

20. Public-private partnerships: The role of the private sector

Dominic Muyldermans¹

This section addresses the role of the private sector in agricultural Public-Private Partnerships (PPPs), and its capacity to drive innovation and Research and Development (R&D) — elements that are crucial to fuelling growth in the agricultural sector. The private sector plays a particularly critical role in spurring agricultural R&D, especially when combined with public sector initiatives within mature markets with strong Intellectual Property Rights (IPR) to protect returns on investment. The key to a successful PPP lies in combining the different objectives and aims of the public and private sectors in order to bring about a synergy effect – a co-operative mechanism whereby both public and private sectors share the financial burdens of R&D. This synergy effect enables returns on investment by taking advantage of the private sector's technical expertise, and the public sector's knowledge of local needs and networks. This section also discusses the issues that may arise when implementing PPPs, including increased liability exposure and the potential erosion of IPR. As we demonstrate, effective PPP strategies must recognise the differences in objectives and capabilities across the public and private sectors, while acknowledging that returns on investment are essential to creating and fostering innovation. PPPs must also promote enabling, science-based frameworks in favour of prohibitive regulatory frameworks. Finally, we recommend an increase in public spending in order to foster innovation and make new technologies more widely available.

This section discusses the role of the private sector in Public-Private Partnerships (PPPs) within the agricultural sector. It examines the ways in which the private sector fuels Research and Development (R&D) in both mature and non-mature markets, and highlights the importance of strong Intellectual Property Rights (IPRs) as a means of protecting returns on investment. We then examine the synergy effect underpinning successful PPPs, and its benefits for both private and public actors. Finally, we introduce some issues that may arise during the implementation of a PPP, including increased liability exposure and the potential for IPR erosion.

Private sector innovation

R&D is key to fuelling growth in the agricultural sector. Strong R&D improves crop productivity, strengthens sustainable agricultural practices and empowers farmers to adopt best practices. Robust R&D also results in higher farming incomes, thereby helping to reduce poverty and improve health and welfare.

The private sector plays a particularly crucial role in spurring agricultural R&D. In fact, the world's top ten plant science companies employ a total of approximately 15 000 scientists, and collectively spend USD 5 billion each year on R&D.

It is important to note that the private sector's primary objectives differ from those of the public sector. Whereas the private sector aims to make profits, national governments are typically concerned with providing solutions for larger public needs through non-profit research, and with generating profits to fund such research. It should be noted, however, that the private sector's focus on profits does not exclude corporate social responsibility.

IPRs play a major role in fuelling innovation, as well. IPRs create a return on investment in a particular technology, thereby generating incentives to invest in the same or similar technologies. A return on investment in one market or one field can also trigger a similar innovation in other markets, fields, or countries. Furthermore, strong IPRs avoid the pitfalls of free-riding behaviour, which could create disincentives to invest.

Once technologies have been commercialised in a mature and competitive market, they generate returns on investment, since farmers are willing to pay a higher premium in exchange for higher profits. These returns in mature markets can then drive R&D within developing country or non-mature economic markets. Without returns on investment, however, the costs of publicly-funded R&D would increase substantially.

Public-private partnerships: the synergy effect

The key to a successful PPP, then, is to combine the objectives and abilities of both public and private sectors. The following are examples of PPPs that have done so successfully within developing country markets:

- Developing Agriculture Project (South Africa);
- Integrated Pest Management (Latin America, Southeast Asia and Africa);
- HarvestPlus Challenge Program (Asia and Africa);
- Water Efficient Maize for Africa (Tanzania);

- Vitamin A Consortium with the International Rice Research Institute, IRRI (Philippines);
- Donation of Biotech eggplant technology (India, Bangladesh, Philippines);
- BioCassava Plus Project (Sub-Saharan Africa); and
- Biofortified Sorghum Project (Africa).

Underpinning each of these PPPs is a synergy effect, whereby both public and private sectors share the financial burdens of R&D. This cost-sharing enables returns on investment, while focusing on facilitated access in non-mature markets. It achieves this by making existing technology available for local needs, or by developing new technologies. It is important to keep in mind that within this context, the term “technology” encompasses the creation of regulatory skills and stewardship, in addition to the innovation itself.

This synergy also creates expert resources for capacity building, and combines complimentary capacities across both public and private sectors. More specifically, it allows the private sector to contribute its technical expertise, while taking advantage of the public sector's knowledge of local needs and close ties with local authorities and stakeholders.

As a result, the synergy effect increases the leverage of a public-private knowledge base, while sharing costs of infrastructure and increasing the effectiveness of technology. It also enhances the quality and quantity of sectoral knowledge, and promotes the effective and responsible use of new technology through the cultivation of sustainable stewardship practices. Public and private sectors clearly play different roles and have different abilities in the continuous cycle of innovation needed to ensure food security. Combining these roles and abilities in strong PPPs can result in products and technologies capable of meeting consumer demands with greater efficiency and effectiveness.

Potential issues

When implementing PPPs, there are two primary issues that may arise: increased liability exposure and erosion of IPRs.

Liability exposure

PPP's may increase liability exposure by decreasing control through a broader dissemination of regulated technologies. Liability exposure may also be increased through very stringent regulatory systems, which can be even prohibitive in some cases, especially with regard to Genetically Modified Organisms (GMOs). Very specific regulations can engender a rather significant liability exposure, due to the manner in which regulations are executed and enforced in many countries. Such a highly regulated environment can often result in a lack of legal certainty, a need for specific skills or expertise, and substantial costs relating to regulatory risk management. Trade losses, meanwhile, may arise, while a lack of expertise in laboratory or field trial practices may give rise to further risks.

Erosion of IPRs

The dissemination of technology in countries where Intellectual Property (IP) protection is either weak or unavailable can contribute to the erosion of IPRs. This, in turn, may lower the value of IP by introducing disincentives to further investment not only for the private sector, but for the public sector, as well. Indeed, this devaluation could lead to a substantial increase of public sector funding and diminished returns on investment opportunities, therefore resulting in less efficient and less effective innovation.

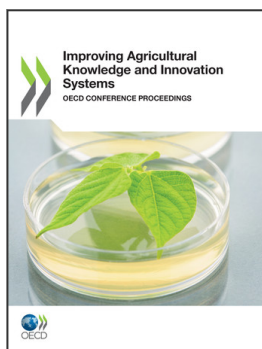
Conclusion

Effective PPP strategies must therefore recognise the differences in objectives and capabilities across the public and private sectors. They must also acknowledge that return on investment is essential to creating and fostering innovation. This return on investment should be combined with policies that make technology available in broader sense, while supporting IPR as a key incentive for innovation.

In addition, PPPs must promote enabling, science-based frameworks in favour of prohibitive regulatory frameworks. Science-based frameworks, it should be noted, do not exclude socioeconomic elements, but remain centrally focused on technology. Effectively implementing these frameworks is a challenge for both developed and developing countries, alike. Finally, rather than decreasing government spending, we would recommend an increase in public investment in agricultural R&D, considering its ability to foster innovation and to make technology more widely available.

Note

1. Senior Legal Consultant to CropLife International.



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