

Learning Alliances: An Approach for Building Multi-stakeholder Innovation Systems ¹

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Abstract

Millions of dollars are spent each year on research and development (R&D) initiatives to improve rural livelihoods in the developing world. Despite these expenditures, rural poverty remains an intractable problem in many places. Among the many causes of this situation is the limited collective learning that occurs between researchers, development workers, donors, policy makers and private enterprise. As a result, useful research does not reach the poor, lessons learned do not influence research, donor or policy agendas are less relevant than they could be – and development falters. This paper describes how the Rural Agroenterprise Development Project of the International Center for Tropical Agriculture (CIAT for its Spanish acronym) is tackling this problem by building learning alliances that engage multiple stakeholders with multi-layered sources of knowledge in processes of innovation to promote increased learning and effectiveness in rural entrepreneurial development.

Keywords: research and development interventions, research agendas, development practice, development policies, learning alliances, institutional innovation systems, rural entrepreneurial development, rural livelihoods.

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Background

Traditional modes of knowledge production and learning tended to follow a linear approach. Under this approach researchers and experts produce new knowledge [or have the knowledge] and then transfer it to those who need it, who will use it to innovate and change. This model follows what Gibbons et al. (1994) have called a “mode one” type of knowledge production, where knowledge is generated by a research community accountable to its disciplinary peers. Although in some cases this approach has proved to be practical and successful, it failed to promote a continuous learning and innovation process able to cope with growing complexity and rapid change. As argued by Hall et al. (2004a), this approach neglects the dynamics of multiple knowledge sources, partnerships, diversity, social and institutional learning, and capacity development that are important aspects of innovation processes.

There are many reasons why traditional linear approaches for the generation of knowledge fail to respond to complex challenges and rapidly changing contexts. First, knowledge generation takes place without the involvement of key stakeholders who need it to innovate. Second, users have limited access to ‘experts’ to answer their implementation questions in a timely manner. Third, knowledge generation and pilot innovation processes take place in an environment removed from the realities of the regions that can benefit from the generated knowledge and innovations. Fourth, failure to promote the interaction among different sources of knowledge and develop user capacities in relation to the innovation, results in costly transfer processes with limited coverage. Fifth, those who generate the knowledge have limited opportunities to follow-up on user adaptation and further innovation to understand what changes occur and why. Finally, traditional approaches provide limited feedback to researchers on critical new areas of research needs from development practitioners.

Drawing from the challenges posed by development and poverty reduction objectives, the Learning Alliance approach emerged in CIAT as a means to overcome the above limitations of traditional approaches for the generation of knowledge and the fostering of innovation processes. Learning Alliances follow what Gibbons et al. (1994) called a ‘mode two’ type of knowledge production that promotes the interaction of multiple actors with multi-layered sources of knowledge to cope with the complexity of fostering continuous technological, social and institutional innovations to respond to rapidly changing contexts and demands. The Learning Alliance approach grew out of several years of interaction with various development organizations in Central America and the realization that CIAT needed to establish a more sustainable niche within a larger innovation system. Based on these reflections, the Rural Agro-enterprise Development Project developed a set of approaches, tools and methods to engage in a more proactive fashion with a range of actors.

Initially, CIAT learning alliances concentrated on out-scaling and adapting existing research results, but they have rapidly evolved into vehicles for strategic research and capacity development by becoming dynamic multi-stakeholder innovation systems focused on rural agro-entrepreneurial development. The idea took shape in Central

America, and by mid 2003, CIAT together with initial partners² launched the platform with financial support from the Canadian International Development Research Center (IDRC) in four countries. Since then, other partners have joined the initiative leading to a consolidating process that, by the end of 2005, included eight organizations. Based on the Central American experience as well as a parallel process in Eastern Africa with the non-governmental organization Catholic Relief Services (CRS), CIAT's Rural Agro-Enterprise Development Project launched Learning Alliances in additional countries in Eastern and Western Africa, in the Andean Region of Latin America, and is initiating a similar process in Southeast Asia.

We currently understand a Learning Alliance to be a process undertaken jointly by research organizations, donor and development agencies, policymakers and private businesses. The process involves identifying, sharing and adapting good practices in research and development in specific contexts. These can then be used to strengthen capacities for development practice, generate and document development outcomes, identify future research needs and areas for collaboration, and inform public and private sector policy decisions. An iterative learning for change process (Gottret, 2006) among multiple stakeholders with multi-layered sources of knowledge, across multiple scales, underlies the learning alliance approach.

Given the dynamism and flexibility of this approach, there are usually several variations and adaptations underway at any given time in diverse contexts. This paper seeks to provide an overview of the general principles behind these diverse approaches as well as sharing some of the initial results and questions that this work raises. It is structured in the following fashion. It starts with discussion of the conceptual framework that underlies the Learning Alliance initiative, followed by its objectives. Then, it reviews the methodological tools currently in use as well as the results from work in Latin America. The paper concludes with a reflection of the promoted learning alliance process, and sets up further questions that will guide this topic forward. It is important to highlight that parallel learning alliances exist with Catholic Relief Services (CRS) in more than 20 countries in Asia and Africa. Results from this work are contained in separate articles.

