Enabling collaborative learning? Lessons from group-based extension in Vietnam's smallholder pig husbandry

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Abstract: *Group extension has been described as a promising option for diffusion of innovations in agriculture and for opening spaces in which the marginalized can participate. In Vietnam, a profound reform during the past two decades encouraged development of a well-organized extension system and supported new approaches to extension. This paper analyzes five current extension groups in the pig sector and looks at constraining and enabling factors. This is done by exploring stakeholder perceptions through ethnographic research methods. Separating social processes from technical procedures and finding a balance between leadership and collective responsibility are identified as key to enabling group-based approaches.*

Keywords: *Group-based Extension, Collaborative Learning, Smallholder Pig Husbandry, Vietnam*

Introduction

Group-based learning approaches in agriculture – if performed properly – can be an effective means of building farmer competencies and networking through gathering people to engage in learning and in ongoing processes of experimentation and development. The group provides space for mutual learning, improves analytical skills, supports networking and gains recognition of input suppliers, marketing outlets and knowledge providers. In the literature this process of communication is acknowledged to be key in agricultural innovation and marked a starting point for a new paradigm in extension that recognized the farmer as equal partner – and his/her farm as a source of innovation in itself (Biggs, 1990; Leeuwis, 2004; Hoffmann, 2006). Extension methods building on this paradigm underscore the importance of farmer participation and joint development/adaptation of innovations.

Yet transforming extension systems from predominantly top-down orientation to extension approaches that view innovation as a product of multi-stranded interaction among multiple actors is far from easy and takes time. Throughout the countries of East and Southeast Asia with a recent history of socialism, agricultural extension shows a common pattern: technical prescriptions are derived from controlled and uniform conditions, and then widely disseminated by applying hierarchical top-down extension approaches with little or no regard for diverse local needs and conditions, often making the content unworkable. This holds particularly true for Vietnam, where a relatively recently (1993) established agricultural extension service is struggling to shift to more integrated, client-oriented approaches to rural innovation that emphasize the importance of interactive, mutual learning between formal and informal knowledge systems (Friederichsen, 2009; Castella et al., 2006). In the countries' marginalized mountainous areas of the northwest, this process is further impeded by ethnic and cultural diversity, with largely disparate farming and husbandry systems (Jamieson et al., 1998; Kerkvliet and Porter, 1995). The number of people who need to be covered by extension is large – both in total numbers and geographical outreach as well as individual needs, and the costs of reaching them are high. Therefore foreign donors and the growing number of private and non-governmental actors, as well as to a lesser extent state bodies, are experimenting with a number of extension approaches. The numbers and types of group extension programs allowing various degrees of participation are on the increase.

In this paper we discuss the insights we gained during a study of five recently established extension groups in smallholder pig husbandry.[1] The study aimed at analyzing the appropriateness of current extension group settings for further regional spreading in the context of an extension system in transition and a governance setting characterized by a strict hierarchical order. This was done by exploring opinions on the groups' work and the perception of group management among stakeholders, with a particular interest in its limitations and constraints. The objective is to describe how group extension can gain further acceptance and outscale accordingly (geographically and regarding subject matter) under given governance structures.

Reflections on group-based extension approaches

Reinventing agricultural extension has been on researchers' and policy makers' agenda for a long time. While in the traditional "transfer of technologies model" major attention was paid to trickle-down flows of information from research via extension and from extension to farmers, approaches rooted in the 'multiple sources model' shift attention to feedback and upwards communication from farmers (e.g. Hoffmann et al., 2009; Clark, 2002; Biggs, 1990). Accordingly, learning is seen as "an active knowledge construction process instead of learning as the (passive) absorption and reception of knowledge" (Röling and de Jong, 1998: 144). "Approaches to extension" are understood as the fundamental conceptual and functional method of extension, adopted in order to fulfill its aims. Approaches can only be developed; they cannot be transferred or copied (Hoffmann et al. 2009:31ff). When it comes to developing an appropriate approach, the decision depends on the situation – the clients and their resource endowments, the related objectives of extension, the possible solutions to stated problems and the resources available to the extension advisor.

