotta question available to "normal" people leading to promotion

Intervention design 3

Issue

Recognition

Intent: What do we want to achieve?

Exploration and discussion about the diversity of ways to recognise research/researchers

Ideas: What can be done? Small things and big ones

Brainstorming: talking to NRM groups about examples
Why do some research ideas get supported and others don't?
Political?
NRM journal (peer-reviewed) eg environmental management and ISI ratings?
NRM Toolbar – listing of quality publications
Awards (56 regional bodies) providing recognition for the… people or the research?
Support and value collaborative research – getting the message out there
How to get recognition from other scientists?
NRM/RKRK success criteria. How scientists would use for career objectives?
Citation monitor
Getting into media – end of project eg good news story – coral reef (Julian Cribb)
NRM groups investing in good research – increasing the currency of knowledge
- be aware of why investing – out the door – knowledge for the investment

Resources: What is out there?

Technology to monitor the "popular vote"/citations
CRC model
Funding database – have the ability to log who has applied for what grant = success and failure criteria

Next steps: for the RKRK

Discussion page on recognition
Capturing the "rejection" experiences of research
Shame page (organisations who didn't get it)/win page
Publishing what's been researched in this area. Funder req's/triggers
RQF case studies/success stories
Good examples, what worked in the agreements, why, feedback loops

Intervention design 4

Issue

Research – cross institutional; cross disciplines
- whole systems (social, indigenous, scientific) integrated
- big picture

Intent: What do we want to achieve?

Research is integrated across social environmental economic systems that will lead to improved NRM

Ideas: What can be done? Small things and big ones

Multi-disciplinary approach (catchment/region) and teams
Multi-disciplinary research tied directly to funding and integrated
Other models – cross institutional and disciplinary research – CSIRO Themes and Streams – Marine and Tropical
Longer lead time for short term grants – up to date alert system
Searchable databases which are continually updated
What's happening across the country?
CVs accessible for review – currency a big problem!
Philanthropy network – eg training
Budget for integration, ie forming the best team and project management (but see CSIRO first)
Research hub – like NRM jobs – to keep info cycling/flowing on projects
Longer lead times for tendering for multi-teams
More 2/3 staged processes (to reduce burn out by researcher)

Resources: What is out there?

$$ - philanthropy
Reduce Fed "isolation" approaches
Need research team builders (paid) – hunter/gather skills to do it
Good planning to reduce risk on really big projects and very high risk
(Outside the research project) – risk assessment framework

Next steps: for the RKRK

NRM team member to sit on research team (build team)
Exchange staff research/management bodies/secondments
Skills register – for researchers – passion, forte
Skills training – Champion (eg Richard Branson, CSIRO) drive govt policy
List of people to access
Guidelines
Examples
Schools – get them young – cause and effect
Cadetships

Intervention design 5

Issue

Communication

Intent: What do we want to achieve?

Effective multi-directional communication/knowledge flow between NRM stakeholders

Ideas: What can be done? Small things and big ones

Getting information out of filing cabinets and into organised structures
Profiling research – process of research as it happens
- researchers
- adoptions on-ground

Contracts with researchers to include involvement through the implementation phase (funding included) – what about CRC and other research not contracted by NRM?
Inclusion of all stakeholders through the entire process through the scoping to implementation, eg steering committee – make sure the right people are on them – motivating the right people – research on how to do this

Resources: What is out there?

In many cases the structures do exist but are under used and not given due priority

Next steps: for the RKRK

Simple to use tools
Transferable – mechanisms and processes to transfer knowledge from one region to another without devaluing science
Strong promotion of research to links enhance the value of research, eg avenues, websites, articles, broader media, LWA, regional bodies – face to face innovative presentation styles
Good M&E will add value to research
Messages, products, style appropriate to audiences. Actively managed and appropriately
Strong communication planning through to the implementation stage, involving all stakeholders.
Knowledge must be owned (implies IP) by implementor. IP must be negotiated upfront!
Very clearly articulated research needs, terms of reference.
- regions need to frame question in way science can understand – scope needs together collaboratively

Creating a culture of collective decision making
- moving away from culture of scientists "solving" problem – part of collective decision
- scientists need skills in translating science to common language. Regional staff need skills in understanding science – towards a common language

It is in the interest of regional bodies to have NRM scientists do robust science – requires time and money

Nuggets

- LWA ideally placed to raise broader sector issues with policy bodies (eg DAFF/DEW etc)
- Multi-disciplinary approaches may take off (integrated)
- NRM Fellowship
- "We have to make it work"
- Importance of champions
- More cross-institutional collaboration
- Buy in at higher level
- More illustration/case studies
- Security of funding
- Building mutual respect between land managers and scientists
- Exchanging knowledge across levels
- Creating opportunities for knowledge sharing