

# Farmers' Organisations in Agricultural R&D: governance issues in two competitive funding programs in Bolivia

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## 1. Introduction

In this paper<sup>1</sup> we will analyze this increasing involvement of farmer organizations in agricultural R&D<sup>2</sup> support. In several countries, the financing and quality control of agricultural R&D systems have changed quite dramatically in the last decades. These countries used to have R&D systems that relied almost exclusively on public financing of NARIs (National Agricultural Research Institutes). Now, new forms of R&D systems are introduced with competitive funding open to NARIs and private service providers. Control over quality of the R&D process and R&D outputs has become more transparent and inclusive of stakeholders in the value chains (Byerlee and Echeverria 2002; Hall, Janssen et al. 2006). In the system of competitive funds, farmer groups are considered as the clients of R&D activities supplied by public and private service providers. Sometimes farmers' organisations are even involved in priority setting and governance of these R&D systems. Economic producer organisations involved in agricultural value chains are of special interest as they are knowledgeable about technical problems in production to which R&D can be targeted. However, the experiences with this involvement of farmers' organisations in R&D are mixed. In some systems their involvement results in a good functioning R&D system; in other systems there are suboptimal results (Echeverria, Trigo et al. 1996; Hussein 2001; Alex and Rivera 2004).

In this paper we will try to add to the ongoing learning process on how governments and donor organisations can work with farmers' organisations in a constructive way. We will indicate the growing importance of competitive funds and R&D contracts between farmers' organizations and R&D service providers to tackle problems of smallholder farmers. There is a growing role of farmers' federations as mediators between grassroots organisations and private service providers in the governance of the contracting process and contract conditions. We will indicate several mechanisms that underpin the governance of R&D arrangements by farmer' organisations and apply this analytical framework on two R&D programs in Bolivia.

## 2. Modern R&D systems: competitive grants for contracting service providers

Modern R&D systems with private research providers serving farmers' organisations are being introduced in various developing countries. The World Bank reviewed a whole range of different demand led R&D systems in the world (Alex and Rivera 2004). The review suggested that emerging new institutional arrangements are being widely tested and evolve along an evolutionary process (Alex, Byerlee et al. 2004). Divergent countries like Uganda, Bolivia, Cameroon, Kenya and China are

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<sup>1</sup> This is an adapted version of the paper written by Giel Ton and Don Jansen, *Farmers' organisations and contracted R&D services: service provisioning and governance in the coffee chain*, Markets, Chains and Sustainable Development Strategy & Policy paper 4, Wageningen, 2007

<sup>2</sup> We will use the abbreviation R&D (Research and Development) as a container concept that includes all research and extension activities related for solving bottlenecks for value chain performance.

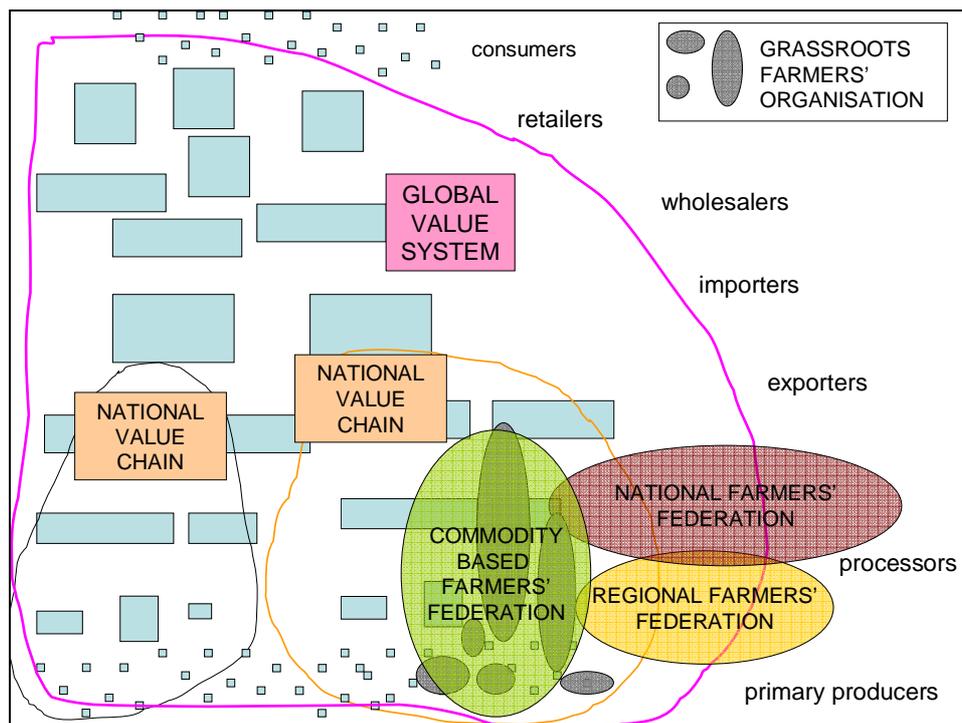
developing institutional frameworks for competitive funding. In spite of the context specific differences, all these new R&D arrangements tend to have a more or less similar architecture:

- The research and extension needs have to be submitted by organized farmers.
- The selection of proposals is done by applying several quality criteria and is increasingly related to the expected impact on the performance of the value chain.
- A public call for proposals invites private service providers to elaborate a proposal to meet the R&D needs.
- The proposals are evaluated by a specialised unit and one of the service providers is granted the contract.
- This service provider elaborates a detailed proposal in coordination with the farmers' organisation that originally submitted the R&D demand.

Farmers' organisations that accept the R&D arrangement with a R&D service provider will have to invest time and money in it. In their decision making, they will assess the expected 'price' and 'quality' of the R&D services delivered and the expected benefits for them. Williamson (2002) points to another feature of transactions that will be part of their assessment: the 'remediableness' of the arrangement; the credibility of cost-effective procedures to adapt and fine tune it, when it does not produce the expected outputs. Agricultural R&D investments are risk prone. Research and extension normally do not produce immediate results; they may provide practical solutions to the farmer organisation only after a certain period of research and experimentation. So there will always be a risk of failure of R&D investments made. Farmers and farmers' organisations in developing countries use to be well aware of this risk, as they usually have had multiple experiences in the past of support activities that did not produce the promised results. Most R&D contracts between farmers' organisations and private service providers will have some possibilities to remediate an R&D arrangement when things do not go the way it was expected. However, these contracts use to be standard formats. They are elaborated by the (inter)national designers of the R&D system and most contract conditions are not negotiable for individual farmer organisations neither for the service providers. Any how, even if adjustment mechanisms exist, the possibilities for farmers' organisations to effectively use these will be limited due to high 'transaction costs'. Questioning an R&D arrangement will cost them time, money and, it may sometimes result in overt disagreements or conflicts that may cost them their reputation towards other (future) support agencies. Grassroots farmers' organisations will look for ways to prevent this negative image. That's why federated farmers' organisations ("farmers' federations") are increasingly involved in R&D governance issues. They can act on behalf of their member organisations and reduce the eventual costs for discussing R&D contract issues for them.

#### Illustration 1

Schematic illustration of an agricultural export chain involving different types of farmers' organisations



Source: elaborated by the author

These farmers' federations are not a homogenous group. Some federations have a more or less homogeneous membership of grassroots organisations that are all producing the same commodity. Others federations will represent grassroots organisations within a geographic region but with very diverse activities and a whole range of commodities. When we want to integrate farmers' organisation in R&D for value chain development these differences do matter. It is obvious that organisations that are grouped around the same commodity will be more knowledgeable on problems and bottle-necks in the chain. They are crucial in the process to specify and select the most important bottle-necks and R&D needs in the chain. Instead, regional or national federations typically focus on issues relevant for agriculture as a sector, not limited to a specific commodity. They are more knowledgeable on issues related with general policy and legislation, like poverty reduction strategies, property rights, commercial law, credit provisions, etc. In the design of an R&D system these differences have to be correctly understood. A proper distinction has to be made between different roles of farmers' organisations in agricultural R&D:

- articulating research demands
- governing the institutional process and arrangements of R&D for smallholders.

