

Communication to the Workshop “Enhancing Agricultural Innovation Systems”,
March 22-23, 2007, The World Bank, Washington D.C.

**Nurturing innovation processes by building multiple stakeholder partnerships.
Opportunities & Challenges for Research**

Authors:

Bernard Triomphe*, CIRAD, UMR Innovation et Développement, Montpellier, F-34090, France

Henri Hocdé, CIRAD, UPR Action collective, marché, et rénovation des politiques publiques, Montpellier, F-34090, France

Guy Faure, CIRAD, UPR Action collective, marché, et rénovation des politiques publiques, Montpellier, F-34090, France

** Corresponding author:*

Mailing address: CIRAD, TA C-85 34 398 Montpellier Cedex 5, France

Tel : (33) 4 67 61 56 14 E-mail : bernard.triomphe@cirad.fr

Introduction

Top-down approaches to innovation development are still frequent or even dominant in many circles. Among other features, they are characterized by the typically sovereign role of researchers in diagnosing problems, developing hypotheses and designing a research process. These results are then typically passed over to specialized agencies (such as extension) to disseminate the technologies and other solutions imagined by researchers. However, such linear approaches have long ceased to be the only paradigm for designing and delivering the innovations needed to help agriculture, and most notably farmers, adapt to rapidly evolving demands and a changing natural and socio-economic environment. Starting in the 1970s, mostly successive, complementary approaches have been developed to find effective ways for research to better understand and effectively collaborate with a range of stakeholders to solve problems, generate knowledge and learn together so as to foster sustainable development. These approaches include Farming Systems (“Systèmes Agraires” in the francophone sphere) and a host of participatory approaches from Research-development paradigms (Jouve et Mercoiret 1987), to Participatory Rural Appraisal (Chambers 1989), Participatory Technology Development (Ashby and Sperling, 1995; Veldhuizen and al., 1997), Participatory Learning Action (Scoones et al., 1994), Action-Research (Liu, 1992) and Empowerment approaches (Gonzalves and al., 2005). Each one of these stresses different aspects or different stakeholders in the innovation and capacity-development process (continuum). One way of linking all the components together is to use an Innovation Systems Perspective (Hall et al., 2006). This complements the above-mentioned approaches by insisting on the need for careful coordination among the many stakeholders involved in innovation processes -- be they government-orchestrated or opportunity-driven innovations – to help these take root and progress.

In spite of the resistance and hurdles facing the effort to mainstream and institutionalize these new paradigms (resistance from within research institutions themselves), a number of

researchers today are keenly aware of and actively engaged in developing these new approaches and methodologies. By contributing to improving the innovation process, they hope that rural societies and other actors will be in a better position to foster sustainable development and better living conditions.

Materials and methods

This paper documents a number of insights gained by researchers from CIRAD and INRA over the past decade or so, when conducting research to develop innovations using a diversity of approaches. These insights come from the cross-analysis of a series of ten case studies which was launched in 2005 (Hocdé et al., in press). The objective of the case studies was to systematize and compare contrasting past and on-going experiences in which research has been conducted with local actors (such as farmers and farmers' organizations, extension services, governments, private sector, etc.) (Table 1).

The main objectives of this study were (i) to draw lessons in terms of research approaches, modalities, methods, tools, and results, and (ii) to propose guidelines to improve the design and conduct of research projects focusing innovations in partnership among multiple stakeholders. Cross-analysis of the case studies focussed on three areas : (1) the balance reached between problem resolution, knowledge generation and empowerment of local actors, (2) the formalization of partnerships and (3) the modalities adopted for steering activities and for partnership governance.

Results

Preliminary results provide insights and lessons about a number of key issues (Hocdé et al., in press). One of them is that each experience is the result of an encounter among specific individuals, who purposefully broke away from paradigms reigning locally or institutionally for effecting change. Another lesson is that research and innovation processes are not a linear process with different well planned phases and cycles. Rather they result from *how projects deal with tensions between stakeholders and how they generate the adjustments necessary to achieve success in problem-solving and generating knowledge.*

For the purpose of this paper, three major issues are being highlighted: (1) the need to identify common ground for innovation by negotiating on values & goals, (2) the crucial role of operational and governance set-ups in allowing the smooth functioning of partnerships over time, and (3) the need to take into account the multiple asymmetries among partners.

