Participation - for improved adoption, research, or both: two case studies

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Abstract

Participatory approaches are commonly interpreted as processes for 'extension'. Yet, we use case studies of Farming Systems RDE in Australia and India to show that participatory approaches can increase adoption and support people to improve farming practices by targeting research questions that are meaningful to the end-users, and simultaneously address research questions of interest to the research community using statistically sound methods. Indeed, participatory action research allows the pursuit of shared research questions of genuine interest to both farmers and researchers. This contribution of knowledge from both farmers and researchers, and the opportunity to reconcile their different interpretations of results, is what underpins the universal appeal of participatory research for people learning to implement change. However, 'participation' is a contested term with uncertainty about its meaning and rationale for use. Consequently, the appropriate level of participation in Farming Systems RDE activities may depend on how important the issue is to each participant and the diversity of their understandings and values.

Key Words

Participation, adoption, research, India, Australia, empowerment

Introduction

Why and when should agronomists use participatory approaches? Are they just an alternative way to undertake extension, or a genuinely new way to do applied research, or both (Carberry 2001)? Indeed, the ambivalent name of this session "Participatory research – Adopting agronomy" attests to some confusion. Lawrence et al (2000) provide an example of participation supporting improved use of existing agronomic principles whilst Ridley (2005) argues that increased end-user participation should produce more 'farmer-driven research'. Yet, doubts remain on whether such research can progress the frontiers of science, or whether participatory approaches are the most effective way to undertake this research (Carberry 2004). Participation is core to systemic enquiry approaches. It is useful in complex situations and benefits can arise from blending the views and insight of multiple stakeholders (Packham 2003). However, popular notions of 'participation' present an apparent paradox in their use to describe different degrees of engagement between participants in widely varying contexts (Pretty 1995). If participatory approaches are to effectively support better extension, research, or both, we need to be clear about the objectives that are best supported by the approach and the level of participation that is appropriate. These issues are addressed using two case studies.

The Case study methods and observations

Australia Farming Systems projects are conducting participatory on-farm research and action learning activities to support sustainable development in the grains industries of north-eastern Australia. These projects employ the following simple questions to facilitate participation and learning amongst farmers, commercial agronomists and RDE agency scientists on the issues they address:

Planning activities;

- why is this issue important to each party (i.e. farmers, commercial agronomists, RDE agency scientists)?
- what does each party already know about it?
- what do they each want to know about it…what is their research question?
- Reflecting and interpreting the results;
- What do the results mean to each party? Why?
- What are the implications for practices, scientific understanding, and the RDE processes used?

These simple questions inform content and process decisions, including the appropriate levels of participation, for a portfolio of activities that includes: on-farm research with concurrent research questions for different participants, or shared research questions on value to industry and scientists (e.g. Price et al. and French et al. at this conference); action learning workshops in which farmers and agronomists participate by using their own farm data to understand existing agronomic principles and apply them to decisions on their own farms (e.g. Lawrence & Christodoulou 2005); and participatory learning workshops to support participants to develop their own on-farm research activities (e.g. Lawrence et al at this conference).

India Watershed development (WSD) is promoted in lower rainfall parts of India, but less so in higher-rainfall East India where there is little irrigation, high poverty levels and low literacy low amongst subsistence farmers. Its application to East India requires development of 'water harvesting' technology, evaluation of out-of-catchment impacts, and development of appropriate agronomy and farming systems. It also requires changes in attitudes to risk, new skills and development of social capacity to facilitate cooperative action. In this complex situation, we took a participatory action learning approach to facilitate use of existing knowledge and well-targeted agronomic research. But will the research merely confirm the local application of what is already known, or will it produce new insights that warrant publication? Fig. 1(a) describes a learning cycle from initial contact with villagers through a series of workshops to identify researchable issues and develop an action plan for the first year of the project. Fig. 2(b) is an action research experience arising from the planning activity. It includes simple field experiments to develop fertilizer recommendations, with each farmer's field comprising a replicate (block). The activity will lead to decisions to implement in 2007.

