



# Decentralizing the Farmer-to-Farmer extension approach to the local level

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## Abstract

**Purpose** – As the government extension services are less effective in reaching the remote areas and mid-hills of Nepal, the purpose of this paper is to examine the effectiveness of community-based management in technology transfer.

**Design/methodology/approach** – The Farmer-to-Farmer (FtF) extension approach as a better alternative to government extension services will be adopted in the research.

**Findings** – The FtF approach is a cost effective and sustainable service delivery mechanism for extending basic and innovative technologies to rural farmers, especially in remote areas. Even marginalized, poor and disadvantaged groups, often excluded from mainstream assistance, have better access to extension services disseminated through the FtF approach. The agriculture committees established at the Village Development Committee (VDC) level are much entrusted by the people as they facilitates their participation in the planning-to-implementation processes related to local agriculture development programmes. Consequently, there is much local support for the establishment of the local committees and the FtF approach. Several challenges remain however, one being the committee members' management capacity.

**Originality/value** – Decentralizing the FtF extension approach to the local level, the VDCs.

**Keywords** Sustainability, Sustainable development

**Paper type** Research paper

## Background

Decentralized extension services have long been a feature of federal countries. Many developing countries including Nepal are now decentralizing extension in the expectation that the service will be closer to the client, and thus more relevant (Smith, 1997). Such extension systems have shown evidence of increased resource mobilization and reduced strain on central finance, greater accountability and more responsive administration (Bird, 1994).

## The Nepalese context

Decentralizing extension is very important in Nepal as agriculture is the mainstay of the Nepalese economy – it contributes about 36 per cent of the national GDP and employs over 66 per cent of the economically active population. The majority of the rural population, over 83 per cent, resides in rural areas relying on agriculture and agriculture-related enterprises for their economic progress and food security (Ministry



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of Agriculture Development, 2012). Of the total 75 districts, 44 are considered as food deficit districts, poor access to services and inputs being considered the main cause. In such circumstances, systematic and effective agriculture extension plays a pivotal role in technology transfer for improving farm productivity and farmer income (World Bank, 2003). The agricultural sector in Nepal, however, is neglected in terms of financial inputs, human resources and programme planning and management.

### **The current extension system**

The existing public agriculture extension system of the Government of Nepal (GoN) remains in most regards centralized and top-down, meaning that full participation of farmers in programme planning, implementation, monitoring and evaluation, decision making and overall programme management has not occurred. The existing programmes are thus not owned by farmers, rural communities or even district-level stakeholders. Extension from the districts is weak with limited coverage, low effectiveness and low-cost efficiency, and responds poorly to the problems, concerns and priorities of the poor farmers, women or the disadvantaged, especially those in rural areas far from the district headquarters. Such centralized top-down systems are often criticized for not pursuing extension programmes that foster equity (Rivera and Alex, 2003).

Most government structures supporting the agriculture sector are located at central and regional level, and at the district headquarters. There are 1,377 Agriculture Service Centres (ASC) and Livestock Service Centres distributed across the 75 districts, but they are understaffed, deprived of resources, lack motivation and declining in number. In the field, one ASC has to cover over 8,000 farming households (HHs) (Dahal, 2010), and the frontline extension worker to farm family ratio is 1:1,500. Such a high ratio indicates the poor access of farm families to technical resources and expertise, especially considering Nepal's difficult and remote physiographic setting (Shrestha, 2012).

This current situation is not improving due to the persistent scarcity of financial resources for extension, poor policy implementation for supporting agricultural extension, unavailability of sufficient technical human resources, inadequate local-level functionaries and centralized authority.

### **Investment in extension in Nepal**

Adequate funding for local-level extension units is an essential element for the successful implementation of decentralized extension systems. The total investment of the GoN in the agriculture sector was <3 per cent of the national budget in 2011/2012 (Ministry of Finance, 2011), and per capita HH investment from the public sector for extension ranges from US\$0.26 to US\$6.5 (Regional Directorate of Agriculture Office, 2012). Both the District Development Committee (DDC) and Village Development Committee (VDC) receive central government funds for development, but fund allocation for agriculture has been minimal, as local political influences ensure that funds are spent on glossy infrastructure projects such as access roads. Agricultural extension services in developing countries are currently grossly under-funded (Anderson and Feder, 2003), and private sector investments in agriculture extension services in Nepal are virtually non-existent.

### **The conceptual framework and policy background**

There is a need to establish a legal framework and structure of authority that defines the decentralized extension levels, and how they relate to each other (Silverman, 1992).

