

INTRODUCING A FARMERS' LIVESTOCK SCHOOL TRAINING APPROACH INTO THE NATIONAL EXTENSION SYSTEM IN VIETNAM

Jens Peter Tang Dalsgaard, Thai Thi Minh, Vo Ngan Giang,
and Jens Christian Riise

Abstract

A new livestock extension approach for training of trainers (TOT) and smallholders in Farmers' Livestock Schools (FLS) is gradually being introduced to the national extension system in Vietnam. The approach combines experiences from Farmers' Field Schools in crops, with other practical, group and field-based, interactive learning methods. Although the new concept is substantially different from the traditional extension method it has, after initial scepticism and reluctance, been embraced by local institutions. Curricula and training manuals on pig, semi-scavenging chicken and duck production have been developed and tested in TOT courses, and FLS are now underway in pilot communes with around 1000 predominantly poor, small-scale farmers. Finding ways to introduce new development concepts and methods and gradually alter the perceptions, attitudes, and behaviour of the individuals and institutions involved has proven to be the key challenge and a precondition for success. Patience and perseverance combined with long-term commitment to the programme from both government and donor is helping facilitate the on-going change process. Broad stakeholder involvement in, commitment to and ownership of process and product are prerequisites for sustaining and expanding the programme. Considerable challenges remain in the further development and mainstreaming of a truly participatory, cost-effective and sustainable training programme, and in integrating FLS activities into a broader framework for small livestock micro-enterprise development.

Research findings

- *Successful and sustained introduction of alternative, farmer-needs based livestock service delivery approaches and methods, within public extension systems, requires more time and effort than is recognised and accommodated for in most government- and donor-funded development projects and programmes.*
- *Introduction of learning (farmer) oriented extension approaches is a potentially powerful tool in the transformation of negative perceptions, attitudes and behaviour among government extension workers towards traditional small-scale farmers.*
- *There is an urgent need for further investigations into the formulation and development of financially sustainable and cost-effective service delivery approaches for small-scale farmers in times of diminishing donor support and general resource scarcity in the public sector.*

Policy implications

- *Effective implementation of government-supported pro-poor extension delivery requires significant and continuous re-training of extension officers in new (participatory) approaches, methods, and skills.*
- *Implementation of more effective pro-poor development programmes requires broader recognition among decision and policy-makers of the compatibility and complementarity of strategies for growth and modernisation and strategies for poverty reduction which directly target the poor. Indirect targeting through trickle-down effects is rarely enough. Economically active small-scale farmers must be increasingly viewed as active participants in and important contributors to strategies for national economic growth rather than as obstacles to development and passive recipients of handouts and aid.*

Contact details

Jens Peter Tang Dalsgaard is Senior Adviser (DANIDA), ASPS-Small Livestock Component, Vietnam (can be contacted directly at jenspetertang@yahoo.dk).

Thai Thi Minh is a former Monitoring Officer, ASPS-Small Livestock Component, Vietnam.

Vo Ngan Giang is Monitoring Officer, ASPS-Small Livestock Component, Vietnam.

The above can be contacted at: ASPS-Small Livestock Component, Ministry of Agriculture and Rural Development, Building B9 Room 405-6, No.2 Ngoc Ha Street, Ba Dinh, Hanoi, VIETNAM. Tel: 84 4 733.8949. Fax: 84 4 733.8948 Email: livestock@fpt.vn

Jens Christian Riise is Director of the Network for Smallholder Poultry Development, Dyrågevej 2 KVL, DK-1870 Frederiksberg C, DENMARK. Tel: +45 35 28 37 60, Fax: +45 35 28 37 62, Email: riise@kvl.dk, Website: www.poultry.kvl.dk

The Agricultural Research and Extension Network is sponsored by the UK Department for International Development (DFID). The opinions expressed in this paper do not necessarily reflect those of DFID.

We are happy for this material to be reproduced on a not-for-profit basis. The Network Coordinator would appreciate receiving details of any use of this material in training, research or programme design, implementation or evaluation.

Network Coordinator: Robert Tripp Administrative Editor: Alana Coyle



Acknowledgements

The FLS programme is hosted by the National Agricultural Extension Centre in the Ministry of Agriculture and Rural Development, Hanoi, under the guidance of the Vice-Director (Livestock) Mrs. Tran Kim Anh. The Small Livestock Component, which finances the FLS programme, is part of a wider, long-term Agricultural Sector Programme supported by the Danish International Development Assistance (DANIDA).

CONTENTS

	Page
Abstract	i
Contact details	i
Acknowledgements	ii
1 INTRODUCTION	1
The traditional extension approach	
2 A NEW EXTENSION APPROACH	1
Different development philosophies	
Step 1: Formulating the Farmers' Livestock School concept	
Step 2: Developing FLS curricula	
Step 3: Implementing FLS-TOT courses	
Step 4: Piloting FLS at village level	
3 THE CHALLENGE AHEAD	11
Cost-effectiveness and sustainability	
4 CONCLUSIONS	12
FLS within a broader enterprise development framework	
REFERENCES	13
ENDNOTES	14
Boxes and figures	
Box 1 Characteristics of livestock extension approaches	2
Box 2 Basic FLS principles	4
Box 3 Proposed features of TOT and FLS courses	5
Box 4 FLS-TOT training modules on smallholder pig, chicken and duck production	7
Box 5 Example of TOT course training schedule for smallholder semi-scavenging chicken production	8
Box 6 Initial budget estimates for FLS	9
Box 7 Farmer selection criteria for FLS	10
Figure 1 A simple conceptual framework for business development services for small livestock enterprise development	13

Acronyms and abbreviations

AEA	Agro-Ecosystem Analysis
CPRGS	Comprehensive Poverty Reduction and Growth Strategy
DANIDA	Danish International Development Assistance
FFS	Farmers' Field School
FLS	Farmers' Livestock School
INGO	International Non-Governmental Organisation
IPM	Integrated Pest Management
PTD	Participatory Technology Development
TOT	Training of Trainers

INTRODUCING A FARMERS' LIVESTOCK SCHOOL TRAINING APPROACH INTO THE NATIONAL EXTENSION SYSTEM IN VIETNAM

1 INTRODUCTION

The traditional extension approach

The traditional, government-driven livestock extension approach in Vietnam is based on principles of transfer of advanced, modern technologies via demonstration models established with key farmers, coupled with the use of inputs subsidies to encourage the technology transfer and adoption process (Hoang and Nguyen, 2003). The primary target groups are medium-income and better-off households. It is assumed that the new technologies will spread and reach other farmers, including poor smallholders, through demonstration and trickle-down effects.

Demonstration ('model') farmers are provided with subsidised inputs including animals, feeds, vaccines and housing materials, and a one-off, general training session covering all aspects of animal husbandry and health at the initiation of a model. A standard village- or community-based model involves around fifty farmers and runs for up to one year. Each year new demonstration models are designed for new farmers' groups in new locations.

The models are usually breed-based with the selected breed being more or less synonymous with the model itself. Exotic breeds in particular are popular objects for demonstration and dissemination. Promotion of exotic pig breeds and production of lean pork for domestic and overseas markets is a classic example of a government-supported livestock extension effort in Vietnam.

Models are designed at central, ministerial level in consultation with the provinces and disseminated to local extension services with budget allocations, targets for numbers of models to be implemented and numbers of farmers to be involved. The Ministry of Agriculture and Rural Development supervises the implementation of the models, with little room for flexibility in implementation or budgeting. The provinces also maintain agricultural extension programmes and budgets, very similar to the national programme in terms of methods and recommendations (Hoang and Nguyen, 2003).

The main purpose of these extension models is to help modernise agriculture, promote livestock husbandry among the more capable and wealthy smallholders, and to reach national and provincial targets for growth and production. Performance indicators focus on numbers of models implemented, numbers of sites and farmers reached, numbers of animals supplied (subsidised), weight gain/growth up to the specified ideal live weight, quantities of meat produced, and last but not least funds disbursed. Farmers' acceptance of recommendations is considered one of the criteria for evaluation of programme success, which is done through self-evaluation, i.e. by the

extension system evaluating its own efforts. Feedback from local to central level does play a role in assessing model performance and designing new models, but due to the top-down nature of the extension system and its limited resources (few staff and a general shortage of funds) this evaluation is rarely based on a thorough and critical analysis of detailed and systematically collected farm-level data. The official system, which leaves little room for trial and error, expects to receive reports, which document that activities were successfully implemented and targets were met. There is little evidence that these idealised demonstration models benefit poor small-scale farmers.

