Field Guide
for Extension Workers

SFDP – Manual PAEM 2

Prepared with Support of SFDP Song Da and SNV, December 2002
The field guide on Participatory agricultural extension methodology (PAEM) is similar to the guidelines, but directed to commune extension worker, i.e. easy to understand and with more graphic illustrations. This material is still revised each year.

SFDP (Song Da) and SNV (since 1999) have supported the methodology development. This methodology was approved in July, 2003 by Son La Provincial People’s Committee.

The complete set of documents consists of:

1. Provincial PAEM Guidelines Son La – including monitoring forms - SFDP Manual PAEM 1
2. PAEM field guide – SFDP Manual PAEM 2
4. ToT Book – SFDP Manual ToT 1
5. ToT Book for advanced trainers (forthcoming) – SFDP Manual ToT 2
7. Training Logbook for Tot participants – SFDP Manual ToT 4

These documents have been developed based on the cooperation of Dien Bien and Son La Extension Center and the practical experiences in 02 plot districts, Yen Chau and Tua Chua since 1996.

We hope these documents can serve as a basis for discussion on demand-based extension in the other provinces in Vietnam

All the documents used in this process are available online:  
http://www.mekonginfo.org/partners/SFDP/index.htm

Or through our project office:

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1 Introduction

What is PAEM?

PAEM is an approach how to make good, participatory and farmer lead agricultural extension, and how to make sure that action and learning by doing can take place in farmer’s field. The approach is based on the principle that farmers learn best by own experiences. The PAEM approach promotes the interaction between farmers and extension workers aiming at improving a joint learning process.

Why do we need participatory extension?

- Conditions for agriculture in Son La province are highly diversified, and there is no solution or answer that would fit for every location.
- Agriculture in Son La is steadily developing. Technologies and policies are changing, and new varieties are being introduced. There is no decision that would fit for each situation.
- Farmers have steadily to create and adapt new knowledge for the right decision making in this changing environment.

Objectives of PAEM

- To enable farmers to take decisions by themselves what in their situation is the best solution.
- To facilitate farmers in continuously building up new knowledge by setting up, monitoring, and evaluating trials on their own fields.
- To enable extension workers to facilitate farmers to carry out extension activities in accordance with farmers’ demands.
2 Short facilitation guide

What is facilitation?

Facilitation is a way of guiding discussions; field experiments or training that improves the learning effect within the group. It is based on the principle that adults learn best from own experiences and from discussing about their experiences. Technical knowledge is offered by the facilitator according to the demand of the farmers and discussed in a participatory way. Mostly, the group is to draw conclusions or to agree about next steps. Especially in this step, the facilitator should leave the full stake to the group and not impose own ideas.

The key competencies of a good facilitator

1. Group moderation
   
   This is the most frequent task of a facilitator to guide a group to exchange ideas and experiences in order to come up with joint results, conclusions, or work plans.
   
   Good facilitation requires to pay attention to group dynamics, and to integrate the weaker group members, mostly women or poor people.

2. Communication

   Group moderation builds upon personal communication skills. Among them, asking proper questions and listen actively are the most important ones.

3. Technical knowledge

   Additional to farmers’ experiences and knowledge, the facilitator should contribute specific technical knowledge – however, not imposing but offering and proposing solutions; not in a top-down but in a participatory way, respecting farmers’ interests and demands.

4. Personal attitude

   An authentic and positive attitude towards the farmers is the most important base for good facilitation. A person who thinks that farmers are lacking education and do not understand can never be a good facilitator.
**How to do facilitation**

1. **Group moderation**

   ![Group Moderation Image]

   **Moderate the group discussion**
   - Clarify with the group what is the task or objective.
   - Pick up the contributions from the group and help structuring different ideas.
   - Invite also weaker group members, especially women, to give their ideas, and encourage the group to consider them seriously.
   - Mediate conflicting positions.
   - Use different methods for visualization, e.g. small cards, pictures, A0 paper, black board, 3-D models etc.
   - Help the group to define conclusions and/or action plans.

2. **Communication**

   ![Communication Image]

   **Ask questions and listen actively**
   - Ask questions for getting information, clarifying situations and opinions, encouraging people’s participation, managing group processes, or help people to raise awareness, or enhance learning processes.
   - Use questions to foster analytical thinking: Strong points? Weak points? So, what is the conclusion?
   - Listen actively.
   - Give feedback, and invite participants to give feedback.