In that sense an approach can be seen as a strategy for change. The literature distinguishes two basically different types of approaches, namely the production technology approach – which largely builds on the assumptions of the transfer of technology model – and the problem-solving approach, which puts the needs and participation of the client groups at the center (Hoffmann et al., 2009; Rivera et al., 1991) and views the extension agent as a facilitator of change, rather than a pure transmitter, as the production technology approach suggests.

Group extension and the issue of facilitation

Despite the promise of farmer groups, the functioning of groups is often constrained by various obstacles. These obstacles include outside factors, such as the political system with its regulations and norms, lack of institutional support, lack of infrastructure, market constraints etc. Moreover, apart from outside factors, the groups are confronted with their own internal obstacles in terms of effective management structures and the organization of learning processes (Oerlemans et al., 2004).

It is generally difficult to delineate the origin of factors, and how the factors might have influenced one another. Our research was carried out in a country permeated by a repressive political regime that had enforced a culture of control for decades. The general understanding of "groups" – mainly used synonymously with "collectives" – has some strong implications and determines internal factors per se; however, in this paper we would like to provide some insight into internal obstacles, while considering how internal barriers are partly determined and amplified by outside factors.

The "management" of groups is an important issue – good management enhances performance, while inappropriate or inadequate management can be a barrier to realizing the full potential. The ordinary smallholder farmer usually does not have the competencies to assemble, guide, monitor and evaluate the group. Therefore the role of the group facilitator is crucial. Leeuwis (2004) summarizes the facilitator's tasks as 1) to facilitate the group process, 2) to teach and 3) to be an

[1] The study was conducted within the framework of a collaborative and interdisciplinary research program on "Sustainable Land Use and Rural Development in Mountainous Regions of SE Asia". The subproject "Scaling up and out participatory approaches" aims at exploring sustainable strategies for disseminating results to a wider circle of users.

expert on technical aspects of farming. Consequently communication skills are regarded as of equal importance to specific knowledge of the subject in question. The facilitator brings people together, acts as a moderator and directs processes of learning and exchange. In this respect, striking an appropriate balance between leadership and shared responsibility will be decisive in motivating participants and sustaining the group.

Formation of groups and development of study methods

For group extension it is desirable to have groups that foster mutual communication based on a similarity of interests and assets among individual members, but with sufficient differences to make an exchange of ideas interesting (Hoffmann, 2009). In the long run, joining a group has to be meaningful to farmers, in order to maintain their motivation to participate and their solidarity with their fellow group members (Oerlemans, 2004). The facilitator can rarely determine the composition of the group; he can however considerably improve its cohesion. New groups need some time before reaching the stage of productive co-operation. How much is meant by "some time" depends on the attitudes of group members and the skills of the facilitator, but also on the actual subject matter.

Particularly in the literature on farmer field schools – a collaborative learning approach based on adult education principles such as experiential learning – it has been shown that groups are more stable and function better the more influence the members themselves have on deciding working methods (van de Fliert, 1993; Kenmore, 1996). Consequently, targets should also be determined by the group, after which appropriate working methods, based on the experiences and expectations of the members and the competencies of the facilitator, can be agreed.

