



**AGRICULTURAL ADMINISTRATION  
(RESEARCH AND EXTENSION) NETWORK**

---

NETWORK PAPER 47

0952-2468  
July 1994

**FARMER AND COMMUNITY ORGANISATIONS IN  
AGRICULTURAL RESEARCH AND EXTENSION:  
FUNCTIONS, IMPACTS AND QUESTIONS**

Overseas Development Institute  
Regent's College  
Inner Circle  
Regent's Park  
London NW1 4NS, UK  
Telephone: +44 71487 7413  
Fax: +44 71 487 7590  
Telex: 94082191 ODIUK  
E-mail: [odi@gn.apc.org](mailto:odi@gn.apc.org)

Anthony Bebbington can be contacted at:

International Institute for  
Environment and Development  
3 Endsleigh Street  
London WC1H 0DD, UK

Tel: +44 (71) 3882117 FX: +44 (71) 3882826

Deborah Merrill-Sands can be contacted at:

ISNAR  
PO Box 93375  
2509 AJ Den Haag  
The Netherlands

Tel: +31 (70) 3496193 TX: 33746 FAX: +31 (70) 3819677

John Farrington can be contacted at the Overseas Development Institute.

**Network Personnel:**

Coordinator: John Farrington  
Secretary: Alison Saxby

This Network is sponsored by:

The Overseas Development Administration (ODA)  
94 Victoria Street, London SW1E 5JL

The opinions expressed in this paper do not necessarily reflect those of ODA.

*We are happy for this material to be reproduced on a not-for-profit basis. Please direct any enquiries to the Network Secretary. The Network Coordinator would appreciate receiving details of any use of this material in training, research or programme design, implementation or evaluation.*

## CONTENTS

	Page
Abstract	1
Introduction	2
The nature and number of local peoples' organisations	4
Types of local peoples' organisation: customary and created	4
Commercial farmer organisations	6
Problems in creating local organisations: costs and sustainability	7
Cost questions	7
Questions of organisational sustainability	8
The case for involving farmer and local people's organisations in research and extension	11
Local organisations' ability to perform functions in the research and extension system	13
Rural peoples' organisations as interfaces with research	13
Rural peoples' organisations as users' constituencies	14
Rural peoples' organisations self-managed research and extension	17
The impacts of rural peoples' organisations in research and extension	20
Efficiency and effectiveness	20
Demand orientation	22
Equity	23
Empowerment	25
Conclusions	26
Bibliography	29
Endnotes	33
Box 1: Farmer groups in Mali: monitoring and contracting research	16
Box 2: Self-managed research and extension among federations of rural communities in Ecuador	18

**FARMER AND COMMUNITY ORGANISATIONS IN  
AGRICULTURAL RESEARCH AND EXTENSION: FUNCTIONS,  
IMPACTS AND QUESTIONS**

**A J Bebbington, D Merrill-Sands and J Farrington**

**ABSTRACT**

*Many efforts have been made to introduce institutional and methodological changes intended to make agricultural research and extension programmes more responsive to the needs of small scale producers. Yet evaluations of these initiatives suggest that in the absence of sustained political and social pressure from and on behalf of small scale producers, agricultural development institutions are unlikely to become more accountable or demand responsive. The paper concentrates on the role that farmers' organisations can play in exercising this pressure. Drawing on the early findings of a joint ISNAR/ODI research programme, the paper examines the conditions under which strong farmers' organisations can emerge. These conditions derive from both the external and the internal environment of these organisations. The paper then presents an analytical and methodological framework that can be used when examining the strength of farmers' organisations and the potential for effective links between them and research institutions.*

*The paper identifies different types of farmer organisations and the roles they play in research priority setting and planning, technology development, processing and input supply in relation to public sector and non-governmental organisations. It reviews the main strengths and weaknesses of farmers' organisations in performing these roles. These qualities are related to determining factors in the social, political and economic context and in the organisational and managerial structure of the organisations. This analysis provides a framework of issues that need to be addressed in any effort to work with and support these organisations as more effective means of pressuring, and working as partners with agricultural research institutions.*

*In addition, a review of the experience and evolution of farmers' organisations in today's industrialised countries, and of organisations of large farmers in*

*developing countries, will identify issues that need to be addressed in any effort to understand the nature and potentials of small farmer organisations.*

## INTRODUCTION

We have considerable accumulated experience of agricultural research and development activity based on the claims that farmer participation is critical to the generation of technologies that are relevant to farmers, and that participation should occur at the earliest stage possible in the process of technology generation. Farmers are increasingly involved in the screening of planting material, technologies and even ideas about technologies at a stage well before the researcher has much understanding of the nature and performance of that technology.' This early involvement is related to the other belief that farmers should be involved in making decisions about the course of a research programme (Heinrich, 1993).

More recently, as these experiences have moved forward, we have encountered a growing concern that the limits and costs of farmer participatory research (FPR) have not been given due attention. These concerns often come from the very people who have hailed the importance of farmer participation. Thus Okali, Sumberg and Farrington (1993) draw attention to the costliness, in both time and money, of involving farmers in research. Similarly Ashby (1991) refers to the need to 'scale-up' the degree of farmer participation in agricultural research and extension. She also draws attention to researchers' fears that to involve farmers in research before technologies are adopted runs the risk of subjecting farmers to faulty technology, and consequent damage to farmer-researcher relations. As she notes, the concerns about cost are not independent of concerns about quality:

*"[t]here are also worries about the additional cost of managing a decision-making type of farmer participation if this involves researchers in more intensive interaction with farmers. How to scale-up farmer participation to achieve broad coverage of a large number of farmers without incurring excessive expenses and compromising the quality of participation is a key issue that has to be resolved" (Ashby, 1991:281).*

Even federations representing farmers have pointed to some of the drawbacks of conventional farmer participatory research and on-farm research. A seminar of the International Federation of Agricultural Producers (IFAP), for instance, commented that when individual farmers are the researchers' point of contact,

there is nothing to ensure that other farmers will learn from the experience: participation in those instances is often limited to the handful of farmers who have plots on their fields (IFAP, 1990).

One suggestion for resolving these concerns regarding the high cost and restricted impact of farmer participatory research, and the need to widen its impact, has been to involve farmers' organisations in the research process. This would also imply changes for extension, which would be oriented toward forming these organisations and strengthening their capacities. Rather than delivering inputs and information to contact farmers, extension would begin to work with contact groups of rural people. The organisations would be points of contact for research and extension - or in other terminology, would be the "intermediate users" of technology. The additional attraction is that in some cases, the same farmer organisation would be supponing the livelihood strategies of the rural poor in other ways, besides research and extension.

Before embracing these options - pushed on by the need to reduce costs in research and extension - we need to look more carefully at the capacity of these organisations, and indeed at who participates in their activities. We may be expecting them to be more representative of the needs of the rural poor, and more able - and willing - to respond to those needs than they actually are. We also need to take a closer look at the nature of the organisations, for while the literature often treats them with the broad brush of "farmers' organisation" as if they were all the same, there are in fact great differences among them.

We should also not simply assume that farmers' organisations will eagerly accept the role of operational partner. Like NGOs, they may question a role in which they assist the State in cutting back costs. They may also adopt a more critical posture, in which they pressure public research and extension services to become more farmer-oriented and to allow more formal farmer involvement in decision-making within research and extension institutions. Indeed, in considering potential interactions between research and farmers' organisations, this role as decision-maker and pressure group is potentially just as important as the role of partner in implementation. It implies more effective feedback of farmer concerns into the adoptive planning of research.