Values and goals come first

The desire to innovate does not by itself provide sufficient grounds to unite stakeholders. Innovation should be seen as a means to achieve higher-order goals. In the Brazilian Cerrados case study, for examples, what brings partners together is their common goal of making family farms viable within the agrarian reform effort. Many types of innovations may contribute to this goal -- facilitating access to markets, improving production processes, or educating the youth.

Beyond the need to identify common goals, one has to reflect on what brings people together (or apart). Many underlying and intertwined factors play a role. While attitudes toward partnering are often cited as the main factor, there is a direct link between attitudes/practices and underlying values and perceptions. For example, what does a specific stakeholder think about democracy and access by small holders to decision sharing, or the value of local knowledge and experience, or the role of science in society? Cementing lasting partnerships

depends heavily on how much common ground there is among partners. Frequently partnership agreements falter because there is not “enough” common ground – not enough sense of shared values, visions and goals, not enough recognition by partners that the problems can only be solved together. One cannot overemphasize the role trust plays in allowing heterogeneous actors (who don’t necessarily know each other initially) to work together over time. Yet trust is hardly there when collaboration starts. It has to be built up gradually, and achieving success in trust development is the consequence of each partner being open about his own values and interests, and also perceiving consistency in other actor’s values and actions.

One of the best ways to create common ground and to develop trust is for partners to engage in recurrent negotiations among themselves. Negotiations are essential for understanding each other and for maintaining fruitful relationships over time. They need to have multiple focus: goals, values, approach, the meaning of results obtained, sharing of resources and credits, set-ups, etc.,. Each set of negotiations must try to produce win-win, concrete arrangements allowing the partnership to move forward. Initial negotiations are key to how the partnership may function and behave over time. But many partners do not possess a firm negotiation culture or practice; in that sense, negotiation skills need to be learnt, and the weakest partners need special support to help them negotiate in their best interests.

Building the devices necessary for meaningful interactions among partners

Devices (“dispositifs” in French) encompass all the activities, resources, rules, relationships and mechanisms with which a set of actors agree to work together toward attaining a shared goal.

There are 2 main types of devices:

- Governance devices, which deal with decision-making, coordination, steering, conflict management, etc.
- Operational devices, which deal mainly with the implementation of activities (surveys for diagnostic or monitoring/evaluation, training, exchange visits, trials, experiments, farmer focus group, workshops, etc) (see Table 2 for a description of key characteristics of operational devices in the 10 case studies)

Paying close attention to device design and management is crucial for effective partnerships. Among other aspects, the following need to be looked at very carefully

- Formalization of rules, definition of an ethical framework, concerted distribution of tasks and responsibilities
- Building up enough flexibility to allow for dynamic adjustments & unpredictable, non-linear evolutions over time
- Devising robust mechanisms for tension / conflict resolution
- Monitoring & Evaluation of both results and process
- Facilitating the gradual empowerment of the weakest partners

When negotiating about device set-up, there is a need to be transparent. Also, partners should be careful that no agreement becomes rigid. Specific objectives may change, stakeholders (individuals or institutional ones) come in and out, roles and rules may change according to the specific phase, the learning that is taking place and the changing opportunities. Another characteristic of effective partnerships is the non-linearity and low predictability of their trajectory over time.

Because of the dynamic nature of arrangements and set-ups, a key function of governance set-up is to ensure that mutual learning among partners is taking place. This in turn implies that adequate communication mechanisms be devised both for responding to the internal needs of partners and for interaction with the external world.

Finally, one cannot overemphasize the importance of inter-personal relationships in these processes (above and beyond the effects linked to the nature and behaviours of institutions and organizations).

