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Farmer Organisations in Ecuador:
Contributions to Farmer First Research and Development

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This Gatekeeper Series is produced by the International Institute for Environment and Development to highlight key topics in the field of sustainable agriculture. Each paper reviews a selected issue of contemporary importance and draws preliminary conclusions of relevance to development activities. References are provided to important sources and background material.

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FARMER ORGANISATIONS IN ECUADOR: CONTRIBUTIONS TO FARMER FIRST RESEARCH AND DEVELOPMENT

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Amid growing interest in farmer-first strategies of agricultural research and development, attention has increasingly focused on the institutional implications of these concerns. How might agricultural research and policy be oriented away from favoured environments toward the needs of the rural poor living in complex and risk-prone environments? Farmer Organisations (FO) can be one important vehicle for such a reorientation.

There are many different types and sizes of FOs with a variety of roles. While some FOs, such as National Chambers of Agriculture and commodity-based producers organisations often represent only the interests of wealthier farmers, others have a strong base amongst the rural poor (Sims and Leonard, 1989; Chambers, 1989).

In Ecuador, for example, resource poor farmers are formally organised at several levels (CONAIE, 1989). Above the household and kin group, there is the base organisation: the association, cooperative or community, made up of between 25 and 150 farming families. In some regions these base organisations are federated into second order organisations existing at parish and county levels. Above these there are Provincial federations, and then organisations seeking to cover the Andean and Amazonian regions. This should not be seen as a formal hierarchy, as some levels act independently of others: many base and second order organisations are, for instance, not affiliated with the national organisations and are administratively independent. It does provide a useful model of the linkages that exist between farmer organisations within Ecuador, however.

Farmer organisations such as these can help build sustainable livelihoods for the rural poor in several ways. They can:

1. act as an 'interface' between the research and extension worlds of development agencies and the livelihood conditions of the resource poor farmer population (Box, 1987);
2. actively adapt and disseminate agricultural technologies in programmes that they themselves control and administer (Bebbington, 1989); and
3. act as a 'user constituency' for the rural poor, pressuring public sector and non-governmental agricultural agencies to orient their work to the needs of the rural poor (Röling, 1988).

These three functions are not always independent, and organisations may perform all at the same time, or may move from one to another as the organisation matures. Although the distinctions are not rigid, there is a tendency for the smallest local groups to perform

primarily an interfacing function. The active research and extension function and the user constituency role are more frequently found in higher level groups.

Interfacing with External Institutions

The most frequent role for FOs is to smooth the relationship between the research and extension concerns of outside agencies and the indigenous knowledge and innovations of farmers. Where a FO already exists, it represents a point of entry into a region for external agencies. The organisation can direct the agency to expert farmers, use its meetings for discussion of the agency's agricultural work, provide locally relevant knowledge, and facilitate extension activities through its own networks, news sheets, radio programmes and meetings. Also, when the FO is seen to have a working contact with the external agency, local resource-poor farmers have much more confidence and trust in the agency, so enhancing the effectiveness of its work.

Where no FO exists, external agencies sometimes create an organisation. This is often the case in the approaches for participatory technology generation that use farmer groups and periodic meetings to discuss research. The new FO increases the scope for open, critical conversation between technicians and farmers, and for reflection on the nature of desirable agricultural technology. This better targets agricultural research and extension to farmers' needs and provides opportunities for combining formal and informal agricultural knowledge (Ashby et al., 1987; Norman et al., 1989). Unfortunately, externally created groups often become inactive once the initial stimulus is weakened or removed (Roling, 1988). As a result, the effort spent on creating the groups is not capitalised on to the full.

In Ecuador, many activities of the national on-farm research programme were placed within integrated rural development projects, which provided an institutional link between on-farm research and general extension activities (Soliz et al., 1989). Trial plots were established in communities, generally on land that was administered communally. Frequently, these plots were valuable for both adaptive research and demonstration. Community work days on the communal plot were used as a means of conducting extension activities and receiving farmers' informal comments on the plots. At a formal meeting after the harvest, the project officers and the community would then discuss the plot and planned activities for the following year.

This 'interface' type of contact between project and community helps to bring the project's research and extension activities into the farmers' world. Nonetheless, some communities, and some extension agents, would also use the meetings to allow the community to exert some informal pressure on the projects' resources. This was more likely to occur where the community was accustomed to expressing its demands, and where extension agents wanted to encourage the community to criticise the project and the agents' own work. In this way, the organisation can be a point of contact and then use this relationship to pressure for change.

