



Issues Brief No. 01/2019
Ministry of Agriculture and Forestry
Green Extension



Key Messages:

- MAF is committed to developing clean, safe and sustainable agriculture. This policy is increasingly important in view of the negative impacts that frequently occur as a result of rapid commercialization of farming.
- Various forms of sustainable agriculture have been promoted in Laos for 30 years, including organic farming, integrated pest management, systems of rice intensification and conservation agriculture. As a result of this experience, the capacity to promote techniques of this kind already exists.
- Green extension is an umbrella term that can be used to describe rural advisory services which supports the scaling up of sustainable agriculture. This encompasses a range of methods to promote various types of content. What these approaches have in common is a process of *socio-ecological learning*, i.e. supporting farmers to analyse local problems and opportunities, and test alternative practices under local conditions.
- The success or failure of Green Extension ultimately depends on the enabling environment for sustainable agriculture. Knowledge and skills are not the only determinants of behaviour in the sector; farmers and agribusinesses also make decisions based on the likely financial returns. Thus, if sustainable agriculture is to be scaled up in Laos, it needs policies and practical measures that make green farming more profitable for a much larger number of small producers.
- Future efforts to promote sustainable agriculture cannot depend on Green Extension alone. Research and development efforts are needed within MAF that help reduce the costs and increase the financial benefits of Organic Agriculture and Good Agricultural Practices, including measures related to value chain governance, taxation, certification and pricing.

1. Sector Context

The agriculture sector in Laos is changing rapidly. Over the past two decades, the commercialisation of agriculture has boosted incomes for many farming families while raising concerns about social and environmental impacts.

By the year 2017, the value of agricultural exports from Laos had reached one billion US dollars per year¹ while the area under agricultural land concessions had reached more than 1 million hectares.² However, the high use of chemical inputs and mechanical tillage has often led to land degradation, soil and water pollution, and threats to human health. A study carried out by the Lao Upland Rural Advisory Service (LURAS) showed that official imports of pesticides had increased more than 10 fold in ten years. In one upland province, large scale tests showed that approximately half of fruits and vegetables were contaminated with pesticides, and a third of school children have unacceptable levels of these chemicals in their blood.³

2. Policy Goals

In response to the challenges that have arisen during the modernisation of the agricultural sector, the Government of Lao PDR has made sustainable development and environmental protection cornerstones of the latest National Economic and Social Development Plan. The policy goal of “shifting into green and environmental friendly economy” is clearly stated in the 8th National Economic and Social Development

Plan.⁴

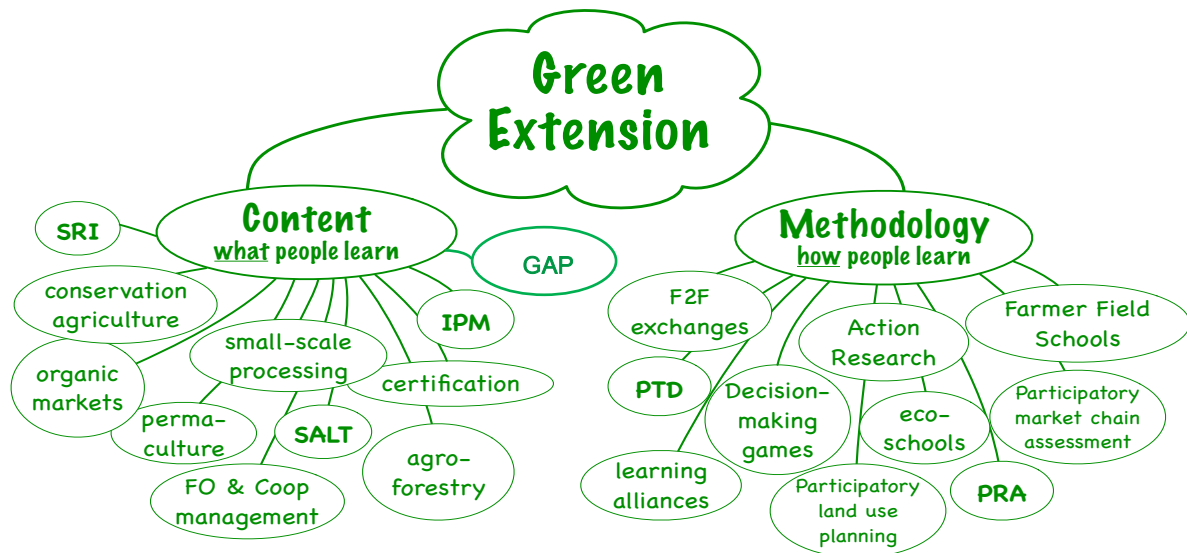
At the sectoral level, the Ministry of Agriculture and Forestry is committed to “developing clean, safe and sustainable agriculture” as part of the approved strategy to 2025. The strategy identifies Good Agricultural Practices (GAP) and Organic Agriculture (OA) production as key approaches to achieving this goal.