Extension groups in practice: Pig husbandry in Son La province

In the mountainous northwest of Vietnam, land scarcity, decreasing soil fertility, domestic market demands and the need to diversify incomes has led to the optimization and intensification of pig husbandry. With the majority of farmers in this area being smallholders keeping just one to three breeding sows on average, the area is seeing a shift from subsistence farming towards more commercially-oriented practices (Minh, 2009; Henin, 2002). This development is mainly credited to the economic and political reform program *Doi Moi*, set forth by the Vietnamese government in the mid-1980s. Within this framework agricultural collectives were gradually dissolved and land, animals and other factors of production were redistributed to families (Kerkvliet, 1993:20). Smallholders obtained complete user rights and were free to make their own production decisions. In the improved economic climate, the new agricultural policies quickly generated positive results. The Agricultural Extension Office ("State Official Extension" = AE) established in the early 1990s, mandated with improving farm productivity and farm family incomes throughout the whole country, became a prime driver of development. Previous "waves" of innovation with AE as the main actor in dissemination had fostered large-scale adoption of high-yielding hybrid rice varieties and boosted the production of corn – currently the most important cash crop (Minh, 2009). The diffusion of corn production was however supported by the rising private sector, which provided inputs as well as marketing outlets for even the most remote areas. The potential for improving incomes by rearing pigs was still considered "limited" around the year 2000, owing to high investment costs, the relatively high levels of management knowledge required, and the need for a wide network that ranges from sources for obtaining genetically suitable breeding animals, veterinary services, inputs such as concentrated feeds, vitamins, minerals to access to breeding boars and infrastructural issues like constructing improved pigsties and organizing the marketing (Henin, 2002). Therefore commonly applied "demonstration models" - extremely successful for knowledge diffusion in plant production – quickly showed their limitations and alternative strategies were called for. Some examples of these are the Farmer Livestock School piloted by DANIDA, in its basic ideas similar to Farmer Field Schools, and "pig-banking", which builds on the Heifer concept to spread improved cattle breeds. Despite positive experiences overall, high costs and relatively slow knowledge diffusion encouraged sectoral actors to set up innovative forms of extension, building on the local knowledge system.

Dealing with diversity

The three districts selected for this study are situated in the northwestern province of Son La, an area with the lowest living standards in the whole of Vietnam. It is characterized by rough mountains, diverse ecological conditions and environmental degradation, difficult access due to under-developed road infrastructure and unique ethnic diversity. There are more than 30 different ethnic groups, which vary in language and culture as well as in their farming activities, and most importantly in their connectivity with main (*Kinh*) society in lowland areas (where the markets are). This leads to different degrees of social and economic marginalization and of integration into the socialist political system.

About 55% of the province population belongs to the *Thai* ethnic group, who live in more central and valley locations and are the most developed. The *Hmong* account for approx. 20%, settle in higher, more remote places and are regarded as the least developed group in the region. *Kinh* people, or "ethnic Vietnamese", who constitute more than 85% of Vietnam's overall population, in-migrated from lowland areas into Son La in the second half of the 20th century and now make up 15% of the province's population. Their settlements were established in more central locations and put people in more socially and economically privileged positions (Friederichsen, 2008).

An extension system in transition

The state penetrates practically all areas of life, be it through tight organization of local governance and community life or through people's private lives, with each household having at least one member of a "mass organization", e.g. Veterans' Union, Youth Union, Women's Union, Farmers' Union, etc. The last two concentrate most of their efforts on developing agriculture.

Although liberalization of service provision opened the way for private service suppliers, extension is mainly delivered to smallholder farmers by the various organs of State Official Extension (OE), the National Agricultural Extension Center (NAEC) and the Department of Animal Husbandry (AH) being the most prominent.[2] The two organs are intended to complement each other, with NAEC in charge of extension and AH responsible for all aspects of animal hygiene and herd control. The strict, hierarchical organizations maintain offices from province level down to district level and send Communal Extension Workers (CEWs) to 70% of the communes, the smallest administrative unit. AH has an almost full coverage of contracted animal health workers down to village level. However, despite this relatively well-organized and dense network of extensionists, provision of inappropriate material, declining budgets for field activities, and inappropriately skilled and poorly motivated extensionists limit their success and outreach, whereas a growing number of private actors is providing inputs along with the expertise to make use of them.

The findings of the Vietnamese agricultural scientific institutions are officially disseminated by OE (Goletti, 2007), but actors from universities and research institutes are nevertheless involved in various extension activities directly targeting farmers. The involvement is not clearly defined in their mandates, with the scope and degree depending on the individual researchers.