A further problem that arises when agricultural research and extension begins to interact with groups is that the distinction between research and development blurs even more. Group formation and strengthening have a long history going back to community development programmes, and brings particular challenges and possibilities. The possibilities - such as strengthening rural civil society, increasing **the scope** for **rural** people to conceive and manage their own self-

development initiatives etc - are what makes a focus on groups consistent with donor priorities such as strengthening civil society and increasing the sphere of private activity. It may not be appropriate to expect agricultural researchers to get drawn into such activities, because their time is most effectively spent in doing research. The problem, however, is that farmers may not perceive this in the same way, and may often expect more from researchers (Dugue, 1993). If this additional support is not given, it may complicate the quality of the relationship between researcher and farmer. This implies that in working with groups, agricultural researchers will also benefit from the presence of a third party - often an NGO - whose concern is to respond to these additional demands. Similarly, in those cases where researchers do begin to create groups of farmers,<sup>2</sup> the question arises as to how, and by whom, the group should be supported so that it survives beyond the life of the research programme.

#### THE NATURE AND NUMBER OF LOCAL PEOPLES' ORGANISATIONS

Types of local peoples' organisation: customary and created

While some of the writing on local peoples' organisations tends to assume that they are all the same, it is important to stress that there are many types of organisation.

The most important distinction to make is that between customary institutions and non-traditional organisations. Within each of these categories there are a range of types of organisation, many of which might have a role to play in research and extension.

By customary institutions, we refer to those relationships that have long been the basis of social organisation. These would include kinship networks, tenure rules, local concepts of "the community," the rules governing gender relationships, local criteria determining who has authority and how decisions get made etc. These are the rules and institutions that are most deeply bound into the organisation of rural life, and which make most sense to, and have most hold over, rural people (Moorehead and Lane, 1993).

By non-traditional organisations we refer to that range of groups that have been created in some measure by external forces and interventions, generally within recent history. At the base level there are associations, cooperatives, credit groups, women's groups, landless labourers' groups etc. At regional level, there are federations of communities or cooperatives, savings and loans societies etc.<sup>3</sup>

In general, these are organisations that have been created with a specific purpose in mind: sometimes when that purpose (such as gaining access to project support) comes to an end, so does the organisation (Röling, 1988; Bebbington *et al.*, 1993). In other cases, however, an organisation may be long-lived enough, or may have become sufficiently independent and effective, that it becomes a local institution, and an important part of everyday life to people. In these cases the organisation is likely to outlive the initial stimulus for its creation.

Some of the local organisations that it is assumed will take on increasing roles in resource management and research and extension are customary institutions: groups such as communities, groups defined by their common access to common property etc. At one level, therefore, it might appear that efforts to build on these groups will be more likely to succeed because they make more sense to local people and are consistent with local forms of conduct.

Mosse (1993), for instance, argues on the basis of evidence from the Kribhco Rainfed Farming Project in Western India, that village appraisal and planning initiatives that did not build on existing authority structures were likely to be obstructed by village leaders. A similar lesson comes from the experience of an NGO research and extension project working in the Bolivian Andes, which tried to create local organisations. These organisations were intended to be the village-level counterpart for the programme. The committees and presidents of the organisations were elected on a one-person one-vote system. Although this seemed the most democratic option to the NGOs these elections distributed authority and power in ways that differed from local tradition - traditionally, authority and leadership went only to older members of the community on the basis of age, inheritance and rotation of leadership roles. This traditional practice thus prevented young adults from gaining leadership positions. Consequently, the organisations created by the NGO project attracted the interest of these young adults, who saw them as a means of gaining authority that traditional rules did not allow, and the project unwittingly created parallel authority structures in communities that essentially pitted the young adults against the old. In this case, the attempt to create and then work through local organisations led to conflict in communities rather than a more farmer responsive and effective research/extension programme (Rivera-Cucicanqui, 1990).

Examples such as these show us that to create new organisations can create difficulties in villages, and can in fact cause divisions rather than empowerment. On the other hand, the examples also show that customary institutions are not necessarily equitable. There is considerable evidence to endorse this observation

(see below). There is also evidence to suggest that - in the specific instance of research and extension - dealing with customary institutions will not reveal all dimensions of local knowledge because they often exclude particular groups in a village (Fairhead, 1990; Sperling, 1993, network communication). Where does this leave us?

Customary institutions and organisations all exist for particular reasons, and have the effect of addressing particular objectives. These objectives may be different from those of research and extension interventions. For instance, customary institutions might serve to continue the concentration of power and resources in the hands of a particular group in the community - a research and extension project, however, might be concerned to increase the tangible assets and power of other groups.

Thus, although it might be preferable to work with existing organisations and institutions, this may not always be consistent with research and extension objectives. In cases such as these, where particular groups are to be targeted by agricultural programmes, there is a strong case for initiating the creation of a special group. However, it must be recognised that any attempt to by-pass existing authorities and powers in a locality may lead to resistance to the programme of research and extension. It may also serve to weaken existing structures, disempower local people, and undermine existing organisations.

Another general message is that whatever the case, it cannot be assumed that the meetings of customary institutions, or of existing organisations, will represent the concerns of all groups in the local population. When agricultural research and extension works with these existing structures, it will be valuable to conduct a quick survey of the members of the group and the wider population in order to assess which sections of local society are, and are not, represented.

#### Commercial farmers' organisations

Although our focus is on resource poor farmers, there are also organisations of commercial farmers that exist at subregional and regional levels. In some cases these may involve both rich and poor farmers, and/or may generate spillover benefits for poor farmers (Sims and Leonard, 1989) as a consequence of their own research and extension activities, or of their interactions with public institutions. In a number of cases these organisations have achieved participation in research planning (see CIAT-Bolivia examples in Bebbington and Thiele, 1993). Thus in considering what type of local organisation to work

with, a first step may be to assess what can be learnt from the prior experience of commercial farmers' organisations.

Another issue may be to see how far it is possible for commercial farmers' organisations' spillover benefits for small farmers to be increased (see also Tendler *et al.* 1988). On the other hand, the commercial organisation may bring no benefits at all to poor farmers. Sims and Leonard (1989) also argue that unless the production conditions of large-scale and small-scale farmers are similar, the influence on research of large-farmers, pursuing their own interests, can be prejudicial to poor farmers. A case study of the Colombia Coffee Growers' Federation showed, for example, that while pressure from large-scale farmers led to stronger overall research performance, responsiveness to the needs of poor coffee farmers remained weak (Kaimowitz, 1989).

#### Problems in creating local organisations: costs and sustainability

In many cases, the only local organisations that exist in a region may not be appropriate for the objectives of a research and extension programme based on general priorities such as poverty alleviation and gender equity. That is to say, appropriate local organisations may not exist, or may be very weak. In that case, programmes have to decide whether they should create new local organisations.

Where rural development programmes have attempted to create or strengthen local organisations, the experience has not always been positive. In addition to the social costs that can occur (such as those mentioned above), creating new organisations can be costly and may not produce self-sustaining organisations. Many organisations (perhaps most) come to an end when the project does (Röling, 1988): this makes no positive contribution to strengthening rural civil society - and is probably a negative contribution.

#### Cost questions

There is little systematic work done on the costs of creating local organisations. One effort to document this is Romanoff (1990), based on work with CIAT and local organisations of producers and processors of cassava in Colombia and Ecuador. These two projects aimed to support the emergence of local associations of producers and processors, which then federated into a regional association.

In this CIAT programme, on average it cost between 110 and 121 days' work to create a group of 10 to 30 members: i.e. it absorbed large amounts of time and human resources. Romanoff suggests that there is little scope for improving the cost/benefit ratio of creating local organisations by increasing the size of group above about 25-30 because groups larger than that tend to have lower participation rates **and** higher rates of drop-out. Smaller groups worked better because they were based on kinship and neighbourhood networks - conversely groups with members **from more than** one village or town tended to have higher numbers of **inactive members**.

However, costs could be brought down by increasing the interaction among groups, training peasant promoters to be employed by the federation, and passing over promotion and information transfer work to them. In Ecuador, the federation (UAPPY)<sup>4</sup> - in liaison with official extensionists and researchers - trained and supervised these fanner promoters and arranged workshops for interaction among groups that were in the process of formation.

