Technical Paper

Principles and Practices of Sloping Land Extension—Finance

System 1
Participatory Village Development and Sustainable Land Use

Lao-Swedish Forestry Programme, June 2001
The Government of Sweden has provided technical assistance to the Government of Lao PDR in the Natural Resources Sector since 1977. Until the mid 1980s the assistance focused on support to the Department of Forestry and two State Forest Enterprises. From 1985 assistance was expanded to include support for the establishment of a Forestry Training Organization including the Forestry Technician School at Mouang Mai. In the late 1980’s the Lao Swedish Co-operation was further expanded to cover shifting cultivation stabilisation and nature conservation. During the first half of the 1990’s the co-operation gradually changed to institution building/strengthening of the Department of Forestry at the centre and in selected provinces.

The co-operation is based on the premise that national ownership of bilateral programmes will contribute significantly to sustainability after the programmes have been completed.

In more recent years the programme has addressed sustainable land use aspects in the village development context with the view that community participation in partnership with government services will enhance the potential for sustainable management of forest and agricultural resources.

The Phase IV of the Lao Swedish Forestry Programme (1996-2001) has concentrated on three aspects of institutional building; competence development, model development and research management. The development efforts have covered a process of formulating, improving and disseminating models (methods and procedures) in four main areas including Participatory Village Development and Sustainable Land Use, Participatory National Bio-diversity Conservation Area Management, Natural Resources Management, and Institution Building. Monitoring and gender mainstreaming have been incorporated as cross-cutting efforts in the model development work. The development activities have been performed in partnership with national, provincial and district administrations and with village communities in response to Lao policies.

The LSFP has supported the strategy and policy development of the Government of Lao PDR and contributed to the emerging consensus on rural development that is taking place within the accepted Socio-economic Priorities of the Government of Lao PDR under which broad development policies have long been operative.

This document is one in a series of resulting documents, which have been produced in both Lao and English languages to assist and provide knowledge and ideas to personnel responsible for policy, planning, and implementation of agriculture and forestry development programmes. It contains lessons and experiences learnt during the programme.

I encourage the personnel of departments and agencies to study and assess the content of the documents and apply the relevant parts depending on local conditions.

I wish to commend the Swedish International Development Cooperation Agency (Sida) for it’s continued support during four phases of technical assistance to the Ministry of Agriculture and Forestry, and the LSFP personnel and advisors, who have made a major contribution to this development and documentation.
Acknowledgements

This guide has been made possible by the efforts of a wide range of people from the Swedish International Development Agency (Sida) and various levels of the 'Forestry agency' of Lao PDR, as well as staff of AF SMG/Scandiaconsult Natura. Lao government staff that have contributed include those from the Department of Forestry (DoF), the Provincial Agricultural and Forestry Office (PAFO) and Provincial Forestry Office (PFO), both in Luang Phabang, and the District Agricultural and Forestry Offices (DAFO) in Xieng Ngern and Nane districts, as well as the staff of the Northern (Regional) Extension Training Centre (NTC) at Xieng Ngern. The Shifting Cultivation and Research Project (SCRP) in Luang Phabang, now belonging to the National Agricultural and Forestry Research Institute (NAFRI) contributed to the Sloping Land Research-Extension methodology which was developed at the same time.

Many staff in Luang Phabang have contributed to the development of this. In particular I would like to mention Mr. Thongsang Chantavong, Chief Extension staffer at DAFO, Xieng Ngern District, Mr. Sisouphanh Sivilay, Credit Specialist, NTC and Ms. Ketsana Lekxisaymuan, Provincial Extension staffer, three people without whom this project would not have proceeded in anything like its present form. Ms. Pinekeo Phommavong, Provincial Gender staffer, Khamphan Tabongtherb, former Provincial Extension staffer and Mr. Bouonthine Phommany, Chief Extension staffer, DAFO, Nane District all made significant contributions in the field and office.

Mr. Sianuwong Savatvong, Head of PFO at Luang Phabang, translated much of this guide and provided leadership for the development process. Mr. Boonmali, DAFO Head, provided leadership in Xieng Ngeun District. Mr. Khampui Phonexay Head of NTC made the training centre available for short courses and contributed to many discussions. Mr. Pheng Souvanthong Head of the Central Extension Unit at DOF acted as interpreter of my poor Lao into good Lao and added further ideas at the last short course on extension for sloping lands, as well as offering support from Vientiane. Mr. Pasith Vongsonpheth, Agricultural researcher at NAFRI station at Thong Khang, and Ms. Phonekeo Inthavanh, Gender staffer at DAFO, Xieng Ngeun, made significant contributions in the field.

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Introduction

What is extension? Helping farmers to learn? Helping farmers to learn and gain access to new resources? Development of agriculture and forestry in the villages? Is this the aim or the process? Could we better call the process facilitation? The Lao term songserm which means something like promotion is better than the English word ‘extension’. But facilitation is a better word than promotion, as facilitation means to work with people to help promote progress.

- The outcomes of extension (and conservation) must be a key ‘ultimate’ long-term outcome of any rural development programme. They should be the final focus of institutional strengthening and research.
- Here finance is coupled with extension as they complement each other. Without savings and loan groups or an equivalent finance process for villagers, extension will have limited success. Without extension finance will fall on poorly stimulated minds and will thus be partly wasted.

The Extension Component has been written up at the end of the LSFP as part of a ‘participatory village development and sustainable land use (PVDSLU) system’ together with three other components, namely Land Use Planning and Land Allocation, Research and Joint Forest Management. The Extension Component took place in two regions: South and North. This manual is about the work in the North.

The Extension Component in LSFP has been a type of research, action research, as the aim has been to develop and test new methodologies, not develop a large area. Action Research is doing something useful while doing the research or testing ideas in the field and at the same time contributing a little to development. It is important that the methods are sustainable and replicable outside and beyond LSFP. Thus the northern part of the Extension Component has hopefully shown one way forward which can now be taken up by the Northern Training Centre and the provincial PAFOs and district DAFOs in much of the mountainous and hilly areas of the country.

The extension referred to here is basically agricultural extension, but extension aimed at preserving nearby forest, obtaining small scale resources from the nearby forest, or planting small areas of timber trees, in a sustainable way is included.

An Alternative Methodology

An alternative model of extension or extension and micro-finance (or facilitated development) (the Sloping land Extension-Finance methodology or approach) is being tested as an additional or alternative method of extension to the older method: model (demonstration) farmer method in LSFP, Luang Phabang. The latter has some aspects in common with the new method, but also significant differences.

Although extension is listed as a late stage in LA/LUP, extension might usefully be tested also as an early and continuing stage. If it precedes LA/LUP it could contribute to the ease and quality of the land allocation. Media extension is also briefly covered below.
The model farmer approach before 1999 has been based on detailed annual plans, down to the price and amount of all farming inputs, and is rather inflexible, seemingly to the frustration of extension staff. It is the emphasis on a few model farmers that has made such annual planning easier. The model farmer method has focused on small numbers of farmers mainly raising livestock and has neglected the many shifting cultivators on steep land.

The key objective of the Extension Component of LSFP has been ‘to develop the extension methodologies and functional capability of participatory extension in LSFP target provinces, districts and villages’. Its output is ‘Extension methods tested and developed in target districts’. It is the testing aspect that has been neglected so far in extension method development. The comparison of ‘new extension’ and the established model farmer method by implementation and evaluation will enable this output to be obtained. Two or more methodologies can be tested.

As explained in the Provincial Adviser’s Inception Report (Skills, Inception and Flexible Extension, 1998) and Final Report (The Sloping Land Models, Skills and Collaboration, 1999) at greater length, what was originally written up as ‘flexible extension’ was voted to be called by the acronym Spatdggof at the third staff training session. Due to a process of collaboration with the Shifting Cultivation Research Project and the Northern Training Centre at Xieng Ngeun during the 1999 work year, the extension, micro-finance and research related processes became more or less integrated. Towards the end of the year it was decided that both the extension based and research based models could be named with the prefix ‘sloping land’ as they had always been conceived for hilly and mountainous conditions in Luang Phabang.

Thus we now have a Sloping Land Research-Extension methodology for use by research centres in conjunction with PFOs and DAFOs, and a Sloping land Extension-Finance methodology tentatively recommended for use by PFOs and DAFOs throughout the hilly mountainous regions where shifting cultivation is dominant, but farming land has been allocated to families. Probably at least three approaches will be appropriate. One described here for villages on roads with access to markets and cash, a variant suitable for isolated, usually more subsistence villages in steeply sloping hilly and mountainous areas, and a third and different approach for the high more gently sloping plateau areas. Isolated poorer villages in both landscapes will probably require longer periods of dialogue, study, training and support, and longer periods of cash inputs.

In LSFP Luang Phabang the following villages were chosen for testing Spatdggof or Flexible Extension extension and thus aspects of the Sloping Land Extension-Finance (SLEF) method as described here: Xieng Ngern District: Thin Kaew (Ber 7), Phonxay and Huay Jong.

These villages have had land allocation, general land use planning and several demonstrations (models) farms set up, but some have had very few model farms. All of the above villages are Khamu dominated and are on the main road from Xieng Ngeun to Nane.

The related Sloping Land Research-Extension (SLRE) method is being developed and tested in two villages: Silalek and Thali. At Silalek LSFP worked with IBSRAM so the success there is the result of synergy between two projects. Ber 10 village is being trialed as a variant of the SLEF method the farmers are organised in one block of land.
The approach is being developed in an area dominated by sloping land, indeed steep land. Such areas have been called ‘upland’ but it is the slope rather than the height above sea level which is important. The methods are prefixed ‘sloping land’ but this really means steep land.

This programme and indeed the region has a history so we cannot start from an ‘untouched’ village. Land allocation, some preliminary land use planning, a form of village development planning, model farmers, agronomic trials, and revolving funds are all part of the history of the programme. Their implementation varies from village to village. For the most part these activities make further assistance easier, but one especially, ‘revolving funds’, may make it harder. Ideally a ‘test’ should take place in an ‘untouched’ village, but this is not possible in many areas.

Extension or facilitation is a labour-intensive activity. It is hoped that DAFOs in all districts can allocate sufficient staff in the future to this task. As land allocation is completed in a district more staff will presumably become available for extension. Staff need job descriptions so it is clear what responsibilities they have. Preferable each extension staffer should be responsible for extension in no more than a few villages in the first year of the operation of the methodological model described here, and an extra one or two in subsequent years. Much follow up work and new activities are required each year. After about five years a village may be able to cope with less intensive assistance.

Staff training has belatedly been included in this method, but originally the advisor’s brief was to include it in a related proposed method of ‘decentralised skill development’ (see my final report). Considerable staff training took place in 1998-2000 both in short courses and on-the-job.
Sloping Land Extension-Finance Methodology

Objectives

Long Term Objective
Sustainable agriculture (including ‘agro-forestry’) in sloping land areas of the Lao PDR presently dominated by shifting cultivation, in order to raise living standards, help conserve nearby forest and reduce runoff and sediment load in streams.

Short-term Objectives:
Increased ability of DAFO staff in Xieng Ngeun and Nane Districts of Luang Phabang to promote sustainable alternatives to shifting agriculture.
Examples of the initial elements of sustainable agriculture and savings and loan groups in target villages in above districts.
Increased capacity of the Northern Training Centre to train staff in extension and finance for sloping land areas dominated by shifting cultivation.

End users and Beneficiaries

End users
Central Extension Unit of DoF, PAFOs, PFOs and DAFOs and projects in sloping land areas;

Beneficiaries
Shifting Cultivators, People involved in and using food markets, Water users downstream.

Disseminators
Northern Training Centre, Luang Phabang Provincial Forestry Office, District Agricultural and Forestry Offices, Xieng Ngeun and Nane
Nabong Agricultural Campus of National University,
Muang Mai Forestry School

Description of Methods

This Sloping Land Extension-Finance (SLEF) approach has grown out of the ‘flexible’ or Spatdggof model of extension, as well as earlier work by the Northern Region Agriculture and Forestry Extension Training Centre (NRAFETC) or just NTC. The methodology is being developed in Luang Phabang by the Provincial Forestry Office (PFO), the Xieng Ngeun and Nane District Agriculture and Forestry Offices (DAFO) and NTC. This methodology is believed to be applicable to areas of sloping land and especially steep-land in the Lao PDR dominated by shifting cultivation. This area has been identified as a poorer region in the government’s agricultural vision. The stabilisation of shifting cultivation is one of eight main development policies. This is the key justification for this methodology. Two others that are especially relevant are food security promotion and agricultural commercialisation.

