Outreach strategy towards large-scale adoption of CA innovations: experience from Northwest Vietnam highlands

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The Northwest Vietnam agriculture is characterised with large scale monoculture of maize on high and steep slopping lands causing high soil erosion and short durability of cropping systems. During 2010 – 2013, under the ACIAR funded Northwest Vietnam project, an outreach strategy towards large-scale adoption CA options for reduced soil erosion and increased sustainability of peoduction systems was designed and piloted. This strategy involved: (1) conducting of adaptive trials and demonstration of; (2) raising awareness on the needs for, and (3) building capacity and linkages for facilitating farmer to implement, different CA practices.

Adaptive trials, demonstration and awareness raising aimed to link the research work with the development organisations. Researchers, farmers, local decision makers and extension officers together planned action plans, developed protocols of field trials, conducted, monitored and evaluated adaptive trials in 6 villages. In addition, a mental model study was conducted to address the non-sustainability issues of the existing cropping systems, and to understand the perceptions on soil erosion of farmers from different ethnic groups as well as their difficulties in inplementing CA practices. Training and communication materials (leaflets, photostories and videos) were also participatorily produced and used to facilitate discussions with farmers and local officers.

Capacity building and linkage development involved organisation of training of facilitators (TOF) for extension officers and field schools for farmers (FFS). After attending TOFs, 18 extension officers successfully organised and facilitated 4 pilot FFSs over two cropping seasons in 2013 involving 85 farmers from different ethnic groups in 4 villages. Each FFS consisted of 9 sessions covering all necessary steps from land and seed preparation to harvest and postharvest. Detailed content of training curriculum varied across sites to suit the local conditions. Each FFS established one large learning plot for all the farmer-trainees to practice the techniques learnt at each session. Each farmer-trainee was provided with support to apply their preferred techniques in a small plot of 500 m^2 in their own field. Field days and cross visits were organised to FFSs and their learning fields; Farmers who were not participating in the FFSs were also encouraged to visit and share their views. Thus, not only 85 farmers but also many other farmers could enhance their awareness and knowledge from the activity, and the linkage farmer-farmer, farmer-extension officer-researchers improved.

As result, not only farmers involved in the FFSs and trials, but many other farmers could learn and implement some CA practices. Especially, last season, in two out of the four villages with FFSs, over 50% of farming households applied minimum tillage and mulch on their crops. In both target provinces, Lai Chau and Dien Bien, provincial department of agriculture and rural development (DARD) have included in their extension program an objective of large scale adoption of soil erosion control practices in the coming year. As evaluated by local people, together with other awareness raising activities, the piloted FFSs were effective for promoting the adoption of CA practices; Nevertheless, for DARD to be able to organize FFSs for large number of farmers modifications to FFS are required to reduce the cost and time consumption. Also, farmer-farmers learning has been considered highly fruitful for multiply the impacts of FFSs.