The Ecuador and Colombia experiences were significantly different in the success and cost of this group formation process. The Colombian project used much more senior professional and researcher time, and was consequently very expensive. In Ecuador, much more work was done to train peasant promoters to create groups. This approach turned out to be less costly and more effective. Indeed, while the first Ecuadorian groups each cost around \$10,000 to create, after having incorporated these farmer-to-farmer training mechanisms, costs fell to around \$3,000 per group. Furthermore, although by 1989 total project costs had totalled \$618,000, the Ecuadorian federation was selling \$300,000 worth of processed cassava a year. Thus, though the evidence is limited, this experience suggests that group formation need not be costly and can deliver significant benefits in certain contexts.

### Questions of organisational sustainability

This discussion touches on another regarding the sustainability of local groups, which in turn has implications for the costs and benefits of creating organisations. One of the most important arguments to justify the cost of creating organisations would be whether the organisation created continued to deliver benefits **to** its members **well** beyond the life of the initial research/extension activity.

However, this is often not **the case** - many groups that have been created have died after **the end of a project**. **There are a** number of reasons for this which

suggest that it may not always be feasible to create self-sustaining organisations. This in turn suggests that a policy to concentrate research/extension activities on local organisations might well be prejudiced against those environments in which it will be difficult for organisations to survive.

There are a number of reasons why organisations do not survive. Some have to do with the motivation of people for joining them, others to do with the local social and economic context. We deal with each in **turn**.

Organisations emerge and people join them, often in response to particular local problems and particular opportunities (Garforth, 1993). The presence of a research and extension initiative might be one such opportunity. Though the initiative may be responding to a problem which local people do not consider to be particularly acute, people may nevertheless join organisations created for the sake of the research/extension activity. Indeed, it has been noted that the reasons for rural peoples' participation in a group R and E endeavour are often quite different from **the** researchers' reasons (Long, 1992; Nuijten, 1992). People may participate for reasons that are to do with the presence of a project *per se* regardless of whether it is a research/extension project. Their purpose may be to gain access to resources, or to enjoy the prestige of working with a project. In cases such as these, once the project ends, and development agencies withdraw, then any organisation created to work with the project is also likely to die away.

Aside from the need for the catalysing effect of a problem or opportunity, organisations are more likely to emerge and be sustainable in enabling environments, where there is local commitment to the idea of collective action, and where historical factors are conducive.

For instance, a comparative study of federations or rural peoples' organisations in Ecuador concluded that the factors most likely to lead to a sustainable and strong organisation were that (Bebbington *et al.*, 1993):

1. the organisation was engaged in activities that had a significant impact on their members' family income, and generated income for the organisation's own administrative costs. This economic impact was what motivated members to **a** continuing commitment to collective action;
2. **the** environment gave sufficient political freedom to allow the emergence of organisations, **and** gave sufficient economic opportunities to allow the organisation to identify **a** viable economic **role for** itself. This was a favourable enabling environment:

3. the organisation and its members had already received - and continued to enjoy - a relatively long-term programme of support in which popular education, literacy and organisational training were key elements. This support strengthened the organisation's ability to take advantage of an enabling environment. Similarly, strong organisations were more likely to emerge where there had been less conflict among and within local villages. These two factors provided a conducive historical context for the emergence of local organisations.

Other studies come to similar conclusions. In West Africa, for instance, Gubbels (1993) stresses that often the political environment has obstructed the emergence of organisations, either because it has been repressive or because government has tried to co-opt these groups. In Romanoffs (1990) example, a critical factor in the success of creating organisations in Ecuador was that their advisors identified a lucrative, local and accessible market for processed cassava - an enabling economic environment. In Mali, a cotton development company found that long-term literacy and administrative training were an important pre-requisite to strong village associations (Sy and Bah, 1989), and an interesting pre-requisite to strong village associations (Sy and Bah, 1989), and an interesting experience of an assertive organisation in Senegal also suggests that organisations are strengthened and more likely to be sustainable when they have an impact on family income (Mercoiret *et al.*, 1990).

These conducive contexts do not exist in all cases, and consequently it may often be difficult to create viable and sustainable organisations. In less conducive contexts, some critical factors are beyond the control of an R and E project. Although others can be addressed, this requires investment of time and resources - for instance the provision of literacy, administrative and numeracy training. These imply the need for resources and skills that an R&E service will probably not possess.

Of course, in a research and extension programme, it may not be the intention to create a local organisation that will continue to exist beyond the project. The objective may be simply to work with a group during a number of trials. In these cases, the issue of sustainability and the time and investments implied may not be thought relevant. This will be all the more so in cases of agricultural research. Crop researchers may argue that their job is not development, but research, and their efforts (and hence the purpose for creating farmer groups) should be limited to research (c.f. Dugue, 1993).

The line is a fine one, however. Regardless of the researchers' concern, rural people's groups will not see the distinction between research and development. They will make additional claims on a research project's time to help in group

formation, and to address additional issues of local concern. As Romanoffs Colombian example shows, this can be a great drain on researcher time, and can be very costly.

The implication is that once the decision is made to work with groups - and above all where groups need to be created or strengthened - the researcher is moving into a development activity for which he or she has neither the skills nor resources. This in turn implies that wherever possible the best way to work with groups is where a development programme - NGO or government - is already working to strengthen local groups. The presence of other activities can lead to problems for the researcher because research will not necessarily be the main priority for the NGO or development programme, and hence they may not always give their full support to research issues (Mercoiret *et al.*, 1990). However, it is probably the only way that researchers can work with groups in a way that avoids too many additional claims on their time, and that reduces the likelihood that the group will cease to exist once the research programme ends.

#### **THE CASE FOR INVOLVING FARMER AND LOCAL PEOPLES' ORGANISATIONS IN RESEARCH AND EXTENSION**

The case for involving local organisations can be built on a number of arguments. One type of argument refers to the function that these organisations can play. A complementary approach is to concentrate on the influence they would have on the impacts of research and extension.

*In functional terms*, rural peoples' or farmers' organisations can play three different types of role (Bebbington, 1991):

1. Firstly, they can provide an interface between the research and extension worlds of development agencies and the production and living conditions of the resource-poor farmer population (Box, 1987).

This is perhaps the most frequently-noted role for RPOs. They can ease the relationship between the research and extension concerns of external agencies and the indigenous knowledge and innovations of farmers. In cases where an organization already exists, it offers external agencies a point of entry into a region. The organization can direct the agency to expert farmers, use its meetings for discussion of the agencies' agricultural work, provide locally-relevant knowledge, and facilitate extension activities through its own networks, news sheets, radio programmes and meetings. Also, when the RPO supports the external

agency, local resource-poor farmers have more confidence and trust in its research and extension activities - this enhances the effectiveness of its work.

2. Secondly, they can act as what Røling (1988) calls a user constituency for the rural poor. That is to say, they can exert pressure on public sector and non-governmental agricultural agencies to orient their work to the needs of the rural poor. This is what other authors call "demand-pull".

It is sometimes suggested that research can fail to deliver appropriate technologies not only because of poor feedback of farmers' ideas and concerns but also because there is no mechanism through which researchers are held accountable to farmers. If farmers were organised it is conceivable that they could exercise more forceful pressure on researchers, and/or that they could nominate delegates to sit on research planning boards. In either way the organisation exercises more "demand-pull" on a research agenda than individual farmers ever could.

3. Thirdly, they can perform active roles in the generation and extension of agricultural technologies in programmes that they control and administer themselves (Bebbington, 1989). There is evidence of farmers organisations that already have their own adaptive research programmes, and their own programmes of technical assistance. Often these are implemented by farmer paratechnicians through programmes of farmer-to-farmer extension (Romanoff, 1990; Fujisaka, 1989a). A number of these organisations also have seed and input distribution mechanisms through which the results of research could be distributed and - in the case of "lumpy" technologies - shared.