As NTC is involved in the methods development, it will be in a good position to teach it to PFO and DAFO staff if this is so desired. This method can be used following general land
use planning/land allocation, and will use the results of Sloping Land Research for Extension.

The previously existing method of extension used by the DAFO teams has been the model farmer model. While this was sincerely promoted, it did not seem to be affecting the large areas of sloping, usually steep land on which shifting cultivation was practised. It was reaching a small number of farmers because the chosen farmers were largely raising small livestock and conducting related activities near the village or on the stream flats, and received a significant loan/grant which was not normally available to other villagers. Together with the new Land Allocation-Land Use Planning and Sloping Land Research-Extension methodology, this approach will enable the government to have a significant impact on shifting cultivation.

This approach is primarily designed for government to assist very poor and slightly schooled farmers who have had land allocated and who are practicing shifting cultivation on sloping land, develop sustainable farming systems.

The methodology is arranged in three phases as a response to the particular biophysical and socio-economic conditions found in the mountainous and hilly north of the Lao PDR. This is a critical aspect. Only the first phase and a few aspects of Phase 2 have so far been developed. More work is required to develop Phases 2 and 3. The methodology is still under development and testing.

In the first phase the approach provides assistance for only two ‘activities’: the farming systems themselves and a way of helping to finance this and other development in the long term: savings and loans groups. These two activities are considered the optimum type and number for the first year. Over time, perhaps after two years, in Phase 2, other activities are introduced through dialogue and training, and grants can be made to savings and loans groups to form a sustainability fund. This eventually leads to village development planning and possibly loans from the bank in Phase 3 in perhaps year 3 or 4.

District extension staff facilitate a process of village selection, repeated dialogue with villagers, whole village and small group training, activity planning and group formation, initial small area planting, support, monitoring and evaluation.

Extension training staff from NTC led the initial training in savings and loans groups during model development.

The key features of the approach are a generalized annual plan and budget, repetitive dialogue, early whole village training providing key options, later specialized training, training to set up savings and loan groups and production groups, evolution to greater activity diversity, other special features in Phase 2, and later village development planning.

Routine features are participation, gender, monitoring, support and evaluation. The project cycle is complete.
**Phases**

Phase 1: The methodology starts with two main activities: sustainable farming systems for sloping land and savings and loans groups.

Phase 2: Reinforcement of these two activities, perhaps a few new activities according to farmer interest, household planning, gender analysis of work, a sustainability fund and other special activities.

Phase 3: Reinforcement of existing activities, village development planning and possibly loans from banks.

*Repetition:* In the methodology there is a degree of repetition that is critical. In Phase 1, for which we have most experience, the processes of planning, dialogue, training and action (implementation) are repeated two, three or four times, as the villagers progressively select themselves for action and move towards greater understanding and more certain decision making.

**Phase Two**

The Stages and Steps for Phase Two of the Sloping Land Extension-Finance Model are a similar structure to Phase 1. Staff should reinforce Phase 1 work at appropriate steps through the year. Apart from this specific topics and approaches that can be introduced include the following:

1. Gender analysis of work loads is done in the village study step and presented during training and discussed during subsequent dialogue.
2. Special consideration might be given to ways of assisting the poorest villagers if dialogue and study indicates a distinctly low stratum.
3. List of possible topics/activities for dialogue and training
4. Production cycle analysis: problems, needs and opportunities
5. Household planning: present conditions, activities, visions and budget
6. Production groups can also become processing and/or marketing groups
7. Tree nurseries
8. Flat land and livestock production
9. Sustainability funds are established if not already done so.
10. Village information boards, especially for town market prices and announcements of loan availability.
11. Selected plots (fields) might have their slopes measured with a view to more refined planning of planting inputs, if not already done so.

The stages and steps table of Phase 2 do not have the degree of detail of phase 1 as it is not possible to state which activities will be followed through in any one village. A couple of these ideas (not including flat land and livestock) might be introduced in Phase 1. Thus the two phases could merge into one another.

**Phase Three**

In Phase Three, which might start after about 3-5 years, village development planning is added to the existing range of activities. Villagers could be assisted as production groups and savings and loans groups to gain loans from the bank. Village development planning will be more participatory and effective at this later stage after villages have had more training, gained more experience, and thus acquired more knowledge.
Three Phases of the Sloping Land Extension-Finance Methodology
Sloping Land Extension–Finance Methodology, Phase 1
**Stages and Steps of Phase 1 of Sloping Land Extension-Finance Methodology**

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<th>Steps</th>
<th>Months</th>
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<td>Village Selection</td>
<td>Before 10</td>
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<td>Annual Planning</td>
<td>Before 10</td>
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<td></td>
<td>Annual Staff Training</td>
<td>Before 10</td>
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<td></td>
<td>1. Initial Dialogue</td>
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<td>2. Village Study</td>
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<td>3. General Whole Village (Options) Training</td>
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<td></td>
<td>4. Follow up Dialogue and Training.</td>
<td>11</td>
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<td>1. Initial Preparation</td>
<td>5. Provisional Activity Planning</td>
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<td>6. Training for and Setting up of Savings and Loan Group</td>
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<td>7. Support and Monitoring for S&amp;L Group</td>
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<td>8. Farming Activity Plan Review</td>
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<td>9. Farming Systems Production Training</td>
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<td>11. Erection of Boards</td>
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<td>4. Farming Systems Implementation</td>
<td>12. Support and Monitoring</td>
<td>5-8</td>
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### Stages and Steps Phase 1, Year 1, With Explanation

#### Pre-Field Annual Planning and Training

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<tr>
<td>Village Selection</td>
<td>Before 10</td>
<td>Selection of geographic area, landscape or sub-district, then villages. Dialogue between staff in relevant units. Study of reports, maps</td>
<td>PFO, DAFO</td>
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<tr>
<td>Annual Planning</td>
<td>Before 10</td>
<td>Generalized annual plan and budget with steps as here, allowing details to be planned quarterly and monthly.</td>
<td>DAFO, PFO support?</td>
</tr>
<tr>
<td>Annual Staff Training</td>
<td>Before 10</td>
<td>Provincial staff upgrade district staff in extension methodology and sustainable sloping land farming systems. NTC could provide support in first year in any one province.</td>
<td>PFO. Possible NTC support</td>
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#### Field Stages and Steps

| Initial Dialogue               | 10     | Mainly informal dialogue takes place with existing groups, including the women’s group. Dialogue covers needs and wants, problems, possible solutions, opportunities, risks, testing ideas, social relationships etc. It continues throughout the extension process, but especially in certain steps. | DAFO                     |
| Village Study                  | 10     | Studies and survey may be necessary. Land allocation data will be available. The standard questionnaire should be used. | DAFO, PFO support ?      |
| General Whole Village (Options) Training | 11     | Initial general training for whole village on sustainable development and an introduction to options for sloping land farming, and savings and loan groups. Study tours. Key options are presented for farmer consideration. Livestock control is covered. | DAFO, PFO support ?      |
| Follow up Dialogue and Training | 11     | This step is more participatory. Dialogue forms continuum with training. Villagers express views on topics and their own aspirations | DAFO                     |
| Initial Activity Planning      | 11     | Initial interest in farming technologies and systems, as well as particular species (crops) allows discussion of species sources and initial preparation of approached to obtaining planting material and finance. Initial formation of production groups, Livestock control. | DAFO, PFO support where possible |
| Training for and Setting up of Savings and Loan Group | 12 | Encouragement and training is given to form a savings and loan (S&L) group. A group is set up if enough families are interested. Further training for the paid-up members. Special training is offered to elected committees of all villages together. | DAFO                     |
| Support and Monitoring for S&L Groups | 1-3 | Support the groups by visits and possibly arranging further joint training. Concurrent informal monitoring followed by formal monitoring when major problems are overcome. | DAFO                     |
| Farming Activity Plan Review   | 3-4    | Farmers firm up choice between farming system and crop options. Production groups are reinforced. Simple activity group plans are prepared. Further preparation of planting material. Necessary finance is further considered: self-finance, S&L loans, repayment schedules, subsidies. | DAFO                     |
| Farming Systems Production Training | 4-5 | Further production training in elements of farming systems to be planted, usually organized for whole groups. Several villages can be combined. Refining of chosen crops. Basic plot layout (design) | DAFO, PFO                |
| Field Training in Planting     | 5-6    | Group leaders and/or those by road are directly assisted to plant elements of a new farming system. These act as demonstration plots. Group members learn by observation and discussion in group, and by assisting with physically with the demonstration. | DAFO                     |
| Erection of Boards             | 7      | Design, fabrication and erection of notice boards to be placed on the road and/or farm plots. | DAFO                     |
| Support and Monitoring         | 5-8    | Support to groups with informal monitoring then formal monitoring of S&L and farming groups using formats and open discussion. | PFO, DAFO                |
| Evaluation and Reporting       | 9      | The results are evaluated and reported. Central support required. Feedback to Northern Training Centre. | PFO, DAFO, CEU            |
| Presentation                   | 9      | Verbal and visual presentation in village and office | DAFO, PFO                |
### Stages and Steps Phase 2, Year 1, With Explanation

#### Pre-Field Preparation

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<tr>
<td>Annual planning</td>
<td>Before 10</td>
<td>Generalized annual plan and budget with steps as here, allowing details to be planned quarterly and monthly.</td>
<td>PFO, DAFO,</td>
</tr>
<tr>
<td>Annual Staff Training</td>
<td>Before 10</td>
<td>Provincial staff upgrade district staff in extension methodology and a range of technologies. The previous years’ experience will indicate training needs. NTC and PFO need to be sensitive to this. NTC might provide ongoing support in first year in any one province.</td>
<td>PFO. Possibly support from NTC</td>
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#### Field Stages and Steps

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<th>Months</th>
<th>Explanation</th>
<th>Organizations Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuing Dialogue</td>
<td>10</td>
<td>Mainly informal dialogue takes place with existing groups, including the women’s group. Dialogue covers needs and wants, problems, possible solutions, opportunities, risks, testing ideas, social relationships etc. A range of training possibilities is discussed. It continues throughout the extension process. Evaluation of Phase 1 work is presented if not already done so.</td>
<td>DAFO</td>
</tr>
<tr>
<td>Village Study</td>
<td>10</td>
<td>An introductory gender analysis of work load in the village and any other issue that seems critical.</td>
<td>DAFO</td>
</tr>
<tr>
<td>General Whole Village (Options) Training</td>
<td>11</td>
<td>Initial general training for whole village involves a range of topics outlined in the text above. The results of the gender analysis is presented by gender staff and villagers.</td>
<td>DAFO, PFO possibly</td>
</tr>
<tr>
<td>Follow up Dialogue and Training</td>
<td>11</td>
<td>Villagers select activities in which to participate through discussion. Ideas are further explained where necessary. Those activities with the largest number interested are pursued further. Smaller groups with a high proportion of women or women leaders are accepted. In general a family would chose one production group only if inputs depend on loans. Initial consideration of material and financial inputs. This dialogue process leads to planning.</td>
<td>DAFO</td>
</tr>
<tr>
<td>Initial Planning</td>
<td>12</td>
<td>Plans are made with the villagers for the above activities. Meetings are held to consolidate or form each group including the steep land and S&amp;L groups from Phase 1. Training and material inputs are planned where appropriate. Finance is considered.</td>
<td>DAFO, PFO possibly</td>
</tr>
<tr>
<td>Specialized Training and follow up</td>
<td>12 – 3</td>
<td>Training in several new topics, and possibly revision in old topics, is run in village or in town as seems appropriate, joining groups from different villages when possible. As the possible range of topics is wide outside trainers may be needed. Follow up dialogue and training where necessary.</td>
<td>DAFO, PFO, Other</td>
</tr>
<tr>
<td>Plan Review</td>
<td>12- 3</td>
<td>Further discussion is held in groups to review and finalize plans. Groups are further strengthened.</td>
<td>DAFO</td>
</tr>
<tr>
<td>Field Demonstration Training</td>
<td>12- 6</td>
<td>Field demonstration training begins in the month appropriate at a site belonging to group leaders and / or a site within sight of the road.</td>
<td>DAFO</td>
</tr>
<tr>
<td>Support and Monitoring</td>
<td>51- 8</td>
<td>Support to groups. Concurrent informal monitoring then formal monitoring using formats and open discussion, when major problems overcome.</td>
<td>DAFO, PFO</td>
</tr>
<tr>
<td>Evaluation and Reporting</td>
<td>9</td>
<td>The results are evaluated and reported. Central support appropriate</td>
<td>DAFO, PFO, CEU</td>
</tr>
<tr>
<td>Presentation</td>
<td>9</td>
<td>Verbal and visual presentation in village and office. Feedback to Northern Training Centre and next years planning.</td>
<td>DAFO, PFO</td>
</tr>
</tbody>
</table>
Staff Skill Development, including Training

Staff in the northern region can be trained in two time frames. Firstly a ‘one off’ course at the NTC in the extension-finance methodology and farming technologies and systems for sloping land. Secondly on a periodic, perhaps annual, basis in the province. This would include assistance for several methods of skill development. Courses would probably be offered at NTC at least once and perhaps at long intervals for any one person. Provincial staff are trained first, followed by district staff, possibly being given a shorter course in the first round at least. Provincial staff probably at first with NTC support (outreach courses) would provide support to district staff, including formal annual training workshops before field work starts, and support for on-going decentralised skill development. In so far as provincial staff are more skilled than district staff, they should conduct regular monitoring and on-the-job training or support. NTC trainers could be supported by other experienced staff in Luang Phabang and elsewhere both for curriculum preparation and teaching.