Adaptive Research and Extension

There is considerable evidence to show the value of stimulating farmer experiments and developing inter-village farmer groups that hold meetings where farmers discuss these experiments (Bunch, 1989). These discussions allow the local adaptation of technology. A further element of this is to initiate processes of farmer-to-farmer extension (Fujisaka, 1989). Ideally external agents eventually withdraw and meetings are convened and dominated by farmer-farmer communication. Roland Bunch (1989) says this ideal point has been rarely achieved in his experience. Nonetheless, there are examples where farmer organisations attain high levels of control over, and administration of, the research and extension process. There are cases of this in highland Ecuador.

FOs in Highland Ecuador

In the central parts of the Andean province of Chimborazo, there is a strong tradition of organisation among indigenous farming communities. This originates from demands for land, religious rights, reduced transport costs and rural infrastructure, rather than direct demand for agricultural research and extension services. In order to sustain themselves beyond these initial activities, and to build upon the levels of organisation 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.

But these farmer initiatives did not arise entirely without outside support. National and international Non-Government Organisations (NGOs) played an important role in making financial, and in some cases personnel, resources available for these activities. In some cases, national NGOs such as CESA and FEPP[1] have assisted and stimulated the process of intercommunity federation. One strategy is to enhance the strength of FOs through the process of organised discussion, design, and administration of the project.

A further sense in which the research and extension methods used by these organisations are not generated entirely from within 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. But the key difference is that the farmers themselves control, implement, and indeed own a large part of the projects.

Though the different FOs do not have identical perspectives on their agricultural research and extension activities, there are recurrent themes. In the long term, they feel that to sustain and enhance rural livelihoods requires strong organisation (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 necessity for periodic labour migration. Increasing time spent in the region will help strengthen family, community and federation ties, as well as avoid other personal and economic costs of migration.

1. Ecuadorian Centre for Agricultural Services (CESA) and the Ecuadorian Fund for the Progress of the People (FEPP)

With such goals in mind, they assist members in the promotion of both food and cash crops. This is done by carrying out simple trials on selected crops with the aim of achieving modest increases in yields without greatly increasing costs or production risks. These trials are conducted with the help of a formally trained agronomist hired on a full or part-time basis. This information is supplemented by the agronomist's own knowledge, their continuous conversation with members of the organisation, 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 is made available to members through a variety of extension methods. FOs 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 FOs' own agronomists 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 agrarian 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, but can assess these ideas 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 institutionalisation of farmer-to-farmer extension. There are many advantages: 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 FOs also run their own subsidised input distribution programmes, particularly for seeds of cash crops, such as potato, onion and garlic, but also for kitchen garden vegetables (Table 1). Some FOs have also tried to initiate small loans programmes and marketing projects. There has been less success in these programmes because of the special market knowledge required and the greater risks to the integrity of the organisation once larger quantities of money are handled. All these efforts are elements in a strategy aimed towards increasing income by reducing local production costs.

The FOs themselves believe that to increase the sustainability of agriculture and of rural livelihoods will require a number of changes: not only in agricultural technology, but in the terms of trade, in credit provision, in land tenure , and in the creation of complementary local sources of off-farm employment. The provision of different services under one FO also increases farmer access to a variety of programmes in which government has not helped the poor. But it also places a greater strain on the FOs' institutional capabilities (Table 2).

Table 1 Seed distribution and training accomplishments of four second order farmer federations compared with Ministry of Agriculture and Livestock

Seed Delivery in Sacks (45. 45kg)

	Farmer Organisations				Ministry of Agriculture and Livestock	
	UOCACI	**AOCACH**	**AIECH/ SL**	**UCASAJ**	**Polygon in San Juan**	**Province of Chimborazo**
Potato	430(11)	-	200(40)	195(13)	184(2,1)	480(0,6)
Onion	450(7)	-	15(15)	35	-	-
Garlic	65(7)	-	15(15)	-	-	-
Barley	25(4)	-	20(30)	29	10(1)	450(0,3)
Broad Bean	15(6)	-	20(40)	29	-	10(0,3)
Chocho+	-	-	-	8	-	-
Quinoa+	-	-	-	3	-	-
Oca+	-	-	-	25	-	-
Melloco*	-	-	-	15	-	-
Pea	-	-	1.5(5)	3	-	86(0,28)
Wheat	-	-	-	-	-	650(0,20)
Haricot Bean	-	-	-	-	-	83(0,46)
Kitchen Gardens*	4(4)	80(6)	-	2	-	-
TRAINING						
No. Courses given	3	9	2	6		
No. Promoters working full time in agriculture	2	2	9	2		
No. Promoters trained via courses	-	41	-	5		

The figure in brackets is the number of communities or farmer groups that received the seed; where there is a second figure this is because MAG does not give seed to communities for multiplication but rather gives it to individual, 'suitable' farmers - the second figure is the number of individuals receiving the seed. Where there is no figure given this is because the date is unknown. "-" means zero. Data is for 1988-89, except for San Lucas (1984).