By performing these different functions it is assumed that there will be several different types of *positive impact* on the generation and distribution of agricultural technologies. Garforth (1993) has recently noted five types of improvement in the impact one might expect from involving local peoples' organisations in extension and they can be similarly applied to research/extension.<sup>5</sup> These impacts are:

1. enhanced efficiency: i.e. contact with groups will increase the number of farmers a professional can contact, thus improving the cost-effectiveness of research and extension;

2. enhanced effectiveness: i.e. work in groups will increase the rate of farmer learning and the number of ideas exchanged, and the extent to which they are discussed critically;
3. enhanced equity; i.e. by working with poor peoples' groups there will be a more equitable impact than in orthodox research and extension - poverty is thus more likely to be alleviated among the poorest sections of the rural population;
4. enhanced demand orientation in research; i.e. a group is more likely to be able to exercise influence over researchers, and the path taken in a research programme;
5. enhanced empowerment of rural people; i.e. the formation and strengthening of groups will give rural people a vehicle through which they can voice and pursue wider concerns.

In the following section, we consider evidence that throws light on how well these organisations perform against these different functions and potential impacts. First though, it is important to think more carefully about what we mean by a local rural peoples' organisation.

## LOCAL ORGANISATIONS' ABILITY TO PERFORM FUNCTIONS IN THE RESEARCH AND EXTENSION SYSTEM

### Rural peoples' organisations as interfaces with research

Perhaps the main experience so far of research interaction with local organisations has been that in which the local organisation provides a "way in" for researchers, giving them feedback on local conditions, and allowing researchers contact with more farmers.

One experience where farmers' organisations have been deliberately created to serve as an interface between researchers and farmers is the Agricultural Technology Improvement Programme (ATIP) in Botswana (Heinrich, 1993). In this programme ATIP researchers have formed farmer groups. Each member of the group chooses which technologies they wish to test from a basket of options presented by researchers. Not all members of the group do the same trial. At the beginning of a season they are offered different options by researchers and take the one that suits them best. They then meet monthly. At these meetings they are able to discuss each others' experience, and discuss these different

experiences with the technologies with researchers. In this way the farmer-managed trials generate data that feeds back into station research.

Existing organisations can also serve to fulfil this interface function. They can help the researcher identify "representative" farmers, and different agroecological zones in a region, and can help monitor trials through their own promoters (see Sy and Bah (1989) for an experience in Mali and Bebbington (1993) for one in Ecuador). They can also provide a forum for early mapping and PRA exercises and prioritisation of research problems.

#### Rural peoples' organisations as users' constituencies

There is a continuity between the local organisation acting as an interface, and it beginning to exert some son of pressure on researchers to keep them more accountable. The organisation can use the contacts with researchers to exert pressure in a number of ways.

The most obvious is through informal pressure. In highland Ecuador, where public agencies collaborated with communities and federations, communities would use community meetings to exert some informal pressure on the use of external resources. This was more likely to occur where the community was accustomed to expressing its demands (Bebbington, 1989).

In Senegal, a similar situation seems to have occurred between a strong farmer organisation, CADEF (the Committee Acting for the Development of Fogy - a federation of 40 village level fanners' groups) and a programme of technology and economic development implemented by an NGO and a government training institute (Mercoiret *et al*, 1990). The programme combined experimentation, diagnosis and then extension. CADEF was the main decision-maker in this programme, and had to approve all strategies and decisions before they could be implemented. The involvement of CADEF seems to have instilled a greater accountability into the NGOs and other agencies. Mercoiret *et al*. suggest that CADEF required the NGOs to:

- continually justify to the organisation any research and to show the links between research and concrete actions;
- promptly process any research data and return it quickly to the community;
- pay much attention to consulting and informing farmers at all stages of the research/extension process;

- pay much attention to the actual ability of staff to do the work they were responsible for.

In short, the local organisation makes an external agencies' job more demanding. Of course, if the local organisation is to be successful in exerting such pressure on a research and extension agency, the agency must not have the freedom to leave the zone and go to work somewhere easier. More importantly, it requires that the organisation has various types of strength: an ability to negotiate, self confidence, and the financial resources to allow autonomy and perhaps even the possibility of contracting in alternative support. Once again this brings us back to the need for support that researchers cannot provide. As Mosse (1993:25) argues in the case of Kribhco, rural people need many skills if they are to exercise such pressure and to move from identifying a problem to formulating a programme of action. To develop these additional skills requires other techniques of animation, awareness-raising, non-formal education or community problem-solving. Once again this implies that they require the support of local development agencies - such as NGOs - in addition to the support of crop researchers.

The CADEF experience points to another way in which local organisations can exercise influence - by direct involvement at an institutional level in research and extension planning and monitoring. While there has been little of this in the past, there is evidence that the current decentralisation of research and extension has sometimes led to the creation of local/regional committees for monitoring and planning research and extension and on which rural peoples' organisations have a formal representation. In Chile and Colombia such committees have been created as part of the reform of the NARS, and current changes in Mali suggest how farmer groups can become active in the monitoring of research programmes (Box 1).

However, from the little that is known, it seems that this sort of participation can lead to little influence in practice. Farmer representatives are often intimidated, and inclined to say little in an unfamiliar setting with which professionals are wholly familiar. Also, researchers tend only to invite the more cooperative farmers to such committees (Wuyts, 1993).

Another way in which a group can exercise influence over station research is simply by increasing the number of farmers involved in trial replication. In the case of ATIP (Heinrich, 1993), the fact that each group member runs a trial means that the data set generated on technology performance is larger than if the researchers worked only with individual fanners. Hence the feedback from the group may have more power because it comes from a larger sample of farm

trials and thus is more likely to convince station researchers than is the small amount of data generated by the odd trial here and there.

#### Box 1: Farmer groups in Mali: monitoring and contracting research

"In Mali, the experience of developing new partnerships between farmer organisations and research is only in its infancy, but it contains the necessary ingredients for an effective partnership as described in this paper: (1) farmers are involved at the bottom and top end of the decision-making processes which define the research agenda and set priorities; and (2) farmers have the financial power to negotiate with the government research institute (*Institut d'Economie Rurale*) and contract research.

At the grassroots level Local Working Groups are being organised to participate in the programming, monitoring, and evaluation of specific research programmes. The Working Groups provide the framework for farmers, extension agents, and researchers to meet annually to review research results and to decide upon the priority constraints to address and solutions to test. The Local Working Groups also elect one of their members to serve on a User Committee which is part of the National Agricultural Research Council. Through this channel, farmers are able to influence decision-making at the national level about research objectives, priorities, projects, and resource allocations.

The User Committee also manages a research fund, which is made available to farmer's and processors' organisations to enable them to contract research on problems of particular interest. These organisations submit proposals which, if selected for funding, are then further elaborated by researchers in collaboration with members of the organisation. This gives farmers the financial power to contract research to meet their most urgent needs."

Source: Merrill-Sands and Collion, forthcoming.

A further - and far more influential - means of exercising influence is through the purchase of research and extension services. Few rural peoples organisations have this financial capacity (without grants). One example where this does occur is that of UAPPY, the same federation of yuca producers in Ecuador discussed by Romanoff. By 1992 UAPPY had - in addition to its processing and marketing work - become the point of contact between yuca producers in the province of Manabi and the local NARS research station. In some cases this contact has been of the interface type, but in other cases, UAPPY has used funds generated by income from its processing, marketing and membership work to fund the NARS to do specific pieces of research on cassava and related processing technology (Poats, 1993, pers. comm.). Through purchasing research on themes it identifies as key producer concerns, UAPPY is able to exercise

particular influence on the NARS. However, this is not yet an entirely autonomous process and UAPPY still enjoys some grant-aid advisory support in the identification of producer problems.

As research systems have to generate more of their own income, possibilities for purchasing research support will increase. Of course there are many constraints on other rural peoples' organisations from exercising this degree of influence on research. One is that, with limited human resources, stations will concentrate on the sale of services to those who pay most, and this is likely to be the medium/large farm sector.<sup>6</sup> Thus, the creeping privatisation of NARS must be accompanied by retention of a mandate to respond to the poorest farmers if NARS are not to become the servants of the wealthy.