It could be best to pick one other province and say two districts to focus on while the new curriculum is being developed and tested. NTC staff could make monitoring and support trips to that province.

Initially it may be most efficient to train staff at various levels of specialisation and generalisation. In the first round at least it would be worthwhile to train specialists in savings and loans on the one hand, and farming systems on the other, as well as generalists as leaders/managers who understand the whole process. The NTC staff are at present allocated such specialisation. The savings and loans specialist would also be responsible for marketing and any other socio-economic matters.

Planning and government budgeting

Annual district based plans are generalised in the form of stages and steps as in the tables above. Sub-regions and villages are chosen. An annual unit cost for extension per village can be used with variation according to travel types, distance and remoteness. Quarterly and especially monthly plans can be written with more detail. This provides flexibility. Production group activity planning is done with villagers during the year. Household planning is promoted in the second phase. A Village Development Plan is attempted in the third phase when villagers have experience in a range of new activities.

Training of Villagers

Training takes place in four main steps in Phase 1. General training starts early for the whole village, including women and men which necessarily takes place in the village. It focuses on critical issues, including sustainability, savings and loans, and several options for sloping land farming. Women are especially encouraged. Topics such as population control are only introduced, as the model is basically agricultural. A whole-village study tour to a nearby site is included if possible. Distant study sites are considered in later steps for smaller groups. Further training takes place in the follow-up step. Training on, and the actual establishment of, a savings and loans group are combined. This should probably take place in two stages separated by a short period of experience. The committee is offered special training. Specific farm production training is given just before the main rains after a plan review.
**Participation**

The level of participation is high, but flexible. Initial general training follows initial dialogue, but is largely staff-driven. All villagers, especially women, are invited to the initial training day. Attendance is high. The smaller number interested join further steps which are highly participatory. Villagers choose from options. Group formation is important. Presentation of evaluation in the village includes farmers. The methodology focuses on farmer self-selection but a small group of family members or friends that have contiguous plots can be encouraged to form an area group, but not a separate production group. A contiguous group may have the advantage of joint protection against livestock, but some progress has been made on general livestock control.

**Finance for Villagers**

Savings and loan groups are standard for those interested. Usually about 50% of villagers are interested initially. Membership may rise after harvest. Small conditional grants are made to operating S&L groups. The grants, together with an interest free loan from the main fund, creates a *Sustainability Fund*. Subsidies are also possible for individuals or production groups. Such a fund and subsidies for others provides more rapid progress and the ability to use more expensive tree seedlings under conditions of foreign co-operation or other grant funds, but is not critical to the methodology. The grant should not overwhelm the villagers’ own savings.

**Planting the Elements of New Farming Systems**

In Phase 1 interested villagers chose between improved fallow, one of several forms of contour planting including alley cropping and Vetiva grass strips or a diverse fruit tree orchard/garden. These are often combined. The values of diversity are emphasised. Specific species are chosen in discussion with staff and the selection and ordering or preparation of planting materials is progressively refined over several months. Farmers are encouraged to try new ideas in small areas as very little has been well proven in the long term under Lao conditions.

**Working Tools**

*Physical and Biological Tools:* White board, cloth and paper diagrams, posters, maps, biological and other physical inputs for production, sign boards, A-frame, containers for collection of planting material.

*Written material:* manual, including guidelines for various activities: farming systems, training, participation, group formation, formation and management of savings and loan groups, evaluation, report writing, meetings with farmers, monitoring questionnaires, list of planting material etc.

*Social tools:* Regular meetings, participatory study, mass training, small group training, group discussion, follow up dialogue-training continuum, study tours, field demonstration training, brainstorming, farmer exchange, farmer to farmer training, farm visits and observations.
Conditions under which methodology was developed/tested

Physical:
Sloping land greater than 10% comprises more than 75% of area. Much is over 40% and it can reach 80% at least. Steep land is dominant. This is mainly ‘hilly’ slate-based, rather than high mountainous country formed from limestone.
Monsoonal: distinct hot wet season and cooler dry season.

Land cover / land use:
Small areas of forest, usually near the tops of hills
Shifting cultivation is dominant farming system with annual crops of rice and job’s tears for 1-2 years rotated with short periods of fallow (2-5 years)
Limited areas of wet rice on narrow stream flats. Terraces where slope gentle.
Significant areas of small teak plantations near the road, mainly towards Xieng Ngeun town and increasing areas of paper mulberry and banana production.

Rural Socio-economic:
Dense population in village areas.
Several ethnic groups. Villages dominated either by Lao Lum or Lao Theung (Khmu).
Women seem to have a particularly low power among Khmu.
Villages along all-season dirt-gravel road which is periodically graded.
Farming land has been allocated to families and forest land collectively to villages
Villages have become exposed to market forces
Villagers have low level of schooling
Villagers have limited knowledge of alternatives to shifting cultivation
Widespread poverty and low food security, including limited access to bank credit

Institutional:
Extension and (research) training staff have considerable prior knowledge of area.
Several nearby agricultural research/demonstration centres and a nearby training centre.
Technical assistance provided by long term advisers
Committed provincial and district staff
Further skills were developed by formal training, on-the-job training, study tours, workshops, seminars. Other methods with potential are self-driven learning, exchange learning, a good learning environment and distance learning.

Conditions for Applicability

This approach can be adapted and applied by organisations or projects in the Lao PDR which actually or potentially conduct/promote extension and/or rural micro-finance and target the development of sustainable farming systems in sloping areas where shifting cultivation is dominant. It is assumed that farming land allocation has taken place.

As this methodology was developed in closely spaced villages along an all-weather road with easy market access, a variant will be appropriate in more isolated and widely spaced villages in hilly country where subsistence is greater and population pressure on land is less. It may not be possible to offer assistance with cash crop options and savings and loans groups in villages far from motor transport tracks. Another variant of the methodology should be developed for Lao Sung groups living on high mountains.
**Sustainability**

The key aim of the approach is sustainable agricultural development. The method uses as few funds as possible to do this. The savings and loan groups are raising self-reliance in finance. Staff could go to villages, or the nearest point on the road by bus if necessary. An incentive for field work in the form of a per diem is probably necessary. This could be varied according to remoteness. Once in the village the staff must mainly listen and talk. Very few materials must be taken or provided. The grants to the sustainability funds can probably cease without obvious damage. In the future such grants could become loans from the Agricultural Promotion Bank to the Savings and Loan Groups. Of course, villages without roads will be harder to reach, harder for marketing and harder for the villagers to accumulate significant amounts of savings. Subsistence development might need to be the key aim in such villages until tracks and roads reach them. After tracks or roads are built grants to sustainability funds might be necessary over longer periods of time here.

**Gender responsiveness**

It has been agreed in Luang Phabang that field Gender is largely part of Extension. Gender is mainstreamed. Gender focal people learn and take responsibility for the full range of extension. The method promotes women’s participation, confidence building and independent decision making. Dialogue is held with separate and semi-separate groups of women. Women are strongly encouraged to join the initial training day and follow up days. The timing and venue for training and meetings are chosen in consultation with women in order to optimise female participation. Gender is a specific topic covered on the initial training day. Effort is put into encouraging women to speak up on these occasions. It has been strongly suggested to villagers that at least two women should be on the S&L committee. This has been achieved. We have suggested that when women do most of the work in an activity that they should be the ones to take prime responsibility for the loan. Gender analysis of work takes place in Phase 2.

**Monitoring and Support Methods (Indicators)**

Formal monitoring is the collection of data on staff action and indicator data and farmers (S&L and production groups) views about their work. Less formal monitoring takes place all the time during support in the form of field observations, looking through account books and discussion. Monitoring is usually aimed at ongoing improvement and formal evaluation for better planning, but it is best done together with or after support, especially when a process is new and has many problems.

Indicators should be at least roughly measurable, and as far as possible, should measure something important. Little commitment can be expected for measuring weak indicators. Monitoring is only useful in so far as it leads to some sort of evaluation and action to improve the programme. Monitoring is not inspection. Inspection implies a penalty such as a fine if the rules have been broken. Inspection and monitoring must be done by different teams. Baseline indicators should not be a different set from what is measured later. We should compare target villages and non-target villages or ‘control villages’ which should have as few other projects as possible. Groups of villagers, either existing
production groups or other groups can be interviewed as a group to get their views on progress. This can be called subjective monitoring using focus groups.

**Types of Indicator**

It is suggested that formal extension monitoring should include three types of indicators, at least two of which have two sub-types:

- **Government institutional**
  - A. input (resource) indicators (staff and staff training, finance, equipment and materials)
  - B. staff action at lower level of settlement hierarchy

- **Village level or ‘intermediate’ or output indicators**
  - A. Villager activity in village
  - B. Village institutional progress

- **Outcome, impact or achievement indicators.**

Types one and two are also called process indicators by some, but this assumes that the ‘outcomes’ are not part of an ongoing stream of causes also. Base line data could be of all three types. In general the more meaningful an indicator the harder it is to measure. We must put some effort into very useful indicators.

**Lessons Learned**

1. Decentralisation and participation are generally well done. Decentralisation has been institutionalised. Participation is built into the SLEF process, especially in dialogue, but also in planning, monitoring and evaluation.
2. Staff are keen to learn and do a good job. This feature has made the advisors job a satisfying one.
3. Annual planning tends under the model farmer method to be too detailed and relatively inflexible. Unit costs for staff activities are used in SLEF.
4. Feedback from reports should be provided before new plans are expected.
5. Decentralised, low-cost learning opportunities are under-rated
6. Any team needs leadership.
7. All members of the provincial-district extension-finance team should keep in mind the need for meaningful consultation with each other, the villagers and other ‘stakeholders’.
8. Each district needs an extension-finance team of at least three people, including one woman. One should specialise in farming systems and one in finance, and one in their integration and other topics.
9. We should have made greater efforts at training office accounting staff in field work, and field workers in planning and budgeting, so they understand each other.
10. Planning sources of planting material needs to be done well ahead of time.
11. Staff should prepare themselves beforehand for talks for villages, using notes and visual aids. Guidelines are available.
12. Savings and loan groups need more training than we gave them, perhaps in two steps. This should take place in the mid dry season.
13. Group formation and operation are important. Staff should put more effort into encouraging mutual support in groups.
14. Trees need more encouragement. Trees produce litter from deep nutrients and help stabilise deep and shallow soil.
15. Legume hedges should be planted in two rows, and the cuttings spread across the ‘alley’ or possibly feed them to livestock if manure can be distributed. Research is needed.

16. Ongoing support is more important than monitoring when problems are common.

17. Regular translation of research documents and project reports relevant to a biophysical and socio-economic region is required.

18. Training centre staff might be given time to do relevant research, and NAFRI staff could contribute to NTC.

19. A good model village is not based on area planted, but on the sustainability and replicability of the process. Luang Phabang has six (seven) target villages all of which will illustrate some strong and weak points of the extension-development process implemented in 1999-2000.