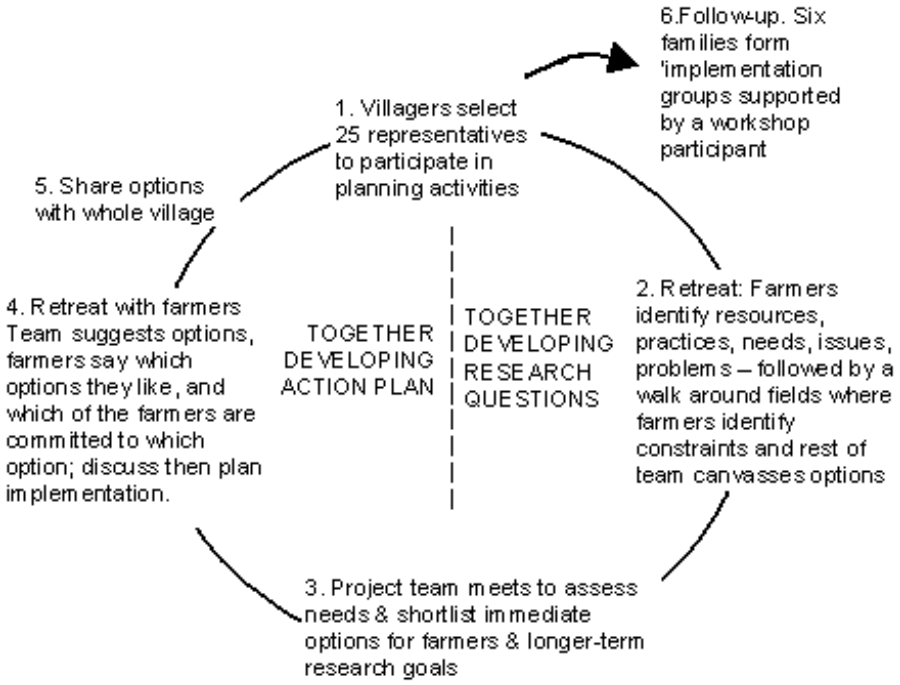

Figure 1a. Project inception workshops April

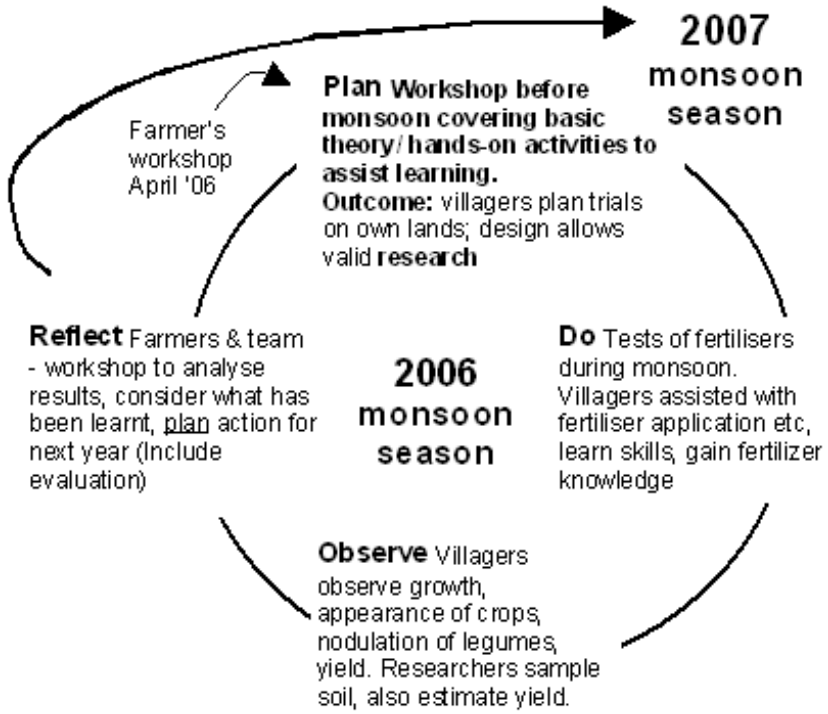

Figure 1b. Design of fertiliser workshop

Our experience in these case studies confirms that participatory research is not simply "adopting agronomy". At the very least, the participation of end-users facilitates adaptation of principles to specific local contexts. For end-users, this is research, albeit research to test existing principles that scientists are already confident with. Best practice in participatory RDE provides end-users with influence in both content and process decisions, and can develop research that is of genuine interest to all stakeholders. It requires clarity about each party's existing knowledge, research questions that build upon their knowledge, and uses collective interpretation of the results to develop genuinely new insights.

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