Experiences with extension groups

The past ten years have witnessed the establishment of several extension groups in the research area's smallholder pig husbandry as part of the promotion of the development and sustainability of pig husbandry (5-year plans for Son La province, 2001-2005 and 2006-2010). Furthermore, the provincial government has issued a directive to strengthen the use of participatory approaches in agricultural extension (AEC Son La, 2002). The following section will provide the context and then explore the groups' setup and experiences in implementing and carrying out the group tasks.

[2] As yet, the organization and work of NGOs is extremely weak. A few international ones work in Son La province, but have minor to no influence on the development of pig husbandry.

In the primary stage of research in early 2007, an inventory of pig husbandry extension groups in the research area was compiled through informal research conversations with a number of regional authorities and village leaders. Focusing with qualitative case studies of the five most current groups proved useful in making the research comprehensible to the local authorities in order to gain their trust and handle key actors' reluctance to provide "hard" data. Given that the groups were at different stages, with some already disbanded and others only recently established, a relatively loose interview structure helped to sketch the group dynamics accordingly. Once key actors had been identified, expert interviews were conducted with persons selected on the basis of their positions, responsibilities and relevance for extension group work. The questions revolved around ideas on initiation, the setting up of the group, the selection of members, advisory staff/facilitation and the extension methods applied. All interviews were recorded, translated into English and transcribed, while content analysis was applied as the main analytical tool (Mayring, 2003).

Types of extension groups

Four out of the five groups analyzed are an institutional innovation to the area, deviating from "conventional" (group) extension, since they involve a variety of actors from different organizations cooperating in setting up and facilitating the group, encompass a set of new group practices and depart from the usual patterns of interaction in what is considered an "extension model" in Vietnam. By contrast, the group *not* considered an innovation, namely the group in *Chieng Sinh Commune* (subsequently referred to as "CSG"), is regarded as a "conventional" demonstration model, as its set-up and conduct of activities are typical of the common extension practices of OE throughout the whole husbandry sector. In the next section, therefore, CSG is described in more detail in order to provide a reference point for the innovative groups.

"Conventional" group extension in the research area

Typically, OE seeks to "disseminate" innovation packages – mainly developed by national research organizations and successfully piloted in lowland areas – through setting up demonstration models working with a limited number of 10-15 farmers at most. This is also the case in one village in the ethnically relatively homogeneous commune of *Chieng Sinh*, easily accessible by a main road. Frequent contact between OE and the community was already apparent in various other demonstration models (e.g. fruit trees, biogas, community water storage) in previous years. The village community – typically for ethnic *Kinh* in Son La province – is made up of late arrivals into the area (late 1970s), in-migrating from a lowland province near the capital Hanoi, each one endowed with a comparatively small area for farming. Because of limited opportunities for extending agriculture and off-farm income, intensification of animal husbandry was and still is a suitable – if not necessary – option to maintain and improve livelihoods. An OE delegation, comprising advanced subject matter specialists from senior administrative levels and the Communal Extension Worker (CEW) as the principal and foremost intermediary between OE and farmers, held an open village meeting to provide a general outlook on "model objectives", with the introduction of a new lean pork breed as its central theme. In a second step, interested farmers were visited and assessed, taking into account their household economic condition, pre-existing livestock housing, previous relevant experience and available labor force. The most suitable ones completed the list of participants which already comprised leading community officials (e.g. village head, heads of mass organizations, head of the local party cell etc.). Selected participants joined an intensive one-day training class on basic management practices for the new breed and codes of model conduct: a 60% contribution to the purchase price of the sows, to be bought from a lowland breeding station in order to guarantee their genetic purity, subsidized fodder at 40% of its actual market price and free veterinary services for a period of one year, the project's official term. Two more identical project groups nearby were set up gradually by late 2007, to provide further comparison. The relatively strict guidelines and management package impeded any experimentation or adjustment to individual resource endowments, while contacts with the CEW were limited to irregular and brief inspection visits. The theoretical opportunity to request particular advice through the group representative

(who was appointed by OE according to his/her seniority in community hierarchy), however, was hardly exploited. Further contact between OE, CEW and group participants took place at a 6-month mid-term project review and for an evaluation at the end of the one-year term. Group representatives were given the chance to participate in the meetings of parallel models, while further exchange both within and between groups was not encouraged and therefore in practice did not go beyond occasional, informal talks.