Conceptual Framework

The Learning Alliance approach has its roots on two interrelated concepts: “social learning” and “innovation systems”. By combining these interrelated concepts, Gottret (2006) defines innovation as “the process of technical, social and institutional change that results from the interaction among multi-layered sources of knowledge and its transformation into new things, products or practices, applied in a specific institutional and cultural context.”

² The initial partners of the Central America Learning Alliance included CARE, Catholic Relief Services (CRS), Germany's Gesellschaft für Technische Zusammenarbeit (GTZ), the National Agricultural University of Honduras (UNA), SwissContact and IDRC itself.

Social Learning

According with Leeuwis and Pyburn (2002), academicians introduced the concept of social learning with an interest in studying – and contributing to – interventions aimed at enhancing sustainable development (Dunn, 1971; Friedmann, 1984; Milbrath, 1989; Woodhill, 2002). As discussed by (Röling, 2002), the concept of social learning aims for a movement from a reductionism to a holistic perspective, and from a positivistic to a constructivist perspective to tackle complex problems that cannot be solve by taking only a techno-centric or a eco-centric position. This change in perspective requires, in addition to mastering technology and ecology, to look at problems as the outcome of human activity and critical thinking. Leeuwis and Pyburn (2002) highlight that the notion of social learning was presented primarily as a critique of earlier discourses, which assumed that the future could be planned rationally from above through a top-down approach. In contrast, social learning reflects the idea that the shared learning of interdependent stakeholders is a key mechanism for constructing sustainable societies. The concept of social learning has intertwined with related ideas such as soft systems thinking (Checkland, 1981; Bawden, 1994; Röling and Wagemakers, 1998) and adaptative management (Holling, 1995). A consistent characteristic of the various approaches is that they advocate for an interactive (or participatory) style of problem solving, whereby outside intervention takes the form of facilitation (Leeuwis and Pynburn, 2002).

Röling (1992) looks at social learning as an interactive process and attributes a central role to multi-stakeholder platforms in which the challenge is to facilitate interaction and promote learning processes for change. According to Röling, this approach capitalizes on the diversity of perspectives and experiences and seeks to harness the creative energy of collective engagement in problem solving. The facilitator's role is to help establish platforms and catalyze dynamics that enable such synergy to occur. Leeuwis, Piburn and Boon (2002) derive several conclusions about social learning. The first is that it is the processes and not the preconceived outcomes that are amenable to design. The second is that even if processes are amenable to design, facilitators can only design them to some extent since social learning processes are evolving, contextual and affected by uncertainties of various kinds. Inherent to the idea of social learning is that one cannot predict in advance how processes will evolve, and what intermediary outcomes will be achieved, and neither can one foresee the capricious dynamics of human negotiation processes. The third is that it implies a movement away from methodological blueprints, and therefore, it is unhelpful and unproductive to try to structure and control interactive social learning processes by means of detailed ex-ante plans, schedules and procedures for the medium and longer term. This is incompatible with the idea that change processes are inherently context specific, messy and conflictual. Thus, facilitating an interactive process requires the weaving together of different strategies and activities in a flexible and contextual manner.

Innovation Systems

As concern regarding the role of knowledge and technology in economic development and poverty reduction has increased, the scope of the analysis expanded from exploring research and technology transfer to looking at the wider innovation process (Hall et al., 2004a). The concept of innovation in agricultural knowledge and technology has its

conceptual roots in debates that took place during the last three decades such as the work of Biggs on the institutional context of research (Biggs, 1978) and on multiple sources of innovation (Biggs, 1990). Also, Chambers and Ghildyal (1985), Röling (1990 and 1992), Lall (1993), Engel and Salomon (1997) and Echeverria (1998) made important contributions to the discussion of innovation.

Hall et al. (2004b) highlights that an important conceptual shift that influence innovation policies, has been an increased emphasis towards promoting innovation rather than focusing on research alone. As distinct from research and invention, innovation is a more complex process often requiring technical, social, and institutional changes, and involving the interaction of organizations across the conventional producer and user knowledge divide. Recently a number of policy analysts have started to explicitly use the innovation concept in relation to agricultural knowledge and technology generation employing an innovation systems framework for policy research in developing countries (Hall et al., 2001a and 2001b).

According to Hall et al. (2004c), the origin of innovation systems thinking can be traced to the idea of a 'national system of innovation' proposed by Freeman (1987) and Lundvall (1992) and that, at its simplest, this concept states that "innovations emerge from evolving systems of actors involved in knowledge production and use". Lundvall (1992) identifies learning and the role of institutions as the critical components of innovation systems. He considers that it is not possible to understand learning without referencing its institutional and cultural context since it is an interactive and socially embedded process. Other applications of the concept of innovation systems can be seen in the work of Ekboir and Parellada (2001), Clark (2002), Byerlee and Alex (2003), Temel et al. (2003), Douthwaite et al. (2004), and Biggs and Messerschmidt (2004).

