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Group Discussion in Narepani, Dhailek District

## A SUCCESSFUL FARMER-TO-FARMER APPROACH IN NEPAL

An impact study<sup>1</sup> conducted by a team of eight national and international consultants shows that the Sustainable Soil Management Programme (SSMP) that HELVETAS Swiss Intercooperation has implemented in Nepal since 1999, with funding from the Swiss Agency for Development and Cooperation (SDC), has made a crucial contribution to national agricultural development policy. Over its lifetime, SSMP has developed a participatory extension approach with local producers and service providers including governmental agencies. This grassroots methodology has permitted the transfer of a basket of sustainable soil management practices that have helped to improve soil fertility, food security and income generation in the mid-hill regions of the country. The approach has allowed SSMP to target disadvantaged groups and women, as well as fostering empowerment and ownership by local committees through local planning, budgeting and evaluation; it is also a tool for efficient and demand-driven service provision. Nepal's Ministry of Agricultural Development has therefore decided to adopt and mainstream this decentralised approach.

## CONTEXT

Smallholder farmers in the mid-hills region of Nepal depend for their livelihoods on rain-fed upland farming systems on terraced slopes, known as bari. The productivity of these lands is in decline due to nutrient mining and soil erosion. Farmers in remote hill areas lack knowledge, technologies and access to markets, leading to a high incidence of poverty, which forces them to emigrate.

For the last 15 years, the Sustainable Soil Management Program (SSMP), funded by the Swiss Agency for Development and Cooperation (SDC) and executed by HELVETAS Swiss Intercooperation, has aimed to reverse this trend and to improve food security and the livelihoods of poor and disadvantaged households through the promotion of Sustainable Soil Management (SSM) practices.

### Sustainable Soil Management technologies promoted

- Improved farmyard manure production and application
- Use of cattle urine as a fertiliser and bio-pesticide
- Cattle shed improvement with urine collection
- Preparation and use of botanical pesticides
- Promotion of fodder trees and forage grasses
- Incorporation of legumes into the crop rotation

Other practices have been added during subsequent stages of SSMP, such as use of poly-houses for vegetable production, small farm-ponds for rainwater harvesting, composting with worms, etc.

In order to bring technological knowledge of sustainable land management to the farmers, SSMP developed a decentralised system of agricultural extension at community level, a so-called **Farmer-to-Farmer approach (FtF)**.



Cattle urine collection for improving soil fertility, October 2013

Research methodology		
<b>Methods</b>	<b>Thematic foci</b>	<b>Products</b>
Desk research Farmer Household Survey (331 HH) Focus Group Discussions (17) In-depth Interviews (56 officials and 45 farmers) Direct observation and team discussions	2 researchers on <b>productivity and income</b> from SSM technologies 2 researchers on <b>efficiency and effectiveness</b> of Farmer-to-Farmer approach 2 researchers on <b>sustainability and impact</b> in phased-out districts 1 researcher on <b>gender and social inclusion</b> 1 coordinator	6 field reports 6 case studies 1 synthesis report 1 debriefing conference with policy agents
<b>Sample</b>		
SSMP was active in 20 of 39 mid-hill districts: <b>13 have since been phased-out and 7 are ongoing.</b> 6 from the phased-out and 5 from the ongoing districts were selected for the impact study by stratified random sampling. All <b>11 municipalities</b> were visited and officials interviewed 4 VDC*/AFECs**/farmer groups in each of the 5 ongoing districts ( <b>total: 20</b> ) and at least 1 in each of the 6 phased-out districts ( <b>total: 10</b> ) were selected at random. *VDC: Village Development Committee **AFEC: Agriculture, Forestry and Environment Committee		

## 15 YEARS OF SSMP: WHAT REMAINS?

Over the last 15 years the Sustainable Soil Management Project trained several thousand farmers in 20 of the 39 mid-hills districts of Nepal. A rough estimate suggests that some 250,000 families participated in the programme. In its last phase, SSMP was active in 378 villages in seven districts, supporting 45,000 farmers (of which 61% were women) and training over 2,000 Experienced Leader Farmers. Based on estimates by local experts, around 40-50% of farmers have maintained SSM technologies after the programme's withdrawal. However, and even more important: FtF committees still function in many villages in the phased-out districts.