The other main constraint on such an exercise of demand-pull is that most farmers' groups lack funds to purchase research (and extension) services. Membership dues will be insufficient as farmers are too poor; organisations therefore need additional income sources. Aside from grants, the most likely source is income from processing and marketing of products - but the scope for this will be greater in some cases than others. Some organisations lack the economic skills, and have members who produce products which are of low value even when processed (Bebbington *et al*, 1993). Another possibility is to introduce "research funds" or "community funds" which organisations can draw on to purchase research and technical assistance. This is under consideration in current and proposed restructuring of research and extension services in Peru and Guatemala, for instance (IFAD, 1991; Katz, 1993, pers. comm.). However, to ensure that groups are able to use these funds effectively, they must be given support in problem prioritisation, in making applications and in managing grants. Few would be able to take advantage of such funds without the support of a development agency. Indeed, it is important to stress that before UAPPY reached its current level of development it had benefitted from a decade or so of funding and advisory support.

#### Rural peoples' organisations self-managed research and extension

Beyond being an interface, some rural peoples' organisations have their own modest adaptive research, demonstration and extension programmes. One example of this sort of self-managed research and extension programme comes from the experiences of federations of rural communities in highland Ecuador (See Box 2).

**Box 2: Self-managed research and extension among federations of rural communities in Ecuador**

In the central parts of the Andean province of Chimborazo there is a strong tradition of organization among indigenous farming communities. This originates from demands for land, religious rights, reduced transport costs and rural infrastructure rather than demands for agricultural research and extension services. In order to sustain themselves beyond these initial activities, and to build upon the levels of organization already achieved, these federations subsequently initiated their own research and extension programmes. This was also a response to the weakness of government services in these areas.

This farmer initiative was not entirely independent. National and international NGOs played an important role in making financial and in some cases personnel resources available for these activities. In some cases, national NGOs have also been important in assisting and stimulating the process of inter-community federation. One strategy is to enhance the strength of RPOs through the process of organized discussion, design, and administration of the project.

A further sense in which the research and extension methods used by these organizations are not independent is that they are modelled on government and NGO development projects, often using demonstration plots, field days, extension visits, seed multiplication and input distribution systems. The difference is that farmers control, implement, and indeed own a large part of the projects.

The different RPOs do not have identical perspectives on their agricultural research and extension activities but there are recurrent themes. In the long term, they feel that to sustain and enhance rural livelihoods requires strong organization (the user constituency function) and their work aims to serve this purpose. They see the need to increase local income possibilities, in order to reduce the need for periodic labour migration. Increasing time spent in the region will help strengthen family, community and federation, as well as avoid other personal and economic costs of migration.

With such goals in mind, they assist members in the promotion of both food and cash crops. This is done through carrying out some very simple trials on selected crops with the aim of achieving modest increases in yields without increasing costs or production risks. These trials are conducted with the help of a formally trained agronomist hired on full or part-time basis. This information is supplemented by the agronomist's own knowledge, his continuous conversation with members of the organization and by observing the effect of different technological practices in plots planted in members' fields. These plots serve two purposes: they meet the farmers' particular food and income generation goals, and they generate research information.

Through this process, simple technological packages are progressively adapted on the basis of local experiences. Information on these adaptations are made available to members through a variety of extension methods. The RPOs conduct their own training courses, meetings and radio programmes. A key strategy is to train indigenous extension agents. These then return to work in their own community, sometimes financing their activities through commission on inputs supplied or through wages paid by the federation. These farmer extension agents are trained through courses given by

the RPOs' own agronomist and by guest lecturers contracted by the organisation. In these courses the pros and cons of modern agricultural technologies are discussed, along with principles of ecological agriculture, traditional practices, natural resource management and issues of nutrition, health and safety. Sometimes the farmer extension agents are sent to courses given at the national agricultural research institute. In this way they are trained in ideas from formal agricultural science, and assess it in the light of their own local knowledge. Some become more "modern" than others, but all have understanding of both informal and formal agricultural science.

This, then, is a partial institutionalization of farmer-farmer extension. It has the many advantages that these "extension agents" speak the local language, live locally, understand local social etiquette, and have local environmental knowledge. The drawbacks are that they tend to be younger and may lack authority, and that they sometimes lack time for these activities because they too have to generate their own incomes and tend to their own farms.

These RPOs also run their own subsidized input distribution programmes, particularly for seeds. Some RPOs have also tried to initiate small loans programmes and marketing projects. There has been less success in these programmes because of the particular market knowledge required and the greater risks to organizational integrity once larger quantities of money are handled. All these efforts are elements in a strategy aimed towards increasing income by reducing local production costs.

These programmes are linked under the same federations, which illustrates that the RPOs themselves believe that to increase the sustainability of agriculture and of rural livelihoods in these areas will require a number of changes: not only in agricultural technology, but in the terms of trade, in credit provision, and in the creation of complementary local sources of off-farm employment. The provision of different services under one FT also eases farmer access to a variety of programmes in which government has not helped the poor. However, it also places greater strain on the RPOs' institutional capabilities.

Whilst these activities are managed at the level of second order organizations, there are also community level initiatives. Some communities have gained access to NGO support, and have developed elements of their own seed and input distribution systems within the community. At times, community "expert" farmers perform an advisory role within these schemes, although not all experts are keen to make their knowledge available. Whilst such community-level initiatives also build on local knowledge, their biggest disadvantage is that they stimulate competitiveness between communities in the dash for NGO funds, weakening inter-community collaboration. Although there is also some competitiveness between second order organizations, this could be more easily and efficiently resolved through negotiations over sharing resources and expertise.

Source: Bebbington, 1989

These programmes offer a researcher another "way in" in which the researcher's main role is to support and strengthen existing work in the organisation (Ashby, 1991). The organisations' extension programme then works with the results of that research.

However, it must be stressed that these programmes have many technical weaknesses, and the quality of research is often poor (though not always - see Trujillo, 1993). These programmes are also often dependent on external funding. Only in a few cases (e.g. Healy, 1988; Trujillo, 1993) is there evidence of moving towards self-financing programmes. Significantly these are in cases where members produce high-value products.

### THE IMPACTS OF RURAL PEOPLES' ORGANISATIONS IN RESEARCH AND EXTENSION

What do we know about the real impacts of rural peoples' organisations performing these research and extension functions? So far very little. The following sections use Garforth's (1993) five categories of type of impact to organise some of this knowledge.

#### Efficiency and Effectiveness

Intuitively it would seem that to work with a rural peoples' organisation should increase the cost-effectiveness of researcher time. At the very least there will be contact with more farmers. However, more importantly is the evidence that working with a group can allow researchers to establish more trials and/or generate more data. Dugue reports a case from Senegal where a NARS researcher was able to establish fifty trials with one farmers' organisation (Dugue, 1993). Perhaps the most systematically-collected evidence on this scaling-up of researcher impact has come from the monitoring of work with farmer groups in the ATIP programme in Botswana (Heinrich, 1993; Heinrich and Modiagotla, 1993; Norman *et al*, 1988). This work also went on to influence thinking in the Farmer Innovation and Technology Testing Programme in the Gambia (Diallo and Senghore, 1990).

In the early years of ATIP, trials were researcher managed and implemented, or researcher managed and farmer implemented. Both approaches absorbed a lot of researcher time, and this approach also allowed only a few farmers to participate. The decision was therefore taken to experiment with group approaches (Norman *et al*, 1988).

After seven years of experience, Heinrich is able to list the following benefits of working with groups (Heinrich, 1993). The specific benefits included:

1. higher adoption rates (after several years of group functioning);
2. wider discussion of, and access to, knowledge;
3. researchers became more aware of farmer ideas and circumstances;
4. a larger number of replications entered into comparative analysis of trials.

More general benefits have been:

1. increased capacity of a resource-constrained research programme working with groups: increases the number of trials above the total possible if researchers were managing all trials themselves;
2. increased efficiency - by increasing the amount of research done per unit of researcher time, and by increasing the relevance of research;
3. improved links between an on-farm research programme and station research. This was unexpected, and happened mainly because the groups allowed more trial replications and thus also more chance to test a wider variety of technologies;
4. improved links to extension - through extension agents' participation and through providing a core of farmer researchers who can then participate in farmer-to-farmer extension.

