



## Public-Private Partnerships for Innovation-Led Growth in Agrichains: A Useful Tool for Development in Latin America?

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In agricultural research and development (R&D), public-private partnerships are arrangements between public research organizations and universities and private sector entities such as agribusinesses, associations, and farmers' organizations. Partners share authority, responsibility, and risks; jointly contribute resources and funding; and mutually benefit from the goods and services provided.

Partnerships provide a range of advantages: by pooling resources, the two sectors can form critical masses in research capacity and resource endowment that enable relevant and successful R&D. Further, through collaboration with the private sector, R&D can be directed toward practical innovations most relevant for development and adoption. Most importantly, partners enter into research processes where they jointly learn and develop solutions.

Despite the conceptual attractiveness of partnerships, there are doubts as to whether they have contributed to the achievement of broader social goals. This paper aims to respond to the question using empirical evidence from partnerships in agricultural production chains in nine Latin American countries.

### Partnerships as a Means for Agricultural Development

Public and private agents enter R&D partnerships usually because they can't do it alone and because of an interest in profiting from innovation rents, be they of private or social benefit in nature. Evidence shows that where partnerships between firms and public research organizations or universities are strong, more funds are mobilized and more benefits are derived from quicker information diffusion and product deployment.

Public-private partnerships also provide capital to cofinance government programs in areas in which social benefits can be achieved. Public-private partnerships for innovation development may be particularly useful in the context of agricultural production chains characterized by outdated knowledge and technology and limited research capacities and funding.

The decision of whether to enter a partnership is complex (see box). Each partner looks not only at its own costs and

benefits, but also at those of the other partners. Further, it is important to understand partnerships not as a static arrangement, but as a process that moves gradually from general ideas about "profiting one from another" to concrete arrangements with defined objectives. Over time the partnership can profit from gradually improving work relationships and become strategic; otherwise they may simply be phased out.

### Methodology and Data

The authors test the following hypotheses:

- The type of R&D partnership chosen depends on the way funds are allocated; which part of the agrichain the private partner is involved in; the type of research the partnership is aiming at; and the financial participation level and type of private partners involved.
- The private sector becomes actively involved in public-private partnerships only if there are clear prospects of profits, and the public sector provides funding or research resources to partnerships even though there may be no clear analysis or expectation of a positive social cost-benefit ratio.
- The good functioning of a partnership depends on internal leadership and effective internal monitoring and evaluation.

The analysis draws from a database of 124 partnerships in nine Latin American countries. Data was collected with regard to financing, governance, legal aspects, and the results achieved. The questionnaire, developed jointly by three country teams and pretested, was used to interview at least one representative from all private and public entities from each partnership.

Indicators tested included those that categorize partnerships, such as the mechanism for assigning funds and the type of innovation the partnership aims at. They also analyzed indicators that determine performance, such as the relative contributions of the private or public sector in funding the partnership; perceptions of partners regarding leadership, conflict, and satisfaction with the partnership.

## Results

*Private Sector:* Two types of private partners were observed: firms, and associations of farmers, processors, or exporters. These private actors have different objectives and thus strive for different benefits: the former are profit-oriented, while the latter represent broader sectoral interests. Most companies conduct some sort of profitability studies to support their decision to enter partnerships, but rarely of a formal quantitative character. They also tend to provide more funding when products could be protected by intellectual property rights. Associations, in contrast, are anxious to solve the pressing problems of their members and entire production chains, and tend to focus on adaptive rather than applied research. Most partners are satisfied with the objectives proposed and the achievements, and a high percentage perceived positive impact with respect to improvement of competitiveness, suggesting that there is congruence between the initial objectives and the results obtained.

*Public Sector:* Total annual public funding in the partnership cases analyzed averaged \$170,820 per partnership, about two-thirds of the total funding available to those partnerships. Funding is weighted toward those parts of the agrichain concerned with seeds and varieties and primary production, with fewer funds available for projects relating to inputs, transport, processing, and marketing. The public partners' perceptions of the degree to which the partnerships have responded to the objectives established were extremely positive, and 95 percent considered that the partnership's objectives coincided with those of the public sector. Overall, the goals of the partnerships in which public agents are involved seem to coincide with public goals. However, the public goals are often not clear and are biased towards the interests of the public research agents and funding agencies involved.

*Success Factors in Partnering:* Overall, leadership is an important—but by no means the only—factor in determining the success of a partnership. In the early stages of a partnership, it is particularly the activity of external partnership brokers that contribute to success. Experience working in other partnership arrangements and knowing one's current counterparts are also important factors that, at least in the Latin American context, contribute to success.

## Conclusions

Despite broad support from governments, as well as funding and development agencies, public-private partnerships have not led to systematic improvement of development oriented agricultural R&D activities in Latin America. The private perspective continues to dominate, and the public sector often

## Conditions for Successful Public-Private Partnerships

- **The common interest-space condition:** Viable partnerships develop only in a space of interests common to the two sectors as determined by technological, market, and public demands in the agricultural value chain.
- **The cost-benefit condition:** Partners enter partnerships when the expected benefits outweigh expected costs.
- **The synergy-through-collaboration condition:** Partners enter partnerships when the expected benefits are higher than those from equivalent investments in other arrangements.
- **The no-conflict condition:** Partners enter in partnerships when the partnership does not substantially conflict with other interests of the parties, or where the partnership does not generate substantially negative externalities for society.
- **The proportional-benefits condition:** Partners enter in partnerships when their own contributions and expected benefits are not disproportionately lower than those expected for the other partners.

Source: Hartwich et al., 2005

does not push partnerships so they generate social benefits. There is not enough strategic planning or priority setting by either public or private sector entities with regard to where R&D is most urgently needed and where they can have the greatest positive impact. Instead, partnerships are created mainly because 1) the public sector researcher realizes that partnering with the private sector will provide access to either public grants or private funds; 2) individual firms seek collaboration where they are unable to generate innovations on their own; and 3) local small-scale farmers and processors try to obtain public support to increase the value added of their agricultural production and raise the quality of their products so that they can access local and international markets.

## Recommendations

- Improve public planning and priority setting to assure social benefits from public-private partnerships.
- Develop an evaluation framework to assess the private and social benefits of public-private partnerships.
- Set up outreach units in research organizations, universities, and governments to help apply planning and evaluation procedures.
- Build capacity among private entrepreneurs and public researchers concerning the benefits of partnerships, negotiation of partnership arrangements, and what is required to make them successful.

**Keywords: public-private partnerships, agricultural research, innovation, agrichains, Latin America**

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