The approach is a classic example of what elsewhere has been described as production-focused, institutionally monolithic, centrally directed and organised extension based on the premise that public sector extension structures can effectively reach down to local levels (Farrington et al., 2002). It is an example of top-down extension delivery linked with subsidy schemes, which is constrained by a shortage of funds and human resources and difficulties in retaining government staff in remote locations, making it virtually impossible to reach substantial numbers of, let alone marginalised, households.

2 A NEW EXTENSION APPROACH

It is within this political-economic framework¹ of planned modernisation and growth that the Agricultural Sector Programme Support (ASPS) was initiated in 2000. ASPS is a long-term, capacity-building and poverty reduction programme supported by bilateral aid from the Danish International Development Assistance (DANIDA). The programme is implemented in various provinces through the relevant departments in the Vietnamese Ministry of Agriculture and Rural Development. The first phase runs from 2000 to 2006, to be followed by a second phase (2007–11).

ASPS spans the crop and livestock sub-sectors, rural finance and farmers' organisations. Its Small Livestock Component, which is managed by the ministry's recently established National Agricultural Extension Centre, supports the development and testing of pig and poultry (chicken and duck) pilot models for increased household income. Particular emphasis is given to poor smallholders, women and ethnic minorities, in line with donor conditions. Livestock is an important source of income for most Vietnamese smallholders, including those in the more remote, marginal areas, where poverty rates are high and where livestock development carries important implications for poverty reduction and income distribution (Nin et al., 2003).

The Small Livestock Component introduces an approach to extension which differs substantially from the traditional approach (see Box 1). Many of the underlying notions embedded within the new approach, such as targeting of poor smallholders, promotion of participatory extension methods, seeing extension workers as facilitators of a learning process, and introducing micro-finance in lieu of subsidies, are novel and run counter to conventional, traditional wisdom within the national system.

Different development philosophies

Participatory extension is still a relatively new concept in Vietnam, not least in the livestock sub-sector. Research and development generally tend to lag behind the crop sub-sector with regard to the introduction and application of participatory methods (Conroy, 2001).

The situation has begun to change, however, encouraged by the presence of international donors and international non-governmental organisations (INGOs), who are busy testing and promoting alternative development frameworks and approaches at grassroots and local levels, combined with advocacy efforts at higher policy levels. The presence of several multi-lateral and bilateral donor agencies exerting pressure on the government for adoption of more pro-poor, demand-driven and needs-based development, means that poverty reduction rhetoric and thinking are making their way into the national sector framework. The national poverty reduction strategy paper, entitled ‘Comprehensive Poverty Reduction and Growth Strategy’ (CPRGS 2002; 2003), illustrates the process of change currently underway. Annual updates of the CPRGS are, since the first version was issued in 2002, being prepared by the government in consultation with donors and selected INGOs.

Despite these changes, the focus of public sector civil servants still remains first and foremost on the traditional growth, modernisation and production targets of the command economy, with their associated and familiar modes of operation and implementation. This represents well-known territory with which ministerial departments and (local) government officers are comfortable and the goal-based framework within which they are expected to contribute. Agricultural growth and modernisation continue to be the overriding national priority and the most effective and efficient way to achieve this is, arguably, by channelling government (and donor) resources towards those segments of the agricultural sector that harbour the production potential, i.e. the commercial and semi-commercial producers. Modernisation and growth in themselves, however, are not synonymous with equitable development. Vietnam’s recent, remarkable and highly acclaimed track record in poverty reduction is marked by a widening gap between rich and poor and deepening poverty particularly in more remote, rural areas (World Bank, 2003).

The lack of attention to poor, marginalised smallholders is reflected in government policies on agricultural extension, which do not mention poverty reduction as a target or the poor as a specific target group. Policies focus instead on ‘farmers’ in general. National extension promotes ‘good farmers’ with the necessary conditions and resources (such as land, labour, finances, access and influence). Poor smallholders are instead targeted directly within special, charity-type poverty reduction and hunger eradication programmes for socio-economic development (Hoang and Nguyen, 2003). Long-term capacity building for and with poor, marginalised farmers is not (yet) the mandate of the national extension system. The

Box 1 Characteristics of livestock extension approaches		
	The traditional livestock extension approach in Vietnam	The new approach of the Small Livestock Component
Main purpose	To promote increased livestock production for domestic and overseas markets, thereby contributing to national growth targets and the general modernisation of agriculture	To promote income generation and reduced poverty among poor smallholders, through capacity building among farmers’ groups and local extension/service providers
Extension method	Introduction and transfer of modern technologies through demonstration models with key farmers; wider technology dissemination through demonstration and assumed trickle-down effects	Training of trainers/service providers followed by training of farmers using an intensive, interactive, group-based, practical learning process; dissemination mostly through horizontal farmer-to-farmer interaction and demonstration
Technology focus	Promotion of high-yielding exotic breeds and cross-breeds, raised in intensive and semi-intensive commercial systems, supported by subsidised inputs	Promotion of appropriate breeds (local, exotic, crosses depending on local circumstances) raised in semi-scavenging and semi-intensive systems with subsidies gradually being replaced by access to formalised micro-finance
Primary farmer target groups	Better off and medium-income farm households, located primarily in well-endowed lowland areas	Poor and medium-income households in more remote, marginal communities (including ethnic minority groups and female-headed households)
Performance indicators/success criteria	Numbers of models and farmer participants; volumes/quantities of animals disseminated and livestock products produced; amounts of subsidies disbursed	Numbers of trainers and farmers trained; impact on livestock production and household performance (income, nutrition, food security, empowerment); improved access to and increased demand for quality services; increased willingness and ability among small-scale farmers to pay for services

management within the ministry of agriculture of pro-poor extension projects under the most recent phase of the national hunger eradication and poverty reduction programme was for instance assigned to the Department for Settlement and Fixed Cultivation of New Economic Zones, not to the extension department.

In other words, the government's pro-poor development efforts are still considered a separate project outside the normal functions of the extension system (Hoang and Nguyen, 2003). Poor smallholders are not viewed as natural participants in or contributors to national growth and modernisation, despite the fact that they constitute around 30% of the rural population. Rather they are often perceived as an obstacle to growth and modernisation. There are signs however that this may be about to change. The government's decree on agriculture and aquaculture extension services, which was first issued in 1993 when the official extension system was established, is currently undergoing revision. A group of INGOs has been lobbying actively for the revised version of this decree to adopt a more pro-poor focus. Also, a number of large multilateral and bilateral donors within the agricultural extension system has been calling attention to the need for more pro-poor, participatory and demand-driven services and this is likely to have an effect. The final revision of the decree, which is scheduled for approval in late 2004, is an internal process within the government.

In the latest revision of the Comprehensive Poverty Reduction and Growth Strategy (CPRGS, 2003), the government issued a number of policy directives for pro-poor extension, including:

- focus of extension expenditure on disadvantaged areas to ensure that the poor and ethnic groups can benefit from extension services as much as other groups;
- provision to the poor of regular market information updates;
- improved quality of training and extension for the poor;
- research to develop appropriate technologies; and
- support to a variety of voluntary joint and self-managed forms of extension services at community level.

Many of these intentions are yet, however, to translate into actual programmes and action on the ground (Hoang and Nguyen, 2003).

Room for the introduction and institutionalisation of alternative extension methods and approaches is thus gradually emerging, albeit not without elements of controversy. Despite having been officially sanctioned by all sides, as part of a government-to-government agreement in 2000, the new approach introduced by the Small Livestock Component faced initial scepticism and strong resistance among the senior-level civil servants responsible for managing and implementing national and provincial extension programmes. There was, to put it bluntly, minimal interest in promoting small-scale poultry for poor women, rather a strong preference for promoting commercial-scale production of lean pork for export. The differences in development philosophy were eventually resolved following a joint review nearly one-

and-a-half years after programme inception. Faced with the prospect closing the Small Livestock Component unless the already agreed objective (poverty alleviation) and approach (participatory extension) were maintained, consensus was eventually reached.

Step 1: Formulating the farmers' livestock school concept

The next challenge was to conceptualise a Farmers' Livestock School (FLS) training-extension programme, inspired by the well-known Farmers' Field School (FFS) concept applied within the crop sector.² The formulation of the FLS concept was to be spearheaded by the ministry's National Agricultural Extension Centre. One part of the challenge was to develop and test a new capacity-building and extension approach, combining methods of interactive, group-based and practical learning-by-doing with training in the specific technical skills and knowledge farmers need to better manage their pig and poultry enterprises. The other part of the challenge was to foster institutional commitment to and ownership of this development and learning process. Simply formulating a new livestock extension approach (although this in itself represents a considerable challenge) would not constitute success unless the national and local organisations responsible for implementing the new approach were part and parcel of the process.