Where grassroots organisations and commodity federations are especially knowledgeable on R&D demands for chain development, their second level organisations tend to be more knowledgeable on issues around contracts, processes and governance of R&D systems. There seem to be typical strengths and weaknesses of the different types of farmers' organisations in R&D systems (Table 1).

Table 1  
Relative strengths and weaknesses of different types of farmers' organisations in their participation in R&D systems

|   | ARTICULATING R&D NEEDS FOR CHAIN DEVELOPMENT | CONTROLLING THE PROCESS AND CONDITIONS FOR R&D FOR CHAIN DEVELOPMENT |
|---|--|--|
| grassroots organisations                  | ++   | -  |
| commodity based federations               | +  | +  |
| sector wide regional/national federations | -  | +  |

Source: elaborated by the author

### 3. Experiences with competitive funding arrangements in Bolivia

We will illustrate this 'new' role for farmers' federations as process controllers in a novel R&D system related to the provisioning of extension services to farmer groups in two R&D programs in Bolivia: SIBTA (Bolivian System of Innovation and Technology Transfer – Sistema Boliviana de Innovación y Transferencia Tecnológica) and PROSAT (Technical Support Services to Smallholder Producers - Servicios de Asistencia Técnica para Pequeños Productores). The farmers' federation that is the protagonist in these cases is CIOEC-Bolivia, the National Coordination of Economic Smallholder Organisations in Bolivia – Coordinadora de Integración de Organizaciones Económicas Campesinas. CIOEC has a membership of 7 commodity based federations and 64 economic organisations, grouping an estimates 80.000 households.<sup>3</sup>

#### *SIBTA*

SIBTA was designed in 1998 and replaced the in 1990 discontinued public NAR system (IBTA) with a modern system geared to value chain development and subcontracting of R&D to private entities. It established four Foundations for Agricultural Technological Development (FDTA) as their operational branch in the different Macro Eco Regions: Valleys, Altiplano, Trópico Húmedo y Chaco. These FDTA are autonomous units that are allowed to directly manage international donor support without interference by the Ministries. FDTA-Valleys was the first foundation to start activities, funded largely with resources from USAID-MAPA. FDTA uses a sophisticated and innovative form of prioritization of resources in R&D. They collect demands (*'perfiles de proyectos'*) from legally constituted organized actors in the value chain, including producer organizations and review and assess these demands by an anonymous external panel. For a selection of demands a public procurement call is placed to motivate private institutes to elaborate a full proposal. Based on these proposals an external review panel qualifies the project and, when passed, asks for a formal 'no objection' of the demanding organization. An estimated 126-390 days after the initial demand, a time lapse that depends on the back-donor involved (Jackson and Wing 2003), the R&D activity can start.

Producer organizations responded positively to this new mechanism for agricultural R&D. Instead of articulating research demands directly to bureaucratic and poorly financed NARs, or submitted to NGO's in the region, according to the hypes and trends in development cooperation, FDTA has the contours of a more sustainable institutional set-up of agricultural R&D. The Board of Directors of the FDTA (60% private, 40% public) effectively included several persons from smallholder farmers' organizations, and managed to take decisions in consensus, away from the traditional party-political interference in funding decisions. Co-financing exigencies were stringent, and were the main points of concern for farmers in the start-up phase. However this issue became secondary when co-financing arrangements with other supporting agencies, especially local municipal authorities, were admitted. The focus of discussions by producer organizations around SIBTA became to tackle issues of 'governance of R&D' more than 'access to R&D'.