Farmers have reported **enhanced food security** due to higher yields and **additional gross income** from fresh vegetables, cash crops and grain legumes (soybean, beans and peas). After SSMP's intervention, about 83% farmers have grown vegetables (tomato, cauliflower, cabbage) and 35% have started to grow ginger, turmeric, onion, garlic and chilli as cash crops.

It is very difficult to generalise and to quantify the **social** (self-esteem, changing roles, mitigation of migration) and **environmental effects** (soil fertility, water retention, bio-diversity, mitigation of degradation) of sustainable agriculture, but farmers mentioned them in most of the 45 interviews. Likewise, the **economic impact** is not easy to generalise as it depends on

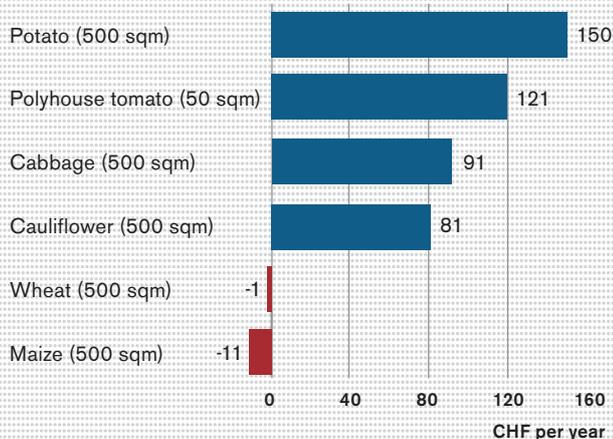
many factors – on-farm (land, workforce, skills) and off-farm (market assess, prices, providers) – and can be primarily recorded in individual success stories<sup>2</sup>.

## FTF: A DECENTRALISED AGRICULTURAL

### EXTENSION APPROACH

Figure 1: **Net income per 500 square meters (50 for tomatoes) from different crops (Cost-Benefit Analysis in Dailekh-district 2012/13)**

Source: SSMP



Sabitra Acharya from Dailekh District has a husband and two sons, and owns two buffalos and four goats. She has only five Ropani (~0.25 ha) of land. She started vegetable production with SSMP support in 2010. She has acquired knowledge for compost preparation and application, nursery management, legume integration and vegetable production for market. She has also set up a poly-house tunnel for rainy season tomato production. She became an ELF in early 2012 and has developed her farm as a model in Dandaparajul VDC. She earns around NRs. 80,000 (~€750) a year from selling vegetables, and has built a new house from the proceeds of her vegetable sales.



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Sabitra Acharya on her cabbage field in Dandaparajul, Dailekh, October 2013

Key to the success of SSMP is a decentralised agricultural extension approach based on local Farmer-to-Farmer learning, which is embedded in the existing legal and institutional framework. The approach that fostered the building and networking of new groups at grassroots level and linked them to the existing institutional framework consists of three major components, as follows:

**ELFs as extensionists:** Lead Farmers are trained and coached on-farm in the technical knowledge, skills and social competencies they need to become Experienced Leader Farmers (ELFs). The ELFs act as extensionists and provide agriculture services to other farmers and Farmer Groups in their own or adjacent communities; these are known as Village Development Communities (VDC).