**Steps of the Methodology for PHASE 1 Explained in a little more detail**

**Sub-region and Village selection**
- Study is made of existing research and project documents and maps not already studied. Non-extension staff with knowledge of these areas are consulted. Standard questionnaire results may be available. In most villages questionnaires have been or will soon be conducted. The land allocation team has conducted land use surveys and allocated land. Some villages have had further rural ‘appraisals’ (study) done.
- Selection of geographic area or landscape, such as ‘Khamu villages in hills along main road’, within the district. Villages are then chosen to maximize sub-regional impact considering, travel and transport routes, ethnicity and village age.

**Annual planning**
Annual planning depends on the methodology of phases, stages and steps outlined here, but planned with flexibility. Planning is generalized so as not to hold district staff and villagers to details that cannot be easily predicted a long way ahead.

**Annual Staff Skill Development (Training Plus)**
Annual staff skill development may involve upgrading training or other assistance with skill development, such as group cooperative learning or distance learning. This could be led by NTC and take place in one or more provinces. If NTC staff are not available, the provincial extension staffer would run workshops and possibly a study tour for district extension staff.

**1. Initial Dialogue**
- Dialogue with many types of groups, from the individual or household and small informal groups to the village development committee and a large village meeting.
- This is led by a DAFO extensionist or ‘facilitator’.
- Dialogue covers needs and wants, problems, possible solutions, opportunities, risks, testing ideas, social relationships etc.
- Dialogue must start by asking the villagers views on any topic before staff express one or more of their own. When they do it should be put as a question if at all possible, and try to give options in the question.
The dialogue gradually focuses on the sloping land areas and solutions to the problem of fertility under high population density, especially when land has been allocated.
Visual aids such as maps and diagrams are used.
Dialogue continues throughout the extension process.

2. Village Study
- Structured and semi-structured village interviews and survey or at least ‘transects’ of farming systems may be necessary if the conditions turn out to be atypical of sloping land areas.
- A socio-economic and farming questionnaire should be used if results are not already available. A shortened version and/or additional questions could be important.
- But more survey may be required to obtain appropriate base-line data and understand the community and its production environment. It is important to that study is cost-effective, and not done as a habit.

3. Initial General Whole-Village Training
- An agenda with speakers is prepared by the DAFO extensionist responsible.
- Especially on sustainability or sustainable development, finance, especially an introduction to savings and loan groups, stationary or permanent farming systems appropriate for sloping and especially steep land, nurseries for desired trees, markets, and more general topics such as, self-reliance, knowledge and gender.
- Special encouragement is given to form a savings and loan (S&L) group.
- Various visual aids are used to illustrate ideas.
- To the extent that the village has road and market access, the training will cover subsistence and marketable crops.
- For villages with poor access, emphasis can be put on subsistence crops. A savings and loan group may not be possible, or may start slowly.
- A team of several people with general and specialist expertise should be assembled for this day. The provincial staff could contribute to this day within a DAFO planned agenda.
- Villagers are asked to consider:
  1. Helping to form and joining a savings and loan group
  2. Trying out a new farming system on sloping land, or at least the intermediate step of ‘improved fallow’. Any new idea should be tried out on a small area and gradually expanded is successful and modified if necessary.

4. Follow-up dialogue and training
- Dialogue and training form a continuum.
- Villagers are asked to discuss and draw pictures of proposed plot design or write on the white board.
- The pros and cons of various options are discussed.
- Difficult concepts are re-explained.
- The crops for which planting material is likely to be available is explained.

5. Provisional Activity Planning
- This takes place immediately after the follow up day.
- Villagers are asked to nominate their preferred system and crops for trying out.
- They are introduced to the idea of group formation and asked to form groups and select leaders
- Finance for farming is discussed
6. Training for and setting up of Savings and Loan Group

- Training and the actual setting up of the group and fund is organized over two days. A third day may be necessary, either immediately or a week later when the committee and members have had some experience.
- A savings and loan group is a complex activity and probably requires a DAFO specialist in accounting. Provincial staff might assist with training.
- The S&L group committees should be offered further training.

7. Support for and Monitoring of Savings and Loan Groups
- In the dry season effort is put into making sure the S&L groups are working well. Informal monitoring and support for good operation and should come before formal monitoring.

8. Farming Activity Plan Review
- More conclusive selection of farming systems and crops (species and varieties) is made by farmers in discussion with DAFO facilitator.
- The group formed is firmed up, either of all the interested farmers or groups of each farming system or social group if there are many. Leaders are elected and roles agreed on. Groups offer better communication, mutual support and assist more efficient training.
- Simple activity plans are written and submitted to DAFO head team for discussion.
- Finance is discussed. Self-financing or loans from the S&L group are preferred, but the S&L group has just been formed and the farmer may be poor. At this stage subsidies must be considered for some, but the method only encourages small areas in the first year so the cost should not be beyond most to cover themselves.

9. Farming System Production Training
- This should be organized for those belonging to a production group in several villages together at one place. If a study tour could not be conducted for the whole village in step 3, consider one now for the production group, possibly at greater distance if necessary.

10. Field Demonstration Training in Planting
- Very soon planting starts. The facilitator should demonstrate the method in one or two selected farmer sites for each group.
- Others in group learn by observation, discussion and physically helping. They then go to plant on their own land.

11. Erection of Boards
- A notice board is erected on the road to inform passers by of the new work in progress.
- The board should state in very large letters the type of farming system and its aim of sustainability. The crops planted can be in smaller letters as most know these anyway. The organizing institution should be in small letters.
- The notice should be written on both sides and the board placed perpendicular to the road.
- Ask villagers to consider a notice board in the village for S&L and market price information.
12. Support and Monitoring
- The progress is monitored and continuous support is offered.
- Discussion is held with groups about any problems and the key demonstration site is visited to see progress, preferably with the whole group.
- Group members are interviewed to collect subjective data on other plots. Some promising ones could be visited by the group together with the DAFO facilitator.
- A final monitoring and support trip should be undertaken after harvest.

13. Evaluation and Reporting
- The results are evaluated by reporting on the aims, methods used, including any variation from the methods outlined here and monitoring and support trips.
- A final discussion is held with farmers to record their feelings about the new cropping and any suggestions they have about the whole methodology.
- This latter step should be done if possible in two stages. Firstly by the facilitator who worked in the village all year and then by someone from elsewhere. Perhaps people could swap jobs for this task.
- A more ‘outside’ view is needed to increase objectivity.

14. Presentation
- The report is verbally and visually presented, both in the village and in the office or seminar room etc. This should be done in groups and organized well enough to attract senior people to listen and watch.

Example of Schedule of Steps in Office and Two Villages over First Year of Phase 1

<table>
<thead>
<tr>
<th>Dry Season</th>
<th>Wet Season</th>
<th>Dry Season</th>
<th>Rough Guide to Number of Days Needed per village</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village selection</td>
<td>--</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Annual planning</td>
<td>----</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Annual staff training</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1. Initial Dialogue</td>
<td>--</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2. Village study</td>
<td>--</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. General whole village training</td>
<td>-</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Follow up dialogue and training</td>
<td>-</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>5. Initial activity planning</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6. S and L* group training formation</td>
<td>--</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. S&amp;L support and monitoring</td>
<td></td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>8. Farming activity plan review</td>
<td>--</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>9. Farming systems production training</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. Field demonstration training in planting</td>
<td>-</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>11. Erection of boards</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12. Support and monitoring</td>
<td>--</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>13. Evaluation and reporting</td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. Presentation</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>19</td>
<td>31</td>
</tr>
</tbody>
</table>
Further Ideas on The New Extension Model

Spatdggof

The origin of the word Spatdggof, an acronym, is in the first letters of the key characteristics of the methodology, as follows. The acronym makes it easy for staff to remember the characteristics.

SAVINGS: encourages a degree of villager financial independence through savings and loan groups

PARTICIPATION: involves the villagers in all processes at village level

ACTION: is action-oriented, with survey and study of village conditions in parallel where necessary

TRAINING: sees staff and villager skill development as critical for sustainable village development. In-village whole-village training in general topics focusing on sustainable development for sloping land areas is an early step.

DECENTRALIZED: largely decentralized to the district level, except for method development, staff training and evaluation especially.

GROUPS: run through village groups to enable wide participation, mutual support and efficient training

GENDER: aims at supporting the self-confidence and independent thought of women.

OUTCOME: focuses on long term outcomes through planning, monitoring and evaluation

FLEXIBLE: flexible in ideas, actions and funds to maximize efficiency.
### Model Development 1998-1999

<table>
<thead>
<tr>
<th>Plan from Provincial Adviser’s Inception Report</th>
<th>Actuality Feb-Oct 1999</th>
<th>Recommendations (see also ‘Steps of Methodology explained in more detail’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 villages included as possibilities in 1998-9 plan for ‘flexible’ extension (later called SPATDGGOF).</td>
<td>5.5 villages so far May-October 1999</td>
<td>Number of villages that can be covered depends on the quantity and quality of staff at all levels.</td>
</tr>
<tr>
<td>Record keeping on each village is starting late</td>
<td>Dialogue was limited, because of previous staff knowledge, limited villager response and coming rains.</td>
<td>Dialogue can be more thorough with the extra time in coming years. It should occur before and after training.</td>
</tr>
<tr>
<td>Mainly informal dialogue takes place. Dialogue covers needs and wants, problems, possible solutions, opportunities, risks, testing ideas, social relationships etc. It continues throughout.</td>
<td>A questionnaire has been collected for some villages but not analysed. Further questions have been prepared.</td>
<td>Needs further effort.</td>
</tr>
<tr>
<td>Studies and survey may be necessary</td>
<td>Initial training for the whole village in the village has become a key step. Follow up dialogue and general training was necessary and valuable. An initial training plan was prepared at Provincial level.</td>
<td>Start to organize planting material</td>
</tr>
<tr>
<td>Initial general training will be organized at this stage. A training plan may be prepared and submitted to the DAFO head team.</td>
<td>Initial training for the whole village in the village has become a key step. Follow up dialogue and general training was necessary and valuable. An initial training plan was prepared at Provincial level.</td>
<td>This should be supported and further developed. More planning at DAFO level is needed. Speakers must prepare better.</td>
</tr>
<tr>
<td>Encouragement and training is given to form a savings and loan (S&amp;L) group.</td>
<td>Two days training in S&amp;L group setting up and management has become standard. Villagers are enthusiastic. Further development of account record keeping has taken place.</td>
<td>Further training for S&amp;L committees should take place after their formation. The methodology is improving.</td>
</tr>
<tr>
<td>Activities are chosen appropriate to the season, slope, market etc.</td>
<td>The rains were coming when we started in the first step in February 1999. Steep-land farming systems were promoted exclusively that year.</td>
<td>When new farming systems are beginning well in a village, other activities could be assisted (phase 2).</td>
</tr>
<tr>
<td><strong>Plan from Provincial Adviser’s Inception Report</strong></td>
<td><strong>Actuality Feb-Oct 1999</strong></td>
<td><strong>Recommendations</strong></td>
</tr>
<tr>
<td>---------------------------------------------------</td>
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</tr>
<tr>
<td>Production groups are formed for most activities.</td>
<td>Groups are being formed late, or not at all.</td>
<td>Greater attention is needed.</td>
</tr>
<tr>
<td>Activity group plans are prepared. Necessary resources or finance is considered.</td>
<td>Plans were written before group formation. Villager participation was possibly too slight.</td>
<td>Top-ups are needed for S&amp;L groups to provide clear finance for permanent steep-land farming systems (Sustainability funds). Otherwise better agreements are needed between the parties.</td>
</tr>
<tr>
<td>The plans are submitted to the DAFO head team.</td>
<td>Greater attention is needed here.</td>
<td>Senior DAFO staff need to be more involved. There should be no need for PCO staff to review these production plans for each group.</td>
</tr>
<tr>
<td>Further production training is organized, either for leaders or whole groups. Very soon production trials or other activity starts.</td>
<td>SCR staff put on a special training day at Thong Khang. Research staff led trials with support from students.</td>
<td>This is only available near Thong Khang. In future standard provincial staff could be asked to put on a training day. But do they need training first?</td>
</tr>
<tr>
<td>Continuous support is offered.</td>
<td>From DAFO staff this has been weak and late at times</td>
<td>Needs more attention</td>
</tr>
<tr>
<td>The progress is monitored.</td>
<td>Monitoring started late. Office and field training seemingly hindered by overwork of provincial extension staffer</td>
<td>More staff are required</td>
</tr>
<tr>
<td>The results are evaluated.</td>
<td>Yet to come</td>
<td>Central support is desirable</td>
</tr>
<tr>
<td>The evaluation is reported on</td>
<td>Yet to come</td>
<td></td>
</tr>
<tr>
<td>The report is verbally and visually presented.</td>
<td>Yet to come</td>
<td></td>
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</tbody>
</table>
Important Ideas in Extension Operations (Rural Facilitation)

1. Extension is an ongoing process in the target villages
2. Extension staff facilitate farmer learning and new activity
3. It is the responsibility of extension staff to help farmers access other services nearby.
4. Extension staff should first conduct a dialogue with different groups and classes of villagers about their life, problems and opportunities. Always start by asking the villagers view. If staff wish to express their view it should be through a series of questions prompting deeper thought by the villagers. Change the form of the question if they don’t answer the first time. If knowledge of opportunities is low, appropriate training should start in the village for all who are interested.
5. Villagers who are learning new ideas during the recommended steps are likely to go through a gradual process from increased awareness to firm adoption or drop out at some stage. Thus the numbers at each stage tend to drop off.
6. Check whether base line data are available and if not collect some without spending large amounts of time.
7. Monitoring starts at the beginning of activities and leads to evaluation of the activities, the Extension Component and the Programme.
8. We should aim at ecological and socio-economic sustainability
9. Dialogue, general training and the operation of a savings and loan group should precede any grants to village individuals or groups. Grants must not be promised.
10. Extension staff should make plans of various types that are submitted periodically to DAFO head teams for assessment
11. Staff should encourage village women to want to express their opinions, develop themselves, see their own importance in sustainable development and lead mixed and female groups in the village. Ongoing support is needed for women who lead.
12. Provincial staff should assist district staff by conducting on-the-job training and other methods of skill development and assisting in particular with planning, training, monitoring and evaluation.
13. The extension methodology should evolve in any area as staff become more familiar with the conditions and methodology, the villagers learn and practice new activities, and other conditions change.