The national Integrated Pest Management (IPM) Programme in Vietnam had, over the past decade, with support from various donor agencies, trained more than half-a-million farmers in IPM-FFS in rice. The FFS approach is already well established, well documented, and widely adopted in many countries throughout the south-east Asian region and elsewhere. More recently, the transfer of concepts and methods into integrated crop-livestock farming systems (Khieu, 1999), smallholder dairy cattle farming (Minjauw, 2001; Minjauw et al., 2003), and smallholder poultry-keeping (Riise et al., 2004) have been explored.

The FFS approach introduces on-farm, practical, discovery-based extension to farming communities through the application of principles of non-formal adult education. Groups of 20 to 30 farmers attend weekly training sessions of three to four hours during the morning, conducted in their own fields where they observe and record data on various agro-ecological performance indicators. Field observations are followed by classroom exercises where collected information is analysed and discussed in sub-groups, followed by presentations and feedback from other participants and trainers. The weekly training sessions are guided by teams of two or three trainers from the local extension services. A complete field school lasts a full growing season, i.e. for modern rice varieties typically three to four months. Prior to conducting field schools, trainers attend Training of Trainers (TOT) courses where they upgrade their technical knowledge of crop management and acquire new skills in facilitation, participatory methods, and adult learning principles.

Farmers who demonstrate particular skills and competence during an FFS may subsequently attend a

TOT course to become so-called Farmer Trainers. Farmer-led extension can thus potentially become an important driving force in the field school approach, and farmers are in some cases found to be the more effective trainers, as was the case in Indonesia, where the FFS approach was pioneered (van de Fliert et al., 1995). Observations made during the national IPM-FFS programme in Vietnam suggest that farmers opt to become trainers for a variety of reasons. These include: a genuine desire to train other farmers and help stimulate local development; prestige; social pressure; eyeing an income opportunity; being under the impression that working for a donor-supported programme is potentially lucrative, etc. There is, however no systematic analysis or a clear picture of what motivates farmers to become trainers. But more worryingly, there is no overall assessment of the value and contribution of Farmer Trainers to the IPM-FFS programme. It is generally believed that Farmer Trainers play an important role within the programme, but this has not yet been thoroughly researched or documented.

The IPM-FFS programme is implemented by the Plant Protection Department and various sub-departments at both central and provincial levels. The plant protection services and agricultural extension services run in parallel at central and local levels, with little inter-institutional interaction. Despite its wide adoption, the FFS approach has not in the past been recognised by the national extension system as an extension approach per se. As is unfortunately the case in too many countries throughout the world, institutional barriers (caused among other things by competition for limited funding and resources) too often prevent collaboration, sharing of resources, and shared learning. The pattern is even repeated within the livestock sub-sector, with livestock extension and animal health services running as separate, independent systems from central to local levels and with little impetus for cross-institutional interaction. Fortunately, such institutional divides are now being questioned from both outside and within the system itself, a process which is encouraged by the international donor and NGO community to the extent that at times it becomes a condition for granting support.

In this particular case, the fact that both the Small Livestock Component and the national IPM programme were supported by Danida and were part of the same agricultural sector programme, provided additional impetus for cross-institutional interaction. In practical terms the collaboration manifested itself in initial field visits for livestock officers to observe IPM-FFS activities followed by experts in IPM-FFS training methods participating in livestock extension planning workshops and FLS-TOT courses. This gentle, stepwise, and 'non-threatening' introduction of new concepts and methods proved feasible. The idea of practical, interactive training of farmers' groups gradually began to take root within the livestock extension system, mixed with a healthy dose of scepticism towards the new approach.

A first outcome of the gradual opening and shift in perceptions and attitudes was the agreement on a set of FLS basic principles (Box 2). This may appear a

Box 2 Basic FLS principles

- Farmers trained in an interactive mode through learning-by-doing, observation, reflection and dialogue
- Farmers trained together in groups of poor and non-poor for shared learning
- Farmers trained in the application of technologies appropriate to their needs and capacities
- Farmers trained over long periods of time (up to several months) through regular and frequent group sessions
- Farmers trained by multidisciplinary teams of trainers/extension workers acting as facilitators of a learning process

small step forward to those already conversant with community-based, participatory extension and development. With hindsight, however, this represented a significant milestone for the livestock extension system, although it may not have been explicitly presented or even perceived that way at the time. Box 3 presents the recommended features of the upcoming TOT and FLS activities.

Step 2: Developing FLS curricula

The next test was the preparation of curricula and training manuals for the first round of TOT courses. Despite there being a wide international literature on pig and poultry production there is, given the relative importance of small livestock in smallholder farming systems,³ a somewhat surprising shortage of training and extension materials directly relevant to smallholder conditions. Village poultry in particular has long remained an overlooked and neglected resource, with a low status in the minds of farmers, extensionists, researchers, development workers, and decision makers. This is the case in Vietnam and elsewhere (Joensen, 2002; Gueye, 2000).

The potential contribution to household performance in terms of income, food security and nutrition, by semi-scavenging and semi-intensive small livestock production systems is only slowly being recognised (Riise et al., 2005). Yet the very fact that scavenging livestock are able to obtain a significant portion of their food for free is one of the main reasons that resource-poor farmers are often able to generate significant (cash) income from producing meat and eggs at competitive prices (Dolberg, 2003). Smallholders have even been found to have a competitive edge due to their diseconomies of scale in livestock production (IFPRI, 2001). The implication is that the efficiencies on smaller farms, based on raising local animals with low cost feedstuffs, may be higher than those on larger farms employing intensive high-quality feed production techniques (Nin et al., 2003). Smallholder pig and poultry development has in recent time attracted more attention⁴ and is now increasingly being recognised for its potential contribution towards lifting households out of poverty (IFAD 2004).

The general shortage of relevant literature on extension and development for smallholder pig and poultry production, combined with the novelty of the

Box 3 Proposed features of TOT and FLS courses*

Features	TOT	FLS
Target group	Groups of local extension workers	Groups of 20–30 predominantly poor farmers (mainly women)
Objective	Develop skills in facilitation and organisation of FLS; enhance technical skills	Develop practical livestock management skills, analytical skills and skills in knowledge sharing, observation and reflection
Form	1–3 weeks, 8–10 hours per day	A few to several months (according to the life cycles of small livestock); one training module per week; technical modules with focus on practice lasting 3–4 hours per day
Tools/teaching aids	Practical equipment, text and drawings	Equipment in/around the household supplemented by simple drawings and demonstration samples of alternative equipment
Principles	Focus on facilitation, practice, experience sharing, feedback, new skills and theory	Focus on experiential learning, observations, practice, verbal presentations and experience sharing
Where?	At TOT facility, farmers' training school or similar venue with easy access to villages for village testing and practice with farmers' groups	At village level in farmhouses, community halls or open squares
By whom?	Team of one course leader, one facilitator and maximum 4–5 external subject matter experts/resource people	Team of 2–3 trainers per FLS
Evaluation	Internal evaluation of trainees and trainers performance	Observations on practice; analysis of economic performance of farmers' own production systems

*Adapted from Riise et al., 2004

FLS approach, meant that curricula and training manuals had to be developed almost from scratch. They had also to be developed in a way that promoted a new approach without alienating or by-passing the established system and expertise on small livestock development. Maintaining a healthy balance between new and old was crucial to keeping local organisations and individuals on board, focused, motivated, and committed to the change process. Overloading the system with foreign concepts and innovations was potentially counterproductive and could be perceived as a threat, not recognising and respecting the prevailing system and its achievements.

The drafting of training manuals was sub-contracted to the National Agricultural Extension Centre. A team of national animal production, nutrition, livestock breeding and health experts was mobilised, representing a broad spectrum of extension, research, and training institutions. The gaps, especially on participatory training methods and facilitation techniques, were filled by inviting an expert from the national IPM-FFS programme to participate in and contribute to the process and by hiring short-term national and international experts from the public and private sectors.