Dealing with asymmetries among partners

Finally, we must consider the impact of asymmetries among partners in the functioning of partnerships.

The nature of asymmetries is highly variable, as it can involve information and knowledge, economic strength and resources, political power, institutional and organisational strength, negotiation skills, etc. Not surprisingly when dealing with smallholder agriculture, farmers and their organizations are frequently one of the weakest links in a partnership with more formal institutions. This is why any multiple stakeholder partnership that aims for long-term sustainability should strive to strengthen the capacity and skills of farmers' organizations during the process of working in partnerships. This represents a gradual, long-term process, and includes a host of capacity-building activities, which ideally should rely a lot on learning by doing.

Consequences for research

The observations above illustrate that there are key consequences which research institutions and individual researchers face when embarking on action-research in partnerships. These include learning new roles and functions, such as negotiation or facilitation, and paying due attention to qualitative processes. Researchers also need to maintain an uneasy balance, as best as they can, between two opposite poles: conducting quality research on one hand (with the potential to be published in refereed journals), while simultaneously engaging in capacity-building activities. An urgent need -- if researchers want to increase the willingness and commitment of their institutions to embark on research in partnership mode -- is to assess the efficacy and efficiency of such approaches through well-documented case studies, based on relevant indicators of performance and on a thorough cost-benefit analysis.

But case studies will not be enough to change the well-embedded practices of most research institutions and individual researchers. Research institutions also need urgently to put in place the correct motivations and signals for their staff and teams. Also, negotiations need to be conducted with donors to develop or increase adequate funding schemes. Finally, one should not forget that changing research practices requires that researchers get properly educated and trained in innovation systems, action-research in partnership and other relevant concepts, approaches and practices. This may take many forms and involve a lot of learning by doing. And other stakeholders can benefit, of course, from better training and education.

References

- Akrich M, Callon M, Latour B., 1988, A quoi tient le succès des innovations. Premier épisode : l'art de l'intéressement. Deuxième épisode : l'art de choisir les bons porte-parole. *Annales Mines, série Gérer et Comprendre*; No 11, pp 4-17, No 12, pp 14-29
- Albaladejo C, Casabianca F (Eds), 1997, La recherche-action. Ambitions, pratiques, débats. Série « Etudes et Recherches sur les systèmes agraires et le développement », No 30, Paris, INRA-SAD, 1997
- Ashby, J and L. Sperling, 1995: Institutionalizing Participatory, Client-Driven Research and Technology Development in Agriculture". *Development and Change* Vol. 26 (1995), 753-770.
- Avenier M.-J. (Ed.), 2000. Ingénierie des pratiques collectives. La cordée et le quatuor. Éd. L'Harmattan, collection Ingenium, 462 p
- Callon M., Lascoumes P., Barthe Y., 2001, Agir dans un monde incertain. Essai sur la démocratie technique, Paris, Ed. Seuil, 258 p.
- Chia E., Dulcire M., Hocde H., 2005. Comment favoriser les apprentissages collectifs d'un groupe de chercheurs ? 6ème congrès européen de Sciences des Systèmes, Paris, 19-22 septembre 2005
- Desclaux D., Chiffolleau Y., Mathieu JJ, Jouniaux M., Dufau F., Gardey de Soos F., Haefliger, M., 2005 : Co-construction d'un programme de sélection participative pour la création et la gestion de variétés adaptées à une agriculture biologique territorialisée. Cas du blé dur en région méditerranéenne. In : Lançon J., Floquet A., Weltzien E., (ed.) : Partenaires pour construire des projets de sélection participative. Actes de l'atelier recherche, 14-18 mars 2005, Cotonou, Bénin..
- Djamen Nana P., Djonnéwa A., Havard M., 2005. Co-construction d'une démarche de conseil aux exploitations agricoles familiales du Nord-Cameroun. *Revue Scientifique 2005 de l'IRAD*, « La recherche au service des acteurs du monde rural », 25-28 juillet, Yaoundé, Cameroun
- Dulcire M., Roche G, 2006. La co-construction d'un produit territorialisé. Le cas d'une filière cacao en Équateur. 3ème colloque international du réseau SYAL, Barcelone, septembre 2006.
- Dulcire, M, E. Chia and M. Piraux, 2005 : Spécificités territoriales et évolution des exploitations agricoles : les CTE à la Réunion et en Guadeloupe. *Symposium International sur les Territoires et Enjeux du Développement Régional*, Lyon, 9 au 11 mars 2005.
- Faure G., Hocde H., Meneses D., (in press) : Réflexions sur une démarche de recherche-action : les organisations paysannes du Costa Rica construisent leur vision de l'agriculture familiale. *Cahiers Agricultures*
- Gonzalves J., Becker T., Braun A., Campilan D., De Chavez H., Fabjer E., Kapiri M., Rivaca-Caminade I., Vernooy R. (eds) 2005. Participatory Research and Development for sustainable Agriculture and Natural Resource Management. A sourcebook. Volume 1 Understanding PR & D. Volume 2 Enabling PR & D. Volume 3 Doing PR &D. International Potato Center-Users' perspectives with agricultural research and development, Laguana, Philippines and International Development Research Center, Ottawa, Canada.
- Hemidy L, Cerf M., 2000. Managing Change in Advisory Services : Controlling the Dynamics of Resource Transformation and Use. In *Cow up a tree Knowing and Learning for Change in Agriculture. Case studies from Industrialised Countries*, Paris, Science Update, pp 351-368.