Responsibilities of the Extension Staff

- Extension is an ongoing process in the target villages. Extensionists (facilitators) should spend say 31 days per year in a village in the first three years. Roughly 19 days should be spent in preparation and about 31 days in writing up and discussing results. This totals about 80 days per village. In many cases this office work will be combined for several villages (See above table).
- Each village will ideally have one extension staff member especially responsible, even though s-he can draw on others for specialist contributions.
- That person will keep a ‘data base’ on that village, initially in the form of a diary in the field, then a table or tables of data and reports in the office.
- She will be a first contact person when anyone wants to know about or help that village.
- Extension staff are facilitators. They must help the villagers decide what activities are worthwhile and where they might seek further training and other assistance, or organize that training themselves.
The DAFO facilitator should keep in contact with other government staff and NGO or private personnel working in those villages.

But that person need not know all about all technologies. The facilitator should assist the villagers to get access to any required technologies.

DAFO should in future have a savings and loans specialist.

Each extension officer can still keep her established specialist responsibilities

A ‘chief extension staff member’ from DAFO will coordinate the work of all extension staff.

**Objectives and Methods**

It can be difficult to distinguish aims and methods in a complex process. Often methods to achieve a higher level aim are the same as a lower level aim.

*Long Term Objective:*
Sustainable agriculture (including ‘agro-forestry’) in sloping land areas of the Lao PDR, (in order to raise living standards and help conserve nearby forest). The part before the brackets could be a method for the aim inside.

*Short-term Objectives:*
Initial elements of Sustainable agriculture in target villages
Increased ability of the NTC to train staff from other districts and provinces.

The short-term aims might be expanded as follows. They are also methods to achieve the long-term outcome aims:

- promote permanent production methods and exchange methods (sustainable)
- give an opportunity to all willing families in the village to join in
- promote self-reliance, if not in funds, then in financial methods
- promote either basic needs for self-sufficiency or cash crops according to desire
- promote the role of women and other non-dominant populations and classes
- spread the adoption of new ideas as quickly and widely as possible

*An alternative view on aims:*

- Sustainable agriculture (including ‘agro-forestry’) in target villages mainly as models for other villages in the future;
- Increased ability of the NTC to train staff from other districts and provinces.

*Ultimate or Outcome Aims*

- promote long-term quality of life of all villagers
- promote long-term production and exchange methods (sustainable)
- contribute to local forest conservation
- spread the adoption of new ideas as quickly and widely as possible

*Intermediate Aims (Which are also methods of attaining ultimate aims)*

- give an opportunity to all willing families in the village to join in
- promote self-reliance, if not in funds, then in financial methods
- promote either basic needs for self-sufficiency or cash crops according to desire
- promote the role of women and other non-dominant populations and classes
Immediate General Aim
- Help farm families to learn new agricultural ideas and gain access to working resources

Progress and Expansion: Three Phases of the Methodology

The extension process can be kept simple in its initial stages not by simplifying the process, which cannot be done, but by limiting the number of early activities in each village and the number of villages covered in the face-to-face methods. This model starts with just two critical activities in the first phase. These are sustainable sloping land farming systems and savings and loan groups. Once these skills have been mastered by villagers, more activities, and more villages can be covered. This could be called Phase 2.

The method accommodates expansion from the start. Additional group members are welcome. Except in so far as the progress of land allocation is seen as a constraint on expansion, new villages can be added as DAFO personnel are available. Training of more staff should not be a problem.

After a few years of extension in any particular village, villager knowledge has built up and interaction has increased. Villagers are more likely to see the possibilities of village development as a whole. Small initial actions can lead to following actions that grow when understanding and enthusiasm grow. Planned actions proliferate and later the villagers may decide to include them in a village plan. Frykman (1995) discusses a similar idea under the name of ‘micro-planning’. A full village plan may grow gradually or spontaneously, if not already carried out. This could be called Phase 3. This is an alternative to Initial Village Planning or what is usually called village development planning.

It is important that the methods are replicable outside and beyond any period of foreign assistance. The methods and the village activities must be able to spread easily with minimum extra official effort and cost.

Initially the approach provides assistance on two ‘activities’ or methods: the farming systems themselves and a way of helping to finance this development: savings and loan groups. Over time, perhaps one or two years, other activities are introduced through dialogue, and grants can be made to savings and loan groups to form a sustainability fund. This eventually leads to village development planning.

A Possible Phase 2 Programme.

We have only a little experience of Phase 2. This will depend partly on the results of Phase 1, but several specific proposals can be made. The sequence of work should be basically similar to Phase 1, starting with dialogue, this time based partly on the evaluation of Phase 1. This would be followed with general training, follow-up days, specialised training and so on. Below are suggested topics for the general training day if villagers do not recommend another course of action, fully or in part. With the experience of Phase 1, it is now more likely that this could happen. The following documents (in Lao) could be handed out to village leaders before the dialogue day in Phase 2, in order to stimulate discussion.
Possible topics for village training with a few lines about each topic (see below)
A Yearly Village Production Cycle Diagram
A note in simple writing focusing on the key issues, preferably with a drawing or diagram

A probable outcome is an agreement on an agenda for the general training day containing the following ideas and some from villager requests:
Reinforce Phase 1 work
The sustainability fund
Production cycle- analysis, problems and opportunities
Household planning: present conditions, activities and budget
List of possible topics/activities (see below)
Production groups also become marketing groups
Special consideration might be given to ways of assisting the poorest villagers.

Three Phases in Summary

Year 1: The model starts with two main activities: sustainable farming systems for sloping land and savings and loan groups.
Year 2: Reinforcement of these two activities, perhaps a few new activities according to farmer interest, household planning and a sustainability fund.
Year 3: Reinforcement of existing activities and village development planning.

Timing

The timing of these three phases should ideally be up to the extension-finance team. There is no need to start them at the beginning of years. It should depend on progress in each village. They can be started at different times in each village. Moreover there is no need for the various elements of the phases noted above to be introduced at the same time in any one village. In summary the three phases noted above should be treated flexibly.

Village Development Planning

In this methodology village development planning is left to Phase 3 of the model operations. It is believed that villagers find it hard to comprehend the complexity of ideas that can be drawn up in a village development plan. If villagers cannot follow the process well, government staff could play a major role and so make it less participatory. Especially in Northern Laos where shifting cultivators of Lao Theung and Lao Sung ethnic groups are common, it is proposed that village development planning should be done gradually over perhaps a year after the village has experience of a number of more specialised and important activities. These will include land allocation and general land use planning and could include stable farming systems for sloping land, savings and loan groups, perhaps group marketing, household planning, gender analysis of work and a number of other activities chosen by the villagers. It will also be important that women have grown in confidence somewhat so they can play a more significant role.
As the villagers grow in knowledge and confidence, the concept of village planning can be introduced. A general meeting can be called to discuss the following ideas or a similar list:
1. a more in depth study of the village and its environment,
2. the progress that has been made since land allocation and extension began,
3. old problems that have not been solved,
4. new problems that have arisen,
5. new opportunities that are perceived,
6. a review of lessons that have been learned over the last few years,
7. progress made in gender relations
8. need for further training
9. aims or ‘visions’ for the community,

After an initial meeting, follow-up meetings of smaller groups could discuss particular topics and make specific suggestions for further discussion, training, information gathering and plan writing and action.

The results of these meetings would be brought back to a large meeting a few days later for further discussion and decision-making. Because the villagers have had considerable experience of new ideas this process can be more ‘participatory’ than if it had been an early step. What it leads too will depend on the village. Staff must facilitate the process but not dominate it, if at all possible. If the staff find themselves dominating the process, perhaps they should slow it down and continue with other work until villagers gain more knowledge and confidence.
Early Stages and Steps in Detail

Staff Skill Development (Training plus)

Staff skill development should take place in at least two time frames. Firstly provincial and district staff need training or other assistance with skill development in this extension methodology and sloping and farming systems as a one off step to start the field process. Secondly they need assistance on a periodic, possibly annual, basis to upgrade their knowledge.

In the early stages for the first frame above, a collaborative institutional approach is suggested that includes local agency/work unit collaboration plus research and administrative/extension agencies support to NTC, so NTC can upgrade training. This is as important as research for the research agencies at this stage of development. NTC can best develop new curricula using workshops with the help of other local agencies. NTC staff could also carry out research on local villages. Research and training is best integrated, where possible, as in universities.

All DAFOs in hilly and mountainous country need teams for extension in order to change shifting to stationary cultivation on sloping land. DAFO requires a mixture of biophysical and socio-economic skills, specialised and general skills. Different DAFO structures and training programmes could be tested in different districts.

A decentralised skill development approach is proposed which NTC could lead. Learning, not training, is the basic process. Alternatives to training include self-driven learning, co-operative learning, distance learning and a provincial/regional library. Staff could benefit from provincial recognition of personal learning efforts by awarding ‘Provincial Learning Certificates’.

The ‘one off’ training for each extension staff in mountainous provinces and districts should initially at least be conducted at the Northern Training Centre. This because it has excellent examples nearby in both research centres and villages to show the staff, and can draw on other skilled local agency staff to give some assistance.

On an annual or longer basis NTC might conduct training for provincial staff at NTC and outreach training and other leadership in skill development for district staff in the provinces. Skilled personnel from other agencies could contribute. Periodic assistance for district staff might combine more than one province.

Sub-region and Village Selection

Selection of villages would normally be proceeded by the selection of a wider region or sub-region, including a district then a region within a district. Such a region might be based on access, poverty or topography or agriculture or some other criteria or a combination of criteria. Note that this method has only been developed for sloping land and in particular the gradual conversion of shifting cultivation to stable cultivation, so if this model is to be used in its present form, such an area should be chosen. Thus access, poverty, ethnicity, leadership, enthusiasm, previous experience, level of problems,
malnutrition, population growth and structure etc could be the other criteria on which to base a choice.

Access is important partly as it allows the DAFO staff to get to the village, but also for trade, and general villager access to other villages and the town. In any one period it may be advisable to work in a group of villages with access to each other to facilitate combined work and villager interaction. On the other hand ethnicity or other criteria may suggest a variant of this idea.

I do not believe it is worth carrying out detailed surveys specifically to make this choice. Usually the DAFO and other staff know enough to make a reasonable choice. Experience during the first few years will lead to ideas on a second group of villages to be chosen after three phases have been completed in the first group.

As soon as a village has been chosen a standard questionnaire that has been developed by the government should be given out to headmen in its present or an amended form and picked up with a week, before initial dialogue, so it can inform the dialogue process. This might be seen as the start of village study.