In order to combat the long-realized tendency for top-down planning and the lack of responsibility taken at district and sub-district level for rural development, the GoN enacted the Local Self Governance Act and Regulation in 1999; amongst other aspects, this Act and its regulations foresee the devolution of public agricultural extension from central government to local government – the DDC, the municipalities and the VDC with the vision of effective extension service delivery at local level through transfer of authority, responsibilities and resources. However, devolution of authority for agricultural extension services to the district level has, as yet, not been very successful.

Considering the seriousness and longevity of the issue, this paper examines a new modus operandi for a decentralized agriculture extension approach in order that the main stakeholders (e.g. policy makers, development practitioners and the media) are better informed of the advantages of a fully decentralized participatory agriculture extension system.

### **Decentralized extension in Nepal – Sustainable Soil Management Programme (SSMP's) intervention**

#### *The Farmer-to-Farmer (FtF) approach – a potential solution*

It is recognized that FtF extension has been carried out for generations, and that it is an existing dissemination process. In relation to Nepal, where there is a scarcity of agricultural technicians working in the remote areas, spontaneous FtF agricultural extension is common, and informally used by both government and private sectors. Ordinary farmers can learn much from their more innovative neighbour (learning by seeing), and in the process, adopt a few promising technologies (Dhital *et al.*, 2009; Ghale *et al.*, 2012). However, it is a slow process and it takes a long time for a successful technology to reach from one place to another, especially in mountainous Nepal – and sometimes such technologies are confined to one place only. It is therefore seen as essential that an improved service delivery mechanism is introduced, one that is decentralized to the local level, ensures accountability of local government, encourages participation by all members of society, is oriented towards demand-driven results and is responsive to farmers' needs, especially the problems and concerns of the disadvantaged in more remote areas.

In this context, the SSMP[1] has promoted a system of decentralized and participatory extension, the FtF agriculture extension approach, in order to:

- (1) combat the poor delivery of extension services to the rural communities, especially those located some distance from the district headquarters; and
- (2) stimulate a socially equitable extension service that is more responsive to local needs, that promotes bottom-up planning with local participation, that ensures ownership of programmes and projects by farming communities, and that fosters cost-sharing.

In Nepal, programmes are now being implemented, like those of the SSMP, in which farmers with experience in relevant subjects are mobilized for technology transfer in remote areas, especially where the services of the government technical staff do not reach.

In the SSMP approach:

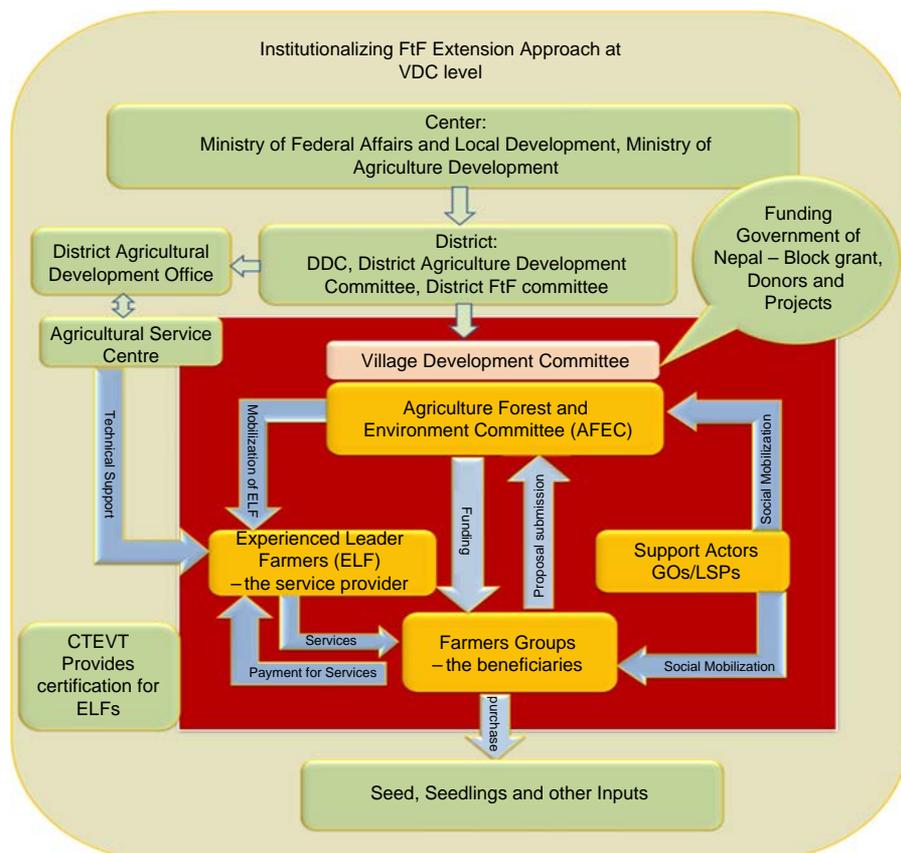
- (1) An Agriculture, Forestry and Environment Committee (the AFEC) is established at the VDC level to manage the agricultural and extension service at local level.