- Hocdé, H., B. Triomphe, G. Faure and M. Dulcire, in press : From participation to partnership, a different way for researchers to accompany innovations processes: challenges and difficulties. Proceedings, Innovation Africa Symposium, 20th-23rd November 2006, Kampala, Uganda
- Lavoie L., Marquis D., Laurin P, 2003. *La recherche-action. Théorie et pratique*. Québec, Presses Université Québec.
- Lindenperg G., 1999. Les Acteurs de la Formation professionnelle: pour une nouvelle donne. Rapport au Premier ministre, 135 p.
- Liu M., 1992. Présentation de la recherche-action ; définition, déroulement et résultats, *Revue Internationale de Systémique*, Vol 6, No 4, pp 293-311
- Mengue C ., 2000. Sélection variétale paysanne sur le plantain dans le centre. Etats des lieux du savoir local et implications méthodologiques pour la recherche. Uni. Dschang, Cameroun
- Mercoiret M.R., Berthomé, J., 1995, les organisations paysannes face au désengagement de l'Etat. Introduction aux travaux, atelier international, Mèze, France, CIRAD, pp 15-19.
- Sabourin E., Hocdé H., Tonneau J.P., Sidersky P., 2006. Production d'innovations en partenariat. Une expérience dans l'Agreste de la Paraíba, Brésil. In : *Agronomes et innovations : 3ème édition des entretiens du Pradel*, Actes du colloque des 8-10 septembre 2004, Paris, L'Harmattan, pp. 191-206
- Scoones I., Thompson J., Chambers R. (Eds), 1994, *Beyond farmers first: rural people's knowledge, agricultural research and extension practice*, London, Intermediate technology Publications.
- Scopel, E., B. Triomphe, M. Goudet, J. H. Valadares Xavier, E. Sabourin, M. Corbeels and F. A. Macena da Silva, 2005 Potential role of conservation agriculture in strengthening small-scale farming systems in the Brazilian Cerrados, and how to do it. Proceedings, Third World Congress on Conservation Agriculture, Nairobi, Kenya 3-7 October 2005.
- Triomphe B., Hocdé H., Chia E., 2006, Quand les agronomes pensent innovation et les institutions transfèrent: des malentendus sur la forme ou des visions différentes sur le développement ? Le cas du Bajío guanajuatense (Mexique), In : *Agronomes et innovations : 3ème édition des entretiens du Pradel*, Actes du colloque des 8-10 septembre 2004, Paris, L'Harmattan, pp 247-266
- Trouche G., Hocdé H., Aguirre S., 2005. Sélection participative des sorghos au Nicaragua. In Lançon J., Weltzien E., Floquet A. (Eds) "Gestion du partenariat dans les projets de sélection participative", Atelier de recherche, 14-18 mars 2005, Cotonou, Bénin.
- Veldhuizen L., Waters-Bayer A., de Zeeuw H., 1997: *Developing Technology with Farmers*. ETC Netherlands and Zez Books, 1997.
- World Bank, 2006, *Enhancing Agricultural Innovation: How to Go Beyond the Strengthening of Research Systems*, Washington, World Bank

