Agricultural Research for Development (AR4D): moving from rhetoric to reality.

Andy Hall
Main message

• Moving from the rhetoric to the reality of AR4D means.............

• Moving from a nuts and bolts view of innovation systems (partnership, platforms, brokers etc) to learning systems view that supports adaptive behaviour (new and old M&E)
What do I mean?

• **Research:** “Collect and analyse information to increase our understanding of a topic or issue”

• **Invention:** “The discovery or creation of something new to the world”

• **Innovation:** “The culmination of a series of events that *make new use* of existing and/or new information or a combination of these in ways that have social or economic significance”; “Converting ideas into money” “converting ideas into social good”
Why the shift from Research to Innovation in Agriculture?

• Increasing results orientation among funders of research
• Shelves of technology, poor uptake, weak demand orientation
• Increasingly complex agenda, food, environment, poverty reduction, fuel, changing consumer demands
• New players and more prominence for the private sector
• Improved understanding of how ideas and technology come into use
1. Linear view

Research → Technology delivery → Innovation

2. System view

Research → Innovation

Research → Technology delivery → Innovation

Research → Technology delivery → Innovation
Innovation in Farmers' delivery systems

Research → Technology → Public delivery systems → Private delivery systems → Farmers → Innovation → Markets

Policy institutional environment
Innovation

Farmers

Public delivery systems

Private delivery systems

Research

Technology

Policy institutional environment

NGO support services

Innovation

Markets

Innovation
Innovation
Farmers
Public delivery systems
Private delivery systems
Research
Technology
Farmer and industry associations
Innovation
Markets
Policy advocacy groups
Innovation
SMEs
NGO support services
Social entrepreneurs
New urban markets; global markets and competition; climate change; pest and diseases;
Innovation and Farmers' Public Delivery Systems

Private Delivery Systems

Research and Technology

Policy Institutional Environment

Shocks

NGO Support Services

Innovation

Private Research

Social Entrepreneurs

SMEs

Consumer Groups

Policy Advocacy Groups

Innovation

Markets

Learning Loops

New Urban Markets; Global Markets and Competition; Climate Change; Pest and Diseases;
1. Linear view

Research → Technology delivery → Innovation

2. System view

Research → Innovation

Feedback loops:
Research → Technology delivery
Technology delivery → Research
Innovation → Research
Research → Innovation
2% fit 2 stage process

- RNRRS: 1600 projects
- 2006. Ex-RNRRS research managers shortlist 280 promising research products for putting into use
- 2006. RIU review identified no blockbusters and only 2 for fast tracking
- 2007. RIU private sector review of 280 found none
- 2008. Asia Challenge Program cite 50 RNRRS technologies in proposals but mainly camouflage to access funds. Really? 10? Mainly institutional
- 2009. RIU development review of 280 finds none
- Only 4 best bets have clear RNRRS origins
- 1600 projects produce no blockbuster technologies amenable to large investment for scaling out and < less than 20 research products (1-2%) suitable for post-research promotion a la RIU
Building innovation capacity: Have we forgotten research?

- supporting the development of entrepreneurial activity (Hall and Dorai, 2012);
- building value chains that connect farmers to new markets and stimulate innovation in response to consumer demand (Devaux et al., 2006);
- establishing innovation platforms to connect ideas with opportunities (CGIAR, 2010; Nederlof et al., 2011);
- establishing / support specialist innovation broker agencies (Klerkxs et al., 2009; Kingiri and Hall, 2012);
- establishing sector coordinating bodies to build coherence across member organisations (World Bank, 2006);
- new modes of competitive funding for consortium development (Mudahar, 2012; Hall, et al., 2010);
- support of public-private sector partnerships (Hall, 2006);
- establishing decentralised design and manufacturing arrangements for agricultural machinery (Hall et al., 2007);
- funding existing innovation trajectories that hold the promise of success (Reddy et al., 2012);
- investments in participatory planning (scenario planning, and foresight exercises) that bring together different players in the innovation process (Hambly, Hall and Dorai, 2012);
Is AR4D the answer and what is it?

• “From business as usual to research for development.”
• “a framework that helps in the necessary rethinking of agricultural research as an integrated element of the wider development process.”
• “Linking the research agenda with national development priorities”
• “Increasing coordination, interaction, inter-linkages, partnerships, and networks among the various agents associated with research for development systems”
• “Securing innovative financing and resourcing mechanisms”
Scope of change in research orgs

• “For agricultural research organisations to shift their focus from doing research to using research to foster innovation, they are likely to need changes in the following areas: strategy formulation; accountability to end-users and beneficiaries; partnership policies; planning and evaluation systems; incentives; administration and finance; and organisational arrangements.” Horton 2012
“Create the enabling environment and IAR4D activities may take place; try to implement the actions without first creating favourable conditions, and the results will be disappointing and/or unsustainable.” Hawkins et al 2009

“Attitudinal changes and reflection needed by all stakeholders involved in the support and execution of agricultural research” Hawkins et al 2009

Does these propositions realistic in the real world?
Five years of ARDSF support has improved the capacity of agricultural research organisations in Papua New Guinea to deliver services to farmers.

How?