The process of internalising new concepts and methods and in turn translating them into practical training materials required more effort and time, however, than first envisaged. Identification of suitable training methods and the matching of these with the specific areas of technical knowledge and skills to be conveyed to trainers and farmers required repeated testing, evaluation and revision. The first rough versions of the training manuals tended to advocate extension

messages, technologies and livestock management systems appropriate for commercial producers, but inappropriate for subsistence and small-scale semi-intensive systems. The incorporation of participatory training methods was in most cases either missing, somewhat misguided, or incomplete, and the use of pictures, diagrams and visualisation tools to help bring across complex messages in a simple way was either deficient or absent.

There remained in other words, and with hindsight perhaps not surprisingly given the professional training and background of most of the experts within the national system, a strong inclination towards applying the familiar (and thus comfortable) style of top-down instruction. This focused on textbook theory, technological solutions, ready-made formulae and prescriptions, delivered in an instruction mode. Interactive learning and problem solving based on adult learning principles of observation, reflection, dialogue, and sharing of experiences among farmers and between farmers and trainers, within the actual (real) and diverse smallholder context was still unfamiliar territory.

It became clear that adequate time, patience, persistence, flexibility and creativity were required to spur the process on. The idea of relying more on international expertise in order to speed up the exercise was briefly entertained, but rejected on the grounds that it was costly and risked undermining the growing feeling of local ownership of process and product and the growing enthusiasm being detected despite the difficulties. This was first and foremost an internal, institutional learning process and the 'easy' and perhaps tempting option of passing on the job to external consultants might yield quick and professional-looking,

but probably also short-lived, results. Rather than buying expertise from outside, the national institutions preferred to access and pay for the use of their own in-house expertise. Again, a delicate balance had to be struck between buying in external knowledge/resources versus relying on (and paying for) access to internal knowledge.

It was eventually agreed that the more effective and efficient way forward in this case was through a gradual and inclusive learning process, promoting local ownership. Gently pushing and stimulating the process was necessary. Rushing it was risky and might lead to wholehearted rejection of the new extension approach. The professional pride of and power relations of those within the existing system had to be appreciated and respected. Too much 'participatory arm-twisting' by external advisers was not welcome.

Step 3: Implementing FLS-TOT courses

After nearly nine months of developing curricula and training manuals the first round of TOT courses on smallholder pig, chicken, and duck production was conducted. Between 25 and 30 trainees were selected for each individual course from among provincial, district and commune level livestock service providers, including extension, animal health, and farmers' organisations.

In selecting the participants the criteria of professional competence, authority, sex, age, motivation and institutional affiliation were applied. It was for instance important to ensure that women were adequately represented among the future trainers of farmers, as small livestock husbandry is often the domain of women. It was also important to assure a good institutional spread among the participants in order to make effective use of available and scarce human resources and promote cross-institutional collaboration both vertically (across administrative levels) and horizontally (between organisations at the same administrative levels). The concept of a set of systematic and transparent selection criteria was somewhat novel. Often selection of this kind is left to the discretion of local authorities, who may choose according to individual preference and power relations. The traditional type of selection has its pros and cons, but one possible drawback is that individuals may be identified on a subjective basis of personal alliances and allegiances, rather than on a more objective basis of professional merits and competencies.

As it was not entirely clear at the outset at which administrative level(s) the more qualified, future FLS trainers would be found, it was decided to include officers from all levels in the same TOT courses. The benefits of shared learning and informal networking across administrative levels were generally found to balance costs such as domination by higher-level of lower-level participants. Higher-level officers usually possess superior technical knowledge (they hold higher, often academic, qualifications), but do not necessarily have the best facilitation and training skills or the institutional flexibility and aptitude for acquiring and applying new methods.

Bringing together officers from a diverse range of livestock service organisations proved particularly valuable. Trainees were able to complement one another in terms of technical knowledge and experience (e.g. animal production versus animal health) and in terms of facilitation, organisation and management skills. Through the participation in intensive training courses conducted over periods of two to three weeks, these government and non-government officers were given a rare chance to interact and initiate networks.

The duration of the TOT courses ranged from two to three weeks according to the amount of technical matter that needed to be covered. The courses consisted of a mixture of classroom sessions on technical topics delivered by the lecturers ('Master Trainers') combined with simulation exercises in the classroom, where trainees assumed the roles of trainers and farmers respectively. This was followed by field practice sessions with groups of trainees practising their skills on groups of farmers. Feedback mechanisms and evaluation sessions by trainers and trainees were incorporated throughout the TOT courses. This particular aspect of the training – the open and shared performance evaluation – was unfamiliar and difficult for many participants during the early stages of the training courses. The problem usually disappeared with time and in the end this internal evaluation process was found to be an important tool for building confidence and enhancing self-esteem among trainees. At the end of each TOT course a more formal examination and evaluation of all participants was conducted by the Master Trainer team, with the results suggesting that around 30–40% of the trainees possessed the necessary skills and capacity to become good FLS trainers.

The Master Trainers for the first round of TOT courses were selected from central-level government officers who had been involved in developing the draft curricula and training manuals. Short-term national and international TOT methods experts were engaged to coach them and assist in skills building, especially within the area of participatory training/facilitation. It is anticipated that some of the more skilled and competent participants in the TOT courses, after having gained hands-on experience of conducting FLSs with farmers' groups, will be offered additional advanced TOT training to enable them to graduate and become Master Trainers responsible for conducting TOT courses within their own provinces. In this way they would be gradually building the local, institutional human resource capacity required to sustain and expand the FLS programme.

Towards the end of the first round of TOT courses, the curriculum was reviewed and a finalisation workshop conducted. Master Trainers, trainees, resource persons and artists/draftsmen gathered for three days to incorporate the lessons learnt and complete the three curricula and practical training manuals on smallholder pig, chicken and duck production. This was followed by submission of the manuals for final editing and approval to the Ministry

of Agriculture and Rural Development, before sending them to the publisher. Approximately one-and-a-half years had passed since the team began developing the curricula.⁵

Box 4 gives an overview of the technical topics covered in the training modules of the three different TOT courses on smallholder pig, chicken, and duck production. Box 5 outlines a detailed schedule for the TOT course on smallholder chicken production.

It is evident from the contents of Boxes 4 and 5 that the overall focus remains on the traditional issues of technology promotion and technological solutions. The order and contents of the training modules still very much reflect the thinking of the official extension system. For instance proper breeds and breed selection, which figure so strongly in the mindsets of government officials as the precondition for successful small livestock development, are introduced up front in the FLS curriculum. Other topics such as data recording, farm management and production economics are not introduced until midway through the curriculum, although some would argue that these topics should be introduced earlier and be given more weight as the

very basis for improved livestock enterprise management. It is also striking that animal health features very prominently. Disease is generally a major constraint to small livestock production, particularly in scavenging systems within densely populated areas. The outbreak of bird flu in Vietnam in late 2003 and the ensuing cull of more than forty million birds or about one sixth of the national flock sharpened the focus on veterinary issues. Bird flu was not included in the FLS curriculum for poultry, however, due to unfamiliarity with the disease at the time the curriculum was prepared (the disease did not officially occur in Vietnam prior to the epidemic).

Similarly, the curriculum does not (yet) introduce new participatory resource management concepts and experimental tools such as agro-ecosystem analysis (AEA) and participatory technology development (PTD), which are being promoted in livestock schools elsewhere (see for instance Minjauw, 2001). These concepts are still largely foreign to the extension system, although experimentation with farmers through PTD is being introduced by various INGOs in some areas at the local level⁶.