Tables

Table 1: Selected characteristics of the ten case studies used for comparative analysis

Sites	Main focus	Major stakeholders involved (*)				Period of Operation	References
		Research	F.O. (**)	Extension	Misc.(**)		
<i>Central Cameroon</i>	<i>Diffusion of banana transplants</i>	XXX		X		1997-2002	Mengue, 2000
<i>Nicaragua</i>	<i>Participatory sorghum breeding</i>	XXX	X	X		2003-.....	Trouche and al. 2005
<i>Northern Cameroon</i>	<i>Farm management advice</i>	XXX		XXX		1999-2003	Djamen Nana and al 2005
<i>France -Reunion Island</i>	<i>Territorial Development</i>	XXX	X		X	1999-2000	Dulcire and al 2005
<i>Mexico</i>	<i>Conservation Agriculture & Irrigation</i>	XXX	XX	XXX	X (Input supplier)	2000-2004	Triomphe and al. 2006
<i>Brazil – Northeast</i>	<i>Innovations to cope with drought</i>	XXX (ONG)	XXX	X		1992-2003	Sabourin and al 2006
<i>Brazil –Cerrados</i>	<i>Sustainable Development in Agrarian Reform Sector</i>	XXX	XX	X	X (Education)	2002 -	Scopel et al., 2005
<i>Equator</i>	<i>Quality Cocoa Supply chain</i>	X	XX		XXX (Agro-industry)	2000-	Dulcire and Roche 2006
<i>Southern France</i>	<i>Participatory organic durum wheat breeding</i>	XXX	XX			2003-	Desclaux and al 2005
<i>Costa Rica</i>	<i>Imagining the future of smallholder agriculture</i>	XXX	XXX	X		2004-2005	Faure and al (in press)

Notes: (*) Importance of involvement is qualified on a scale ranging from some (X), medium (XX) to very strong / leading role (XXX)
 (**) F.O. farmer organizations. Misc = miscellaneous

Table 2: Components of operational set-ups implemented in the 10 case studies

	Surveys (*)		Training	Exchange Visits	Trials, experiments and other devices (nurseries) (**)					Farmer focus groups	Workshops		
	Diag-nostic	M&E			On-station	On-farm	Farmer innov.	Particip. Exp.	Nurse-r		Data analysis	Result assessment	Planning of activities
Central Cameroon	X	X	XX			X			X				
Nicaragua			X				XXX	X			XXX	XX	X
Northern Cameroon	XX		XX				X				XX		
France - Reunion Island	XXX	X		X								XX	XXX
Mexico	X	X	X	XX	X	X	(X)	XX			X	X	XXX
Bresil - Cerrados	X		XX	X	X		X	XX		XX	XX		
Brasil - Northeast	XX	X	X	XX		X	XX			XX	XX	XX	XX
Equator	X		XX	XXX	X		X	XX	X		X	XX	X
Southern France	X			X	X	X	X	X			X		
Costa Rica	XX		X	X							XXX		XX

Notes: Importance of the component throughout the project: X= some XX : medium XXX very important
 (*) Types of surveys: **diagnostic-** (both comprehensive farming system surveys, or thematic ones), **M&E:** monitoring and evaluation surveys
 (**) **on-farm:** research-designed experiments on farmers fields; **Farmer innov:** experiments conducted autonomously by farmer-innovators , **Particip. Exp:** jointly designed and managed trials between farmers and researchers