*Kitchen Gardens are small plots of several vegetables intended for family use
+Chocho is *Lupinus mutabilis*: +Quinoa is Chenopodium quinoa +Oca is *Oxalis tuberosa*
+Melloco is *Ullucus sp*.
Source: Bebbington, 1989

Whilst these activities are generally managed at the level of second order organisations, 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 these 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 organisations, this could be more easily resolved by negotiating over sharing resources and expertise.

The User Constituency Function

Federations can also act as a user constituency, serving as a conduit for articulating farmer demand, so helping to reorient government agricultural research to the needs of resource-poor farming households (Sims and Leonard, 1989). Indeed, the effort to install farmer controlled and staffed systems of research, extension and seed multiplication can serve both technological objectives and the goal of strengthening a federation, so that it can continue petitioning the state for the types of support required by resource-poor farmers in high risk environments. This has continuity with the interface function, for not only does the federation convey demands and information, it tries to pressure the government to act upon that demand at the same time.

Such petitioning may occur formally and demonstratively. For instance, in a national strike in June 1990 in Ecuador, the action of the peasantry was led by the national indigenous organisation, and made effective at a local level in Chimborazo by lower order groups. The strike was directed at the government, demonstrating demand for assistance with the problems faced by local resource-poor farmers in their pursuit of more secure livelihoods.

It is important, however, to stress that such petitions are recurrently expressed in far less forceful, and far more formal, ways. This more formal exercise of the user constituency function occurs in statements and demands by the national organisation. It also occurs locally, in the many visits that representatives of base and second order organisations make to government offices with written requests for support with agrarian and other concerns. These written requests serve to make the needs of resource-poor farmers known to the government. The more forceful petitioning tends to occur only when these requests are recurrently ignored.

Putting pressure on the government agricultural services also occurs through daily encounters. Key individuals, who are frequently leaders in their community or federation, may develop friendships and acquaintances with formal sector research, extension or project workers. They are then able to manipulate these friendships in order to gain facilities for the members of their organisation. Indeed they may often depend on this activity for their status within the organisation. While they may do this in order to enhance their own social standing, they also serve the wider rural poor by helping to divert and adapt formal sector research and extension resources to their needs.

Table 2 Selected functions of four second order farmer organisations in Chimborazo, Ecuador

Farmer Organisation	No. Member Base Organisations	Services Offered
Union of Peasant Organisations of Cicalpa (UOCACI)	29	Agricultural extension Seed and input distribution Forestry Guinea pig project School vegetable plots Lobbying for communal water and electricity
Association of Autonomous Peasant Organisations of Chimborazo (AOCACH)	9	Veterinary services Training of promoters Vegetable plots/extension help Subsidised agro-chemical sales Subsidised sales basic foods
AlECH/San Lucas Farmer's Organisation* (AIECH/SL)	40 (in project)	Agricultural extension Seed and input distribution Radio service Community water project Religious education
Union of Cabildos of San Juan (UCASAJ)	22	Agricultural extension Seed and input distribution Veterinary promoters Health education Community water project Artisanal workshop Shop for basic foodstuffs

Source: adapted from Bebbington, 1989.
*data for 1984 when organisation was functioning well.

Nonetheless, there are limitations on what local petitioning can achieve. More fundamental obstacles to the pursuit of sustainable and enhanced rural livelihoods need to be addressed at high levels: central decisions on allocation of resources to farmer-first research, on credit and price policy, on farmer-first orientations in agricultural training and education on land rights and so on. These are the policy concerns that higher level farmer organisations should press for at the national level, in the same way as Chambers of Agriculture and commodity organisations lobby governments and manipulate bureaucrats to further the interests of resource-rich farmers.

The central role of national and regional organisations is therefore to act as a user constituency rather than as an active agent of agricultural research itself. In order to achieve this they also need strengthening and must develop strong links with local FOs through which local needs can be transmitted.

While this user constituency role puts pressures on the state, there is still good reason why the public sector should be concerned to work more closely with these FOs. By articulating local demands and knowledge, FOs can improve the efficiency with which government agricultural research resources are used in complex, risk-prone environments. This will improve the impact of these resources in increasing national food supply while simultaneously enhancing the sustainability of rural livelihoods. Furthermore, by establishing closer links with FOs, the public sector brings them into closer contact with society. In this respect, the different levels of FO can perform interface, active research and extension, and user constituency functions at the same time.

