Facilitating a multi-stakeholder learning alliance: a case study describing the activities, outputs and impact of the Pig Systems Development Alliance in Lao PDR[1]

Werner Stür[1], Phonepaseuth Phengsavanh[2], Anne Stelling[3], Joanne Millar[3] and Rod Lefroy[1]

1 International Center for Tropical Agriculture (CIAT), PO Box 783, Vientiane, Lao PDR (w.stur@cgiar.org)
2 National Agriculture and Forestry Research Institute (NAFRI), Vientiane, Lao PDR
3 Charles Sturt University, PO Box 789, Albury, New South Wales 2640, Australia

Abstract
This paper describes the formation, activities, results and impacts of an active Pig Systems Learning Alliance consisting of national and international researchers, development practitioners from NGOs and government extension services in northern Laos. The original objective of the researchers was to find a way to link with development practitioners in order to scale out a promising new technology, the supplementary feeding of the forage legume *Stylosanthes guianensis* CIAT 184 to village pigs. The case study showed that Alliance partners scaled out Stylo to more farmers in more villages more quickly than would have been possible through the government extension service or a single development project. The approach thus achieved the original objective. It also did a lot more: It created an informal network of like-minded professionals working for a diverse range of research and development organisations; it resulted in participants having a better understanding of the different institutional cultures of the research and development organisations involved in the Alliance; it improved the skills of Alliance participants in evaluating interventions with farmers and extending successful examples to other farmers and villages; and it helped them source relevant information through their new network contacts. Farmers benefited by having quick access to appropriate pig production technologies and working together with extension workers in selecting, evaluating and adapting new technologies for their situation.

Key words: R&D learning alliance, pig systems, women, NGO, Lao PDR

Introduction

The objective for setting up a pig systems learning alliance with NGOs and other development projects was to scale out results from the research project 'Forage legumes for supplementing village pigs in Lao PDR' (or 'Legumes for Pigs' project). This research project started in 2006 and is scheduled to be completed in June 2010. It is implemented in northern Laos by the International Centre for Tropical Agriculture (CIAT) in collaboration with the National Agriculture and Forestry Research Institute (NAFRI) and the Queensland Department of Primary Industries and Fisheries (QDPI&F), and is funded by the Australian Centre for International Agricultural Research (ACIAR).

The 'Legumes for Pigs' project has two components; a research component and a scaling-out component. The research component investigates options for improving feeding systems for village pigs and works directly with research partners at national level and government extension partners at three project district sites in two provinces in northern Laos. The second component is a scaling-out component achieved by linking up with a range of development partners in northern Laos through a learning alliance platform.

In a preceding research project, the 'Forage and Livestock Systems Project', CIAT had identified a very promising forage technology for pigs: the supplementation of fresh or dried leaves of the forage legume *Stylosanthes guianensis* CIAT184 (Stylo). Growing small plots of 200–300 m^2 of Stylo reduced or eliminated the need to collect naturally-occurring green feeds for pigs. In a survey of households growing Stylo for pigs, Phengsavanh and Stür (2008) found that labour requirements for providing green feed to pigs was reduced from 2 to 0.5 hours per day once households had sufficient amounts of Stylo. This time-saving benefited mainly women who were almost invariably responsible for pig production in the surveyed villages. Stylo supplementation also increased growth rates of pigs, which doubled from 100 to 200 g per day.

The 'Legumes for Pigs' project conducts research in order to better understand the scientific basis for the observed growth response. The project also had sufficient field evidence to warrant scaling out of this

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promising legume supplementation technology. Previous attempts by CIAT and NAFRI to scale out promising forage interventions by holding field days for interested NGOs and development projects and by providing written information material had proven insufficient for rapid uptake of these technologies. It was therefore hypothesised that a more active, longer-term engagement with development partners was needed to build capacity for scaling out Stylo supplementation. The project design team envisaged an alliance of researchers and development practitioners that built the technical capacity of alliance partners through workshops, training and mentoring, but did not impinge on the institutional culture of individual organisations.