Alternative settings

Table 1 provides a typology of the studied cases "WomUn", "ExtClubs", "NatRes" and "ForRes", with the previously described CSG for comparison, setting out the major characteristics of extension delivery, group composition and patterns of interaction. It is important to stress that the two latter groups "NatRes" (a national research project supported by the Ministry of Science and Technology) and "ForRes" (a foreign research project under the broader framework of a collaborative research program) were initiated by researchers with backgrounds solely in animal husbandry.

Regarding the setting of groups, it is relevant that the initiators of the other two groups WomUn (after "Women's Union" as the initiators) and ExtClubs ("Extension Club", initiated by OE) are more acquainted with both area and people and therefore could draw on previous contacts and existing networks during the process of group formation. All groups center their learning efforts on the introduction of a new or improved pig breed at the very early stage of group constitution and have a fixed term, with the exception of ExtClubs, which focuses on optimizing the pig husbandry systems of their members for an unlimited period. The specific objectives of the groups were: (1) to stimulate innovative modes of cooperation between extension actors from different organizations and farmers, (2) to share experiences, (3) to identify problems and jointly find solutions, (4) to consolidate the concept of extension groups in the area and (5) to serve as examples for formation of further groups outside the projects.

Throughout the wider farming community in the area, however, there is agreement that NatRes largely failed, both in terms of acceptance of the innovations it promoted as well as in the functioning of the learning group itself. This basically holds true for WomUn as well, but is less often articulated, on account of its direct affiliation to state bodies. ExtClubs and ForRes are the only ones still running, the latter with a mandate due to expire in summer 2012. Both group types have received somewhat ambivalent assessments, but with most critical statements coming from local administration and a largely positive response from farmers.

Problems and limits to group functioning encountered

Whenever any extension activity is announced to smallholders in a traditionally disadvantaged area, it comes as no surprise that there is a large response. Along with the promise of (highly) subsidized or even free production factors (breeding sows, concentrate feed, etc.), it is mainly the prospect of regular recognition by extension staff from district level and above that is perceived as particularly motivating. However, a number of tensions have emerged in relation to the implementation and conduct of the groups. These tensions mainly have to do with (A) group composition, inappropriate communication of "soft" (that is *joint learning*) objectives and the selection of group representatives and appointment of facilitators, (B) type, frequency and performance of group activities and (C) inadequacies in basic group settings and selection of the study topic itself.

(A) A relatively non-transparent process of selecting group participants allocated membership primarily to current and retired village authorities and left few opportunities for applicants without an official position in village hierarchies. The tendency to biased group composition was further amplified by direct appointment of the group representative by the initiators (WomUn, NatRes) or by the responsible village head (ExtClubs, ForRes). This was considered a mistake by many group members, who assumed that the group leaders' style of administering and expecting instructions, rather than actively initiating group activities, was rooted in their administrative functions. In the

cases of WomUn and NatRes, group representatives were asked to act as facilitators at unscheduled group meetings as well.

The gender composition was another controversial issue observed in three groups (CSG, NatRes, ExtClubs). Unlike at farm level, where women carry out most work in pig husbandry, men were recruited by preference as group members, thus failing to address the actual focus group. The best solution was found in ForRes, where membership was allocated to households rather than individuals, leaving it up to the family to decide whom to send to group activities. Apart from this all groups were remarkably homogeneous in terms of members' ethnic affiliation and people who had had previous contact with each other.

As can be seen in Table 1, it is important to note that each group drew on actors from OE (CEWs, or the Animal Health Worker in the case of ForRes) to serve as group facilitators, thus dashing the smallholders' hopes of working with higher level extension staff.