A combination of the key elements of both social learning and innovation systems underlies the learning alliance concept as developed by CIAT. The learning alliance as such seeks to engage actively diverse actors in processes of collaborative learning, adaptation and innovation through which all participants contribute to outcomes. CIAT recognizes its role as a 'process facilitator' but actively seeks the participation of other members of the innovation system within which the process occurs. As the remainder of the paper will show, efforts have focused on developing process guidelines for this kind of work rather than detailed blueprints of inputs and expected outputs.

Objectives

Improved understanding of how to establish and maintain multi-stakeholder learning processes has the potential to benefit the developing world in several ways. Firstly, they help to develop cumulative and shared knowledge about approaches, methods and policies that work in different places, cultural contexts and times; those that do not; and the reasons for success or failure. Shared knowledge of this kind can contribute to improved development outcomes as lessons are learned and practice or policy modified accordingly. Secondly, learning alliances give participants the opportunity to learn across organizational and geographical boundaries through the establishment and support of communities of practice around specific topics. Thirdly, they promote synergy among

multiple actors by providing a vehicle for collaboration, helping to highlight and develop diverse solutions to problems that may appear intractable to the individual actors. This leads to more rapid and effective innovation processes, helps focus new research on key problems, provides development agencies and policymakers with access to specialized knowledge, and brings fresh insights to the assessment and improvement of research and development performance. Fourthly, learning alliances contribute to healthy innovation systems by building bridges between islands of experience, helping to assess how these results were achieved and what others can learn from this experience. In this sense, a more effective innovation system develops both through stronger direct links as well as through closer relationships between more distant partners. Finally, they provide a flexible mechanism that can be adapted to topics that are beyond the scope of agricultural research vital for improving rural livelihoods (eg. healthcare, education, water and sanitation, and natural resource management).

In sum, the objective of the learning alliance approach is to add value and leverage positive synergies across the range of actors that comprise the innovation system in which processes of rural enterprise development occur. This innovation system has myriad scales ranging from local to international with an equally diverse set of organizational partners. At the local level, the system interacts with and affects change, on processes of local economic development, local planning and rural livelihoods in collaboration with local NGOs and, indirectly, their partners such as farmers and farmer associations. At a meso level, the system conducts strategic research by interacting with development strategies and approaches, public-sector policy, private sector policy and decision-making and broader processes of economic development. At a macro scale, the innovation system established by learning alliances links to trade policy, and issues of social equity and justice. Thus, learning alliances promote the up-scaling of learning processes by pro-actively involving policymakers to complement the design of approaches, strategies, methodologies and public and private policies that are more effective in achieving sustainable and more equitable development processes.

The learning alliance approach implemented by CIAT is not limited to farmers and farmer organizations. The majority of our learning occurs with actors that support and influence farmers and their organizations including local and international NGOs, universities, government agencies and private sector firms. Through more structured learning processes, the learning alliance seeks to affect change in the larger innovation system in a way that provides support for subsequent innovation in rural communities. In this sense, the learning alliance differs from traditional 'bottom-up' approaches that seek to push change through complex systems (i.e. from the farm outwards) by actively identifying and using higher-order leverage points to generate incentives that pull change through the system. Building and testing organizational models that facilitate transparent links between rural communities and dynamic markets in collaboration with local and international NGOs, donors and private sector firms is one example of this. Learning at this level provides knowledge and incentives to leverage innovation on a much greater scale than does similar work at the farm level.

The decision to work with an innovation systems perspective across several scales has implications on how research organizations identify and define their agenda, the manner in which they carry out their research and disseminate their results. In this context, research must identify its niche clearly vis-à-vis participating actors and engage them throughout the entire research cycle. As a collaborative process, a learning alliance often mixes traditional socioeconomic research with action research, while generating a range of international public goods for a diverse set of actors. We posit that a CGIAR Centre is uniquely suited for this role. However, we are cognizant that this type of approach has not traditionally been one of the areas of emphasis within the CG system. As such, the learning alliance approach attempts to break new ground and keep the CG vibrant and relevant for processes of enterprise development in rural communities and beyond.

Key Principles

The establishment of learning alliances follows some basic principals drawn from previous experiences. The following list is by no means exhaustive but should provide the reader with an idea of the key non-negotiable points that we have used in our work.

Clear objectives:

Multiple stakeholders have different objectives and interests. The conformation of learning alliances require the identification and negotiation of common interests based on practice, needs, capacities and interests of participating organizations and individuals. It is around this common interest space that learning alliances consolidate. What does each organization bring to the alliance? What complementarities or gaps exist? What does each organization hope to achieve through the collaboration? Thus, the manner in which potential partners identify and negotiate their common interests will define who participates. In our experience, the general area of common interest has been rural enterprise development. Underneath that umbrella topic, other specific thematic areas of interest are defined. As each area of common interest becomes more specific, fewer organizations will participate, but the transaction costs will be lower. As each area of common interest becomes broader, more organizations will be interested in participating but interaction costs will also be higher. A clear understanding of the learning alliance partners diverse interest and the definition of clear objectives helps balance the level of participation with the capacity of the actors to work together.