Box 4 FLS-TOT training modules on smallholder pig, chicken and duck production

Module no.	Pig FLS	Chicken FLS	Duck (incl. Muscovy ducks) FLS
1	Breeds and breed selection	Breeds and breed selection	Breeds and breed selection
2	Feeds and nutrient requirements	Feeds and nutrient requirements (of semi-scavenging chicken)	Feeds and nutrient requirements
3	Feed preparation	Feed preparation (for semi-scavenging chicken)	Shelter and equipment
4	Stye and pigpen	Housing, equipment, and scavenging area	Feed preparation
5	Sow raising (growing period)	Raising 0-4 week chicks	Raising laying ducks
6	Sow heat detection and (artificial) insemination	Raising semi-scavenging broilers from 5 weeks	Egg hatchery and hatching techniques
7	Raising a pregnant sow	Raising 5-20 week semi-scavenging pullets (layers)	Data recording and economic calculations
8	Preparing and assisting the farrowing sow	Raising semi-scavenging layers from 21 weeks	Hygiene and disease prevention
9	Caring for the sow and raising suckling piglets	Egg selection, preservation and natural hatching methods	Diseases: Duck plague
10	Raising weaning piglets	Data recording and economic calculations	Diseases: Fowl cholera (pasteurellosis)
11	Boar keeping	Hygiene and disease prevention	Diseases: salmonellosis
12	Raising fattening pigs	Common viral diseases (incl. Newcastle)	Diseases: filaria worm
13	Data recording and economic calculations	Gumboro and fowl pox diseases	Diseases: aflatoxicosis
14	Hygiene and disease prevention	Bacterial diseases (incl. fowl cholera)	
15	Diseases: classical swine fever	Diseases: asthma (CRD)	
16	Diseases: swine pasteurellosis	Parasitic diseases	
17	Diseases: salmonellosis in pigs	Comparison of common viral, bacterial and coccidiosis diseases	
18	Diseases: erysipelas		
19	Diseases: leptospirosis		
20	Post-weaning head oedema (disease caused by haemolytic <i>e. coli</i>)		
21	Parasitic diseases in pigs		
22	White diarrhoea in piglets		
23	Manure management and recycling		

One could thus argue that the FLS curriculum development process so far has not been very effective in terms of introducing new tools to incorporate farmers' perspectives, knowledge or preferences, thus making the extension process genuinely participatory. In this respect it retains a distinct flavour of traditional top-down, technocratic extension-development. However, compared to what existed before, it is fair to say that the FLS approach has come a long way in terms of changing attitudes and behaviour towards poor smallholders. Everything comes at a price and to attempt to introduce wholehearted farmer participation right from the outset would most likely have amounted to overload; chances are that the FLS concept simply would have been rejected outright by the national system. The evolution of the FLS programme is still in the early stages and can only move as fast as the established extension system is able and willing to transform itself. This is the price of opting to operate within the national sector framework and of trying to change institutions from within in the name of national ownership and control.

Step 4: Piloting FLS at village level

Following the first round of TOT courses, a series of consultative brainstorming meetings was held in the pilot provinces with local authorities and extension providers at provincial, district and commune levels. This was to discuss feasible ways and mechanisms to implement and manage the FLS programme. The discussions focused on issues such as:

- numbers of FLS to be initiated;
- numbers of farmers per FLS;
- farmer selection criteria;
- targeting of poor and non-poor economically active households;
- inclusion of men and women and different ethnic groups;
- selection of trainers and composition of training teams;
- FLS cost norms, including fees and allowances for trainers and farmers;
- budgets for stationery and teaching aids; and
- support to farm input subsidies.

In the same way that the official extension system in Vietnam is used to providing subsidised inputs to

Box 5 Example of TOT course training schedule for smallholder semi-scavenging chicken production

Day	Activities
1	Opening and class organisation General introduction of TOT, objectives, trainers, trainees, and expectations Introduction of participatory training methods
2	Module 1: Breeds and breed selection Module 2: Feeds and nutrient requirements of semi-scavenging chicken
3	Module 3: Feed preparation for semi-scavenging chicken Module 4: Housing, equipment, and scavenging area
4	Field practice with farmers' groups in the village (modules 1–3) Evaluation and lessons learnt in modules 1–3 (contents, methods and skills)
5	Module 5: Raising 0–4 week chicks Module 6: Raising semi-scavenging broilers from 5 weeks
6	Field practice with farmers' groups in the village (modules 4–6) Evaluation and lessons learnt in modules 4–6 (contents, methods and skills)
8	Module 7: Raising 5 to 20 week semi-scavenging pullets (layers) Module 8: Raising semi-scavenging layers from 21 weeks
9	Module 9: Egg selection, preservation and natural hatching methods Module 10: Data recording and economic calculations
10	Field practice with farmers' groups in the village (modules 7–9) Evaluation and lessons learnt in Modules 7–9 (contents, methods and skills)
11	Module 11: Hygiene and disease prevention Module 12: Common viral diseases (incl. Newcastle)
12	Field practice with farmers' groups in the village (modules 10–12) Evaluation and lessons learnt in modules 10–12 (contents, methods and skills)
14	Module 13: Gumboro and fowl pox diseases Module 14: Bacterial diseases (incl. fowl cholera)
15	Field practice with farmers' groups in the village (modules 13–14) Evaluation and lessons learnt in modules 13–14 (contents, methods and skills)
16	Module 15: Asthma (CRD) disease Module 16: Parasitic diseases Module 17: Comparison of chicken common viral, bacterial and coccidiosis diseases
17	Field practice with farmers' groups in the village (modules 15–17) Evaluation and lessons learnt in modules 15–17 (contents, methods and skills)
18	Final examination Summary and closing ceremony

farmers, it is also accustomed to paying farmers for attending training sessions and providing extension officers with extra payment incentives for delivering the training. The limited size of the official extension budget automatically restricts the extent to which this is practised in reality, but where additional funds from alternative sources may be available, donors and INGOs usually encounter strong pressure to support allowances for farmers and extension staff.

For many government officers it appears literally unthinkable not to apply these measures and they advance various arguments in support of their position. Foreign development workers in Vietnam almost inevitably hear such assertions that the farmers, especially the poorer ones, will not be able, happy or cooperative unless allowances are paid or inputs subsidised, and the scheme will therefore not succeed. Or, the farmers have to be compensated for time spent away from the field, especially when they have to walk long distances and sit long hours to attend the training sessions. Another is an admission that it is perhaps possible to operate training schemes in other countries without subsidies or payments to farmers but conditions in Vietnam are very different and the farmers extremely poor. There is no doubt that many civil servants genuinely believe that it is impossible to implement extension activities successfully without this kind of facilitation (and frequently farmers echo these views). Some of the anxieties voiced reflect a concern for fair treatment of the farmers, especially the poor. There is however another side to the story. Government funds flow from higher to lower levels, i.e. from central to provincial, from provincial to district and from district to commune levels. At each level some of the funds are withheld for various (and to the outsider at least

not always fully transparent) reasons and purposes, and there is a strong desire and pressure in the system to increase the total flow of funds. Donor funds are not necessarily subject to the same kind of scrutiny and control as government funds and are therefore potentially more at risk from abuse and corruption. The potential downside to paying farmers for attending training is, aside from the financial cost implication, the fact that it becomes difficult to assess to what extent farmers are motivated by the need for and quality of the training – i.e. whether the training is meeting and satisfying a genuine capacity building demand - or whether farmers are attracted primarily by the monetary compensation itself. In addition, there is the risk that the training sessions are attended by household members who wish to collect the training fee at the expense of the household members who are in charge of managing small livestock (typically women).

Donor agencies and INGOs aspiring to operate within the national set-up but which emphasise principles of transparency and accountability, find themselves caught up in a dilemma. The end result is an unfortunate plethora of payment and incentive systems, procedures, guidelines and parallel structures across government-donor-INGO supported projects and programmes. Individual arrangements too often reflect the bargaining power, negotiation skills, experience, and principles of the foreign agencies and organisations involved and the experience (or lack of it) of their individual representatives on the ground. Insufficient coordination among donors, as well as between donors and government, results in potential duplication of efforts, inefficiencies, and in programmes and projects which may be making life difficult for themselves and for one another. Maintaining inefficient structures or

Box 6 Initial budget estimates for FLS

Cost Items	Pig FLS vnd*	Chicken FLS vnd	Duck FLS vnd
Opening day: max. 50 participants @ 5,000vnd/person	250,000	250,000	250,000
Field day/closing ceremony: max. 50 participants @ 5,000vnd/person	500,000	500,000	500,000
Farmers' allowances: 24 farmers/day @ 4,000vnd/farmer	2,208,000	1,632,000	1,248,000
Notebooks and pens for 24 farmers	120,000	120,000	120,000
Visual aids & other training materials	400,000	400,000	300,000
Miscellaneous stationery (35,000vnd/module)	805,000	595,000	455,000
Trainers' fees: 3 trainers/day @ 40,000vnd/trainer (incl. opening and closing days and one preparation day)	3,120,000	2,400,000	1,920,000
Trainers' transport allowances (where applicable): 20,000vnd/trainer/day for up to three trainers	1,560,000	1,200,000	960,000
Fees for monitoring and back-stopping visits by provincial officers: 10 person days @ 40,000vnd	400,000	400,000	400,000
Transport allowances for provincial officers (where applicable): 10 person days @ 20,000vnd	200,000	200,000	200,000
Accommodation allowances for provincial officers (where applicable): 10 person days @ 20,000	200,000	200,000	200,000
Total cost (vnd)	9,763,000	7,897,000	6,553,000
Maximum Average cost per farmer trained*	407,000vnd (US\$26)	329,000vnd (US\$21)	273,000vnd (US\$17)

* In September 2004 15,750 Vietnamese Dong (vnd) = US\$1

Box 7 Farmer selection criteria for FLS

1. Farmers who are enthusiastic about participating in the FLS training
2. Farmers who are able to participate fully (i.e. have the time and labour resources) in regular, weekly classes
3. Farmers who intend to raise pigs or poultry in semi-scavenging / semi-intensive small-scale production systems
4. Farmers who are poor according to government criteria (targets: at least 60% and 70% poor farmers in pig and poultry FLS respectively; the remaining can be poor or can belong to the middle-income group)
5. Selection of individual household members who are in charge of the daily management of pigs/poultry (to ensure that women in particular are adequately represented)
6. Inclusion of different ethnic groups proportionate to their presence in the community
7. Inclusion of up to three farmers thought to have a strong potential to become future FLS Farmer Trainers

creating parallel structures rarely brings about the desired long-term development goals.