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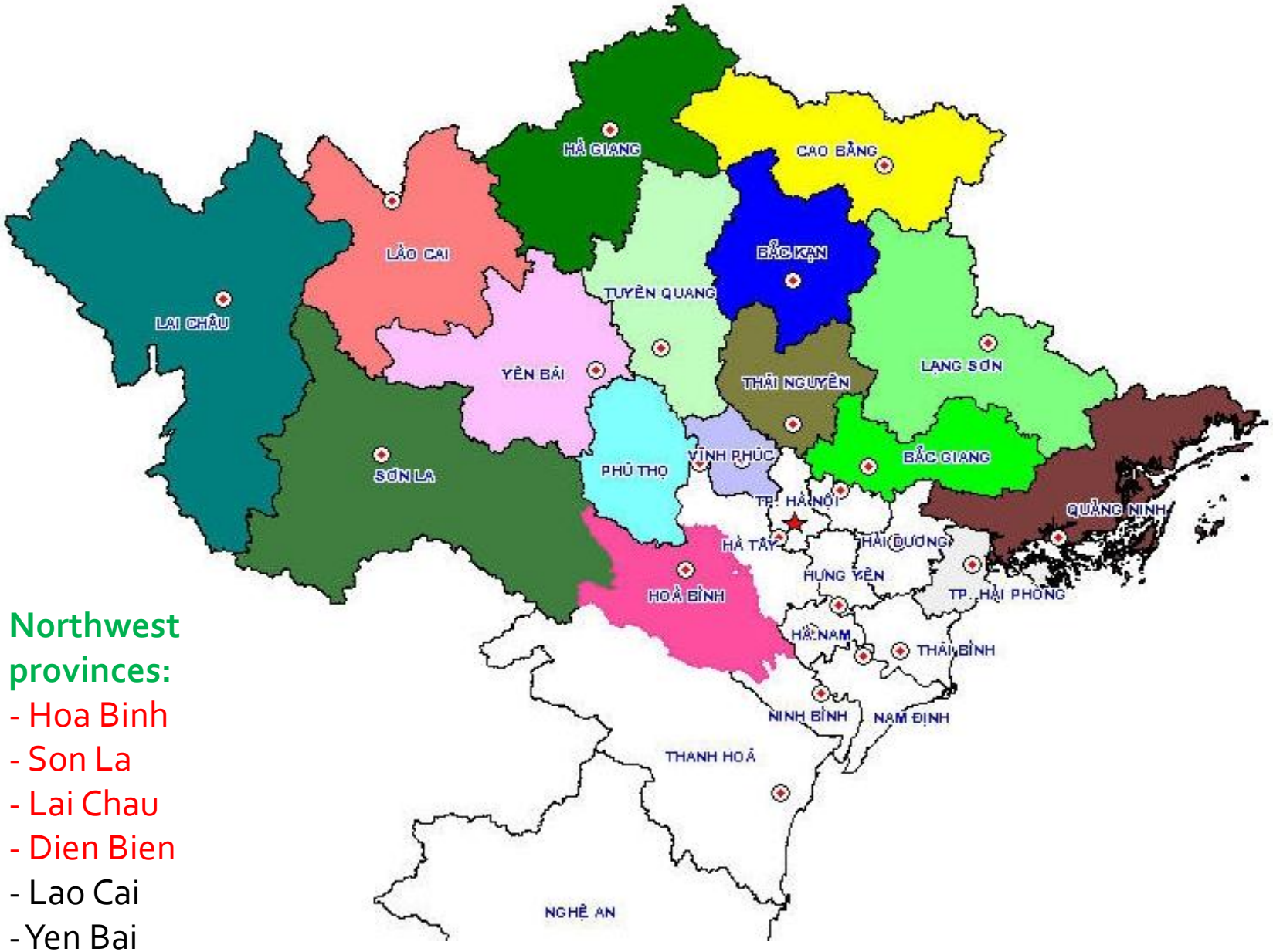
TRƯỜNG ĐẠI HỌC TÂY BẮC
BỘ GIÁO DỤC VÀ ĐÀO TẠO



Northwest provinces:

- Hoa Binh
- Son La
- Lai Chau
- Dien Bien
- Lao Cai
- Yen Bai


Complicated and diificult conditions

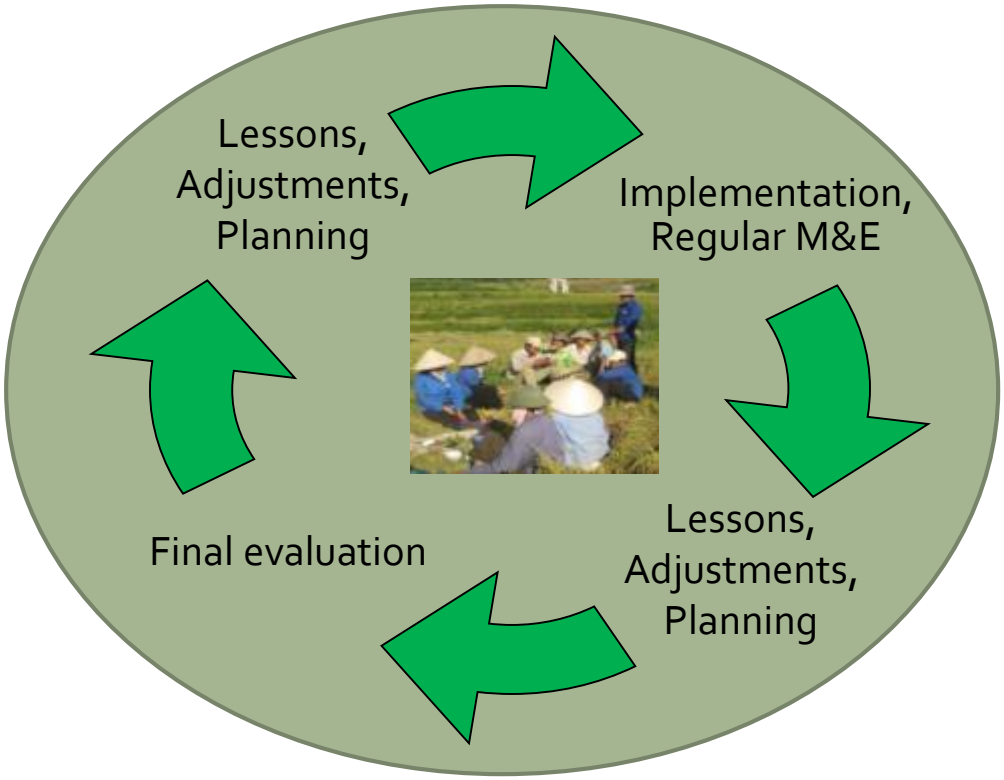

Short durability of current cropping systems

Objectives

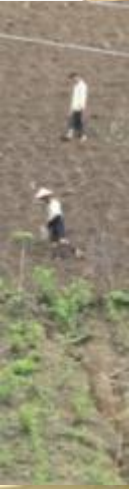
- Identify/refine and demonstrate appropriate practices for sustainable intensification of maize-based systems
  - Reduced soil erosion/restored soil quality
  - Increased economic profits/reduced labour cost
- Support development organisations - local extension network - to enhance farmers' knowledge and skills towards large-scale adoption by smallholder farm households of project research outcomes
  - Identify main actors
  - Improve awareness and capacity
  - Develop linkage

Methodology

- Participatory conduction of a serry of adaptive trials and demonstrations
- Participatory development and piloting of different outreach components
- Capacity building of core group of master trainers and facilitators



- Production of complementary materials and media:
  - Training manuals: technical and facilitation
  - Video modules
  - Leaflets



Activities

Best technical options

Participatory & adaptive trials; PM&E

DEMONSTRATION

Field days, cross visits

Mental model

IEC materials (videos, posters, leaflets)

Technical manuals & sheets

TOT for extension staff

Large learning plots

Small practicing plots

FFS

Awareness

Capacity

Linkage

Farmers-researchers-extension-decision makers

OUTREACH TO LARGER NUMBER OF FARMERS

Participatory planning of a trial

A regular participatory monitoring session

Metal model study

- **Scenario 1: Change to sustainable cultivation**

  Farmers change their practices toward a sustainable soil management system that has positive impacts on farmers' income and livelihood.

- **Scenario 2: Multinational Investment**

  Farmers sell degrading land to multinational company leading to under -employment in the long term. Farmers who thought they had a good deal after a few years spent all money and start to sell their labour

- **Scenario 3: No change**

  Projection of conditions over a 10 year period if unsustainable practices are not change and risks associated with that – including food security, education and flow on effects to livelihoods.

Creating different scenarios, open discussions with farmers




Different erosion treatments

Different options for reducing tillage

Additional second crop:
Pumpkin – Maize

Intercropping:
Maize + Legumes

A cross field visit

A FFS session at the start of the cropping season

Improved market engagement for sustainable upland production systems in the North West Highlands of Vietnam
AGB/2008/002

PHOTO STORIES

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Main outcomes

- Through mental model study: Understanding of farmers' perceptions about erosion – used as inputs for planning of activities
- Through demo., PM&E, field days, distribution of manuals, guidance, video modules, photostories :
  - Community awareness raised
  - Best practices demonstrated (mulching and minimum tillage, intercropping with beans, Guatemala grass hedgerow, second crops)
- Through TOT, FFSs, and participatory trials :
  - Capacity of extension staff improved
  - Capacity of farmers: involved in and not involved in FFSs
- Linkages strengthened/developed
- Involvement and commitment of local government: DARDs include in their extension program an objective of large scale adoption of soil erosion control practices in the coming year

Lessons learned

What worked well?

- Participatory and adaptive: discussions for sharing views
- Demo. & trials with cross visits and field days: exchange information and awareness raising
- FFS & farmer-to-farmer learning: dissemination

What did not work well?

- Recording by farmers
- Economic benefit calculation based on small trial plots
- Empowerment (need more time)

Thank you for your attention