- (2) A system of funding local agriculture development is established and committee members trained to properly and transparently manage both funds and service provision to local farmers.
- (3) Experienced Leader Farmers (the ELF, local extension service providers) are developed and mobilized through the AFEC; the ELFs provide extension services based on the demands of the farmer groups, who prepare a proposal which is submitted to the AFEC for approval and support.
- (4) On approval of the proposal by the AFEC, funds are then provided to the farmer group for both inputs and for paying for the coaching services delivered by the ELF. The ELFs are paid for their services by the demand farmer groups.

Key operational aspects of a local FtF extension service are described in Figure 1, and the following paragraphs.

### The ELF

All farmers cannot be leaders, and all leaders may not have the technical competence, skills, personality or desire to become ELFs. ELFs are not classroom trainers and are



**Figure 1.**  
Operation of FtF extension approach

not envisaged to become full time trainers. Only the following farmers can become Leader Farmers (Plate 1):

- those who are continuously involved in farming, are able to try, test and regularly experiment with new technologies by establishing demonstration and test plots; and
- those who have experience of increasing profits and improving their own livelihoods through agriculture.

The best Leader Farmers then receive further training to become ELF's, the responsibilities of whom include:

- training, coaching of and demonstrating to other farmer groups;
- maintaining a model farm for demonstration of good practices and technologies; and
- experimentation of new technologies.

The ELF's are able to provide support and basic services to other farmers through providing practical coaching and backstopping in, for example:

- (1) preparing a farm plan through an agricultural and livestock calendar; and
- (2) improved and sustainable soil, water, crop, livestock and farm management linked with key income generating commodities with potential in the area.

The role of the ELF in the FtF extension approach is crucial, hence, special attention needs to be given to identify and develop the ELF's. For those with the appropriate ambition, attributes and skills, the ELF's can go on to take skill tests at the National Skills Training Board (Plates 2 and 3).

### The AFEC

Due to the political instability in Nepal since 1996, elections at district and VDC level have not taken place for the past 12 years, thus these days there are no elected representatives nor executive structures at these levels. This has adversely affected the



**Plate 1.**  
Participants at an ELF training session, practicing the preparation of a table nursery for off-season tomato production in Diyale VDC, Okhaldhunga District in the east of Nepal (June 2012)



**Notes:** Kalpana, mother of two daughters and a son and resident of Melamchi VDC, received basic training in sustainable soil and farm management practices in 2001 – this included improved management of farmyard manure and compost, collection of cattle urine for use as a plant tonic and as the base for on-farm bio-pesticide production, the inclusion of legumes into the cropping system and vegetable and cash crop production. Since 2002 when she became an Experienced Leader Farmer, she has trained over 70 farmer groups in her own VDC and other VDCs, in many aspects of improved technologies for better farm management

**Plate 2.**  
Case study of Kalpana  
Chalise of Sindhupalchok  
District

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establishment of a mechanism for implementing agriculture activities at VDC level. Thus, SSMP began the establishment of locally elected AFECs at the VDC level in 2010 to manage the local agriculture development programmes. The committees generally comprise 9 to 11 members of the local community who are elected by the community.

Most of the members are not very well educated and are in need of much coaching and support. With assistance from other projects, programmes and district actors, SSMP is now facilitating intensive coaching and training of committee members to ensure that they are capable of undertaking their responsibilities, as summarized in the list below. One result of the coaching is that all the established AFECs have developed by-laws for the management of the committee and the funds received. Once the AFEC members are sufficiently trained, the committee then becomes responsible for the local agriculture development, and for the FtF extension approach.

The SSMP efforts to establish and capacitate the AFECs has had much enthusiastic cooperation from both the Ministry of Federal Affairs and Local Development (MoFALD), and the Ministry of Agriculture Development (MoAD) who have fully supported the establishment of a workable decentralized extension system.