In essence, Heinrich is saying that the group approach is more efficient in a cost/benefit sense, allowing few resources to go further. He also suggests it is more effective, as farmers learn more through the interactive reasoning and argument that occurs in group settings.

It is important to stress however, that it is not always certain that efficiency and effectiveness are increased through group work. As Romanoff (1990) notes, it can be costly to create groups, and unless cost-reducing measures are found then the cost will not necessarily be justifiable. Furthermore, it is important to avoid the temptation to increase apparent cost-effectiveness by increasing the size of the group, as larger groups are prone to far higher rates of non-participation and do not lend themselves to interactive learning. Even in small groups, a few farmers often dominate discussion (Ashby, 1991; Norman *et al*, 1988): in larger groups this is even more likely to happen.

With these caveats in mind, however, evidence from as diverse a set of locations as Thailand (Garforth, 1993), Mali (Sy and Bah, 1989). Ecuador (Romanoff,

1990), Chile (Aguirre and Namdar-Irani, 1992) and the Gambia (Gilbert, 1990) suggests that if managed carefully, and if groups are not too large, then research/extension linkages with groups can increase the efficiency and effectiveness of research and extension expenditure.

#### Demand orientation

In the discussion of how rural peoples' organisations can perform a "user constituency" function we have already seen how they can exercise a demand-pull on research.

However, there are relatively few documented cases of this happening. Research just beginning at ISNAR suggests that in both Kenya and Burkina Faso, while there are a diversity of farmers organisations, few have any policy for trying to link up with and exercise influence on research institutions - either because they are not aware of the possibility, or see little use in it (Eponou, 1993; Wuyts, 1993).

This early conclusion of the ISNAR study, however, is probably too negative (e.g. see cases in Merrill-Sands and Collion, forthcoming). On the one hand, demand-pull can be - and often is - exercised in informal ways: not to have a "linkage" policy does not therefore mean no influence is exercised. On the other hand, while some would agree that farmers do not have much interest in research, and that they participate in trials for reasons other than research (Long, 1992) this is not always so. A study of farmer collaborators in ATIP in Botswana (reported in Heinrich, 1993) concluded that the large majority collaborated because of an interest in technology and not because of the chance to get free inputs (which are minimal anyway). Similarly a mid-term evaluation of the Sustainable Agriculture and Village Extension (SAVE) programme in Sierra Leone showed that farmers did not participate because they wanted access to resources (indeed they received only very small amounts of planting material) but because they were interested in widening their basket of varieties and were generally interested in new technologies (Gordon *et al*, 1992).

In Senegal, in the Casamance, a very effective partnership has evolved between the *Comite d'Action pour Developpement du Fogny*, a farmers' association spanning 40 villages and including 4000 members, and farming systems researchers from the government research organisation (*Institut Senegalais de Recherche Agricoles*). Previously, the association had been working with a local non-governmental organisation and training institute to try to improve production and marketing conditions for farmers, but prolonged, multi-year, drought had

created new, more acute constraints to production which existing knowledge and technology could not overcome.

To assist them to develop new solutions, the association joined forces with farming systems researchers working in the region. Assisted by supplementary funds from donors, researchers and members of the association have worked together to analyse constraints, identify potential solutions (based on both indigenous and research-based knowledge), conduct on-farm tests, and evaluate results. In a real reversal of power, responsibility for decision-making and responsibility for planning and execution has lain primarily with the farmers' association, not with the researchers. Researchers are essentially contracted to carry out activities identified through joint planning exercises. After five years, the partnership has been quite successful, with a number of new varieties and agronomic technologies generated and adopted by farmers in the region.

Nonetheless, it probably is the case that it is mainly larger organisations, or regional and commercially strong organisations such as UAPPY, that are most likely to be interested in influencing research, and most able to exercise this influence in anything but an informal way.

What also seems clear is that an organisation is more likely to seek out contact with research institutions - and thus take the necessary first step to influence their research agenda - when the organisation has an external advisor, such as an NGO, or an agronomist. The reasons for this are largely social. Rural people have few or no informal contacts with researchers, and are drawn from quite different social groups. NGOs, on the other hand, are typically staffed by people who are from the same social class as researchers, and who have done enough formal education to believe in the value of research. They have been socialised into seeing research as important, farmers have not; they have informal contacts with researchers and research institutions, farmers do not. Exercising demand on research is thus not only a question of institutional "linkage" - it is also one of bridging a social and cultural gap. Advisors and NGOs can help RPOs to build this bridge.

#### Equity

On several occasions we have noted that working with customary institutions and local organisations may not always enhance the equity of the impact of a research and extension project. This is so for several reasons. Organisations may effectively exclude certain sectors of the local population. Also, attending the local organisation's meetings with researchers and extensionists takes time

out of people's other economic activities. The poorest families, and those who have to migrate out of the village periodically may not be able to absorb the cost of this participation.

Thus, despite some claims to the contrary, RPOs do not represent an ideal of rural democracy (Fox, 1990; 1992). Indeed, as Fox (1992) notes for Mexico, RPOs more often than not get taken over or are at least excessively influenced by a minority - and often relatively elite - section of rural society. Consequently any effort to place resources and responsibility for research and extension in the hands of an RPO runs the great risk that those resources will be channelled to a privileged few, and perhaps used for purposes not intended. Just as there is a need to make NGOs more accountable to rural people, so too there is a need to make RPOs more accountable. One means of doing this is by increasing the number of sub-groups within an RPO in a way that makes them a constituent part of the RPO (Fox, 1992). This can help give minority interests some voice as Fox (1992) shows in Mexico. Another means - more long-term and beyond NR policy - is to improve the levels of education among the members of an organisation, so that all have the capacity to understand the management of programmes and finances within the RPO (Bebbington, *et al.*, 1993). A third mechanism is for another party (who might also be providing the training and helping to form new sub-groups) to be involved in the administration of activities and finances. The most likely candidates for such a party are NGOs, or representatives of other institutions such as the rural church.

Even if the group does not exclude certain sectors, it is almost always the case that there is differentiation among the membership of village-level groups - some families have more resources than others, families possess different qualities of land, some have water - some do not, and so on. Consequently different families have different production systems, and different research and extension priorities.

In circumstances such as these, some research and extension services and development agencies create sub-groups within the village. These sub-groups have been based on gender, on socio-economic status, on production system etc. In Chile, for instance, the NGO AGRARIA has decided that, despite the rhetoric of community development and the NGO tradition of strengthening community level organisation, it is more effective to create sub-community groups. These they call "interest groups" ("*grupos de interes*"), and they are based on common production systems, landlessness, or at times on gender (Aguirre and Namdar-Irani, 1992). For instance, in one village there were interest groups for: families

**with vine-based systems, families with wheat-legume based systems, families with pasture-based systems, and for landless youth. Each group received different types of training and technical support. The creation of subgroups allowed a targeting of poorer groups (e.g. landless youth), and also allowed AGRARIA to provide training and technical support that was more closely specified to the concerns of the members of the interest group.**

In Thailand, Garforth (1993) similarly concluded that extension approaches based on rural peoples' organisations did not increase the equity of extension impact. Indeed, he recommends that, where this is the goal, services should try to create organisations specifically composed of the poorest sectors of village society.

On the other hand, it may be that the presence of any organisation is better than none, even if it does not represent the poorest. Sims and Leonard (1989) argue this case. They suggest that even large-farmers' organisations can bring some benefits to the poorer families. If the presence of the organisation means that on-farm trials, ideas, inputs and seed come to a locality, then some of the information generated and some of the seed introduced is likely to find its way into small farm production systems through word of mouth, local labour relations, or even through theft of seed.

The general lesson so far appears to be that we cannot and should not expect a single organisation to represent all interests in a village. We therefore need to assess who it does and does not represent. If certain groups are excluded then the next stage is to create sub-groups to target particular beneficiaries. However, in order to prevent resistance to their activities, services will probably also have to find ways of benefitting local authorities in order to gain their support. Similarly, in order to avoid weakening higher, village-level organisations efforts must be made to find links between the sub-groups and the higher level of organisation.