Methods

Formation and activities of the alliance

CIAT and NAFRI first compiled a list of all NGOs, development projects and government extension services with interest in livestock development in northern Laos. A short list of potential Learning Alliance participants was prepared on the basis of their experience of, and commitment to, development of smallholder livestock systems, a commitment to working with smallholder farmers, enthusiasm for linking with a research project, and a willingness to contribute their own resources to participate in the Learning Alliance. Representatives of these organisations and projects were invited to a field day and workshop on 19–20 June 2006. On the first day, participants visited several villages where farmers were growing and using Stylo as a feed supplement for pigs, and had an opportunity to interact with farmers and question them about their experiences with growing and feeding Stylo to pigs. On the second day, each organisation or project was given an opportunity to present their activities and experiences with livestock production in a workshop setting. CIAT and NAFRI presented a review of pig systems in Lao PDR, and the results of an impact study that showed that supplementary feeding of Stylo provided a simple entry point for improving pig production, as it could double pig productivity and cut the time women spent in feeding pigs by half (Phengsavanh & Stür 2008).

Following presentations, the idea of forming a Pig Systems Learning Alliance (the 'Alliance'), the activities of such an alliance and responsibilities of participating partners was discussed. The workshop agreed to form an alliance and carry out the following activities: Alliance partners would meet twice a year in a workshop, in March to review results and experiences and to develop plans for the following wet season (May–November) and in the middle of the wet season in September to review progress and assist each other with implementation issues. At these workshops, each Alliance partner organisation would present its results, evaluate the outcome, share experiences with implementation and develop plans for field work for the following period. The workshops would provide an opportunity for developing plans for joint activities or setting up cross visits. CIAT and NAFRI agreed to supply up to 30 kg Stylo seed to each Alliance partner organisation to support scaling out, and to support Alliance partners with research findings, information material, training on issues identified by Alliance partners, facilitation of cross visits to villages where improved practices had produced significant impacts, and facilitating mentoring by linking NGO staff with experienced extension workers from government extension services involved in the research project. The 'Legumes for Pigs' project agreed to facilitate Alliance workshops and training courses, but each Alliance partner organisation would have to pay its own costs for participating in workshops, cross visits and training courses.

Training courses, mostly attached to Alliance workshops, were arranged on a wide range of topics requested by Alliance partners, and were closely aligned with field activities planned by Alliance partners in the following months. A total of 168 Alliance partner staff participated in one or more of the following training sessions: Stylo establishment, management, utilisation and processing; Pig production systems and options for improvements; Availability and nutritive value of local feeds; Pig nutrition and diet formulation; Fattening systems and sow-piglet management; Pig health and vaccination; and Pig marketing.

Evaluation of the Learning Alliance

In 2008, an evaluation of the Learning Alliance was conducted by a related ACIAR-funded project – 'Extension approaches to scaling out livestock production in northern Lao PDR' – which is being implemented by Charles Sturt University, Australia. Semi-structured interviews were carried out with 17 Alliance members over a two-week period in July 2008. Two English-speaking interviewers worked with two Lao translators, both of whom had knowledge of the agriculture sector in Laos. Interviews were digitally recorded and later transcribed and analysed in Australia. Interviewees were two leaders of the

'Legumes for Pigs' project (one from CIAT and one from NAFRI), four leaders of the NGO projects involved in the Learning Alliance, six NGO field staff, and five government extension staff.

The interviewed government extension staff were livestock extension specialists involved at the provincial and district level in planning and delivery of project extension activities, communicating with NGOs, data gathering and reporting. The interviewed NGO project leaders oversaw the involvement of their organisation in the Alliance as a small part of their overall development programme. Similarly, for the interviewed NGO field staff, involvement in the Alliance was a small part of their overall development role within their NGO projects. The roles of NGO field staff ranged from livestock development including fisheries, poultry, pigs and cattle, to horticulture, forage extension, animal registration, grassland survey and regulation (in the case of government-seconded staff), distribution of donated livestock and introduction of micro-credit systems. All of the interviewed NGO field staff were actively involved with the Alliance and related project activities at a local level and had attended at least one project training course. All but one had also attended Alliance workshops. NGO project leaders had attended some of the workshops and training courses. They maintained contact with their project teams via meetings, phone and email. The role of the CIAT and NAFRI project leaders was to coordinate project activities and facilitate the Learning Alliance.