**Annual Planning**

Annual planning should be general indicating steps in each month in each village, staff responsible and a general idea of budget required. Below is an example for the second year of the method testing in Luang Phabang. Also given is an example of a generalized table towards a Quarterly plan. This planning table or calendar indicates the steps for the second year of Phase 1 and what we thought at that time would be the start of Phase 2. There is more detail than just the step names and some variation, as this is the second year after some limited progress in year 1 in some respects.

This calendar goes together with a unit cost table that indicates estimated costs for extension input for each type of activity. These costs include only fuel, per diem and materials. The totals are then transferred to the last column of the calendar. This unit cost table is very preliminary and needs refining and extending for other activities. These unit costs and the total for all of them (about 2 million kip) are calculated for one village for one year. If there are four villages the budget required is four times this amount. The annual budget can thus just include one figure for four villages. More details can be worked out quarterly and monthly. To this annual figure must be added an estimate of the amount that could be granted to the sustainability fund at the beginning of phase 2 and to village participants directly. This could be about 5 million kip per village. Thus a total budget of about 7 million kip per village is considered appropriate for the running of this model. This should of course be flexible, being raised or lowered according to villager interest and special conditions and opportunities. Another amount would be needed for staff training, a topic that is not included in this model as it is placed in another proposed model, ‘the decentralised skill development model’ (see my final report).

*Decentralisation, Flexibility and Planning for the Extension-Finance Methodology*

Method development and use or operation should be distinguished. All levels of staff should be involved in model development more than in its operation. Methodology operation is largely decentralized to the district level. A level breakdown for operation is as follows:
Central Level: Method development, supervision of planning and evaluation at least.
Regional: Curriculum development, teaching the model.
Provincial: Supervision of planning and monitoring, then a chief role in evaluation.
District: generalised annual planning, more detailed quarterly and monthly plans, implementation, monitoring.

The methodology is flexible in ideas, actions and funds to maximize efficiency. This has been considered important as the model farmer model has required detailed annual planning-budgeting. The new recommended district planning involves generalised annual plans. Annual unit costs per village for extension are used. A unit cost calculation and a generalised annual plan are shown below. Annual plans cannot contain details of the activities that will be pursued as that will stem from dialogue in the village, possibly some survey and training that is part of on-going extension. Monthly and/or quarterly plans are written with more detail. Budget is disbursed by the province on a monthly basis.

Planning of activities by the extension workers and villagers is carried out over the short term and seasonally, but plans are always open to rational modification after discussion among all parties at the local level. Activities planned and funds are allocated in a flexible way through the year according to villager interest and the weather and markets and other projects. Extension staff must make plans of various types that are submitted periodically to DAFO head teams for assessment. After some time more detailed annual planning could be more confidently done.

Household planning will be taught in Phase 2. Such planning is simple estimated household budgeting and activities. Discussion of inflation at village level will be included. This is a useful step towards village planning.

After a year or two of this extension in any particular village, villager knowledge has built up and interaction has increased. Villagers are more likely to see the possibilities of village development as a whole. Intellectual development in phases 1 & 2 can eventually lead to the possibility of community driven grass roots village development planning in Phase 3. After training and experience in a range of new activities, the villagers will be better prepared for such a challenging activity. Small initial actions can lead to following actions that grow when understanding and enthusiasm grow. Planned actions proliferate and later the villagers may decide to include them in a village plan. A full village plan may grow gradually or spontaneously, if not already carried out. A good plan will grow largely out of newly established activities. It is impossible to plan well when you have only vague knowledge of the options.

Focus on Outcome of Sustainable Farming on Sloping land as a Basis for Sustainable Development

The methodology focuses on long term outcomes through incremental planning, monitoring and evaluation. Although many other activities apart from the new farming systems could further immediate income, long term prospects for a combination of food and income will be best served by first developing farming methods which produce a variety of edible, usable and saleable products, and manage soil erosion.

As farmers are introduced to the new ‘permanent’ farming systems those that eventually ‘adopt’ go through a gradual process of decision making and action. A tentative interest leads to a desire to learn more. The tentative decision to participate and choose a system and crops, leads to a firmer decision to participate and an expression of that interest at a
meeting, and participation at further meetings and training. This results in actual trial planting on their own land. If this appears successful support and even expansion of this area should follow the next year. As failure can happen at virtually any time in a changing biophysical and socio-economic environment, it is only provisional adoption that we can expect. But success of the extension method can be judged by the gradual expansion of the cultivated area as a whole of over many years. But even then sustainability can never be proved.

The approach relies on established knowledge in an area of a high degree of macro-uniformity. Steep slopes, a monsoonal climate with distinct wet, cool dry and hot seasons, generally low winds, generally deep clayey acid soils, shifting cultivation and poverty are very common. Within this generalisation there is variation such as aspect, exact slope, position on slope etc. The method is designed for fairly uniform conditions where two issues, steep land farming methods and sources of planting resources, appear to be critical. The critical issues are addressed squarely in initial training in phase 1. Other production activities such as livestock and crafts can be dealt with in the second phase, according to villager interest.

Alternative farming systems for sloping land are expected to give farmers the best possible basis for long-term agricultural production in so far as rural population densities are and remain high. Other new production in flat and undulating areas and in villages will add to this. When this production for consumption and exchange is higher, villagers will rely less on the forest (timber or non-timber) for their livelihood, although sustainable and legal use should continue. In other words, assistance with agricultural production is a critical way of preserving the remaining forest.

The related sloping land research-extension methodology most easily enters in selected villages in Phase 2 with the aim to refine further the farming technologies and systems already promoted.
## STANDARD VILLAGE ACTIVITIES and Extension, Finance and Research

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Total Budget</th>
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<tbody>
<tr>
<td>(VILLAGERS HARVESTING)</td>
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<td>Initial Dialogue</td>
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<td>156000</td>
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<td>Recording of activities (diary)</td>
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<tr>
<td>Study of existing village conditions. Prepare map</td>
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<td>(Detailed land use planning in Silalek)</td>
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<td>90,000</td>
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<tr>
<td>Meeting with collaborative organisations</td>
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<td>Arrange planting materials. List availability. Refine as training and dialogue progresses.</td>
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<tr>
<td>Initial Training Day for year and study tour. Then follow up dialogue &amp; training</td>
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<td>312000</td>
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<tr>
<td>Choose activities, form groups, decide on financing method and plan specialised training</td>
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<td>Write and submit village activity plans</td>
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<td>Follow up and Specialised training</td>
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<td>Support start activities not dependent on rainfall or irrigation</td>
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<td>Support start of dry season irrigation cropping (if appropriate)</td>
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<td>(VILLAGERS CUTTING REGROWTH)</td>
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<td>(VILLAGERS BURNING REGROWTH)</td>
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<td>Support contouring for alley cropping</td>
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<td>Support wet season planting of steep-land trials</td>
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<td>Back up and monitoring (98-99 S&amp;L groups and steep-land farming &amp; 99-00 activities)</td>
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<tr>
<td>PLANTING RICE and JOB’S TEARS</td>
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<tr>
<td>Farmer field days</td>
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Unit cost table from Excel
### Initial General PLANNING First Quarter 1999-2000

Both Sloping land methods, LSFP Luang Phabang (5 villages are in Xieng Ngeun, 2 in Muang Nane, noted)

|------------------------|--------------------------------------------------------------------------|
| **Translation to Lao**  | **Phondong** or **Phanip**  
(Nane) | **Ber 10**  
Long Lueat  
(2 became 1) | **Huay Jong**  
Thin Kaew | **Silalek**  
Phonxay | **Thali**  
(Nane) |
| **Progress**           | **Yes**  
**Yes**  
**yes**  
**Yes** | **Yes**  
**yes**  
**yes**  
**Yes** |
| Training In Steep-land  
Farming Systems         | Yes  
No  
Yes  
No |
| Operating Savings and Loans  
Group                     | Yes  
Yes  
Yes  
Yes |
| Sustainability Fund     | Yes  
Yes  
yes  
yes  
Yes |

**Activities Planned**

| **SCRP 1999-2000**          | Yes  
**yes**  
**yes**  
**Yes** |
| **LA/LUP**                  | Data  
LUP |
| **PFO/DAFO Extension**      | Yes  
**yes**  
**yes**  
**Yes** |
| **Dialogue**                | *  
*  
*  
*  
*  
*  
* |
| **Species interest (stage 1)** | *  
*  
*  
*  
*  
*  
* |
| **Questionnaire Distribution** | ?  
?  
?  
Yes  
Yes  
Yes  
yes  
Yes |
| **Questionnaire pick up**    | *  
*  
*  
*  
yes  
?  
?  
? |
| **Questionnaire study**      | *  
*  
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* |
| **Farming Study**           | *  
*  
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* |
| **Other study?**            | *  
*  
*  
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| **Initial Training and Follow  
up, Year 2**                 | *  
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| **Initial Training and Follow  
up (Year 1)**                | *  
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* |
| **Species interest (stage 2)** | *  
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| **Monitoring and support**  | *  
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| **Training in Savings and Loan  
groups**                     | *  
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* |
The first day’s dialogue in a village

- Getting to know the people
- Meeting in groups to discuss village activities and conditions, opportunities and constraints
- Beforehand ask the villagers to draw up timetable for various groups

It is of course also important to make sure all appropriate staff are aware of the venue and timetable, and have transport and per diem and/or lunch. This may be harder to organize than thought, so special effort may be needed.

See section above: Participation, Groups and Facilitation.

- Make a list of names, gender, age, positions in group. Gradually add skills and interests during the meeting.
  Take a photo of the group (and provide the village committee and the group leader with a copy)

Some Topics for discussion in various groups

Always try to start with questions, even when you are expressing your opinion.
Ask about the group:
1. What does it do?
2. What might it do?
- Introduce the Aims and Methods of the project
e.g. ecological and socio-economic sustainability.
  1. We want to work with you
  2. What could be the next step?
  3. Village meeting for open discussion?
  4. A general training day on many topics, or?
  5. What financial methods and problems do you have? We are interested in assisting villagers form a savings and loan group
  6. Other topics, including non-agricultural
  7. Recent progress in the village
  8. Further opportunities and constraints
  9. Problems

When introducing the idea of soil fertility management and erosion management:
1. Draw a hill slope in cross section on the white board and
2. Ask the villages about the type and thickness of soil on their land
3. Get villagers to draw a cross section of their own land
4. Invite comment and others to draw their own
5. If they do not understand soil horizons, explain by asking what they meet if they dig in the soil. Then draw A, B and C horizons at variable thickness. Discuss.
6. Ask what happens when it rains. Ask someone to draw it.
7. Ask what happens at different stages of the shifting cultivation cycle and in a forest.
8. Ask how loss of top soil and litter can be reduced etc

Uncertainty: we discuss, make suggestions, conduct training. We hope our ideas are correct, but we may make mistakes. We promise to admit our mistakes that we learn about, and try to do better next time.

In meeting with VDC consider a dialogue meeting with the whole village, or would it be better to move onto whole-village general training.

**Village Record kept by Extensionists (Facilitators) on daily basis (diary)**
(with example)

This should be recorded in a firm book in the village, and summarized onto a table such as this when returning to the office and filed in one folder.

**Village Name:** Ban Thin Kaew (Ber 7-8)

<table>
<thead>
<tr>
<th>Step</th>
<th>Dates</th>
<th>Details</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory dialogue</td>
<td>14-1-99</td>
<td>Discussed existing group activities and interests with leaders (VDC, Men, Women, Youth). Introduced methods. Suggested training day.</td>
<td>Questionnaire not complete.</td>
</tr>
<tr>
<td>Initial General Training and Study Tour</td>
<td>27/28-1-99</td>
<td>Talks on general and specific topics. Study tour of IBSRAM and IRRI stations</td>
<td>Need bus</td>
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<tr>
<td>Follow-up dialogue</td>
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<td>Training on Savings and Loan Groups</td>
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<td>Etc</td>
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**Study of the Villages**

The approach does not emphasise study by interview or survey, and does not concern itself with a wide variety of village concerns in the early steps but concentrates on new farming systems for the dominant steep land and savings and loan groups. The method is action-oriented, with training very soon leading to planting trials, with survey and study of village conditions in parallel where necessary. This is viable when the choice of new systems and actual species is up to the villagers.

A substantial body of research has already been done on the consequences of high population density and the shortened fallow cycle in shifting cultivation. How the high population density occurred along the road and whether and how it could be reduced is a related but separate matter not dealt with here.