Shared responsibilities, costs and benefits:

Organizations and individuals participate in learning alliances when: (1) they perceive that they will obtain benefits from this association, (2) the transaction costs are lower than the expected benefits, (3) benefits are perceived to be higher than those obtained by working individually, and (4) results do not enter in conflict with other key interests. As learning alliances seek to benefit all parties, interaction costs and responsibilities, as well as benefits and credit for achievements, need to be shared among partner agencies in a transparent fashion.

Outputs as inputs:

Rural communities are diverse and there are no universally applicable recipes for sustainable development. Learning alliances view research and development outputs as inputs to processes of rural innovation that are place and time-specific. Methods and tools developed by researchers will change as users adapt them to their needs and realities. Understanding why adaptations occur, the extent that these lead to positive or negative changes in livelihoods; and documenting and sharing lessons learned are key objectives of a learning alliance.

Differentiated learning mechanisms:

Learning alliances have a diverse range of participants, from rural women, youth and men and in general people with rural-based livelihoods; through extension service and non-governmental organization (NGO) workers; to entrepreneurs, policymakers and scientists. Identifying each group's questions and willingness to participate in the learning process is critical to success. Flexible but connected learning methods are needed. These can range from participatory monitoring and evaluation, through conventional impact assessment to the development of innovation histories.

Long-term, trust-based relationships:

Rural development processes stretch over many years or even decades. To influence positive change and understand why that change has occurred requires long-term, stable relationships capable of evolving to meet new challenges. Trust is the glue that cements these relationships, but develops gradually as partners interact with each other and perceive concrete benefits from the alliance.

Methodology

The learning alliances established by the Rural Agroenterprise Development Project at CIAT seek to: (a) build links between researchers, donor and development agencies, the public sector and private business to achieve more efficient processes of rural agro-entrepreneurial development; (b) establish an innovation system that matches the supply of new ideas with demand at the field or policy level; (c) open communication channels between diverse organizations with relevant experiences; and (d) design and test tools and methods for analysis and documentation that facilitate collective learning within and among organizations.

The major contribution of researchers to development, policymakers and private sector partners in a learning alliance is to help them move from single-cycle learning processes (planning, followed by action, evaluation of results, and back to planning to start another single cycle) to a double loop learning process. This includes a periodic reflection, after results are evaluated, during which partners review the basic premises on which strategic decisions are based. A double loop learning cycle helps to avoid the trap of replicating ineffective approaches by facilitating critical thinking about what actually needs to be done (Fairbanks and Lindsay, 1999). The application of a double-loop learning process for each topic of interest (see Figure 1) is the primary means by which the alliance learns.

To achieve these aims, CIAT has implemented the following steps:

1. Identify and convene partner organizations with an interest in rural enterprise development.
2. Develop clear objectives, roles and responsibilities for the learning alliance.
3. Define specific topics of interest based on development practice needs and priorities.
4. Implement a double-loop learning cycles for each topic of interest.
5. Share results among researchers, practitioners, and policy makers.

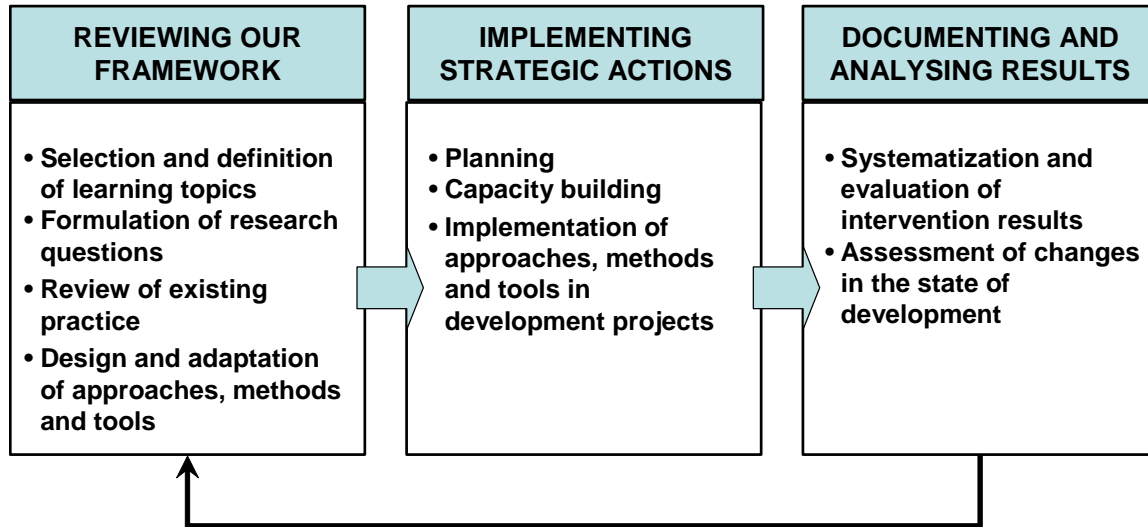


Figure 1. The double-loop learning cycle in a learning alliance

Phase 1: Reviewing our framework

In this phase, the learning alliance partners identify any problems that are limiting the success of their interventions. They also try to view the issues from different perspectives and reflect critically on existing practice. This step helps to avoid the single-loop learning trap described above and leads to a clear definition of a set of topics on which the alliance agrees to work. Once a topic has been selected, the interested partners spell out the questions that need resolving. These questions frame the learning process and may range from basic development issues to full-blown research hypotheses, depending on the participants’ interests (capacity building or strategic research) or intervention scale (micro, meso or macro).