Results

Participation, geographical reach and adoption of Stylo supplementation

The number of NGO projects and staff participating in the Learning Alliance increased from 2006 to 2008 (Table 1). The reason for the lower number of participants in the 2007 mid-season workshop was that the workshop was held in a remote location and projects were able to send only a few staff. Partners stopped participating in Alliance meetings only when their project was completed. From 2006 to 2008, one NGO project was completed and three new NGO projects joined the Alliance. In one case, NGO staff moving to a new project brought their new project into the Learning Alliance.

Table 1: Participation by development partners in Learning Alliance workshops, 2006–08

Workshops	NGO staff (projects)	Development project staff (projects)	Research staff (projects)	Extension staff (service units)[1]	Total staff (projects or units)
2006 Inception	9 (5)	5 (2)	7 (3)	10 (5)	31 (12)
2006 Mid-season	14 (3)	5 (2)	5 (2)	10 (5)	34 (12)
2007 Review/planning	16 (5)	5 (2)	5 (3)	13 (5)	39 (15)
2007 Mid-season	27 (6)	4 (2)	6 (2)	11 (5)	48 (15)
2008 Review/planning	16 (6)	2 (1)	5 (2)	14 (5)	37 (14)
2008 Mid-season	25 (7)	2 (1)	8 (2)	14 (5)	49 (15)

[1] Provincial or District Agriculture and Forestry Offices (PAFO and DAFO)

Engaging with NGOs and other development practitioners in the Alliance resulted in a much greater geographical reach than would have been possible by working only with government extension services at the three project sites of the 'Forages for Pigs' project (Figure 1). These project sites were located in three districts in two provinces. By working with Learning Alliance partners, the project was able to extend its reach to 16 districts in eight provinces.
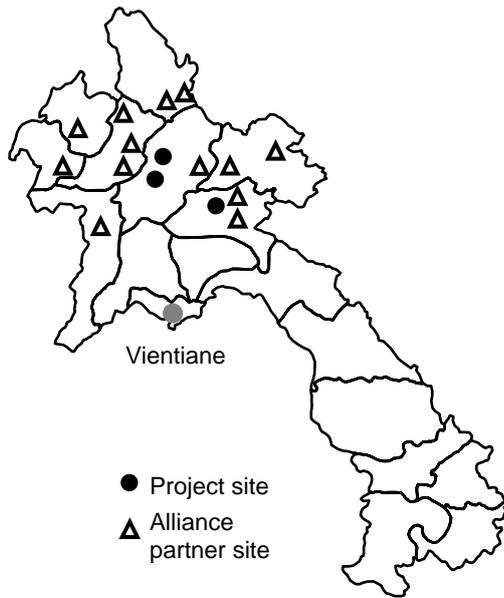
Figure 1: Project and Learning Alliance partner sites

Similarly, through the Learning Alliance, the project was able to build the capacity of many more development practitioners than would have been possible by working only at pilot sites. Twenty-five NGO staff participated in the 2008 mid-season workshop compared with eight government extension workers at the 'Legume for Pigs' project sites.