Table 1: Typology of groups. Characteristics of service delivery, target group composition and patterns of interaction.

Who are the main actors in group design and implementation and what are the respective terms? **Type**	Who are the target farmers of the organization? Who is entitled to join? **Beneficiaries**	How are the target farmers selected? **Selection**	Who are the group advisors/facilitators, and what is their average education/ qualification? **Advisory staff**	How frequently do advisors/facilitators interact with the beneficiary group and vice versa? **Interaction**	What extension methods are used mainly? **Extension Methods**
State Official Extension (OE) – Farmers *1-2 years* *2006-2007/08* **"CSG"**	Ethnic *Kinh* farmers in central (valley) locations with growth potential	Farmers apply: Acceptance depends on appropriateness of Hh economy, cond. of livestock housing, previous experience and labor force (+ hierarchical village position, kinship, etc.)	Higher level staff of OE with advanced education and subject matter qualifications; Communal Extension Workers (CEWs) with technical school education in agriculture or animal husbandry	Bi-annually; Further advice (to the group) upon request	Training lectures; Further advice (to groups) upon request
Women's Union – Farmers *1-2 years* 2007-2008/09 **"WomUn"**	Women who are members of the local union; Not necessarily ethnic *Kinh* but most likely due to selected location	Same as in CSG	Women's Union staff with medium education other than in husbandry or veterinary medicine; CEWs	Bi-annually; Frequent (monthly) meetings of local Women's Union cells can also be used for update and discussion	Same as in CSG; However additional meetings with informal updates and exchange
Farmers Various partners (depending on issue) *Long-term* *2000-open* **"ExtClubs"**	Membership open to everybody in village sharing a common interest. Small farmers in particular are invited to join; In practice mostly people belonging to the *Thai* ethnic group.	Open to everybody within village, small membership fee required; Unlimited number of participants	Farmers of high reputation in pig husbandry and long-standing experience; CEWs; Higher level staff of OE with advanced education and subject matter qualifications	Bi-annual meetings for evaluation and planning; No institutionalization of number and frequency of further meetings, however bi-monthly meetings not unusual	Farmer-to-farmer learning Training lectures Field excursions Demonstrations Group discussions; Special training classes for group representatives
National Research – Extension Service – Farmers *3 years: 2006-2009* **"NatRes"**	Mainly *Kinh* and some *Thai* in central locations with growth potentials	Same as in CSG; (+ hierarchical village position, kinship, local opinion leadership)	CEWs; University lecturers holding degrees in animal husbandry	Bi-annually	Training classes
International Research Vet. Department – Farmers *4x3 years: 2000-2012* **"ForRes"**	Ethnic minority small farmers (*Thai* and *Hmong*)	Farmers apply: Acceptance depends on motivation and condition of livestock housing; Limited number of participants	Staff of Department of Animal Husbandry (education similar to CEWs). National and international researchers with advanced degrees in animal husbandry	At least bi-monthly	Training classes Feedback seminars; Individual or group advice upon request

In the case of WomUn and ExtClubs, this was because of the direct involvement of OE in group initiation, while NatRes and ForRes – as projects initiated by scientific actors – were not able to provide appropriate alternatives. Major concerns of farmers regarding the appointment of CEWs were their past experiences of the CEWs' limited availability due to the absence of any incentives for field visits, inadequate professional qualifications, and long-standing network relations of local extension staff that might favor certain clans and village positions, consequently excluding more

"ordinary" farmers. None of the projects trained group representatives and/or facilitators in group moderation techniques and the application of participatory methods.