## Empowerment

Empowerment can occur at a number of levels: from individuals and groups learning a new confidence and new skills, through to the establishment of self-sustaining groups who can address other development issues - either through other self-managed initiatives, or through making demands on other institutions. The evidence on how often such empowerment occurs is patchy, but it is clear that it is far from automatic, and often does not occur.

In the ATIP case, Heinrich (1993) noted how a group approach can lead to a subtle and gradual process of the former type of empowerment. Over several years of group work, farmers began to argue as a group against researchers' ideas, and for their own ideas. Arguing as a group rather than as individuals gave them more leverage and influence. "This subtle change in the dynamics of the relationship ensures that research becomes more responsive to farmers' needs." (p 19). The cases from Senegal and Mali discussed earlier point to similar experiences.

This type of confidence is, however, a long way from more systematic political empowerment of the group as a whole through which "rural people can find voice and economic power with which to confront the structures and processes that sustain their disadvantaged position" (Garforth, 1993:6). Indeed, Garforth's survey of rural peoples' organisations in northern Thailand suggests such empowerment rarely occurs, particularly when these groups are dependent on NGOs or government.

Yet in other cases an effort to work with and strengthen groups clearly can increase their capacity to exercise influence over economy, society and politics in such a way as to address constraints on their development (Bebbington *et al*, 1993). However, these are cases where support to the group has been sustained over a long period and has not been primarily research and extension support but has included income generation, popular education and administrative training.

The implication is that to work with groups in research and extension will not necessarily empower them, nor necessarily strengthen rural civil society. It can do so - but only when the research and extension support is linked to the broader social development activities of other agencies.

## CONCLUSIONS

The evidence in the literature suggests that whilst there is considerable potential for involving rural peoples' organisations in research and extension, both as partners and as implementers, there are also many constraints on how far they can fulfil this role. In some cases groups do not exist, and the local political and socio-economic environment is not conducive for their emergence as sustainable organisations. In other cases, they exist but have a number of weaknesses, which include the following:

1. they lack managerial skills and financial resources;
2. they lack contacts with research services and other formal institutions;
3. they are not always representative;
4. they do not always distribute benefits equitably,
5. there are multiple obstacles to their sustainability; and
6. because they sometimes have multiple concerns - such as land rights, credit, marketing etc - they may not always place research and extension as a high priority.<sup>7</sup>

These observations imply that there remain important roles for non-membership service agencies. Some of these roles are relatively akin to orthodox agricultural service provision. In some cases, where organisations do not exist, those agencies must continue providing direct support to farmers. In other cases, where rural peoples' organisations do exist, non-membership services will still be required to make the link with research services and other formal institutions.

At the same time non-membership agencies have more novel roles to play. These include: encouraging the emergence of peoples' organisations where these do not exist, but where the environment is conducive to group formation; providing training and support to help strengthen existing organisations; acting as a third party to ensure accountability within rural peoples' organisations, and so on.

Many of these tasks require skills and time commitments that agricultural researchers do not have and often cannot afford to give. Consequently support for group formation must come from elsewhere. One option is that public extension services should provide this support; however, they also often lack the necessary skills (Garforth, 1993). In other cases, government extensionists earn so little that they cannot afford to dedicate the time to such work. Cutbacks in extension personnel make this task even more difficult, just as they complicate continued support to contact farmers in more traditional T&V approaches.

All this implies that other agencies such as NGOs have roles to play. In some cases, they will need to provide relatively orthodox services where government is no longer able to do so. In other cases, agencies specialised in working with groups have an important role to play in supporting the emergence of new groups, in strengthening existing groups, and in imparting these skills to other agencies and government staff. These NGOs can play a crucial role in assisting farmers' associations to develop the administrative and technical skills required to become strong and independent partners to research organisations (Farrington and Bebbington, 1993).

However, if we rely on non-membership NGOs to serve as brokers between farmers and research organisations, we are, once again, operating within the framework of altruistic organisations representing farmers, rather than empowering farmers to represent themselves (Merrill-Sands and Collion, forthcoming). Investment in such NGOs should not be a substitute for investment in local farmers' associations.

In summary, if we are serious about fostering the external forces needed to make research organisations client-driven rather than researcher-driven, investments will have to be made in developing local farmers' associations. These organisations will need support in strengthening their managerial and administrative skills. They will need to develop the capacity to attract funding not only from their members, but also from external donors or national foundations. A sound financial base is crucial, since their ability to exert leverage over research organisations will be enhanced if they have funds to contract research (Röling, 1988; Sperling and Ashby, 1992). They will need to develop the capacity to negotiate with policymakers and government institutions and they must acquire the technical skills required to diagnose and prioritize the needs of their members and communicate these effectively to research. Clearly this will be a long-term process of institutional development, but one, we would argue, likely to yield significant benefits in terms of positive sustainable agricultural development.

## BIBLIOGRAPHY

- Aguirre, F. and Namdar, M. (1992) 'Complementarities and tensions in Agraria-State relations in agricultural development: a trajectory', ODI Agricultural Administration (Research and Extension) Network Paper 32, London: Overseas Development Institute.
- Ashby, J. (1991) "Adopters and adapters: the participation of farmers in on-farm research." pp273-286 in R.Tripp (ed) Planned Change in Farming Systems: progress in on-farm research. London. John Wiley.
- Bebbington, A.J., Carrasco, H., Peralbo, L., Ramon, G., Torres, V.H. and Trujillo, J. (1993) "Rural Peoples' Knowledge, Farmers Organisations and Regional Development: Implications for Agricultural Research and Extension." Agricultural Research and Extension Network Paper Number 41. London. ODI.
- Bebbington, A.J. (1991) Farmer Organizations in Ecuador: Contributions to Farmer First Research and Development. Gatekeeper Paper 26, Sustainable Agriculture Programme, International Institute of Environment and Development. London. IIED.
- Bebbington, A.J. (1989) Institutional Options and Multiple Sources of Agricultural Innovation. A Case Study from Ecuador. Agricultural Administration (Research and Extension) Network Paper Number 11. London. Overseas Development Institute.
- Bebbington, A.J. and Thiele, G. (1993) Non-governmental organisations and the State in Latin America. London: Routledge.
- Box, L. (1987) Experimenting Cultivators: A Methodology for Adaptive Agricultural Research. ODI Agricultural Administration (Research and Extension) Network, Discussion Paper 23. London. Overseas Development Institute.
- Diallo, I. and Senghore, T. (1990) "Gambian Farmers in Partnership with Research and Development Agencies for Testing and Adopting Agricultural Innovations" paper presented at the Annual Symposium of the Association for Farming Systems Research-Extension, MSU, 14-17 October, 1990.
- Dugue, P. (1993) "The Senegalese Institute for Agricultural Research (ISRA) and the Fatick Region Farmers' Association" pp. 270-282 in K.Wellard and J. Copestake (eds)
- Eponou, T. (1993) Progress Report: the Burkina Faso Case. Mimeo. ISNAR. The Hague.
- Fairhead, J. (1990) Fields of Struggle: towards a social history of farming, knowledge and practice in a Bwisha community, Kivu, Zaire. PhD thesis, Department of Anthropology, School of Oriental and African Studies, University of London.