3. **Technical knowledge**

   ![Technical Knowledge Image]

   **Contribute technical knowledge**
   - Figure out what technical knowledge is demanded by the farmers.
   - Make examples or practical demonstrations.
   - Ask for the local knowledge and how it might be integrated.
   - Prepare easy understandable handouts.
   - Do not impose your ideas, but offer your knowledge as a contribution to a learning process. Discuss with the farmers in which way they might apply the technical knowledge.

4. **Personal attitude**

   ![Personal Attitude Image]

   **Convey empathy**
   - Show your full respect to the people.
   - Listen actively to the people’s experiences and needs.
   - Try attentively to understand their view points, feelings, and situation.
   - Give positive and helpful feedback.
   - Be respectful and interested in their local experiences.
   - Build up mutual understanding and trust, and encourage participants to respect mutual comments, especially of weaker group members and women. This is the most important base for good facilitation.
3 Activities in PAEM

**Most important activity: Establishing trials**

One of the most important elements in PAEM is to support farmers in setting up trials, and facilitate the monitoring and evaluation of the trial.

Trials are a new practice, carried out on a small area of a farmer’s field, separated always into 2 plots. One plot is for testing a new technique; the other plot is for applying the common technique as comparison. The aim is to test carefully the technical and financial feasibility and possibility of new ideas in agricultural system and to compare them with the old approach. Trial can be established for instance for the use of new variety, change in plant density, new fertilizer mix, etc. There are seven steps in conducting trials. On the next pages, the seven steps will be explained with more details.

1. Prepare the first village meeting
2. Conduct the first village meeting
3. Meeting with group of selected farmers – In one village, 3 to 7 farmers should install the same trial
4. Install the trial together with the farmers - There should be clear comparison between two plots trial and comparison, i.e. the 2 parts should have the same agronomic conditions
5. Conduct regular monitoring visits – Exact monitoring notes have to be taken
6. Plan and organize the field conference
7. Facilitate the field conference

**Other frequent activities in PAEM**

- **Establish demonstration:** If the trial proves the success of a new technique and its adaptability CEW can assist and motivate farmers to replicate the trial results to their own fields on a wider scale.

- **Training:** training for farmers on technical issues should always be according to farmers’ demand, and always contain practical parts or exercises, so that farmers can learn from experience and not only from lecturing.

- **Study tour:** In some cases, it is not easy to convince farmers about new things. For example, a new variety of fruit tree or a new technique that they have never seen before. Study tours to villages where farmers apply it already successfully may open up minds and broaden the experiences of farmers.

- **Input supply:** Trials and demonstrations may be supported by providing input like seed or fertilizer from material supply agency of district.

- **Facilitate interest groups:** For some activities (e.g. poultry raising, bee keeping), it is very suitable if farmers support each other within one group of the same interest in production. The CEW could facilitate these groups.
4 The seven steps for establishing trials in PAEM

**Step 1: Prepare the first village meeting**

*Agricultural extension action plan must be based on VDP at village level:*

In order to coordinate agricultural extension activities in accordance with village's demand, it is necessary to be based on VDP. This method was approved by Son La Provincial People’s Committee on March 2000 and was decided to be up-scaled in the whole province on May 2002.

VDP is a basis of making plans for agricultural activities meeting the demand and priorities of different villages. Agricultural extension centers are responsible for making annual plans for agricultural activities.

**District extension staff should help the CEWs in preparing the first village meeting:**

- District AES orients CEWs about the results of last VDP and the annual plan of agricultural activities, so that CEWs know what the villagers can expect from the extension service.
- District AES works together with the CEWs on planning and management issues, e.g. who has to accompany which activity in which village. Such working sessions will be organized every month.
- District AES gives orientation and training to CEW about facilitation, why and how.
- District AES provides training for CEWs in the participatory extension methodology, and in the technical contents which each CEWs has to work on in the trials with farmers.