The specific responsibilities of the AFEC:

- preparing the necessary by-laws and fund operating guidelines for effective and efficient use of the agriculture development funds received;



**Notes:** Laxmi, a mother of three children, used to be able to produce food for only three months of the year and had to take labouring jobs to survive. She was trained by SSMP in 2001 and adopted all the new practices she learnt. Today she sells vegetables to traders who come to her farm to buy, and also milk, peaches, plums and oranges. Her income now covers all the family needs, they are food sufficient all year round and they no longer have any debts. She became an ELF in 2004 and has trained over 30 farmer groups in nearby VDCs

**Plate 3.**  
Case study of Laxmi  
Timilsina of Kavre  
District

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- establishing the agricultural priorities of the VDC and developing annual plans;
- monitoring and evaluation and reporting of the fund utilization;
- tapping resources for funding the FtF approach and the overall agricultural development of the VDC;
- transparent management, recording, disbursing, accounting for and auditing of the funds;
- undertaking technical and social assessments and evaluations of project proposals before approving those selected, and disbursing funds against a documented contract or agreement; and
- mobilizing the ELFs with the necessary skills and experience and maintaining an up-to-date roster of ELFs.

### **Role of the government in strengthening extension at the VDC level**

Since 2008, the Local Governance and Community Development Project, supported by many international and bilateral donors active in Nepal, has been providing significant funding to the VDCs for local development activities. Much of the funding support has been spent on infrastructure programmes, and very little on agriculture (Plate 4).

However, lobbying of the two Ministries supporting this initiative has resulted in two recent important breakthroughs:

- (1) In September 2011, the MoFALD directed all the VDCs to allocate at least 15 per cent of their VDC grants for agriculture development – this amounts to at least NRs 200,000 (~ US\$2,350), sufficient to support a minimum of 12 farmer



**Plate 4.**  
AFEC members after the  
election process in Gela  
VDC, of Kalikot District in  
western Nepal (June 2012)

groups in each VDC through the FtF programme. As this letter went to all 3,915 VDCs in Nepal, this was a very important directive to stimulate local agricultural service delivery.

- (2) The MoAD issued a letter in December 2012 to all 75 District Agriculture Development Offices (DADOs) directing them to ensure their active involvement in the establishment of the AFECs and the appropriate utilization of the budgets allocated for agriculture development. In addition, the DADOs were instructed to incorporate the FtF extension approach as a mandatory activity in their regular annual plans.

In addition to the above, all of the District Development Councils of the seven SSMP districts have committed themselves to establish AFECs in all the VDCs.

## Results, findings and challenges

### Results

The key results to date of the initiatives taken by SSMP, summarized in list below are:

- (1) The FtF extension approach has been introduced and is up and running in 240 VDCs in SSMP's seven working districts.
- (2) Of the total 378 VDCs in its seven operational districts, 288 AFECs have been established, the committees trained, and by-laws and guidelines developed for the operation of local agriculture development programmes.
- (3) Due to the support from the DDCs and the Ministry directives, 48 VDCs where SSMP has yet to work, have formed their own AFECs (over and above those recorded in Table I).
- (4) In total, 755 ELF's have been developed, and 151 ELF's have begun to provide extension services to farming HHs through 87 AFECs, serving a total of 904 farmer groups.
- (5) In all, 42 per cent of the ELF's developed in the last two years are women – leading to a significant increase in self-esteem of the female ELF's, as documented in numerous case studies.

**Table I.**  
Status of SSMP progress  
to December 2012

Name of the districts	No. of VDCs in the district	Total no. of VDCs covered by SSMP	No. of AFEC formed with SSMP support	Total no. of ELF's developed	No. of farmer groups served	Total no. of HHs served	Funds (NRs) co-financed by VDC in 2011/2012	Funds (NRs) co-financed by VDC in 2012/2013
Achham	75	47	47	208	52	858	3,252,276	7,191,001
Daiilekh	56	35	37	94	6	82	2,601,000	5,499,576
Jajarkot	30	20	20	68	15	179	3,585,200	3,210,830
Kalikot	30	20	29	58	71	1,207	2,111,800	2,495,382
Khotang	78	48	45	127	54	879	3,403,100	4,000,000
Okhaldhunga	56	35	55	106	305	5,876	3,114,400	8,877,994
Ramechhap	55	35	55	94	401	7,385	3,492,500	5,616,265
Totals	378	240	288	755	904	16,466	21,560,276	36,891,048

**Source:** SSMP Progress Report (2012)

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- (6) A roster of available and competent ELF's is maintained at all the VDCs, and at the DADO and District Livestock Service Office, and is available to all.
  - (7) Both Ministries have decided to upscale this approach to other districts; in the first phase, to 39 mid-hill districts and gradually to all 75 districts of the country. For this, the MoFALD in coordination with the MoAD is in the process of developing a nationally approved operational guideline for the smooth operation and management of agriculture development programmes at VDC level.