Study of villages is often carried out under the title of ‘participatory rural appraisal’ (PRA) which evolved from the earlier ‘rapid rural appraisal’ (RRA). These are techniques or tools
that have been developed by academics (university staff) whose aim has been research rather than development. In this SLEF model such study of the village is only one step. And the whole SLEF process is more or less participatory, and rural and preferably rapid. Appraisal is unnecessary jargon. Study is a better word, so none of the above descriptors are needed.

Moreover, when a good deal is known about a region and its problems from previous research and project reports and manuals, the same detailed study is not necessary. Before starting work in any village or group of villages the government staff should read this research. If it is another language it may be necessary to arrange for translation. Such research may be of the physical conditions, the biota, the ethnic groups, the infrastructure, the agriculture, markets, projects finished and operating etc. Often it may not cover exactly the region under extension, but could be of the same type of conditions nearby. If a team is working in the villages it should share the responsibility to read this research and then present summaries of it to the team. Then other staff, including in other ministries, can be interviewed to find other documents and get some other hypotheses and anecdotes. Much can be achieved before you go to the villages.

After dialogue with the whole village and groups, a decision can be made how to precede. Is further study needed, at what level of detail, and if so when should it be done? Some of the possible issues that may remain uncertain could remain from the land allocation process, previous projects, recent migration, etc.

**Initial whole-village general training day (awareness raising day) in village and Follow up**

Villager skill development is critical for sustainable village development. It is considered the one of the main steps of the method developed here. Based on the natural environment as well as government policy to try to reduce shifting cultivation, established knowledge of erosion under various types of cover, and knowledge of steep land farming, villagers are trained in alternatives to shifting cultivation under both methodologies.

After general planning and start up dialogue in the first year of the operation of both approaches, a training day is held as an early step. This includes a study tour to nearby research stations. The training is repeated if necessary in a formal way, or as a more informal follow up involving more dialogue.

Knowledge access and the methods of skill development and gender are covered as part of a general introduction to sustainable development. Family planning (birth spacing) and related ideas are considered in passing, but it is considered that to properly treat such topics requires a fully integrated programme.

In Phase 2 of the extension-finance model after alternative farming systems on sloping land have become sufficiently established in the villagers minds and action, a wider range of activities can be discussed. Villagers will be trained in the village production cycle to help
them think about the range of issues that may be troubling them. All villages have now been given a list of topics related to this cycle that should also help them decide on new topics for training and production.

See also later section ‘Training Villagers’

A Possible list of topics for the initial training day is given below. It would be best to confine the actual topics covered to a few key general topics. Options should be presented. These should be covered in a half day with time for discussion. The afternoon should be devoted to a study tour.

1. Speaker introductions
2. Project introduction
   Ideas not funds: Sustainability
3. Community Development
   Self-reliance
   Savings and Loan Group
   Marketing
4. Ecological Sustainability
   Population and health
   Forest conservation
   Erosion
   Land and forest allocation and general land use planning.
   Pests
   Chemicals

Guidelines for leaders preparing for awareness raising/training days

1. Discuss training with village leaders and others at initial dialogue day
2. Organise training day after a standard questionnaire about the village has been filled in, and at least a week after dialogue
3. Consult with women leaders to find the most convenient time and place for them.
4. Prepare a plan for training day. Steps needed in preparation and times to carry them out.
5. Consult with possible speakers
6. Prepare agenda for training day: list of topics and speakers and approximate times.
7. Prepare 5-10 lines at least on each topic as a guideline for speakers on what to talk about
8. Consult with people at study tour destinations
9. Prepare approximate detailed agenda for study tour
10. Make sure a firm appointment has been made with speakers at destinations for study tours
11. Improve ‘Guidelines for Speakers at Village meetings’ (see below)
12. Hand out these to all speakers and ask them to try hard to follow these
13. Follow up all speakers to make sure they are preparing their talk
14. Others not speaking could be invited to learn and perhaps contribute, if per diem is available
15. Take white board, large sheets of white paper and pens
16. Take a megaphone (loud hailer) for speakers where necessary
17. Make sure all speakers know time, date and place, and have transport and per diem
18. Prepare a written invitation if necessary and send out about a week beforehand. Ask for a confirmation that the invitee can attend and prepare a talk on the nominated topic. Ask speakers to be prepared to add comments or additional ideas to others’ talks and contribute to discussion.

19. Note pad for those interested in a particular topic to write their names
20. Consider note books and pens for villagers
21. Food for or towards lunch
22. Have a contingency plan: alternatives if things go wrong.

See 12 benefits of diversity above

**Questions on Gender, Ethnicity and Age**

The questions below or similar could be introduced by one or more speakers, preferably one female and one male, at the general training day to stimulate discussion.

Are women treated unequally to men in the village?
How might this happen?
Are women invited equally to meetings?
Have the women’s opinions been heard when planning meetings?
Are women’s opinions heard equally at meetings?
How could women’s participation be increased?
Are ethnic minorities in each village invited to join groups?
Are women in all ethnic groups treated the same?
Do all people in the family life cycle have an equal chance to participate?
Are youth and old people listened to?
Should especially youth should be listened to more?

**Guidelines for Speakers at Village Meetings**

**Basic Guidelines:**

1. Introduce yourself with name and some personal background.
2. Speak loudly if the audience is large or use a megaphone.
3. Start with the simplest or summary ideas and information and gradually build up the complication. Return sometimes to the simple ideas. The understanding in the audience will be vary variable.
4. Use a white board (provided by DAFO) or ‘flip chart’ or other pictures or diagrams for writing and drawing. Make sure they are visible from the back.
5. Plan your diagrams beforehand. Do not usually draw diagrams that you have never drawn before, unless you are experienced.
6. Prepare your talk over at least one day.
7. Prepare clear, short notes to refer to if needed.
8. Explain any difficult words or concepts.
9. Regularly ask questions about the audience’s experience. Try alternative ways of asking the question, or a different question, if no answer or too little answer is forthcoming. See also section on dialogue about asking questions about soil erosion and fertility.
10. Move around a bit while speaking, but don’t continually walk up and down. It can be useful to walk through the audience a bit to get close contact with villagers at the back.

11. Encourage villagers, especially women, to say, write or draw something up the front.

12. Do not ‘talk down’ to the audience.

13. Do not promise money for activities.

**More Advanced Guidelines:**

14. Present options if possible.

15. Mention ‘sustainable development’ and how your ideas contribute.

16. Refer to where information or other resources can be obtained.

17. Hand out important information, with at least one copy per village unit. Use large, bold writing or type and simple words.

18. Refer to costs of inputs and prices of outputs. If possible, refer to yearly income derived, and compare income from a typical previous land use.

19. If questions are asked about funding, encourage the villagers to join a savings and loan group. Refer to the importance of self-reliance.

20. Refer to risks and how these can be minimised.

21. Link your talk, where possible, to previous talks.

22. Refer to villages or stations where good and/or bad examples can be seen.

23. Summarise your talk at the end, i.e. repeat the most important points.

**In Collaboration with Particular DAFO Extension Staff Responsible for Village**

24. Volunteer if possible to come again or get someone else to talk in more detail or lead a discussion group if many villagers are interested. Ask for a show of hands of the number interested to learn more.

25. Ask for another show of hands of those who may wish to join a group and do something. Do not promise money. Tell them to discuss their interest with the extension staff responsible for this village (name them and point them out if not already done so). If there are questions about money refer to the savings and loan group.

**Sample Agenda for a Whole-Village Training Day especially focussed on Sloping Land Farming Systems**

**Sloping Land Farming Systems**

**Training Day for New Planters**

*at Northern Training Centre, Xieng Ngeun*

*Wednesday 10th May 2000*

**Personnel**

District Governor, Somdii and Khamphui ? to open training day
Other Senior people that might attend: Somphong, Xayaphan, Sianuwong, Bounpheng and Xang
Teachers/Facilitators:
Thongsang, Khamphan, Pasit, Bounmalee, Saengthong, Boonma, Phonkaew, Ketsana, Sisuphanh
Prepare Beforehand

Megaphone
White board
Name tags
Note books and pens
Plain paper and pens
Overhead diagrams
Plant symbol legend
Paper sheet diagrams
Hand out summary

Agenda and Notes

Introduction
Aim of Training Day
List of in-village training so far
Agenda read out
Introduce speakers
Introduce villagers
Invite suggestions from participants

Soil and Farming Systems
Background of soil problems
  Shortening rotation with limited land. Quality of soil, reduced organic matter and
greater erosion.
New farming systems for steep land:
  Fallow improvement: why is no one interested?
  Alley cropping with rotation: Crop sequence over several years
  Diverse garden/orchard with short perennials and annual crops: along contour and
inter-cropping
Four key points of these new farming systems:
  N from legumes.
  Contour planting and structures for managing soil loss,
  Diversity for 12 reasons,
  Trees for raising deep nutrients
Testing new ideas in expanding areas
The value of diversity: 12 points
Design of plots
Plant symbol list
Participants design own plots

Planting Material to Buy
Check list of planting material to purchase for each village. Handout typed list as it stands at
the moment. Encourage only changes that increase diversity.
Finance
Financing: differences between villages is a test
Silalek is 70:30, Ber 10 and Phonxay are 50% repayment to S&L fund :50% grant to planters
and Thin Kaew and Huay Jong are 100% repayment. Planters prefer grants, but the village
will gain from full repayment. The villages are borrowing very different amounts per person.
The project will compare methods.
Which villages have a S&L group committee member here?
Committee members report on initial grant to sustainability fund.
Project will provide grant to top this:up to level to purchase planting material (with various
proportions going back to the savings and loan fund)
The project will supply extra funds to buy legumes and some fertiliser as a grant.

Study tour to Ban An.
Farmer gives talk
Include revision on use of A-frame

Lunch at Training Centre

Contouring and Planting
Did everyone attend contouring training on Monday?
Short revision on contouring
Planting pineapples along contours.
Types of tree planting materials and availability
Tree spacing
Planting inter-crops, and contour legumes especially when trees young
Hole size: at least 60 cm cube.
Hole filling: manure, other organic material, top soil?, valley bottom soil, some fertiliser.
Villagers explain where they can obtain these materials.
Tree protection and weeding. Livestock?
Water sources: streams, wells, ponds, dams or combination.

Study in NTC orchard
Demonstration digging and filling at NTC

Summary
Other issues?

Sample Agenda for In-Village Whole-Village Farming Systems Training

Aim of Training Day
Agenda read out
Introduce speakers
Invite suggestions from participants

Background of soil problems
New farming systems for steep land:
  Fallow improvement
Alley cropping with rotation
Diverse garden/orchard with short perennials and annual crops

Four key points of these new farming systems:
Testing new ideas in expanding areas
Villagers propose farming systems they are interested in. Make list
Design of plots
Present symbol list
Participants design own plots
List of planting material to purchase for each village.

Ber 10 50% repayment to S&L fund :50% grant to planters
Committee members report on initial grant to sustainability fund.
Project will provide grant to top this: up to level to purchase planting material (with various proportions going back to the savings and loan fund)
The project will supply extra funds to buy legumes and some fertiliser as a grant.

Planting inter-crops,
Hole digging and hole filling:
Tree protection. Livestock?
Water sources: streams, wells, ponds, dams or combination.

Summary
Other issues?
Coming Programme.

Possible topics for village training in phases 2 and 3

1. Sustainable development
2. The village farm production cycle
3. Saving and Loan Group/Fund setting up and management
4. Information/knowledge development
5. Gender awareness
6. Food and health
7. Forest Conservation
8. NTFP
9. Steep land farming systems
10. Dry season water for steep land farming
11. Purchasing
12. Fruit tree establishment and management
13. Nurseries
14. Irrigation agriculture
15. New plant varieties
16. Fertilization
17. Weed and pest management (including IPM)
18. Vegetables
19. Flowers
20. Poultry
21. Mammalian livestock
22. Locational management of large livestock  
23. Teak plantation management  
24. Processing  
25. Storage  
26. Marketing  
27. Village development planning

Follow up Steps

- DAFO extensionist discusses with village leaders a follow-up day to be held in the village within a week or so.
- A follow-up day is held to facilitate dialogue with villagers about the topics covered in the general training day, any related topics, and possible activities. Villagers are challenged with alternatives.
- Further informal training at this time is usually necessary as many will want further coverage and explanation of ideas heard in the first training day.
- The usual visual aids, especially a white board, should be available.
- A key aim is to see what real interest there is for new activities.
- Specialists could be called upon to contribute on this day, but their contribution is probably better left till a later time when action interests are clearer.
- Facilitators will encourage the formation of discussion groups which could lead to activity groups.
- Facilitators and villagers prepare an initial list of names of interested villagers, inputs of interest to villagers and make notes on where they might be obtained. This is firmed up on the initial activity planning day.
- She discusses possible costs.
- A S&L group is discussed, but not grants.
- These groups may want to learn more about their special interest.
- DAFO staff can help decide who could assist with further learning and how to contact them.