- Farrington, J. and Bebbington, A.J. (1993) Reluctant Partners? Non-Governmental Organisations, the State and Sustainable Agricultural Development. London: Routledge.
- Fox, J. (1992) "Leadership Accountability in Regional Peasant Organizations" Development and Change Volume 23 Number 2:1-36.
- Fox, J. (ed.) (1990). The Challenge of Rural Democratization: Perspectives from Latin America and the Philippines. London: Frank Cass. (This is also published as a special issue of Journal of Development Studies Volume 26 No.4).
- Fujisaka, S. (1989a) A method for farmer participatory research and technology transfer: Upland soil conservation in the Philippines" Experimental Agriculture 25:423-433
- Garforth, C. (1993) "Rural Peoples' Organisations and Agricultural Extension in the Upper North of Thailand: Who Benefits? Mimeo. University of Reading.
- Gilbert, E. (1990) "Non-governmental Organisations and Agricultural Research: The experience of The Gambia." Agricultural Research and Extension Network Paper No.12. London: Overseas Development Institute.
- Gubbels, P. (1993) "Peasant Farmer Organisation in Farmer First Agricultural Development in West Africa: New Opportunities and Continuing Constraints." Agricultural Research and Extension Network Paper No.40. London: Overseas Development Institute.
- Healy, K. (1988) 'From Field to Factory: Vertical Integration in Bolivia.' Grassroots Development, 11(2).
- Heinrich, G. (1993) Strengthening farmer participation through groups: experiences and lessons from Botswana. OFCOR Discussion Paper No 3. The Hague. ISNAR.
- Heinrich, G. and Modiakgotla, E. (1993) "Linking FSR, Extension and Development Organisations: an experience in Botswana." Agricultural Research and Extension Network Paper No.39a. London: Overseas Development Institute.
- International Federation of Agricultural Producers. (1990) Sustainable Farming and the Role of Farmers' Organisations. Wageningen: Technical Centre for Agricultural and Rural Cooperation (CTA).
- IFAD. (1991) Republic of Peru: Strengthening of Agricultural Extension Services for peasant Communities in the Highlands of Peru: Project Brief. Rome: International Fund for Agricultural Development.
- Kaimowitz, D. (1989) "Linking research and technology transfer in the development of improved coffee technologies in Colombia." ISNAR Staff Notes No.89-54. The Hague: International Service for National Agricultural Research.
- Long, N. (1992) Personal intervention in conference Beyond Farmer First. IIED/IDS. Brighton.
- Mercoiret, M.R., Goudaby, B., Ndiame, F. and Berthome, J. (1990) The role of Farmers' organisations in developing and spreading innovations: the case of CADEF (Senegal). CADEF/ISRA/CIEPAC/ENEA/DSA-CIRAD.
- Merrill-Sands, D. and Collion, M-H. (forthcoming) "Research and Farmers' Organisations. The Road to Partnership." Agric. and Human Values.
- Moorehead, R. and Lane, C. (1993) "Natural Resources Management and Tenure" Paper presented to the ODA NR Advisors Conference, Swansea 1993.
- Mosse, D. (1993) "Authority, Gender and Knowledge: Theoretical Reflections on the Practice of Participatory Rural Appraisal," Agricultural Research and Extension Network Paper Number 44. London. ODI.
- Norman, D., Balker, D., Heinrich, G. and Worman, F. (1988) Technology Development and Farmer Groups, Gabarone. ATIP, Ministry of Agriculture.
- Nuijten, M. (1992) "Local organisations as organising practices: rethinking rural institutions," pp 189-207 in N. Long and A. Long (eds) Battlefields of Knowledge. London Routledge.
- Okali, C, Sumberg, J. and Farrington, J. (1994) Battlefields and Trial Plots: Rhetoric and reality of farmer participatory research. London: IT Publications.
- Pearce, R., Bebbington, A.J. and Farrington, J. (1993) Preliminary Study of Factors Affecting Feedback from Adaptive Research to Applied and Strategic Agricultural Research. Final report to Natural Resource and Environment Department Demand Led Strategic Research Initiative.
- Peterson, T. (1990) Self supplied farm communities: their role in LWS/RDRS extension strategy Paper presented at Annual Symposium of ASFSRE, Michigan, October 14-17th, 1990.
- Ribe, H., Carvalho, S., Liebenthal, R., Nicholas, P. and Zuckerman, E. (1990) How Adjustment Programs Can Help the Poor: The World Bank's Experience, World Bank Discussion paper 71, Washington: World Bank Publications.
- Richards, P. (1985) Indigenous Agricultural Revolution: Ecology and Food Production in West Africa. London: Hutchinson.
- Rivera-Cusicanqui, S. (1990) 'Liberal Democracy and Ayllu Democracy in Bolivia: the Case of Northern Potosi.' pp. 97-121 in J.Fox (ed.) 1990a. Rural Democratization. London. Frank Cass.
- Röling, N. (1988) Extension Science. Information Systems in Agricultural Development. Cambridge. Cambridge University Press.

- Romanoff, S. (1990) ~~On reducing the costs of promoting local farmers' organisations in agricultural development projects.~~ Paper presented at ~~Annual Symposium of ASFSRE, Michigan, October 14-17th, 1990.~~
- Sada Sy, B. and Yero Bah, M. (1989) "Village Associations and Agricultural Extension in the Republic of Mali" pp 45-49 in N. Roberts 1989 (ed) ~~Agricultural Extension in Africa.~~ Washington. World Bank.
- Sims, H. and Leonard, D. (1989) ~~The Political Economy of the Development and Transfer of Agricultural Technologies.~~ Linkages Theme Pare Number 3. The Hague. ISNAR.
- Sperling, L. and Ashby, I. (1992) "Institutionalizing participatory, client-driven, research and technology development in agriculture." Discussion paper presented at the CGIAR meeting of social scientists, August 17-20, 1992, ISNAR, The Hague, Netherlands.
- Tendler, J. with Healy, K. and O'Laughlin, CM. (1988) ~~What to Think About Cooperatives: A Guide from Bolivia.~~ pp 85-116 in S. Annis and P. Hakim, (eds) 1988.
- Trujillo, G. (1993) "The El Ceibo Regional Agricultural and Agro-industrial Cooperative Coordinating Committee." In: A.J. Bebbington and G. Thiele ~~Non-governmental Organisations and the State in Latin America.~~ London: Routledge.
- Waters-Bayer, A. and Farrington, J. (1990) ~~Supporting Farmers' Research and Communication: the role of grassroots agricultural advisors.~~ Paper presented at ASFSRE, Michigan 1990.
- Wellard, K. and Copestake, J. (1993) (eds) ~~NGOs and the State in Africa: rethinking roles in sustainable agricultural development.~~ London. Routledge. .
- Wellard, K., Famngton, J., and Davies, P. (1990) ~~The State, Voluntary Agencies and Agricultural Technology in Marginal Areas,~~ ODI Agricultural Administration (Research and Extension) Network Paper 15: London: Overseas Development Institute.
- World Bank. (1991a) ~~How the World Bank Works with Non-governmental Organizations,~~ Washington: World Bank Publications.
- World Bank. (1991b) ~~World Development Report 1991: The Challenge of Development,~~ Oxford: Oxford University Press.
- World Bank. n.d. ~~Cooperation between the World Bank and NGOs: 1990 Progress Report,~~ Discussion Draft, Washington: World Bank.
- Wuyts, A. (1993) "Linkages between research, fanners and farmers' organisations." Mimeo, draft report. The Hague. ISNAR.
- Zadek, S. *et al.* (1992) ~~Bridging Spheres of Communication: information exchange for sustainable land use.~~ London. ODI.

## ENDNOTES

1. Examples of this include the variety screening work at Pakhribas Agricultural Centre (Khadka, pers. com, 1993), and bean breeding at CIAT (Ashby, 1991).
2. This does happen - e.g. Heinrich (1993) on the ATIP programme in Botswana and Gilbert (1990) on the FITT programme in Gambia.
3. An illustration of the diversity of these organisations is shown in an overview of farmers' organisations in Kenya (Wuyts, 1993). Wuyts has identified five main types of fanners' organisation (let alone other types of rural peoples' organisations):
  1. local groups
  2. community groups
  3. local societies (grassroots cooperatives)
  4. district unions (unions of cooperatives)
  5. national unions (cooperatives with a national mandate - many have a commodity focus)
4. The Union of Associations of Producers and Processors of Yuca.
5. Garforth's research in Thailand suggests that not all these theoretical impacts actually occur - see below.
6. It would seem that the largest farmers, companies and plantations tend to purchase support directly from the private sector or northern researchers.
7. Conversely the existence of these other activities also means that research and extension work is more likely to be consistent with wider food system concerns.