3. The Green Extension Concept

Green Extension is a type of rural advisory service which supports the scaling up of sustainable agriculture by facilitating socio-ecological learning processes with farmers.⁵ Green Extension is not a single approach or blueprint for achieving sustainability; it includes a range of methods to promote various types of content, as shown in the diagram below.

In practice, Green extension involves a combination of content and methodology that is selected and adapted to meet the needs of the people and the place where the service is being provided. For example:

- Farmer Field Schools to promote integrated pest management (IPM),
- Land use planning in support of conservation agriculture,
- Participatory market chain assessment to assess organic opportunities,
- Action research related to the system for rice intensification (SRI),
- Farmer to farmer learning (F2F) to scale-up agroforestry.



What all these Green Extension methods have in common is the creation, sharing and application of local knowledge. Sustainable agricultural practices must be adapted to local conditions, and these conditions are both diverse and dynamic in the uplands of Laos. Therefore, Green Extension has to support farmers in analysing local problems and opportunities, and testing alternative practices under local conditions. This kind of service can be provided by a range of differing organisations: government departments, NGOs, private enterprises, and by farmer groups. Everybody can contribute!

4. Capitalization of Experience

Various forms of sustainable agriculture have been promoted in Laos for 30 years. The most prominent initiatives taken in collaboration with the Ministry of Agriculture and Forestry have been:

- Organic farming (supported by Helvetas, Quaker Services, SAEDA),
- Integrated Pest Management (FAO, CIDSE, Village Focus International),
- Systems of Rice Intensification (OXFAM, JICA),
- Conservation Agriculture (CIRAD),
- Good Agricultural Practices (JICA, TICA).

In 2018, a series of meetings were held to review on-going projects promoting sustainable agriculture.

Consultations were held with farmers, field workers, project managers and policy makers. These meetings led to the identification of the following framework for Green Extension:

| GE Principle | What this involves |
|---------------------------------------|---|
| Participatory agro-ecosystem analysis | rural families take stock of available resources; inventories and maps prepared |
| Community Planning | analysis of opportunities and constraints; agreement reached on priorities for innovation |
| Action research | innovations are piloted; options are compared; communities collect data and analyse results |
| Farmer-to-farmer learning | experience is shared among households and communities; knowledge and skills transferred |
| Organisational development | informal networks and/or formal groups are created to sustain and scale up innovations |

These ‘principles’ are a sequence of commonly used steps or methods for the promotion of sustainable agriculture. Each principle has already been implemented by a number of different projects in Laos, but has been given a generic description in the table above to avoid the misperception that these methods are ‘owned’ by particular organisations.

Other conclusions from the practitioners workshop were as follows:

- **Capacity to implement Green Extension already exists.** Government staff and farmers have been trained. Techniques have been piloted. Results have been documented. Manuals, posters and videos have been produced. Equipment has been handed over.
- **The project approach has helped create this capacity, but is also a hindrance to mainstreaming.** Activities are fragmented. Often small scale, with no critical mass. Funding starts and stops. Weak local ownership. Staff regularly reassigned.
- **Provinces need to take the lead.** The Provincial Agricultural and Forestry Office should be more proactive in planning and coordinating Green Extension. If resources are needed, they should lobby for staff, funds and facilities, but to do this they need a clear strategy and a mechanism for M&E.