(B) In the example of the conventional extension group CSG, there are only three official meetings of the group during the project cycle, namely an initial training class, a mid-term review and a final evaluation. This system is also adopted by WomUn and ForRes, but in the case of WomUn with the chance to update and discuss current issues at the less formal monthly meetings of the local Women's Union branch. ExtClubs and ForRes assemble group members more frequently, with the intention of providing more opportunity for discussion among members. The relatively inflexible setting of training activities was also criticized by most interviewees, on the basis of access, timing, provision and conduct of the activities. Attendance at training activities was typically low, which is in stark contrast with the overwhelming majority of group members interviewed who were not satisfied with the overall numbers of training sessions provided and would appreciate having them more frequently. This contradiction can be explained by looking at the timing of training sessions: in all basic documents (with the exception of ForRes), a target number of meetings and exact frequencies are indicated and do not provide the opportunity for individual adjustments based on people's availability, with many sessions conducted during periods of labor shortages in the peak of the cropping season. Timing also tends to conform more to the availability of extension staff than to that of farmers.
Most group activities showed the typical features of classroom lectures, with the exception of a few interactive elements such as group discussions in ForRes. Group members of WomUn and NatRes were equally disappointed by the conventional lecture style as well as by the choice of topics, which largely ignored the requests made by farmers during inaugural meetings. This was particularly discouraging for farmers, as responses to individually articulated problems were explicitly promised at the beginning.

(C) An individual initiative to obtain high-quality breeding animals is usually limited by availability of cash or credit and by lack of access to commercial suppliers of genetically excellent pigs. The projects offered a unique chance for smallholders to gain access to animal material, and at the same time they offered subsidies (WomUn, ExtClubs) and in-kind payments (sow for free and later pay back one piglet from the first litter) (ForRes, NatRes). However, vague information regarding the modes of repayment (NatRes) or unclear and negotiable time to repay (WomUn, ForRes) resulted in inconsistencies with initiators, as well as putting the group heads, who were assigned to collect the money, in a situation where loyalty towards their group fellows conflicted with their responsibility towards initiators. Consequently, a feeling of "us" and "them" emerged among ordinary members, leading to mistrust towards group heads, facilitators and initiators, and thus undermining an open and cooperative atmosphere. On several occasions, group members criticized a lack of support measures backing up the study topic, such as credit brokerage to enable farmers to bear higher input costs after the project term finished, introduction of input suppliers, market information, etc., and were therefore concerned that they would not be able to sustain innovations after the project finished.

Another strong criticism that makes the continuation of the innovations unlikely is the low adaptation to local conditions (climate, condition of livestock housing, fodder availability). Outbreaks of (previously unknown) diseases, low increase in weight and issues concerned with pregnancy, as well as number of piglets and mortality rate, led farmers to reproach extension staff for having distributed animals of insufficient quality. This had the far-reaching consequences of perceiving the subject matter of training sessions as rather inadequate, as they were geared to common practices in controlled conditions rather than the uncertainties encountered under smallholding conditions. Confronted with this perspective, the director of provincial WomUn admitted that her institution could not compile the necessary baseline data prior to the project start, which might have prevented such mistakes, blaming limited funding and insufficient labor. In ForRes, by contrast, where improved *local breeds* were distributed, one major point of friction was compatibility of animal material with local resources and optimization of the production systems rather than changing the orientation. It took some time and required a couple of training activities before farmers realized the potential of

system optimization and eventually overcame their initial disappointment at not being equipped with a totally new breed. Eventually, acceptance of the breeds was high.

Shortcomings and impulses

Are the cases analyzed helpful in building capacity and fostering collaborative learning, or is it just another example of an authoritarian top-down approach to programming in a new guise?

In translating the group concept into practice in a culture with the tradition of command-and-follow, "advisory" work can be expected to be a difficult and even sensitive issue for local administration. What we have observed, however, is the introduction of a promising idea whose basic principles – "participation through grass-roots democracy", "evolutionary determination of study objectives and methods" and "collaborative learning" – were undermined by the specific socio-political context. Many of the difficulties had to do with essential mistakes in the early stage of group formation: non-transparent group composition, biased appointment of people to take over group tasks and inadequate qualifications hampered the emergence of group cohesion. Moreover, the allocation of responsibility for running groups to just a few people put those individuals in positions they were simply not able to manage, while the more ordinary group members saw their role as pure receivers of knowledge, rather than realizing the necessity to actively contribute to group activities, i.e. more or less sitting back and awaiting suggestions from the few people with responsibilities.