In the case of the Small Livestock Component it was decided to follow the cost norms of the ‘sister component’ within the Agricultural Sector Programme, the national IPM programme, which had been implementing its field schools for more than a decade. Initial budgets for the first round of FLS are presented in Box 6.

The budget estimates in Box 6 do not include the overhead costs associated with developing the FLS training manuals or the TOT courses. The costs of the initial round of TOT courses (excluding the hiring of international experts) ranged from around \$8000–11,000 per course, approximately \$300–400 per trainee.

The first round of FLS is now under way in ten pilot communes with a total of just over 1000 farmers. There are approximately 24 farmers in each FLS selected by local (commune) authorities according to the criteria shown in Box 7.

Each commune maintains an official list of poor households,⁷ which can be used to help verify selection and assure the agreed focus on the poor as the primary target group. Although the FLS programme does have a strong poverty orientation, it has been found that there are households that are simply too poor and have too few resources (especially labour) to be able to participate meaningfully in the FLS programme. The programme therefore focuses on the economically active poor, i.e. those small-scale farmers who have the available labour and basic resources required to manage a small livestock enterprise. This allows for the selection of some medium-income farmers as well (approximately one-third of the participants) in order to encourage farmer-to-farmer interaction across income levels. Almost all the farmers selected in the first round of FLS already raise small livestock so it is not a new enterprise to them.

Elsewhere, in Bangladesh (Fattah, 1999) and Benin (Nielsen, 2003), strict poverty criteria have been

successfully applied in the selection of farmer participants in field schools on poultry. In Senegal (Prag, 2004) poverty-oriented selection criteria were formulated by the communities themselves (village councils, farmers’ groups), thereby creating a strong community-based commitment to the success of the training activities. In Senegal, the results showed a higher commitment and adoption of new poultry-raising techniques among the very poor than among the medium-poor.

An FLS is typically conducted by a team of two or three trainers from commune and district levels, including animal production and husbandry technicians, livestock health officers and representatives of farmers’ organisations. Provincial-level officers are only rarely members of training teams. Their busy work schedules and administrative responsibilities, combined with the long distances they often have to journey from provincial centres to the villages where the FLS take place, generally prevent them from becoming regular, fully-fledged trainers. Their involvement in monitoring and back-stopping the FLS is nevertheless important to help ensure that provincial management and decision-makers are informed and part and parcel of the general implementation process, and feel committed to the programme.

Training sessions are usually scheduled for one morning a week (or sometimes two in order to intensify and shorten the overall length of the FLS), with a module typically lasting around three to four hours. Following a quick recap of the issues covered in the previous module, the main trainer introduces the new topic(s), followed by group work where farmers are asked to reflect on and reply to sets of basic questions on the material just covered. The answers are presented and discussed *in plenum*, group by group. This is followed by visits to nearby farms where participants are asked to focus on the topic of the day, note down relevant observations and often prepare answers to set questions handed out before the farm visits. Upon return to the classroom, the answers are in turn discussed and summarised in small groups and subsequently presented and discussed in plenary. After a mid-morning break, and following a game or a song, the class reconvenes. The lead trainer goes through the remainder of the day’s curriculum, followed again by group work where the farmers are asked to discuss answers to set questions relating to the technical information just presented by the trainer. As before, the groups then present their work one by one, with the other groups encouraged to comment, add and correct. Finally the main trainer sums up the contents and main lessons of the day’s module, before entertaining final questions and clarifications and closing the class.

Early feedback from the field suggests that the new training approach is generally very well received. There is a high demand from local authorities, trainers and farmers for new FLS and for a rapid expansion of the scale of the programme. There is no doubt that the programme is meeting an important gap and addressing a basic need. For almost all the participating farmers

this is the first time they have received formal training in pig, chicken or duck husbandry. This fact alone is stimulating interest and demand. There is a feeling of excitement among farmers and trainers that something new and valuable is being offered. Some local extension offices furthermore report that they have started adopting the new training methods in their regular, routine work and in livestock project activities financed by other donor agencies.

This enthusiasm for new learning and capacity building is to some extent mixed with and confounded by the desire to access and receive resources (i.e. funds), at times making it difficult to gauge the real demand for and merit of the training itself. In order to assess the FLS concept, the progress made so far and the appropriateness of the training, including options for adjustment and improvement, the Small Livestock Component invited two external consultants to evaluate the initial phase of programme implementation (Danish Agricultural Advisory Service, 2004). The following observations and recommendations made by the consultants are worth highlighting at this juncture:

- The training manuals are appropriate working tools for the trainers (although some parts need revision), but their direct use with farmers is inappropriate. The curriculum needs interpretation into training materials relevant to the actual, practical situation at the comprehension level of farmers.
- The training method is still very much trainer-led, emphasising knowledge and technology transfer but lacking focus on the development of practical and managerial skills; the prioritisation of topics in the curriculum does not consider this adequately.
- The intensive group training approach provides good opportunities for exchange of experiences; at this early stage of the programme this opportunity is not yet being explored.
- Improved designs are needed for better use of the on-farm observations the participants make with regard to problems and problem solving.
- Financial sustainability will mean reducing the current operating costs of the programme. Important cost reduction measures include moving the training as much as possible to the local level and using Farmer Trainers. It may furthermore be considered whether FLS training could operate at a lower level of intensity in some places.
- The training programme greatly increases the access for participating farmers to training and services, through its capacity building and strengthening of information flows; this is a precondition for strengthening demand.

The report strongly recommends that further development and refinement of the approach be given priority before it is decided to scale up the programme.

3 THE CHALLENGES AHEAD

The FLS programme is in many ways still in its infancy and further development and institutionalisation face a number of essential challenges. An immediate challenge is to improve on the training quality and delivery. Despite sincere efforts to promote

participatory and interactive learning, the feedback from the early stages of programme implementation suggests that more training of trainers is needed especially in methods and facilitation of adult learning processes. There remains a strong tendency and temptation to adhere to old routines and instruction methods and a reluctance, or perhaps inability, to venture into the unfamiliar territory of experimental and exploratory learning. The new concepts of participatory, action-based discovery learning have not yet been sufficiently grasped and appreciated. Individual trainers may here and there be in the process of transforming extension at grassroots level, but overall the extension system is still very much grounded in familiar territory.

Another challenge is to determine what defines, drives and sustains a 'good FLS'. A good FLS relies on a team of good trainers and motivated, capable farmers. Good trainers must not only be technically competent and skilled, open-minded facilitators, they must also be motivated, committed, and enthusiastic. And they must have the necessary institutional flexibility, room and support to continuously develop and (re)define their new role(s). Creating the necessary institutional room for manoeuvre can be a very cumbersome and slow process, and building a new training programme on the assumption that the good trainers and open-minded institutions are or will easily become available is naive. It is important to aim for top quality yet to be able to work with second (or at times third) best.

Individual abilities and aptitudes differ and many will find it difficult to break out of the traditional mould, and may prefer to, or even be obliged to, fall back into their familiar, comfortable and habitual roles as instructors representing the 'authority'. Some extension staff may find themselves caught in an uncomfortable dilemma: on the one hand they are expected to remain loyal towards a system which partly justifies its own existence and generates its own income through the promotion and sale of farm inputs, usually to well-connected, better-off farmers; on the other hand they are now being retrained to refocus their attention on poor smallholders who represent a less lucrative and less well-connected market, with only limited purchasing power.