At the end of 2005, 170 households had planted Stylo in 15 villages in the three district project sites managed by district extension offices (Figure 2). By 2008, the number of households growing Stylo and using improved feeding and management practices had increased to 450 households in these three districts. Through other Alliance partners, the project had reached an additional 750 households. In total, Alliance partners had reached more than 1200 households in more than 120 villages in the 16 districts by 2008. Small amounts of seed of Stylo were provided to new partners but farmers had to produce or source their own seed for expansion and replanting (needed every 3-4 years). Local seed production is simple and farmers were quickly able to produce their own seed. Training on Stylo seed production was provided to partner staff.
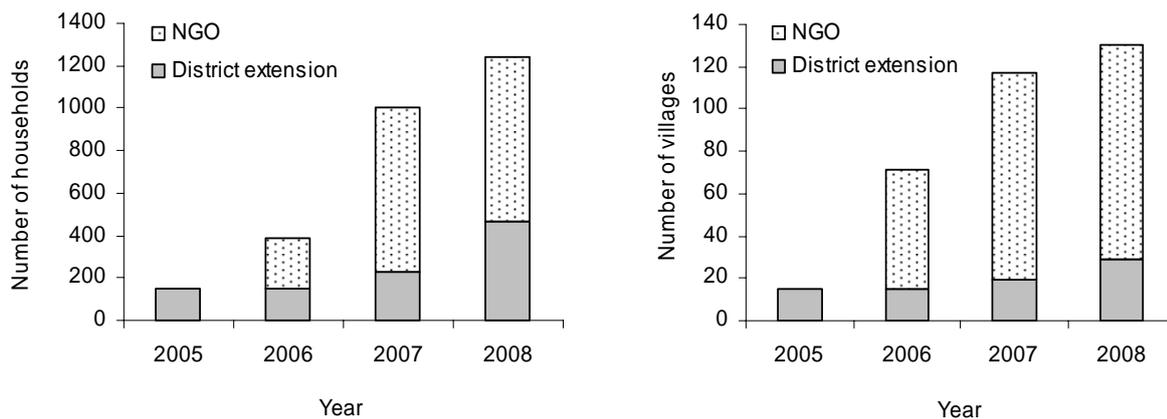

Figure 2: Number of households and villages having adopted Stylo for pig feeding, 2005–08.

Professional and organisational impacts

Evaluation of the Learning Alliance (Stelling & Millar 2009) revealed a range of professional and organisational impacts related to the skills and knowledge of participants, and inter-personal and organisational linkages. Where previously participants had worked in isolation, they now enjoy a supportive network, with access to much more technical information and a far broader range of

experiences. Lack of understanding, isolation and wariness between government extension staff and NGOs has been replaced by a desire to share, learn together and strive towards common goals. Major feedback themes common to all participants were the technology itself, the provision of supporting materials, the extension methodology, and the creation of a strong network.

Respondents stated that the Stylo technology and other pig production improvements provided substantial, immediate benefits to farmers by reducing labour inputs, improving pig productivity and increasing income from pig production. The technologies were easy to implement and provided an inspiration for field staff who saw the successes of Stylo in their villages. Field staff from the government extension service and NGOs staff found the combination of CIAT's training courses and workshops, along with cross visits, highly valuable. They greatly appreciated the deliberate cycle of participatory planning, taking action, followed by discussion and evaluation of the actions, in which their experiences and concerns were truly valued. All participants identified farmer-to-farmer learning activities, such as cross visits, combined with the Village Learning Activities[2] as major factors in the success of the project. Field staff from NGOs learnt both technical and extension skills and now feel better equipped to work with and support farmers. They stated that they are now confident that they could continue to scale out Stylo and other pig production technologies using these methods, supported by district government extension staff. NGO project leaders said that the project opened the eyes of their staff to a whole new technology, and gave them greater confidence in their role and a willingness to take on more responsibility within their programme. NGO leaders also felt that the Alliance has increased their staff's understanding of how government extension staff work and, conversely, increased the understanding of government extension staff about how NGOs work. The project also provided a platform for the exchange of experiences at the management level, with NGO leaders becoming involved with the network by attending workshops and planning sessions. One project leader noted the pleasures of interacting with other project leaders with a Lao focus, the excitement of seeing the project operating in other places in Laos, and learning how other NGOs operate.

All Alliance participants commented on, and appreciated, the strong informal network created by the project. Workshops created a forum for sharing knowledge between participants ranging from highly experienced participants to younger and newer ones. They learnt from the positive experiences of others, shared and discussed problems, and planned together. Importantly, participants felt their contributions were welcomed and they developed friendships with colleagues whom they may otherwise never have met. The Alliance resulted in participants' trust in their newfound network partners. NGO staff felt happy to call local District or Provincial staff, could approach CIAT for help, and also felt confident in calling on staff from other NGOs. The enhanced understanding by all partners of each other's institutional culture, and seeing the advantages of working together were two of the most significant impacts of the Alliance. NAFRI, CIAT and NGO respondents commented on the strong network that has developed between government extension staff and NGO field staff. Functional evidence of the network is found in the now regular meetings between the NGO staff and their government district extension counterparts, where they share experience and knowledge, and plan cross visits and other extension activities. NGO staff also appreciated the opportunity to share experiences with staff from other NGOs.