Specifically the process of contracting the R&D service delivery became contentious. Producer organizations that submitted demand proposals felt uncomfortable with a contract being signed by FDTA as one party and the R&D agency as the other party. They suggested a different modality: a R&D contract between the producer organization and the R&D agency, with FDTA as third party}. The idea behind this proposal is the realist assumption that the R&D intervention probably would not be perfect from the start and that adjustments will have to be made during the course of the program. The POs as demanding party wanted sufficient power to eventually force changes in the R&D project to generate more useful R&D product for them. A related point has to do with the property rights of the assets acquired during the R&D project. Producer organizations claimed the right to be final

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<sup>3</sup> The author worked between 1999 and 2004 as an economist in CIOEC-Bolivia, supported by ICCO-PSa.

beneficiaries of the investments made in the project as reward for their financial contribution. FDTA contract conditions made this transfer of assets conditional on a positive evaluation of FDTA, and not an inherent right. Obvious, this limited the power of the producer organizations relative to FDTA in case of conflicting views on the R&D arrangement. FDTA could use the future property right as leverage to impose their views.

The importance of both points became manifest in one of the first projects to start with FDTA support. The Oregano project submitted to FDTA-Valleys in 2002 was elaborated by the second tier cooperative AGROCENTRAL, in close cooperation with the Canadian agri-agency SOCODEVI. The project FDTA-Valleys co-financed investments and staff for a project to establish oregano production in five cooperatives around the village Tomina in the Chuquisaca Department and implement state-of-the-art drying facilities to meet export quality {Paz, 2005}. The oregano project had a kick-start, as the project was considered of strategic interest, and mounted on several years of R&D intervention in the chain with SOCODEVI support. As an exception to the rule, the R&D project was directly contracted without public bidding. This was motivated by the need for short term results, necessary for FDTA external communication<sup>4</sup>. The Oregano Project started in 2003. AGROCENTRAL itself was demanding and supplier partner of the R&D project. During the project several contradictions appeared between the FDTA-Valley and the producer organization. The initial governance structure with AGROCENTRAL as chain coordinator and accountable to the five member cooperatives, has gradually been replaced by a structure where chain coordination and value distribution became concentrated in a company directed by hired staff and accountable to donor. Board members of AGROCENTRAL were gradually by-passed by high professional staff paid by FDTA on crucial aspects of decision making.

Directly after the approval of the R&D project, FDTA pressed for the creation of a specialized and autonomous company, UNEC. It was proposed as a more professional, flexible and versatile institutional set-up to coordinate the chain activities and do the oregano marketing and input provisioning. The marketing capacities of AGROCENTRAL were considered insufficient for short term commercial success. Production was seen as the sole task for the farmers and their organization. R&D, exporting and marketing was seen as task that necessarily would have to be delegated and subcontracted to professional and specialized units that could make decisions independently of the farmers. The initial idea of FDTA was to have the company with the five first tier cooperatives as minority shareholders, next to FDTA and SOCODEVI, and without AGROCENTRAL. FDTA officials even proposed the formation of a new specialized association of oregano producers, substituting the first tier cooperatives in the villages.

AGROCENTRAL board members felt extremely uncomfortable with this dynamic. They considered it a breach of the contract and partnership and a threat to the viability of AGROCENTRAL as an institution. However, they were afraid for a direct confrontation with FDTA officials involved, due to lack of detail knowledge on alternative forms for the institutional arrangements, and fear for being by-passed as owners of the established processing units after completion of the first phase of the R&D arrangement. Decision making in AGROCENTRAL moved to the point that the project would be aborted instead of being redirected in a way more in line with their demands. The oregano case was increasingly discussed and questioned in the regional platform of economic peasant organizations. These discussions motivated a quest for detail knowledge and capacity building on different modalities for peasant enterprise by AGROCENTRAL and other organisations {Mendoza, 2003}. In 2004 AGROCENTRAL asked its national (third tier) organization CIOEC to develop an alternative proposal for UNEC governance that would respect AGROCENTRAL ownership of the original R&D demand and generate conditions for increasing marketing efficiency. CIOEC was founded in 1992 especially to tackle marketing and management problems for economic producer organisations