To have a well-organized village meeting, CEWs should prepare the contents of the first village meeting in advance and clarify the following questions

<table>
<thead>
<tr>
<th>Checklist:</th>
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<tbody>
<tr>
<td>What the CEW should clarify with the village management board</td>
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<tr>
<td>✓ date, place and time of meeting</td>
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<tr>
<td>✓ who to invite (consider gender balance)</td>
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<td>✓ who will send the invitation</td>
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<td>✓ objective and content of the meeting</td>
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<td>✓ what activities have been planned in VDP</td>
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<td>✓ what result has to be achieved at the end of the village meeting</td>
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<td>✓ what material is necessary to prepare</td>
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<td>✓ what resources are available to support the village</td>
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Step 2: Conduct the first village meeting

The first village meeting is an important factor to the success of the trials and demos. In this meeting, VMB and farmers agree upon the selection of households for implementing trials with certain criteria. Farmers, men and women equally, can express their desire to participate in a trial. Only farmers who are present in the village meeting can be selected. Between three and seven farmers should be selected to carry out the same trial in one village. So, the results of a new variety or technology are better comparable and can be better analysed.

For facilitating the village meeting it is good to ask questions, and discuss openly some points, rather than imposing your ideas. You can for example ask:

- Why did you put this activity in your village development planning for this year?
- What do you expect from the activity?
- How can we implement the activity? When? Where?
- Who is interested in carrying out a trial on his land?
- Why do we need two plots for a trial? (We need a trial plot and a comparison plot to analyse the differences of a new and a traditional technology, if it is more suitable than the local technology, if a traditional technology is better than new one. In some cases, farmers know which technology is the most suitable).
- Who normally does the work (men or women)? So, who should be selected?

Finally, you should reach agreement on following points:

☑ The selected farmers (volunteer!) will contribute his land and his labour. They will accept the fact that the proposed parcel will be divided in two parts: a control plot where he engages to follow his/her usual practice, and a testing plot were the new technique is implemented. They will also contribute by supporting the extension workers to train the other farmers and will be selected because he/she is considered by the other farmers to be a good farmer! Include women and poor families if possible!

☑ What are the responsibilities during this trial of the farmers, village management boards, commune, commune extension workers and the district extension workers?

☑ Who invests on which inputs?

☑ When to organize monitoring visits?

☑ Make a work plan with the farmers i.e. what might be the content for each monitoring visit, which farmers are interested in participating in these monitoring visits, and other questions which arise during the meeting

☑ Explain the method how to implement the trial/demonstration plot.
**Step 3: Meeting with group of selected farmers**

After the households are jointly selected during the village meeting, it is necessary for CEWs and the selected farmers to make a separate meeting to discuss some details about trial installation, to go to the trial site, and to agree on the size of trial as well as comparison.

After agreeing, they sign the contract with farmers. Farmers should also know how to fill in monitoring book. Finally, they make a plan for field visits during the trial.

This agreement is also signed by a representative of VMB (see the contract form with farmers in Annex 1).

Each farmer is provided with a plot of 250 (lowland) to 1000 sq. m (upland), which will be divided in 2 parts of same size each, one for the new practice, one for the control.

The CEWs should discuss again with the farmers about technical issues of the trial, and how to make the monitoring. And he should explain, why two plots are needed for comparison.
**Step 4: Install the trial together with the farmers**

One trial is counted by a group of farmers, each one testing the new practice in one trial. Each farmer provides a plot of 250 (lowland) to 1000 sq. m (upland), which will be divided in 2 parts of same size each, one for the new practice, and one for the control. District extension services are responsible for providing on time the necessary inputs for trials and demos.

The control plot must have the same conditions as the trial plot. Only in one parameter, which is the new practice, they should differ.

The trials have three main objectives:

- The trial is used to have thorough training and to discuss how the new technique could be better adapted in the selected village;
- The trial result is a basis for farmers to decide the next steps by themselves.
- The trial serves as a diagnosis tool and find out in a scientific way, which are the effective limiting factors in the production. The results might then be used by the AEC to produce technical fact sheets or extension leaflets.

Introduce the monitoring book to the farmers: The farmers participating in the trial should take notes on the field work and constraints as well as on field activities of other farmers and CEWs into the monitoring book every field visit. In case, farmers are illiterate, there should be someone in the village to support. Farmers should not be forced to use the monitoring book during trial. The CEW and district staff is mainly responsible for aggregating data and monitoring.
**Step 5: Conduct regular monitoring visits:**

In summary, the CEWs should visit the village every two weeks, and prepare a brief report on his visits to DEW. The monitoring visits are open to all interested farmers. The extension workers will discuss with the farmers the development of this activity. If farmers ask for specific information, the extension workers can explain more about this subject.