Examples of Farmer Organisations' Achievements

There are many positive experiences in Chimborazo showing what FOs can achieve in each of these three functions. One public sector on-farm research expert who has worked in the region over a decade now believes his work has always been most successful when he has collaborated with base and second order organizations in on-farm research and extension, a relationship in which the FOs have played the interface function. Until very recently he had been uncertain of the possibility of working within and being answerable to a second order FO. Recently, however, he has decided that this would increase the efficiency and adaptive nature of his work. FOs have therefore shown him that they should have not only play an interface role, but also a user constituency role in which they are allowed much more control of the project.

There are also examples showing the success of FOs as active adapters and disseminators of agricultural technology. Table 1 shows their capacity to distribute seed to their members and to train peasant agricultural communities. Farmer organisations have clearly been more successful in this than the Ministry of Agriculture because they have effective and non-formal communication networks already in place. The Ministry seed expert concentrates on seed multiplication rather than distribution and has to work alone. He must also work within stringent land and farmer "quality controls" that constrain poor farmer access to Ministry seed. In 1990, however, the Ministry Seed Programme in Chimborazo did begin to work with a resource poor farmer federation. This is important because it has begun to break down some of the institutional barriers between multiplication and distribution, and so facilitate the wider distribution of multiplied seed.

In more general terms, the ability of FOs to administer a local research and extension system illustrates the economic and administrative capacities of the resource-poor farmer. Effectively, the FO activities institutionalise the 'farmer-back-to-farmer' approach to technology development and diffusion (Rhoades and Booth, 1982).

The Benefits and Limitations of Farmer Organisations

Farmer organisations have a number of comparative advantages for the design and administration of agricultural research and extension when compared with more orthodox approaches. In particular they:

1. draw on local knowledge and resource-poor farmer concerns;
2. are more easily accessible to resource-poor farmers;
3. often deliver services to locations which are rarely visited by formal sector researchers and extension agents;
4. have lower operating costs; and
5. build upon and sustain earlier organisational experiences and qualities.

But there are also limitations on what FOs can do. In particular they:

1. lack certain formal technical skills needed for proper and safe use of modern technologies;
2. lack certain modern administrative skills;
3. lack access to public sector resources such as good seed;
4. have few resources to remunerate farmer extensionists who therefore cannot dedicate sufficient time to their extension tasks; and
5. are sometimes institutionally fragile.

A Role for Farmer Organisations in Research and Extension Policy

These benefits and limitations of FOs suggest that much could be achieved by combining public sector and FO resources. Placing an on-farm research agronomist within a second order organisation would help resolve the FO's technical deficiencies in technology adaptation, and would ease access to public sector resources. At the same time, the agronomist's work would be more efficient because s/he would have direct contact with a large farm population. This would ease the identification of research priorities and the dissemination of on-farm research results.

The examples show that the dissemination of technology can be done by the FOs' own farmer-extensionists, especially if they are remunerated at a rate that is approved by their communities as neither too much nor too little. The public sector agronomist would help train these farmer extension agents, and would also be assisted by regional and national training courses provided by the wider public sector agency for FO extensionists. These

courses would also provide FO administrators with training in modern management skills, such as accountancy and credit supervision.

FOs can also play an important role in seed programmes. Public sector seed multiplication and distribution programmes would have much more impact, and would reach many more farmers, if they distributed seed through second order organisations. This would also address an existing problem in those organisations, namely that the quality of the seed they distribute is often deficient because they do not have easy access to public sector clean seed, which is often monopolised by a few large farmers. To use farmer organisations to distribute this clean seed would increase both the efficiency and equity of national seed programmes.

In this model, the interface and the active research and extension roles come together. The contact with the public sector also facilitates the exercise of the user constituency function. Together these advantages would mean more efficient resource use in the public sector and the FO.

FOs are not always so well organised as those discussed in the examples. But a strong organisation will mean a more efficient and effective research and extension system than could ever be achieved by the government services working alone. Therefore, where farmer organisations are weak, external research and extension institutions should not simply by-pass them. Instead, they ought to assist the FOs in the further development of their organisation and activities.

They must, however, expect to do this as equals with the FO. If they refuse to acknowledge that the FO will also act as a pressure group for its membership, the relationship between FO and research and extension service will not reach its full potential.

Government services will be inefficient if they work independently of FOs, and similarly FOs need the support of the formal sector. They need its special formal scientific expertise for problems they are unable to solve; they require financial support; they require farmer-first orientations in agricultural policy. Because FOs will also act as pressure groups, they will not always be in agreement with the public sector. But it is still the case that FOs and the public sector can complement each others' work by combining formal and farmer expertise, and increasing the efficiency of resource use in a farmer-first strategy.

Note

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