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<sup>4</sup> Funding by USAID to FDTA-Valleys was initially limited to the first two years, to be followed by a positive evaluation of FDTA institutional development. This created the institutional necessity to generate positive outcomes and tangible results in a relative short time.

through mutual cooperation and mobilisation of support services. It had accumulated a broad experience with the pros and cons of separating marketing activities of producer organisations in a specialised branch. After several meetings with the AGROCENTRAL board members, a proposal emerged for a division of shares of UNEC between AGROCENTRAL and cooperatives, while inviting the supporting donors in the executive board but not as shareholders of the company. After some fierce contradictions the proposal was accepted by SOCODEVI and FDTA, and resulted in the formal establishment of UNEC as a limited responsibility company with FDTA, SOCODEVI and AGROCENTRAL each having 33% of the chairs in the board.

### *PROSAT*

PROSAT is a Bolivian R&D pilot project that explicitly refers to producer organizations as prime target group. The idea behind this IFAD sponsored project is to boost demand driven support to groups of farmers by creating a market of service providers in R&D to smallholders. PROSAT started before the SIBTA restructuring, and was imbedded in the national and departmental government structures (FDC). PROSAT is a pilot co-financing mechanism in which the financial support to the R&D work from the beneficiaries own resources is gradually increasing from 10% to 60% after 2-3 years. PROSAT worked quite well with established producer organizations that had funding donor support from developing cooperation. Smallholder organizations without such support, however, were generally not in the condition to pay such large amounts from members' increased income. As such, these had to find informal arrangements to keep the R&D arrangement going. Unintended to do so, the system of approval in PROSAT lead to the appearance of isolated and loosely articulated groups of beneficiaries that emerged around individual unemployed extension officers (CIOEC 2000). In these projects the contribution of the beneficiaries was generated by an informal, voluntary reduction of the officers' net salary. The officer him/herself used to form the association around his personal contacts in a village, neither requiring nor expecting a monetary contribution from them. In several cases, the emergence of these new associations affected the support basis of existing organizations in the area that provided similar services. Theoretically, this induced competition between producer organizations could positively influence the quality of their service delivery to their constituency. However, this did not happen in practice as these services were generally geographically targeted, totally based on donor support and executed under the conditions agreed on with these donors. Quality changes observed were more due to learning on experiences by donors than by competition for membership. Donor coordination to improve quality of service delivery in an existing producer organization could have been far more effective than eroding their member base.

PROSAT effectively lead to an increased control and ownership of the beneficiaries over R&D support staff. But it had limited impact in chain development, as attention of most projects focused on production increases without proper analysis of the market conditions (IFAD 2005). Many prospective new crops or rural processing activities have been supported with R&D, without developing a sustainable market outlet that could form the basis for upgrading the pilot experiments and pay even a minimal salary for the R&D officer. CIOEC had signalled several of these shortcomings in communication with the involved government officials, however, without positive results. Farmers' organizations were not represented nor consulted during the appraisal of the projects in PROSAT nor in the monitoring of results. The active involvement of the farmer federations in the screening of proposals could have been functional in targeting the R&D support to organisations with a minimum of experience in marketing. The main argument to exclude the farmers' federation of the R&D system was that they would at the same time assist member organisations submitting proposals, and at the same time sit at the table were these proposals would be evaluated. This apparent contradiction could have been easily resolved when the differences between types of farmers' organisations had been properly understood and roles had been distributed correspondently: grassroots farmers' organisations for contracting R&D services; and farmers' federations for controlling the process of R&D provisioning.