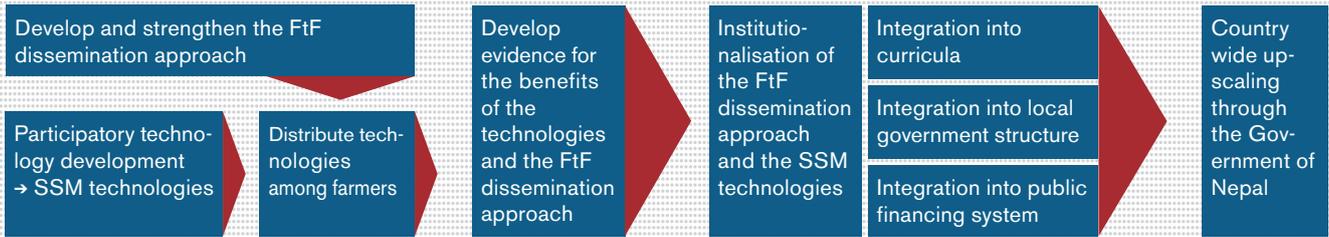
**Farmer Groups and Committees as demanding entities:** Farmer Groups place their demands to the elected district FtF committees and/or, where they exist, the Agriculture, Forestry and Environment Committee (AFEC) at VDC level. SSMP strongly encourages participation by women (at least 30%) and disadvantaged groups (one member of an ethnically disadvantaged group is to hold at least one key position).

**AFEC as accountable body for planning, decision-making and evaluation:** AFECs assess proposals from Farmer Groups, allocate funds, mobilise ELFs for training and technical support, and monitor performance. Most AFEC members are farmers in their community, and they are directly accountable to local farmers for the provision of requested extension services.

**Other organisations:** NGOs, District Development Committees, private service providers, etc. support AFECs and respond to the demands of farmers. The institutional set-up of this approach links the different administrative levels as shown in Figure 2.

The decentralised Farmer-to-Farmer approach implemented by AFEC has raised awareness and shown the feasibility of establishing local service providers, in line with the national policy. Furthermore, it has created entry points for other initiatives such as infrastructure and health programmes. By fostering active citizenship and providing effective tools such as community budgeting, participatory monitoring and public audits, SSMP has contributed to ownership and enhanced the claiming of social rights (e.g. government resource allocation). The emphasis on inclusiveness is another positive effect of the approach.

Figure 2: The scaling-up process of the SSMP Farmer-to-Farmer extension approach



## INCLUSION OF GOVERNMENTAL AND PRIVATE BODIES

At village level, Farmer Groups create demand through a local planning process and are put in touch with service providers (government, NGOs and private sector). The Village Development Committee (VDC) is an autonomous institution, formalised through the Local Self Governance Act of 1999, that raises revenues and allocates funds.

The District Development Committee (DDC) coordinates all governmental and non-governmental agencies and private service providers. The DDC receives grants and budget support from national agencies. It also works as a link agency for VDCs and municipalities, allocates resources, audits VDC accounts and monitors VDC-level activities.

At national level the Council of Ministers, the National Planning Commission, the Ministry of Finance, the Ministry of Federal Affairs and Local Development, and the

Ministry of Agricultural Development have a mandate to formulate policies for the agriculture sector. They support and promote the decentralised agriculture extension approach proposed by SSMP.

SSMP together with local and district bodies has developed and implemented a cost-effective and efficient extension model that is welcomed by the Nepal government. The Nepal Extension Strategy of 2007 enshrines most of the successful premises, using modalities such as a participatory approach, results orientation towards the disadvantaged, reliance on local human and natural resources, and market orientation.

## CONCLUSION

The SSMP is a shining example of how a long-term development perspective can achieve lasting results. It also represents a successful path for involving and strengthening local organisations and adopting a decentralised development approach. The flexibility regarding the technological package made it possible to incorporate innovations, new technologies and methods. The conscious fostering of knowledge sharing and the capacity development of farmers, partners and other stakeholders at all levels has been another factor for success. Last but not least, advocacy was key to achieving the overall goal of livelihood improvement.

- (1) Kai Schrader; Bishnu K. Dhital; Ganga Datta Awasthi; Kanchan Lama; Kishor Atreya; Rabindra Adhikari; Rishi Ram Kattel; Roshan M. Bajracharya (2014): Sustainable Soil Management Programme Nepal (SSMP): Outcome and Impact Assessment - Final Report, Kathmandu and Zurich, February 2014
- (2) SSMP published two volumes on such success stories
- (3) Kägi, Stefanie (2015): Capitalisation of Experiences. Sustainable Soil Management Programme, Nepal, 1999-2014.

The budget of Lamidada VDC in Khotang on a public noticeboard, October 2013



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