Facilitated rethinking. Used AR4D/AIS thinking to help research organisations develop a new theory of change about how research leads to development outcomes. Used this to define capacity building needs.

Retooled organisations for impact. New strategic plans, results-based management and new programme structures; new partnerships and communication skills and strategies.
Piloted new service delivery mechanism
A grant scheme to support innovation projects that created livelihood opportunities for farmers. Created partnerships between research, the private sector and development organisations.

Influenced sector policies
Organisational retooling and evidence of improved service delivery helped research organisations be recognised as a credible contribution to development and allowed them to participate in policy debates on national development plans that shape sector development. A policy forum helped
Improved enabling environment for smallholder agricultural innovation in PNG

What worked and what didn’t?

• Approach was highly contested. Some organisations fell out of the capacity building process. Others opposed it strongly.
• Highly labour intensive and time consuming. 2 years spent rethinking strategic plans and running workshop on human talents right up to the end.
• AR4D as a mantra rather than an aid to practice.
• Developing new theory of change for research organisations paid dividends in terms of ownership.
• Grants scheme proved as catalytic in stimulating change as did the formal institutional development activities.
• Links to policy critical.
• Learning organisations rhetoric, but M&E system failed.
• Five years to short a time frame for this sort of process.
• Worked (sort of) in a small NARS....... But couldn’t be attempted in large NARS.
Observations from recent experiences of AR4D in Africa

- Innovation platforms often little more than farmers groups. Limited links to policy. Problem rather than opportunity focused.
- No systematic monitoring arrangement to track the effectiveness of platforms to stimulate institutional change to achieving results.
- Lack of learning champions or dedicated systematic learning projects or exercises.
- Best scientist learning tacitly how to do AR4D but no mechanisms to share experiences more widely and influence research practice and policy.
- Many interested in AR4D, but competing narratives of what this means and no community sharing ideas and interrogating results.
- Impact pathway analysis used largely to report to the donor rather than manage implementation.
- Learning and understanding innovation processes and performance “gets in the way of the real work of scientists”
What are the contours of AR4D in practice?

• A framework for rethinking theories of changes and using this to rethink capacity building needs, operational strategies and research practice

• Funding arrangements for new sort of innovation projects that blend research and development and which focus on opportunities.

• A cluster practices that are partnership based, results driven and learning orientated.

• Explicit links to national development plans as a pathway to achieving results.

• Explicit efforts to influence the policy and institutional environment.

• A robust learning system
So what really is AR4D (Mbabu and Hall 2012)

- a way of doing research which makes its contribution to specific development objectives explicit and which is undertaken as part of an explicit plan that sets out the steps that are necessary (and realistic) to achieve that objective.
- not necessarily the slavish adherence to tools such as public-private sector partnerships, innovation platforms, policy forums, farmer participation or competitive innovation funds — although all these are powerful tools in the right circumstances.
- Instead, it means clearly identifying the development objectives that are being targeted and then being pragmatic about the tools and approaches that are needed to ensure that that objective is being addressed.
- If there was any single tool that could be thought of as synonymous with an AR4D style of working, an effective learning system would be it. And this is the key challenge in promoting an AR4D orientation.
An AR4D learning system

- An effective performance management or M&E system (see next slide);
- facilitated strategic and organisational planning;
- a research culture that supports an institutional learning and change agenda;
- operations research that explores processes and pathways to impact;
- and links to a community of practice sharing experiences and lessons.
These M&E techniques need to respond to key characteristics of AR4D.

- Process-driven
- Involve multiple players
- Outcome results from institutional changes and are often unexpected and non-linear
- Information for planning, monitoring and evaluation purposes needs to be generated collectively and made accessible to all those involved in the innovation process

Characteristics of tools

- Mix quantitative and qualitative approaches
- Explore the journey to outcomes, revisit theories of change as well as explore outcomes
- Often participatory and open access
- Situational appropriateness: Select approaches that match monitoring and evaluation expectations and needs
Planning and programme development

Accountability for past investments and investigating theories of change that are leading to these outcomes in order to inform new investment design

Indicative tools

- **Theory-Based Impact Evaluation**: Brings quantitative rigour (impact assessment) to qualitative narratives of impact pathways. Time-consuming, limited expertise.
- **Systemwide studies**: Participatory, successfully applied in other development sectors.
Implementation Management

Tracking/ monitoring process and institutional change and attributing these changes to desired outcomes, making mid-course corrections where necessary. Very rich repertoire of system-orientated approaches in general development practice.

Indicative tools


- All seek to develop plausible causal connections between new processes and outcomes observed and define new intervention paths based on this.
The big challenge

• For the advocates of AR4D there is a critical question that cannot be avoided. Does it work? Does it deliver the development impact we are promising?

• Advocates of AR4D need to be clear about the time frames necessary to see these outcomes, the methods that will be used to assess them and the format in which evidence will be delivered.

• Developing and applying these methods is a critical element of the learning systems required to usher in the emergence of more impactful agricultural research practice.
Capacity Building for Agricultural Research for Development

LESSONS FROM PRACTICE IN PAPUA NEW GUINEA

Adiel N. Mbabu and Andy Hall