During the monitoring visits the extension workers gather important data and makes a summary of the content of the discussion with farmers in their documents.

The concrete date of the main activities is usually identified in advance. However, monitoring visits should be officially informed to farmers so that they can prepare contents for discussion, e.g. pest. There may be the participation of Plant protection Section, Veterinary Section, so field visits and discussions should be noted down carefully. Discuss the development of the crop with the farmer every monitoring visit. Make notice of necessary data like inputs (kg seed, 1kg seed = … dong, labor input, kg NPK, kg manure, etc.) following the instructions of the official report system.

Give technical ‘training’ (= discuss with the farmer about the stage of development of the crop: soil preparation, soil fertility, seeding techniques, weeding, pest, etc.) and try to find the solutions, which the farmers can do by themselves without external assistance.

Help farmers to collect the data they need and help them to write them in the logbook of the farmer. Try to find somebody of the farmer’s family or his neighbor to help him next time.

**Report on monitoring visit** is completed by CEWs. It is very important for the CEWs to take note carefully every field visit, and to report to the district AES. The available report form for CEWs enables the extension workers to take notes all information and results the best.
**Step 6: Plan and organize the field conference**

Plan for field conference: When crop harvest comes, this is appropriate time to analyze the trial result with the villagers and farmers from other villages. Field conference should be planned in advance and the VMB or the farmers who do the trial are responsible for the invitation to other farmers. (Consider again gender balance). This responsibility is also mentioned in agreement with farmers.

The appropriate time for field conference is up to the large number of farmers. It should be organized at harvest time. The farmers together with the district and commune CEWs harvest the crops from the trial (trial plot and control plot separately); they measure the yield, and make the calculations.

The day before the field conference, the CEWs and DEWs together with the participating farmers should harvest all but one trial and comparison plots. For example, if there are seven farmers participating in the trial, the plots of six farmers can be harvested – the last plot will be harvested during the field conference where all households are present.

Prepare tables on A0 sheets with the results of all seven trials (input, output, cost, benefit).

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<th>Farmer A</th>
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Step 7: Facilitate the field conference

This is the most important moment in PAEM. It is when farmers assess the result of the trial and the control plot. And they draw the conclusions, i.e. they learn from the experience just made on their own field. The farmers who take responsibility for doing the trial will report especially to those who did not visit the monitoring visits, the results of the trial, using the monitoring book. For example, kg of seed, kg of manure, kg of fertilizer, costs of the seeds, costs of fertilizer, labor-inputs, kg harvest, etc.

The important point for the field conference is that farmers are actively discussing advantages and disadvantages of the new and the traditional technology. The exchange among farmers is extremely important! Therefore, the CEWs should have good facilitation skills. (see again the short facilitation guide, chapter 2)

Dissemination and follow up activities of a successful trial (e.g. seed supply in the same village, demonstrations in other villages) should be done by organizing meetings between different villages. Exchange between farmers is far more effective than between farmers and extension workers. The reasons herefore are language, culture, explaining phenomena with their own terminology, etc

The responsibility of the CEWs is to facilitate farmers during discussions, to motivate also more quiet villagers to have some comments, and to support villagers in drawing conclusions. A good facilitator knows how to ask good questions, rather then imposing his ideas. For example:

- What was the objective or the trial?
- Why did you participate?
- What have you exactly done at each plot? What was the same, what was the difference between the plot management? Which inputs did you need, labour, fertilizer, variety, management?
- What is your overall impression? Strong points, weak points?
- Which problems did you face during the trial management and monitoring?
- Which side shows better results? Is it worth using the new technology? Why?
...

It is the good time for CEWs to listen and note down all ideas of farmers participating in the field conference. The yields of trial and comparison are accurately recorded. Statistic data on yield and investment is brought up in financial report.

**Final report:**

The CEWs are responsible for reporting the accurate data to the district AES. The AEC may then develop extension leaflets and technical fact sheets based on these results.

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