

Collaborative approaches to land use
research: Farmer participation,
systems approaches and
interdisciplinarity -
Preliminary findings

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Introduction

- Objectives of the research
 - How do farmers develop farming systems that are best suited for their context?
 - How do research scientists carry out whole farm agro-ecosystems research?
 - How can farmers and researchers collaborate?

The contexts

- Policy context
 - Increasing productivity
 - Promoting environmental benefits
 - Making public sector funded research relevant
- Academic context
 - Scientific method in complex and uncontrolled environments
 - Challenges of interdisciplinary research
 - Theories of innovation
 - Sociology of groups and teams

Farmer involvement

- Types of farmers
 - Interested in research (own and scientific)
 - Other innovators
 - Conservative followers
- Types of projects involving farmers
 - Farmers involved in design and evaluation
 - Farmers consulted
 - Researchers examine farmers' practices

Issues faced by scientists working with farmers

- Scaling up the results to field, farm or landscape
- Lack of understanding among scientists
 - How farming systems operate and farmers' priorities
 - The word 'commercial' used synonymously with systems
 - 'Farmers don't do as they are told' but flexibility and response to uncontrolled environments is part of farming systems
- Issues of trust and farmer concerns
 - How the research will be used
 - Sharing of sensitive information (prices, accidental rule breaking, animal disease risks etc)

Bridging the farmer-scientist gap

- Private sector scientists more comfortable talking to farmers
- Scientists working with farmers come from farming families or have personal links
- Need to work through intermediary ‘boundary spanners’ such as advisers

Collaboration amongst scientists

- Types of scientists in case study projects
 - Technology co. scientists (eg plant breeders)
 - Contract research scientists (eg ADAS, TAG)
 - Pressure groups scientists (eg GCT, RSPB)
 - University academics
- Involvement of farmers necessitates an interdisciplinary research approach
- Only occurs when funders insist on interdisciplinary teams
- Challenge of bringing different disciplinary contributions together

Building relationships

- Difficulties of building trust and co-operation (going the extra mile) if no existing relationship of if forced together by funders
- Build on existing relationships and networks
- Problems of team changes
- Types of scientists have different objectives
 - Responding to different stakeholders (farmers, research funders, shareholders, academic peers etc)
 - Issues of when to publicise/publish and where
 - Extent of engagement with policy makers

Conceptions of ‘proof’ and statistical significance

- *Achieving rigorous replications is challenging working with farmers*
- Farmers want to know what works for them
- Technology Co.s include controlled trials to convince others and interaction with farmers for gut feeling
- Pressure groups under pressure to shape policy early
- Academics require high rigour for publications and career progression

Charting relationships

	General farmer	Research minded farmer	Advisers	Contract research scientists	Tech company scientists	Pressure group scientists	Academics
General farmers							
Res. minded farmers							
Advisers							
Contract res scientists							
Tech co scientists							
Pressure gp scientists							
Academics							

Preliminary conclusions

- Need for greater understanding of different priorities of actors
- Interdisciplinary co-operation takes time to develop – longer term projects or build on existing relationships
- Statistics possible if plan for uncertainty and loss of some replications
- Systems thinking limited and the issue of complexity not considered in the case studies
- Interdisciplinary research requires specific funding and recognition in career structures