Vietnam – like China – conceptualizes upland development as the need to incorporate minority groups into the national polity by controlling them politically (Hill, 1995). This is achieved by means of a highly hierarchical administrative structure in rural areas, and was therefore also reflected in group structures. This tendency was further aggravated when the groups were made up of relatively homogeneous members, which further internalized long-standing, hierarchical positions into the group. A homogeneous group of this kind is not necessarily disadvantageous for group functioning: unlike what Bergevoet et al (2006) find in their analysis of study groups in the Netherlands, most farmers in upland Vietnam see other smallholders beyond their clan as competitors rather than partners. It can be speculated that group initiators were aware of this and therefore recruited group members from relatively homogeneous villages and along ethnic gradients. Thus potential knowledge gains through simply drawing on local knowledge are not activated by groups.

All the groups lack what Anandajayasekeram (2007) coins "built-in flexibility", whereby concepts and procedures can be modified to suit local conditions. Groups designed to offer this flexibility did not make use of it, since either no actor was mandated or nobody knew how to make use of this powerful tool. Again, explanations can be found in the lack of appropriate training for facilitators and group representatives.

Extension groups need clear separation between social processes and technical procedures

This study supports Peters' (2001) assertion that in a society like Vietnam, predicated on rapid development by boosting technical innovation within a very short time frame, combining the introduction of collaborative methods with the introduction of a complex innovation that was "en vogue" rather than suited to local conditions can block the beneficiaries' view of the soft objectives. A setting without major technical innovations would have provided a clearer picture for the identification and prioritization of key bottlenecks in group functioning, and moreover would have provided more flexibility in adjusting group methods. But again this does not fully explain the difficulties in the cases analyzed, where certainly insufficient conceptualization of *what* should be the learning effects from assembling people in groups and *how* this should be achieved, along with a lack of focus, and a lack of preparation and experience amongst project personnel, were important factors triggering failure.

Finding balance between leadership and supporting collective responsibility

More than just initiating and setting up groups, the challenge is to support actors in understanding the opportunities arising from it. This can only be achieved through sound concepts that already integrate group members at the very early planning stage, backed with the maximum administrative support and – in the Vietnamese case – a strong OE role. Moreover, sufficient numbers of advisory staff well educated in group moderation techniques and participatory approaches are key to success. Concentration of group tasks on the shoulders of a few village officials will put members off the group idea and undermine group cohesion, as the blame for failures in group functioning can always be attributed elsewhere. Improving group performance by assigning monitoring and evaluation tasks to group members can provide well-proven instruments for engaging people more actively and support self-management of the group.

The need for long-term strategies and overall coordination

Notably, although three of the cases studied had limited durations, no desire to continue was expressed during the interviews. In a study on how to enable learning circles, Cristóvao (2009) finds that a relatively long time is needed for group approaches "to evolve from potential to transformation", and claims that these kinds of groups are not compatible with the short-term projects dominant in the field of rural development. Consequently, particularly when the study topics have long seasonal cycles, longer intervention periods should be applied in future group settings.

A final issue concerns the weak ties between the different groups and between the groups of the same type, respectively. Although we found a great deal of experimentation with group approaches within a small geographical area, there are no institutionalized channels of learning from each other's experiences nor is there much informal communication between the groups, with no noticeable initiatives to improve this situation. What is needed is the setting-up and maintaining of platforms for exchange, involving the maximum number of actors applying group-based approaches in the area. Establishing an overall coordination body to monitor extension groups and at the same time act as a broker in putting groups in contact, if necessary acting as a moderator, could be a step forward towards enhancing group performance.

The group extension concept in its pure form, as it was presented in the theory section, does not apply in Vietnam. However, the research identified room for adjustments and modified concepts. Action research projects could be formulated for the future to pilot creative settings well in harmony with the local situation.

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