Next, the partners undertake a review of the existing practice: results reported in the literature, institutional experience and current work by partner organizations. Special attention is paid to documenting positive experiences, or ‘islands of success’ that exist in similar cultural or geographic contexts, since these can often yield useful lessons or inputs for the learning process. The partners share the results of the review in a workshop and a short document. This process helps identify lessons learned in a specific context and initiates the sharing of experiences and knowledge within and across organizations.

The review leads into a process where learning alliance participants select, adapt and/or design diverse tools, methods, approaches or intervention strategies to equip partners with the necessary skills and information they need to apply good practice in the field. Intervention approaches and toolkits are designed as prototypes that different partner organizations are expected to adapt to suit specific needs and contexts.

Phase 2: Implementing strategic actions

The learning alliance then facilitates the use of selected or designed tools, methods, approaches and strategies within ongoing development projects, validating their usefulness and adapting them to fit different contexts. The alliance also organizes capacity-building efforts to ensure that all partners can use and adapt approaches and the toolkit to their contexts. The capacity-building effort may involve researchers or may be initiated by one or more of the partner organizations, and it may be formal (e.g. workshops) or informal (e.g. cross visits or consultations). The emphasis is on developing the capacity of the partners to understand the underlying principles behind approaches or strategies, while the specific methods and tools are adapted or developed to suit partner specific needs and contexts.

Finally, participating partner organizations apply the approaches and toolkits in the context of existing development projects, document the results and share them with others. Ongoing informal consultations between participating partner organizations are promoted so that evolving results, both positive and negative, are quickly shared across partner organizations and incorporated into ongoing work. Contributing to existing development activities helps ensure that the tools and approaches are practical and solve real-life problems. Thus, learning alliance differentiate from traditional information and knowledge networks in that they take the extra step of designing or adapting new approaches, methods and tools and providing support so that partners actually apply them and learn from the experience.

Phase 3: Documenting and analyzing results

The learning cycle is completed only when results are properly documented, analyzed and translated into broadly applicable lessons. Thus, throughout the process of design, capacity building and field application, processes and results are documented and shared using simple frameworks. Methods can include workshops, training and reflection sessions, joint fieldwork, process documentation and the use of a virtual learning platform and list server (e.g. www.alianzasdeaprendizaje.org).

The learning cycle concludes with a critical review of the field experience based on the initial questions defined in Phase 1. This stage allows participants to reflect on deeper issues that may not be part of their daily work. It also provides inputs for the construction of new approaches, intervention strategies, methods and tools. Participant organizations document the reflection process in a short summary and share it with other learning alliance members. Additional learning cycles may take place if there are unanswered or new questions that partner agencies wish to examine further.

Outcomes

CIAT first experimented with this approach in 2000 in collaboration with CARE Nicaragua and eight local partners in 10 municipalities. From there the idea moved to eastern Africa, where a six-nation learning alliance was established with the East Africa Regional Office of CRS. These two experiences constitute a first phase of work, where the basic concepts of learning alliances were developed, tools were tested and promising initial results achieved.

From 2003 onwards, IDRC has supported a second phase of work in Central America that differs from the first phase in several important ways. Firstly, since its inception in 2003, the learning alliance in Central America has involved multiple partners including CARE, the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), CIAT CRS, Germany's Gesellschaft für Technische Zusammenarbeit (GTZ), the National Agricultural University of Honduras, The Netherlands Development Cooperation Service (SNV for its Dutch acronym), Swisscontact and IDRC itself. Secondly, the Central America case marks the first use of internet-based tools to facilitate learning within and across partner organizations. In addition, a third difference is the explicit intent to incorporate donor agencies as key stakeholders in the learning alliance, although this goal has proven difficult to achieve in practice.

After two years of work, the Central American learning alliance has achieved important gains in regards to the development of partner capacity and the adaptation of tools to regional needs. Highlights in this area include more than 15 market opportunity identification studies; three complete supply chain analyses and an additional six underway; the use and improvement of tools for rural knowledge management and processes of rural enterprise development in Nicaragua, Honduras and El Salvador; and the development of a full-fledged virtual learning space. Current areas of work include the analysis of equity and governance issues in supply chains, the development of improved skills for the identification and development of sustainable business services and ongoing work focused on information and innovation processes in supply chains and how those may be supported by rural agroenterprise development centers. Much still remains to be done but a recent assessment of the alliance using the Outcome Mapping method from IDRC indicated that the alliance has had significant impact on organizational focus and investment decision.