Synergies among Alliance partners by far outweighed the difficulties of working together. None of those interviewed for the Alliance evaluation had previously experienced a partnership, such as the Pig Systems Learning Alliance, between research, the government extension service and NGOs. All participants were appreciative of the complementary qualities project partners brought to the Alliance. NGOs were seen by other participants as focused, committed and keen for new experiences, but lacking technical knowledge. They brought different ideas and methodologies on how to work with communities. The NGO approach was seen as valuable for the impact of the project, as NGOs demonstrated to government staff that it was possible to achieve much quickly, with a concentrated effort. NGOs focused on poor communities and poor farmers, and used a range of tools and activities to work with them. Government field staff noted two NGO strategies of particular benefit to the project: livestock assistance programmes and micro-credit systems, both of which enable poor farmers to participate in livestock raising. Government field staff were seen as providing much needed technical knowledge, a legal status and good understanding of government policy, a district-wide understanding of agriculture and competing land uses. In turn, government extension workers appreciated the enthusiasm, dedication and eagerness of the NGO staff. They felt that, once NGO staff were trained in Stylo and improved pig production, they were competent, confident and capable of expanding the technology. Importantly, they felt that NGO staff

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[2] Village Learning Activities: a learning and extension tool. Extension workers and farmer groups work together to evaluate a new technology (e.g. feeding of Stylo to pigs) and compare the new technology with current farmer practice.

were keen to work with them, citing instances where staff had asked for help with technical issues. On a practical level, field staff pointed out that working together takes advantage of the different skills and knowledge of NGO and government staff; they can discuss local issues together and solve problems in different ways.

Project participants at all levels agreed that the benefits of working together go beyond what individual partners can bring to the project. There are efficiency gains made through mutual planning and budget allocations for activities. During the course of the project, the relationships within the Alliance changed; while initially researchers provided most of the inputs and ideas for improvements, soon development partners started to experiment with new ideas and technologies and provided feedback on their results to all partners. This feedback and sharing helped both development practitioners and researchers with their work.

Unexpected outcomes

Although the Learning Alliance was centred on improving village pig production systems, other technologies also 'moved' through the Alliance platform. One example was the large-scale adoption of cultivated grasses for feeding to cattle and buffalo, which is an entry point for improved cattle and buffalo production. Without ever being on the agenda of Alliance workshops, cultivated grasses 'appeared' and were highly successful at many project sites of Alliance partners. One example was an NGO project site visited during an Alliance field visit, where only a handful of households had started improved pig feeding and management (and these were promising!) but dozens of households had adopted cultivated grasses for improved cattle production and this technology had 'arrived' informally through Alliance partners. This demonstrated the power of informal networking, where partners share information and experiences on many topics of common interest, not just the relatively narrow focus of the Learning Alliance.

Another unexpected outcome emerged with NGO staff leaving a particular project and moving to other NGOs. Knowledge moves with people, and these staff used their new knowledge and implemented it in their new environment. In this way, at least one new partner organisation joined the Alliance.

Discussion

The Pig Systems Learning Alliance experience showed that bringing research and development actors together in a thematically-focused, long-term Alliance can provide significant benefits. In this case study, the Alliance partners scaled out Stylo to more farmers in more villages more quickly than would have been possible through the government extension service or a development project. The approach thus achieved the original objective of the 'Forages for Pigs' project team. It did, however, achieve a lot more: it created an informal network of like-minded professionals working for a diverse range of research and development organisations; it resulted in a better understanding of the different institutional cultures of the research and development organisations involved in the Alliance; it improved the skills of Alliance participants to evaluate interventions with farmers and extend successful examples to other farmers and villages, and to source relevant information through their network contacts. Farmers benefited by gaining access to appropriate pig production technologies quickly and working together with extension workers in selecting, evaluating and adapting new technologies for their situation.