The commitment and motivation of trainers/extension workers is directly linked to reward and incentive structures. The FLS programme is currently being piloted in a limited number of communes, with costs covered through a donor grant. If, however, it is to emulate a programme like the national IPM-FFS programme in terms of scale and outreach, i.e. training hundreds of thousands of farmers, then alternative means of financing must be identified. One can no longer safely assume access to continuous flows of donor funds (which the IPM-FFS programme had over the past decade) or rely on government funds, which aren't there.

This is perhaps the key challenge for a pro-poor extension programme like FLS. It should identify and promote a farmer-led and demand-driven approach, in which extension personnel and animal health workers are called upon to address a specific need,

are paid by the farmers, and where the majority of issues are taken care of by the farmers' groups themselves in their communities. Such development has already been initiated in elsewhere, for instance in Africa (Simpson and Owens, 2002). However, there is still a need for in-depth analysis of the specific conditions needed to support a successful weaning of farmers and extension workers from depending on government or donor support to becoming active providers and recipients of services on a cost-recovery basis.

In the case of Vietnam, there appears to be little alternative to the option of gradually transforming the present system of supply-driven, subsidised service delivery largely monopolised by the government system, into a more demand-based, pluralistic system, if a large population of rural poor are to have access. Issues such as public-private partnerships and user payment are still, however, very much taboo within the official extension system in Vietnam and presently there are no formal alternatives to a public system, which still only manages to reach a fraction of the total farming community.⁸ But it can only be a question of time, and perhaps even a relatively short time before these constraints and challenges are confronted and addressed.

There is growing evidence that the problem is being recognised, e.g. in subtle changes in language and communications by government officials. However, this is a system which is not traditionally geared towards openly exposing and challenging its own weaknesses. It is one where only success and achievement are recognised, where there is little room for trial and experimentation, with almost zero tolerance of error, so it is understandable that these changes will come only at a measured pace. As a senior official in the national agricultural extension system observed upon returning from a study tour to Europe, it had taken the extension system in Denmark more than thirty years to move from a state-subsidised to a fully farmer-financed extension system. Vietnam was only just at the beginning of that road. That very much sums up the predominant mode of thinking. And it reconfirms the key lesson learnt so far, namely that time, patience and perseverance are required to facilitate the desired changes in attitudes and behaviour needed for institutional transformation – often far more time and patience than envisaged in ambitious, short-sighted and disbursement-driven donor- and government funded projects.

Cost-effectiveness and sustainability

The field school approach has elsewhere been characterised as an intensive and costly training approach once all overhead costs have been accounted for (Feder et al., 2003). This obviously puts the economic viability of the approach and the scope for scaling up into question. Our initial experiences suggest that the cost of conducting FLS-TOT courses ranges from \$300–400 per trainee, whereas the cost of a full FLS averages around \$17–26 per farmer (Box 6).

Preliminary trials on the Small Livestock Component were conducted with various local, exotic and cross-

bred poultry before the FLS programme began. These indicate profit margins of up to at least \$50 per year for a poor household raising three or four batches of broilers (15–20 pullets/flock) in three to four month cycles, within an improved, semi-scavenging management system. This suggests that the cost for a farmer of participating in a chicken FLS can be recovered at least twice inside a year. It may therefore justify the investment from a farmer's perspective, although it may not be enough to persuade a poor farmer to actually pay up-front for the training and inputs required. But whether this represents a good investment seen from an institutional point of view is a different matter. The costs and benefits will have to be compared with those of alternative modes and means of extension delivery and weighed against the cost of doing little or nothing in order to determine where and when an intensive field school-based intervention is appropriate and justifiable. Unfortunately systematic, comparative studies addressing such issues are rare.

Until small-scale farmers gain confidence in and are able to access and become committed to paying the cost of training/extension services, at least in part, it will remain difficult to measure the genuine demand for and the real value of these services. Farmers will also have to become accustomed to systematic recording of inputs, outputs, expenses and income, and be able to calculate simple gross margins and productivity indicators (weight gain, egg laying rates, mortality/survival rates, etc.) under different scenarios. Only then will it become possible to compute with a higher level of confidence the value added of improved services and improved livestock management. Until that time we may remain tempted to do with optimistic best-guesses to justify what seems to be worthwhile pro-poor development interventions into complex farming systems situated in complex rural realities. It is true that farmers often know best when it pays to do something. It is also true however, that farmers easily are misinformed and led to believe that something is worth investing in, when in reality it is not or the associated risks of failure are too high.

4 CONCLUSIONS

FLS within a broader enterprise development framework

The FLS programme has been conceived within the national extension system with the aim of bringing it into the mainstream of the national setup. On-going reforms and streamlining in the public sector mean that hard questions will have to be asked regarding an appropriate future home for programmes such as this. Is there sufficient readiness and (absorption) capacity to host and manage an extensive FLS programme within the national extension system? Should the programme be institutionalised and mainstreamed from central level downwards or should a more decentralised, bottom-up type of approach be adopted? This would mean for example working directly with those provinces, districts, communes and villages which are genuinely prepared to introduce and experiment with alternative extension

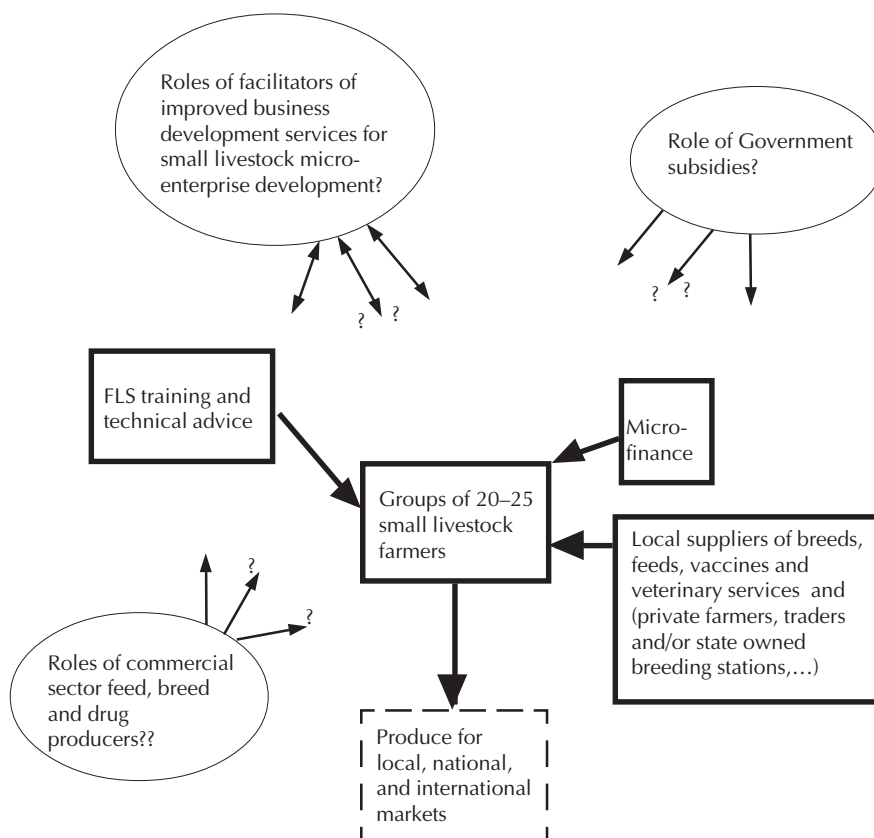
approaches and are committed to allocating sufficient counterpart (government) funds to facilitate the process. What other alternatives exist? Would the mass organisations, the Vietnam's Farmers' Union and the Women's Association, with their nationwide coverage and reach down to grassroots level provide more suitable homes? Or is the way forward a combination, a hybrid, of the above? Would the introduction of a more pluralistic system, encouraging and providing a level playing field for other players such as private business, input suppliers, and NGOs to compete in the (regulated) delivery of extension services on a commercial (for-profit) basis, work? These are some of the questions that are likely to occupy the minds of decision-makers and planners in the coming time, and which will shape the future of agricultural extension in Vietnam.

FLS is not an end in itself, but a means to an end – in this case capacity building for improved smallholder livestock management and income generation. It is therefore not a stand-alone tool, but rather a pivotal element in a broader pro-poor strategy for addressing the development needs and constraints that smallholders face. The initial baseline study and rapid appraisals conducted by the Small Livestock Component identified access to knowledge and information, capital, technology (especially improved animal health services and breeds) and market access

as the key obstacles to improved livestock production. The future success of an extension programme such as FLS will depend not only on the way in which the training itself is implemented and managed. It also depends on the way in which training and extension activities are linked with other complementary efforts to make available better quality and more reliable services for smallholders.