FtF extension  
approach to the  
local level

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### *Findings*

- (1) Development of ELF's empowers women and the disadvantaged through the provision of opportunities to become an ELF, a confident trainer and a respected member of the community.
- (2) Technology dissemination from the ELF's is much more effective – both technically and cost wise – than coaching from an outside technician.
- (3) The FtF approach is a cost effective service delivery mechanism.
- (4) The extension services provided through this approach can be accessed by poor and disadvantaged groups, often excluded from mainstream assistance in remote areas, and has led to beneficial impacts on productivity and livelihoods.
- (5) The FtF approach has led to increased participation of local people in the planning, budgeting, implementation and evaluation of agricultural development programmes.
- (6) There is much local support for the establishment of agricultural committees at the VDC level as it is directly accessible and accountable to local farmers, has led to increased participation in the planning, budgeting and implementation of agricultural development programmes, and has empowered those who are discriminated against through the provision of opportunities to become extension agents or committee members.

### *Challenges*

Challenges in relation to AFEC establishment and management of the FtF approach at the local level include the following:

- (1) There is a clear and urgent need for much training of the committees to raise their management capacities in many different areas. This requires much support from stakeholders at different levels.
- (2) There have been delays in the receipt of funds at the VDC from the District Development Fund due to late release of funds from the centre – this leads to a poor response to farmer demands, and does not build the confidence of the community in the ability of the AFEC to deliver services.
- (3) As in other sectors of Nepal, there is the unfortunate potential for corruption and cronyism leading to extension support being provided to elite groups, political allies or inappropriate programmes.
- (4) There remains a policy gap at the national level – for example, there is a lack of a clear pro-poor focus in policies relating to agricultural extension and decentralization policy.

## Conclusions and recommendations

Transferring the responsibility for management of the FtF extension approach to the VDC level – the lowest political unit of the government – has proven to be effective for both empowering disadvantaged farmers and effective service delivery to farmers, and is thus highly popular.

The modality promoted by SSMP also increases the accountability of local government to the farmers, enhances transparency and significantly improves the participation of the local communities in the planning and implementation of agricultural development.

SSMP is further trying to establish the AFECs as the institution for entry to the VDC, a one-window approach, so that all funding for agricultural development programmes go through the AFEC, in order to reduce the duplication of resources and to ensure local participation in all initiatives, programmes and projects.

The effectiveness of the AFEC in its role as local service deliverer has been observed by many participants in the development field, and there is an increasing interest and demand from stakeholders, in both districts and the national-level policy arena, to scale up this approach.

This decentralized approach through the establishment of the AFECs as managers of the FtF approach at the local level is a long-term initiative, and offers particular hope for improving the relevance, responsiveness and sustainability of extension services provided to local communities of rural Nepal.

## Glossary

AFEC	Agriculture, Forestry and Environment Committee
ASC	Agriculture Service Centre
CTEVT	Council for Technical Education & Vocational Training
DADO	District Agricultural Development Office
DDC	District Development Committee
ELF	Experienced Leader Farmer
FtF	Farmer-to-Farmer
GoN	Government of Nepal
HH/s	household/s
LSGA	Local Self Governance Act (1999)
MoAD	Ministry of Agriculture Development
MoFALD	Ministry of Federal Affairs and Local Government
NRs	Nepali Rupees
SDC	Swiss Agency for Development and Cooperation
SSMP	Sustainable Soil Management Programme
VDC	Village Development Committee

## Note

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Dr Shiva Kumar Shrestha holds a BSc Degree in Agriculture Science at the Tribhuvan University, Nepal and MA Degree in social inclusion, gender and rural livelihoods at the Wageningen University, the Netherlands. His main areas of expertise are sustainable agriculture development and agriculture-based rural livelihoods. He has contributed to the above mentioned fields for more than 18 years as a frontline extension worker and a senior policy adviser in different international organizations: GIZ, DFID, UN-FAO, USAID and HELVETAS, Nepal. Currently, he is supporting the Nepal Government in decentralizing the FtF extension approach to the local level and formulating enabling policies. Dr Shiva Kumar Shrestha can be contacted at: shiva\_gorkha13@yahoo.com