## 4. Conclusions

Smallholders in developing countries need to organize themselves to become attractive business partners in value chains. Therefore, they have created farmers' organisations that engage in collective marketing or processing activities. To survive competition with other national or international value chains that can serve the same markets, they need R&D to improve production and increase the performance of the value chain. R&D service providers increasingly try to capitalize on the relative organizational strength and financial autonomy of farmers' organisations that are active as chain operators. Instead of starting parallel organizational structures 'moulded' around their specific services, as they used to do in the past, they tend to concentrate support services more and more in already established economic farmers' organizations.

Competitive funding seems functional to make R&D more responsive to the demands of these farmers' organisations. It is flexible to incorporate R&D needs of farmers' organisations, in production but also more downstream the value chain, in processing, exporting, etc. We have shown that there are many different ways to involve them in these R&D systems. Some systems make it easier for them to perform their roles properly than other R&D systems. It is important to distinguish different types of farmers' organisations that may play different roles in the R&D system. A coordinated involvement of these different types of organisations in the national R&D system may prevent frustrations. Often too high expectations are placed on either grassroots organisations or on the national federations. Grassroots organisations and commodity based federations can play a crucial role in articulating R&D demands, while regional and national farmers' federations are especially functional for monitoring the R&D process. These federations support their members in negotiating with private service providers. They can monitor the R&D process and 'mediate' in case of conflicting views between the farmers' organisations and the private service providers. To facilitate this monitoring role, both the designers of R&D systems and the farmers' federations need to build knowledge and experience on possible and effective ways of arranging R&D. Therefore, it is important to open up effective channels of communication and learning between the designers of R&D systems and the farmers' federations in a country.

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## 5. References

- Alex, G., D. Byerlee, et al. (2004). *Extension and Rural Development: converging views on institutional approaches? ARD Discussion Paper 4*. Washington, World Bank.
- Alex, G. and W. Rivera, Eds. (2004). *Extension Reform for Rural Development: Case Studies of International Initiatives Volumes 1-5*. ARD Discussion Paper 12. Washington, World Bank.
- Bosc, P.-M., D. Eychenne, et al. (2001). *Reaching the Rural Poor: The Role of Rural Producers Organisations (RPOs) in the World Bank Rural Development Strategy - background study*, World Bank.
- Byerlee, D. and R. G. Echeverria (2002). *Agricultural Research Policy in an Era of Privatization*, CABI Publishing.
- Carney, D. (1996). "Formal Farmers' Organisations in the Agricultural Technology System: current roles and future challenges." *Natural Resource Perspectives*(14).
- CIOEC (2000). *Agenda para el Desarrollo Estratégico de las Organizaciones Económicas Campesinas*, CIOEC-Bolivia, La Paz
- Echeverria, R. G., E. J. Trigo, et al. (1996). *Institutional Change and Effective Financing of Agricultural Research in Latin America. World Bank Technical Paper no. 330*. Washington, World Bank.
- Hall, A., W. Janssen, et al. 2006. *Enhancing Agricultural Innovation: How to Go Beyond the Strengthening of Research Systems*. Washington, World Bank.

- Hussein, K. (2001). *Farmers' Organisations and Agricultural Technology: institutions that give farmers a voice*, ODI.
- IFAD. 2005. *Bolivia - Country Programme Evaluation*, IFAD, Rome
- Thorpe, R., 2000. *Has the Coffee Federation become redundant? Collective action and the market in Colombian Development*. Working Papers No. 138, The United Nations University / World Institute for Development Economics Research. Helsinki, Finland.
- Ton, G. and D. Jansen, Farmers' organisations and contracted R&D services: service provisioning and governance in the coffee chain. *Markets, Chains and Sustainable Development Strategy & Policy paper 4*, Wageningen, 2007
- Wennink, B. and W. Heemskerk (2005). *Farmers' organisations and agricultural innovations: case studies from Benin, Rwanda and Tanzania*. Amsterdam, KIT.
- Worldbank (2004). *Agricultural Investment Sourcebook*. Washington.