FLS groups provide potentially powerful platforms on which to base more holistic community development interventions, and promote business development services on a more commercial basis for sustained small livestock micro-enterprise development, as conceptualised in Figure 1. That, however, is a quite different story yet to be explored and told. The point of departure in that story would be a livestock sub-sector analysis and a market needs assessment to determine the factors and forces driving the model from a market-oriented perspective, i.e. from the demand side as opposed to the supply side. To pursue such a framework effectively would, however, first of all require broader appreciation of the fact that strategies for modernisation and growth and strategies for poverty reduction through pro-poor development efforts targeted directly at the poor are not incompatible. Economically active small-scale farmers, including the poor, need to be seen as active players within the overall framework of equitable, national growth.

Figure 1 A simple conceptual framework for business development services for small livestock enterprise development



REFERENCES

- ASPS-Small Livestock Component (2004) Farmer Livestock School Training manuals on smallholder pig, semi-scavenging chicken and duck production. National Agricultural Extension Centre, Ministry of Agriculture and Rural Development, Hanoi (in Vietnamese).
- Conroy, C. (2001) *Participatory technology development with livestock keepers: A guide*. Chatham, UK: NRI.
- CPRGS (2002, 2003) The comprehensive poverty reduction and growth strategy, The Socialist Republic of Vietnam, Hanoi.
- Danish Agricultural Advisory Service (2004) 'Farmer livestock schools in Vietnam: Assessment of the training concept and recommendations for further development'. Final Report.
- Dolberg, F. (2003) 'Review of household poultry production as a tool in poverty reduction with focus on Bangladesh and India. Pro-poor Livestock Policy Initiative', *PPLPI Working Paper* No. 6. Rome: FAO. 34 pp. (Website: www.fao.org/ag/againfo/projects/en/pplpi/docarc/wp6.pdf)
- Farrington, J., Christoplos, I., Kidd, A. and Beckman, M. (2002) 'Creating a policy environment for pro-poor agricultural extension: The who? what? and how?' *Natural Resource Perspectives*, No. 80. London: Overseas Development Institute.
- Fattah, K.A. (1999) 'Poultry as a tool in poverty eradication and promotion of gender equality' in F. Dolberg and P.H. Petersen (eds), *Poultry as a tool in poverty eradication and promotion of gender equality*. Proceedings of a Workshop, Tune Landboskole, Denmark, 22–26 March 1999, pp. 16–28.
- Feder, G., Murgan, I. and Quizon, J.B. (2003) Sending farmers back to school: The impact of farmer field schools in Indonesia. *World Bank Policy Research Paper* 3022. Washington DC: World Bank.
- Gueye, E.F. (2000) 'Women and family poultry production in Africa', *Development in Practice*, No. 10 pp. 98–102.
- Hoang, X.T. and Nguyen, V.K. (2003) Agricultural extension services for the poor: A documentation review. VUFO-NGO Resource Centre, Hanoi, Vietnam.
- IFAD (2004) Livestock services and the poor, a global initiative: Collecting, coordinating and sharing experiences. Rome: International Fund for Agricultural Development.
- IFPRI (2001) Policy options for using livestock to promote rural income diversification and growth in Viet Nam. International Food Policy Research Institute, final report submitted to the Royal Embassy of Denmark and the Ministry of Agriculture and Rural Development, Hanoi.
- Joensen, L. (2002) Intra-household decision-making and livestock investment patterns in Thanh Hoa Province, Vietnam. Unpublished MSc dissertation, Dept. of Agricultural Economics, Department of Economics and Natural Resources, Royal Veterinary and Agricultural University (KVL), Copenhagen. 119 pp.
- Khieu, B. (1999) 'Chicken production, food security and renovative extension methodology in the SFPS Cambodia', in F. Dolberg and P.H. Petersen (eds), *Poultry as a tool in poverty eradication and promotion of gender equality*. Proceedings of a Workshop, Tune Landboskole, Denmark, 22–26 March 1999, pp. 231–43.
- Minjauw, B. (ed.) (2001) Training of trainers manual for livestock farmer field schools. Nairobi: ILRI.
- Minjauw, B., Muriuki, H.G. and Romney, D. (2003) Field schools for Kenyan dairy farmers. *Low External Input Sustainable Agriculture (LEISA) Magazine*, March 2003.
- Nielsen, H. (2003) Review of the smallholder poultry model developed in Benin. Network for smallholder poultry development. Copenhagen.
- Nin A., Lapar, K.L. and Ehiu, E. (2003) 'Globalisation, trade liberalisation and poverty alleviation in Southeast Asia: The case of the livestock sector in Vietnam', International Livestock Research Institute (ILRI). Paper presented at the sixth annual conference on global economic analysis, 12–14 June 2003. Scheveningen, The Hague.
- Prag, E. (2004) *Etude d'évaluation des Projets d'aviculture villageoise à petite échelle au Sénégal exécutés par la Comité de Lutte pour la Fin de la Faim (COLUFIFA) en Casamance et par le Projet d'Organisation et de Gestion Villageoise, phase 2 (POGV2) à Kaolack (financés par Danida et FIDA)*. Impact Assessment Report, Cts – Cykler til Senegal, Copenhagen.
- Riise, J.C., Permin, A. Larsen, C.E.S. and Idi, A. (2004) 'Optimising appropriate technology transfer to small producers', Paper No. 1386, Proceedings of the World Poultry Congress. Istanbul, 8–12 June 2004. Website: www.wpc2004.org
- Riise, J.C., Permin, A., and Kryger, K.N. (2005) 'Strategies for developing family poultry production at village level – Experiences from West Africa and Asia', *World's Poultry Science Journal*, Vol. 61, March 2005. p. 15–22
- Simpson, B.M. and Owens, M. (2002) 'Farmer field schools and the future of agricultural extension in Africa', *SD Dimensions*. Sustainable Development Department, FAO. Rome: FAO. Website: www.fao.org/sd/2002/KN0702a_en.htm. p.1–8.
- Vu, T. (2003) 'The political economy of pro-poor livestock policy-making in Vietnam. Pro-Poor Livestock Policy Initiative', *PPLPI Working Paper* No. 5. Rome: FAO.
- Van de Fliert, E., Pontius, J. and Roling, N. (1995) 'Searching for strategies to replicate a successful extension approach: Training of IPM trainers in Indonesia', *European Journal of Agricultural Education and Extension*, Vol. 1, No. 4, pp. 41–63.
- World Bank (2003) Vietnam Development Report 2004: Poverty. Joint Donor Report to the Vietnam Consultative Group Meeting, Hanoi.

ENDNOTES

- 1 For an excellent introduction to the political economy of pro-poor livestock policy-making in Vietnam, see Vu (2003).
- 2 For a general introduction to the FFS concept and activities, visit for instance the Community IPM website: www.communityipm.org/
- 3 In Vietnam, it is estimated that around 70–80% of smallholders raise poultry and/or pigs in traditional backyard systems.
- 4 See for instance the web pages of the Network for Smallholder Poultry Development (www.poultry.kvl.dk) and the International Network for Family Poultry Development (INFPD) (www.fao.org/ag/againfo/subjects/en/infpd/home.html).
- 5 The manuals have so far been published in Vietnamese (ASPS-Small Livestock Component, 2004). English translations are being prepared.
- 6 A training package on Participatory Agricultural Extension Methodology (PAEM) was recently published by a group of donor-supported projects (incl. GTZ, EU, SNV). Visit the following website for more information: <http://sfdp.t35.com/>
- 7 At the time of initiating the first round of FLS, the definition of poor, according to Vietnam's Ministry of Labour, Invalids and Social Affairs (MOLISA) was a monthly per capita income of less than 100,000vnd (about \$6) in rural lowland areas and 80,000vnd (\$5) in upland areas.
- 8 The typical ratio of extension workers to farmers is around 1:1,000–2,000.

AgREN

This paper may be downloaded free of charge from the AgREN website at: www.odi.org.uk/agren

Please contact the Network Administrator at:

The Overseas Development Institute, 111 Westminster Bridge Road, London SE1 7JD, UK
Telephone: +44 (0)20 7922 0300 Fax: +44 (0)20 7922 0399 Email: agren@odi.org.uk



Information about ODI and its publications can be found on our website at:
<http://www.odi.org.uk/>