In 2006, a more formal impact evaluation has been initiated to assess and document organizational and institutional changes fostered by this participatory learning process, and its development impact in selected sites, to learn and reflect on the experience and make the necessary adjustments to improve its effectiveness. The impact assessment of the Central America Learning Alliance will take place at two levels. At the meso level, the study will assess institutional innovation, and at the local level will evaluate development impact to analyze to what extent and how institutional innovations have contributed to the generation of sustainable livelihoods among rural families supported and/or backstopped by local learning alliance partners.

The most advanced ideas on learning alliances emerged in the Andean Region of South America. This work most closely mirrors the conceptual model explained above in that it pro-actively seeks to involve the public sector, has partner demands for learning as the entry point and focuses more on collaborative strategic research than on capacity building. A learning agenda was negotiated covering the following research themes: (i) public policy and links between market chains and local economic development; (ii) rural enterprise development and the inclusion of smallholders in market chains; (iii) governance, representation and equity in market chains; and (iv) knowledge management for innovation in market chains.

Despite the lack of external resources, the Andean Region Learning Alliance was able to initiate activities in three of the four research themes prioritized given strong partner commitment and its links with an existing initiative, the Ruralter Platform. Eight case studies on mechanisms to link smallholders with market chains, selected among the experiences of the learning alliance partners, were conducted in Ecuador and Colombia. The minimum financial resources available limited the participation of more experienced researchers in the process and, as a result, some case studies received only a superficial analysis. Action-research on the theme of knowledge management for innovation in market chains started in 2005 in Colombia and Ecuador with specialty-coffee market chains with funds from the German International Cooperation Ministry (BMZ). By linking with the Economic Development Forum of the Ruralter Platform conformed by the International Cooperation Center for Agricultural Development (CICDA for its Spanish Acronym), Intercooperation (IC) and The Netherlands Development Cooperation Service (SNV for its Dutch acronym), an ambitious study was conducted and documented on the factors that influence the success of associative rural enterprises. In 2006, by linking with the Ruralter Platform, the Andean Region Learning Alliance is starting a new regional study that includes Bolivia, Chile, Colombia, Ecuador and Peru that aims to analyze the role of private companies lead market chains that involve smallholders on economic development and poverty alleviation.

In addition, to advance the research theme on public policy to support market chain development and its links with local economic development, a full proposal was submitted to the Regional Fund for Agricultural Technology (FONTAGRO for its Spanish acronym). Twenty organizations of Bolivia, Colombia, Ecuador and Peru participated in the design of this research project to analyze the role of institutions and different policy mechanisms to promote technological innovation in market chains, and its governance and equity impacts. These organizations included research centers, universities, development cooperation agencies, development organizations, the Ministers of Agriculture of the four countries, and the Andean Community of Nations (CAN by its Spanish acronym). In addition, a concept note was presented to the Inter-American Development Bank call for proposals on the production of regional international public goods. Unfortunately, both proposals were rejected and it was not possible to start working on this research theme.

A final element is a global initiative between CIAT and CRS to develop or strengthen learning alliances in 30 countries in Africa, Latin America and Asia. This process is

similar to existing work with CRS in eastern Africa from Phase 1, in that it focuses on capacity building around CIAT strategy and tools for rural enterprise development, but it also incorporates some elements of Phase 2 (e.g. the use of a multi-lingual virtual learning platform) and could potentially evolve into a platform for strategic research. The scope of this global learning alliance with CRS presents its own special demands and opportunities for learning across geographic and cultural boundaries.

Discussion

Based on the above outcomes it is fair to ask how the outcomes of five years of work on learning alliances compare to traditional innovation processes described previously. In Table 1, the key criticisms of the linear innovation model are compared with initial outcomes from learning alliances.

Table 1. Linear innovation models and learning alliances: Comparison of critical areas

Linear innovation model	Learning alliance approach
Knowledge generation occurs without the participation of key stakeholders	Key stakeholders participate directly in setting the research agenda as well as specific action-research activities that generate or improve knowledge.
Users have limited access to experts to answer implementation questions in a timely fashion	Provision of backstopping and coaching by researchers and other experienced alliance partners through staggered training sessions, programmed field visits and continual exchanges using ICTs.
Knowledge generation and pilot innovation occurs far from field realities	Knowledge generation and pilot innovation occurs in rural communities with the participation of researchers, development agents, enterprises and community members.
Limited interaction among knowledge sources and users leads to costly transfer processes and limited coverage	Links between learning alliance participants promoted to develop processes of horizontal learning and adaptation. Strategies include face-to-face exchanges (field visits, workshops, knowledge fairs) and virtual spaces (website and e-mail). These strategies foster knowledge diffusion and improve coverage.
Knowledge generators have limited opportunities to follow-up on user innovation and adaptation to understand why change occurs or not	Knowledge generators – both researchers and others – are directly involved in user innovation and adaptation and can document insights on how and why change occurs or not in specific cases and conduct comparative analysis among different sites and contexts.