Brinkerhoff (2002, p21) defined an ideal partnership as "A dynamic relationship among diverse actors, based on mutually agreed objectives, pursued through a shared understanding of the most rational division of labour based on the respective comparative advantages of each partner. Partnership encompasses mutual influence, with a careful balance between synergy and respective autonomy, which incorporates mutual respect, equal participation in decision making, mutual accountability and transparency". This definition suggests two dimensions of partnership: mutuality and organisational identity. Mutuality encompasses mutual dependence, mutual commitment to goals and objectives, and the extent to which these are consistent and supportive of each partner's mission and values. Organisational identity defines that which is distinctive and enduring in a particular organisation, and that organisation's ability to maintain its core beliefs and values across time and contexts. True partnership is defined by high mutuality and high organisational identity.

Partner organisations in the Pig Systems Learning Alliance clearly shared a common goal: alleviation of poverty in rural Laos. All saw the need for improving livelihoods of smallholder farmers through more efficient and sustainable agriculture and livestock production, and they were all looking for opportunities and ways of doing this. Many shared additional common goals: providing significant benefits to women and ethnic minorities, and the use of participatory approaches in working with local communities. Other

factors also contributed to mutuality. These included the recognition of the synergies among the various partner organisations; the benefits from trainings; the learning that ensued from joint review, evaluation and planning of activities; the opportunities for visiting project sites of other organisations; and the access to information and experiences through the informal network. All of these contributed to the effectiveness of individual organisations and helped them to reach their objectives.

The factors above also reinforced partners' organisational identities by highlighting the importance of the contributions of each and providing positive feedback for each organisation. The project design deliberately restricted the Alliance agenda to technical issues, as CIAT and NAFRI felt that each NGO (and other development partners) had its own mode of operation and would integrate the technical information and knowledge in their own way into project implementation. While this policy may have been greatly beneficial at the beginning of the Alliance, as it did not threaten the organisational identity of partners, it was soon overturned by Alliance partners. Requests for discussing and sharing knowledge on effective ways of working with farmers, participatory extension and achieving livelihood impacts were voiced and put on the Alliance agenda. This probably reflected the increasing level of trust among partners and confidence that organisational values and identities were respected by other partners.

There were several challenges in managing and facilitating the Alliance. Many of these related to different institutional cultures and operational procedures of partner organisations. These included diverging remuneration, access to operational funds, disincentives for sharing information, staff turnover and bureaucratic procedures, among others. These were real and important constraints but the benefits of participating in the Alliance were sufficiently significant for participants to cope with and manage these challenges, and to convince their organisations to support their participation in the Alliance. Another related to the need for a range of technical information. Researchers from CIAT and NAFRI were challenged by requests for information and advice that was well outside their own area of knowledge and 'comfort zone'. For example, NGOs and other development practitioners were interested not only in pig feeding, but also needed to address other aspects of pig husbandry, breeding and health. Also the need for different types of information continued as farmers intensified pig production and encountered different types of issues. This issue was discussed by Van den Ban and Samanta (2006), who pointed out that increasing agricultural commercialisation requires that farmers have different competencies than a subsistence farmer needs. Thus, the extension support required expands with the success of the technology in changing the farmers' situation. Providing this information support required a substantial time commitment by researchers.

Hall *et al* (2008) argued that the process of developing innovative links and networks is as important as developing technologies. This case study confirms this concept but also shows the importance of an entry technology – in our case, Stylo supplementation – that provides significant benefits to farmers, and inspires and convinces NGOs and other development practitioners that it is worthwhile to join a learning alliance.

Conclusions

This case study shows that a thematically focused learning alliance of researchers and development practitioners from a broad range of backgrounds and organisations can benefit all partners and achieve significant impacts. Farmers benefited by gaining access to technologies that significantly improved both their pig production system and ability to evaluate new technologies. Participating organisations and their staff benefited from the improved technical and methodological capacity of staff, by access to information and experiences, and by becoming part of an informal network of like-minded professionals that will ensure continued access to information and experiences. Researchers were able to empower development practitioners to scale out promising technologies and thus achieve impact, and they benefited by receiving feedback from multiple development partners on implementation of research findings.

Acknowledgements

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