5. The challenge of supporting sustainable agriculture

The success or failure of Green Extension ultimately depends on the enabling environment for sustainable agriculture. Changes in knowledge and skills will not lead to changes in practice unless other factors are in place. Most importantly, now that farmers are producing for the market rather than for consumption, farming practices are markedly influenced by financial returns.

The factors that affect farmer’s choice of practices – e.g. whether to produce an organic crop or make use of pesticides – include labour availability, household cash flows, price premiums, market demands and value chain governance.

If sustainable agriculture is to be scaled up in Laos it needs more than just Green Extension, it also needs policies and practical measures that make green farming more profitable for a much larger number of small producers.

Some steps that could be taken to develop policies and measures of this kind are listed below. These and other ideas will be discussed by the members of the Sub-Sector Working Group for Farmers and Agribusiness.

- National Agriculture, Forestry and Rural Development Research Institute (NAFRI) to undertake research into labour-saving farming practices, thereby improving productivity without use of chemicals,

- Lao Farmer Network (LFN) to facilitate farmer-to-farmer learning on improved governance of farmer organisations, thereby creating models of collective action that primarily promote the interest and wellbeing of farmers,
- Department of Agriculture (DOA) to compile data on costs and benefits for small producers of certification schemes, including organic and GAP,
- DOA to formulate policy on OA and GAP and associated Decree or Law on OA and GAP,
- Department of Policy and Legal Affairs (DOPLA) to study farm labour dynamics associated with commercialisation of farming in Laos, including the importance of off-farm employment,
- Department of Technical Extension and Agro-Processing (DTEAP) to look at access to credit, and the impact of both official *and* informal taxation on profitability,
- DTEAP to compile and disseminate success cases of green farming and micro-enterprises through the SSWG-FAB and extension networks,
- DTEAP to develop monitoring tools for Green Extension that integrate economic, social and environmental indicators.

References

- ¹ Ministry of Agriculture and Forestry (2018), *Report on the Implementation of Agriculture, Forestry and Rural Development Plan*
- ² Castella, J C et al (2018) *Adding Values to Agriculture: A vision & roadmap for sustainable development in the Lao Uplands*. Lao Uplands Initiative
- ³ Rassapong S et al (2018), *Pesticide Use in Lao PDR: Health and Environmental Impacts*. Lao Upland Rural Advisory Service (LURAS)
- ⁴ Ministry of Planning and Investment (2015) *Five Year National Socio-Economic Development Plan VIII (2016-2020)*
- ⁵ The use of the term 'Green Extension' is not unique to Laos. References can be found in the literature on extension in Turkey and Iran, for example: Rezaei-Moghaddam K and Karami E (2008) *Developing a Green Agricultural Extension Theory*, International Journal of Sustainable Development Planning. Cukur T (2007) *Green Extension for Green Agriculture*, 23rd European Seminar on Extension and Education.

Acknowledgement

This issue brief has been prepared and produced by the Department of Policy and Legal Affairs (DOPLA), Ministry of Agriculture and Forestry in collaboration with Department of Technical Extension and Agro-Processing (DTEAP), with technical and financial support from Helvetas LURAS Project. Acknowledgement is given to the stakeholders that have contributed to the development of the concept of Green Extension in Lao PDR, including individual farmers and producers, farmer and producer groups, private sector members and organisations, concerned technical and other Department of MAF and other Ministries of the Government of Lao PDR, and development partners.

Contacts

Department of Policy and Legal Affairs
 Ministry of Agriculture and Forestry
 PO. Box 811, Vientiane Capital, Lao PDR
 Tel/Fax: + 856 21 417198
 E-mail: dopla.maf@gmail.com