The learning alliance approach represents an important advance when compared to linear innovation models. However, there are still areas where effectiveness is limited. Key among these is the need to adequately document, analyze and share knowledge quickly after it is generated. The Central American learning alliance developed simple, one-page guides to document field experiences in the hopes that these would lead to timely exchanges of lessons learned among participants and thus speed the innovation process. At the field level, these tools have met with limited success as learning alliance partners

exchange knowledge directly via phone calls, visits or e-mail rather than taking the time to follow the documentation guide. While this is certainly effective in promoting knowledge sharing, it makes the identification and tracking of key innovations difficult from a research point of view, and limits the possibilities to diffuse knowledge generated further.

An additional area of concern is that of backstopping and coaching. In practice, CIAT has played a lead role in backstopping despite the fact that many partner agencies possess important capacities that could facilitate processes. Finding ways to overcome organizational sensitivities especially at a higher managerial level – i.e. why is the ‘competition’ providing us with training and backstopping – remains a key issue. In a similar line, providing organizational incentives for knowledge sharing between NGOs that compete for funds from similar donors is a challenge.

Finally, what kind of learning is actually occurring within the alliances? Initial results from the use of Outcome Mapping³ and focused interviews in Central America highlight changes in organizational learning practices and development interventions as well as the acquisition or improvement of specific knowledge and capabilities. Table 2 presents a brief description of the kinds of learning encountered in Central America.

Table 2. Types of learning documented in the Central America learning alliance

Type of learning	Description
Organizational learning practices	<ul style="list-style-type: none"> - Improved internal information flows between agency offices in Central America, mostly through informal channels. - Development of an atmosphere of shared organizational learning among partner agencies leading to increased cooperation among them. - Contribution to institutional organizational learning initiatives that go beyond the theme of rural agro entrepreneurial development.
Development interventions	<ul style="list-style-type: none"> - Increased focus on marketing and supply chains, not just on-farm agricultural production. - More ordered and complete development processes that incorporate processes of enterprise development. - Implementation of focused complementary research to have a better understanding of rural enterprise development processes.
Specific knowledge and capacity development	<ul style="list-style-type: none"> - Use and adaptation of a wide range of enterprise development tools⁴ in four countries by 19 partner agencies working with a total of 57 local agencies.

³. For more information on this method, please see <http://www.idrc.ca/evaluation>

⁴. These tools include the formation of local enterprise working groups, identification of market opportunities, supply chain analysis and upgrading and processes of knowledge management and innovation for rural enterprises.

For participating partner agencies and their staff, the kind of learning occurring in the Central American learning alliance has several implications. First, participating staff are recognized within their organizations and by others as resource people for processes of enterprise development. Participants access knowledge and hone specific skills that improve their capacity to lead market-oriented processes of rural development. Secondly, participating organizations are able to generate innovative interventions based on increased staff capacity and knowledge as well as improved internal knowledge management. This helps the organization differentiate itself in the development marketplace and compete more effectively for scarce resources. We hypothesize that the combination of personal and organizational change will lead to more effective processes of rural development by partner agencies. This point is currently being evaluated in Central America through a specific monitoring project with results expected by the end of 2006.

Conclusions

A learning alliance approach is not suited for all agricultural research projects. For researchers and projects who work directly with or hope to effect change on a given rural innovation system, however, this approach can be of significant use. The following challenges and recommendations were highlighted by CIAT's experience with learning alliances that need to be overcome to improve the effectiveness of this approach for the generation of knowledge:

- *Partner and participant selection.*

The selection of partner agencies and appropriate individuals within those agencies is critical to the success of a learning alliance. Both agencies and individuals should be open to critical reflection and learning about their own practice and willing to challenge their own reference frameworks and premises. However, this clashes with the need to always show positive impacts to donors to continue receiving financial support. The importance given to the latter in detriment to the former is variable among participating organizations, which depends in part on organizational culture and type of leadership.

In addition, partner and participant turnover should be minimized, since this has a significant negative impact on the learning process. The adequate selection of agencies and staff who meet these criteria can be a major challenge for a learning alliance. Providing that adequate partners and participants can be identified, a collateral issue arises in how to maintain their participation in the learning alliance. In this sense, the development and implementation of an effective communication strategy is important. Through effective communication it is feasible not only to highlight important results obtained by participants but also provide them with the needed space within their organization to continue innovating. Informing the supervisors of direct participants is key for a well functioning alliance.

- *Balancing diverse needs and expectations*

As the learning alliance evolves and diverse partner agencies achieve, or do not achieve, what they expected from the process, the alliance needs to adapt the thematic focus or the

methods through which it works to best suit partner needs. In Latin America, several different clusters of partners can be identified by needs and aspirations. One group is clearly focused on building or enhancing their capacity and skill base to support processes of rural enterprise development. The major focus of this cluster of partners is on concrete and practical approaches and methods that can lead to more efficient development processes. A second group of partners is clustered around the idea of developing new methods, tools and approaches. This group participates in or leads processes of action research that generate field guides and similar publications. A third cluster of partners can be identified around more strategic research topics. These partners are interested in understanding key principles and lessons that can be drawn from a range of experiences in rural enterprise development. This cluster forms an effective lobby for more traditional research activities as well as for influencing policy. In practice, it is common to see partner agencies active in more than one of the clusters previously identified.

This clustering has implications for processes of facilitation, resource mobilization and the definition of research agendas. Understanding the relative importance of each partner in the learning alliance and their principal need or expectation is important in order to manage conflicting interests and identify possible synergies between clusters. This process is far from simple and is one that should be taken seriously by the facilitation team.

It is also common to have initially dynamic partner agencies reduce their participation and/or decide to leave the learning alliance altogether while others join. Our experience indicates that this process is not necessarily negative but rather a natural process related to the changing needs and aspirations of partner agencies. While care needs to be taken to maintain a critical mass of partners, some changes over time are inevitable.

- *Process facilitation and coordination*

Establishing a learning alliance, while time consuming, is relatively straightforward once appropriate partners have been identified. The maintenance of the learning alliance and its on-going facilitation, however, are separate challenges. To stay vibrant, a learning alliance must adapt and change as learning occurs and new questions arise. Our experience suggests that assigning research and support staff to this area as needed is important to ensure that goals are met and partners do not lose interest in the process. Given the centrality of this approach to the current research agenda of the Rural Agroenterprise Development Project, major parts of research staff time are assigned to manage learning alliances. While the largest share of development project budgets will be allocated to project implementation, financial resources are also needed to support time to personnel to engage in learning alliance activities.

- *Funding*

Finding a donor agency interested in funding an open-ended learning process is likely to be difficult, and it may be easier to get funding for specific research and development projects that use a learning alliance as an implementation mechanism. However, resource mobilization is often a slow process and if partners do not start activities with their own

funds, momentum is lost and interest will fade. Funding for learning alliances can also be found by linking to large development initiatives, making efficient use of researchers' time, and identifying alliance activities that can complement or link to dissemination, training and monitoring and evaluation budgets. The issue of funding should be discussed early during project design and in the alliance building process to guarantee a modicum of sustainability.

There has also been debate within the learning alliances themselves about whether or not this platform should strive to raise money. Some partner agencies have argued forcefully that the alliance should only carry out complementary work based on funds received from the partners themselves. Others feel that the learning alliance would be missing significant opportunities to affect positive change if it did not seek to consolidate funding for joint activities among partner organizations. The decision of whether or not a learning alliance should actively seek funding is best left to the partner agencies themselves.

- *Linking learning across levels*

Documenting, analyzing and sharing learning from diverse partner agencies at the micro, meso and macro scales is very demanding for all participants, while drawing out key livelihood and development policy implications from such a wide range of experiences takes a good deal of time and thought. Selecting a few key research questions that link partner agencies is one way to manage the demands of the learning alliance approach. Equally, the creative application of diverse tools and methods to promote network building among partners and the use of decentralized processes of reflection and learning will also help (e.g. regional learning fairs with local partners, topic-driven short workshops, virtual discussions).

Questions on how to link learning processes at a regional scale to local processes are currently being discussed in Central America. Despite relatively positive advances with existing partner agencies⁵, the same partners would like to see similar processes occurring with their local partners in each country. In concrete terms, this implies tripling the number of actors involved in learning processes. Effective methods and tools that allow local partners not only to implement and adapt prototypes developed by the learning alliance in general, but also strengthen horizontal communication and exchange at a country scale are currently under development. This issue is common across many learning alliances as most partner agencies now work with a range of local partners.

It is important to note that the establishment and facilitation of learning alliance require significant investments of time and personnel resources. If researchers themselves carry out these activities, it may be difficult to achieve the kind of international public goods publications expected from CG scientists. Possible ways around this issue include the use of partner agencies as conveners and facilitators, the development of links to other

⁵. These partner agencies tend to have a large geographic mandate (e.g. for a country) but do much of their work through local partner agencies with a much smaller focus (e.g. Departments or States). There is a fairly clear pyramid effect here as partner agencies multiply as the scale becomes more local.

research organizations (e.g. universities in the north) and a tightly defined research agenda. During the first few years of learning alliance, much time and effort will be spent on getting things running and carrying out the necessary fieldwork and research activities for the generation of international public goods. Based on our experiences, we feel that learning alliances can evolve into very effective research platforms once they reach a certain level of maturity.

In conclusion, the learning alliance approach developed by CIAT attempts to reposition the center in relation to other research, development and policy actors by establishing a clear role as a learning facilitator that adds value to existing activities, responds to partners demands, and effectively links research to development processes. After 4 years of effort, the approach is providing a host of learning opportunities in more than 30 countries globally with a multitude of partner agencies. Still others are adapting the approach for use in the water and sanitation sector and watershed management in Latin America with support from CIAT. We are still in an early stage of developing a standard model for this work but initial results seem promising. Over the next few years, we hope to see the learning alliance approach consolidated as a valid method for more direct and effective articulation between research and rural development processes.

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