Initial Activity Planning Day

Farming Group Formation

1. In consultation with village leaders, call a meeting to discuss groups, farm inputs and finance. A separate set of meetings must be run to set up a savings and loan group/fund (see above).
2. Explain the value of groups.
3. Form a group for each production activity with a leader. Large groups may be better split if a reason for a split such as location or specific interest is obvious.
4. Unless there are more than about 8-12 for each new farming system it may be best to have one group to include farmers interested in each new farming system.
5. Explain and discuss roles of leader, deputy and members.
6. Chose a leader and deputy. One should be a woman if possible.
7. Leaders should keep basic input and output data from all members. S-he should act as a contact person for extension staff. The group should be encouraged to meet to discuss
progress and problems. S-he should inform staff of serious problems that cannot be solved by the group. Try to help set a timetable for meetings and encourage them to share experiences and plans.

8. Members are responsible for doing their best in the new farming, recording what they do (see form below) and giving a copy to the leader/deputy. Members should also attend meetings and be willing to exchange experiences and ideas.

**Provisional Choice of Crops and Design of Plots**

**Summarize the key points of the new or improved farming systems.**

1. Farmers should each be encouraged, and helped where appropriate, to try more than one new sloping land farming systems idea. The two key ideas are alley cropping using leguminous hedgerows and diverse tree crops. Leguminous cover and food crops and rotation are part of both these ideas. Two new farming systems might be combined in one area of any field.

2. Diversity is to be encouraged for socio-economic, health and ecological reasons.

3. Farmers should experiment, starting with small areas.

4. Native pioneer plants of the forest such as paper mulberry and rattan can be planned for specific areas or zones if it is known where they are likely to come up, or a strategy must be planned for dealing with them wherever they come up.

5. Improved fallow on a small test plot of the initially large remaining areas of shifting cultivation is also recommended. Improved fallow is seen as a temporary stage until shifting cultivation is totally replaced. Several methods are being or will be researched.

**Lead the process of plot design**

1. Farmers should be invited to state verbally which crops they wish to plant. Discuss.

2. Explain symbols to be used in the design.

3. Draw or display several example designs and discuss.

4. Invite a sample of group members to draw their designs on the white board. Discuss.

5. Invite each member to draw their design on a piece of paper twice.

6. Give one to the staff for reference.

**Deciding on Inputs and Costs**

1. Decide provisionally on the area each person will plant for each crop.

2. Calculate the inputs required for each person and the total for the village.

3. Staff must prepare a price list of planting material and prices for distribution to other staff and village and group leaders (M&F)

4. Further training talks will probably be necessary for the groups (those interested) before planting begins.

5. Further study tours to stations not yet visited would also be worthwhile.

6. When it is operating some farmers can borrow from the new savings and loan group if they wish.

7. The DAFO facilitator should prepare a small group, finance and planting plan for each village at this stage and submit it to the DAFO head team for discussion.
**Farm Management Calendar**

Discuss the method of preparing a seasonal and monthly calendar for:
- finance preparation,
- planting site preparation,
- planting of main crops,
- planting of subsidiary crops,
- watering,
- protection against animals (and people?)
- soil fertility management,
- weeding,
- pest and disease control,
- harvesting,
- storage,
- processing,
- use, bartering or sale.

Prepare calendars for selected main and accompanying crops. Discuss with farmers to refine timings following local practice. Invite farmers to prepare calendars for other selected crops, to be discussed at the farming plan review meeting. Get farmers to each volunteer to prepare a calendar for a particular crop. Processing may have to be omitted at this stage. Finance may also have to be left to the next meeting. Note that integrated pest management, processing and marketing will be considered in detail in the second phase of the method.

**Savings and Loan Groups**

The methodology encourages a degree of villager financial independence through savings and loan groups. All villagers interested are invited to an initial two or three days of training and setting up of the group and fund. Those elected to the S&L committee are offered further training together with those from other villages. Dialogue, general training and the operation of a savings and loans group should precede any grants to village individuals or groups. Grants are not usually promised.

Two conditional grants were made to the savings and loans groups in six villages in order to set up a ‘sustainability fund’ and some to individual families. This differed between villages. A grant has later been offered on condition that the established fund lends 10% of its capital interest free to this new fund for three years at least. The grant was not mentioned before the group was set up. The sustainability fund lends only for new farming systems or technologies on sloping land. Other conditions are also stipulated. These can be found below.

Background on village micro-finance, suggested rules for the savings and loans groups, a sustainability fund, a range of formats for use by savings and loan groups are covered in a separate section below.

The training for and setting up of a savings and loans group, then a support and monitoring period, are done in the dry season so that the group is functioning properly by the time the rains are nearly due and further support for farming is appropriate.
Financing Agricultural Development

Resourcing and financing of village activities in any rural development programme or project could include all inputs to the village, but it is the material (biophysical and monetary) inputs that are usually considered. Discussion of resourcing and financing should normally come after dialogue, perhaps some survey/study, training, group formation and activity planning, as discussed above.

How can Villagers get the Resources for Production

All production activities need resources. Many need some cash, even if in small amounts such a US$10 –20 per household. Resourcing and financing can be fully self-generated or partly from outside. The latter can speed up programmes. Resourcing and financing or material inputs could conceivably be through one or more of the following:

Individual (household) villagers themselves.

Loans from Individuals:
1. Personal loans from relatives and friends
2. Loans from money lenders.
3. Loans from a Local branch of an international NGO to a village group. The Local branch may be using a grant or a soft loan from its international head office.

Bank Credit. The bank may be using a soft loan from outside. The loans could be to
4. individuals,
5. solidarity (joint liability) groups,
6. savings and loan groups who on lend

Grants from NGOs, or a Government to Government Project or Programme
7. directly to leading individuals (households) to cover part of cash cost.
8. To organizations for on lending: to
9. loan groups (villager managed revolving funds set up for the purpose of on lending the grant)
10. established savings and loan groups.
11. a government institution for lending to individuals on a rotating basis (also called ‘revolving funds’ by some) (What DAFO does now).

From Development Aims to Financial Methods

The broad aim of rural development programmes should be an increase in productivity, improved health, self-reliance and sustainability of production together with natural resource conservation. This will require both increased villager knowledge and understanding, and the means to use this knowledge. As has been emphasised by Christoplos (1997), the farmer integrates the various contributions from others, including data, ideas, things and money. A diagram illustrates the diversity of influences, biophysical, socio-economic and political, that daily impact on the farming community in Northern Laos. If a programme offers only loans
Figure  Many sources of farmer knowledge
the farmer must find the ideas for herself, and if only ideas are offered, and no individual savings are available, personal high interest loans will be sought where a cash input seems necessary. Only particular banks help small farmers, and those mainly within easy access.

Sustainability is a difficult concept. It can include environmental and socio-economic aims. The scale is rarely clear. One subsidiary aim or aspect could be greater self-reliance of the villager, village community, region and nation. Long term financial dependence on outsiders may not be sustainable, as debtors often find. Resourcing and financing of village activities should consider this.

Villager self-reliance can be promoted by the dialogue-training continuum, and by other inputs which allow villagers to start a new productive activity which will produce profits which can be reinvested and so on, and is environmentally sound. Village community self-reliance can be boosted beyond individual progress, by the strengthening of village ties through group formation, not only for production activities, but for resourcing and finance. Savings and loan groups can be formed. Villagers can agree to save regularly and use the savings as loans for useful activities. For poor villages complete financial self-reliance would however mean very slow progress. The same can be said for poor nations.

Some outside contribution is usually needed apart from the ideas input. The question is how can resource or financial assistance be offered within the short lifetime of any programme or project that will maximize the chance of sustainability. Should it be a grant or a loan, or a combination, and on what terms, how much, and to whom or what? Can a soft or ‘subsidized’ loan contribute more or less to sustainability? Loans always mean debt, and debt is a risk. This is one of the great international conundrums.

Subsidies in extension usually include the cost of the consulting input in the broadest sense: the costs of leading dialogue, survey and training, etc. Extension almost always is a subsidy, that is a grant to the farming community from the government or NGO. If ‘extension’ is private we can assume it is a form of promotion of a commercial product.

Loans as well as grants can be subsidies. Is a subsidy anti-sustainability, at any level of the settlement-organizational hierarchy? Clearly not, unless all of grant and soft loan development support suffers this defect. The value of a subsidy is that an individual or group/organization struggling to get going, or develop a new process, can be helped to start in a way that that will continue without further subsidy or with steadily decreasing subsidies. DoF is being offered such assistance. The short-term or reducing subsidy aims at long-term sustainability. To facilitate a new process requires a subsidy for the ideas and for the means to use those ideas.

**Grants and Loans**

So what form of material subsidy should be offered to the villagers and village communities to complement a thorough ideas input? Should it be directly to individuals, households or groups, or fed through an organization? Might it be ‘formal’ or ‘informal’? Grants can be full or partial, unconditional or conditional, and any size. A partial grant means that the grant complements the cash contribution of the villager. Loans can vary with interest rate,
repayment terms, including any grace period, and can contain conditions. They can be offered through a variety of institutions.

Grants and loans both have distinct attractions. They may seem more generous than loans but this is a naive view. A large long term, soft loan with a long grace period is preferable to the receiver than a small grant if she has the capacity to use the loan profitably. But a small partial grant is often easier to organize and can be disbursed more quickly than a loan. Partial grants for idea and action leaders must be given to the right people to maximize impact. Slightly larger grants can probably be most useful when offered to already established savings and loan groups. In a complex situation it is not easy to decide how to offer help. Flexibility is required, as has been discussed above.

**Grants to Savings and Loan Groups**

Careful and conditional grants to villager managed savings and loan groups gives the villagers substantial control over the use of the funds. It gives them practice with significant loans for sustainable agricultural and related production during the life of a project, something which may not be possible on the basis of their own savings alone. S&L groups would know that the grants would be few and soon cease. This is considered sustainable within the limits of a development support project. It could well be more sustainable than a subsidised bank interest rate as it could be easier for the villagers to understand that this assistance is a one, two or three off and not continuing.

It is better to encourage savings and loan groups than simply to encourage individual or small group borrowing from banks, subsidised interest rate or not, as savings and loan groups support a degree of community independence and development, encourage savings and reduce unnecessary consumption.

Grants to any savings and loan groups should only be made on the following conditions:
1. The whole group has undertaken basic training in the formation and management of savings and loan groups.
2. The committee and some other village leaders have undertaken detailed training.
3. The group has an acceptable methodology.
4. Personal savings have started.
5. Loans are fairly small and moderately widely spread in the group.
6. Loans are being repaid.

Different levels of villager fore knowledge could accompany grants to groups:
1. The group would not be able to assume a grant was coming, so as not to encourage group membership simply for access to extra funds from an outside organization.
2. The grant would be assumed and would act as an incentive for members to save and new members to join.

Different approaches could be tried in different villages. The first grant to groups should be small, with later ones larger as the group demonstrates capability, and short-term loans are being repaid.
Lending Policy

The material assistance offered to any one person or household in a village, whether grant directly from outside or loan from an S&L group, should normally be just enough to start them off on a new activity or significantly improve an existing activity. Where possible preference should be given to people trying a new crop or method in the village, and especially where sustainability is likely to be enhanced. Funding should be minimal per household or person to demonstrate that a large number of people can start the activity with only small assistance. This maximizes the chance that the idea can spread beyond the early adopters, both in the same village and other villages. It discourages the use of overly expensive technology that is not easily replicable.

As a savings and loan group develops it should aim to lend for a variety of purposes and times, in order to maintain a stable flow of repayments. Effort must be made to discourage loans for unprofitable ventures, but it may not be advisable to restrict the range of loan purposes. Loans could be made to individuals or to production groups which act also as solidarity or joint liability groups. Other proposed criteria for lending are listed under ‘Possible Rules….’ Specific training for production groups should be arranged in association with production loans. Training is more efficiently organized if a group is formed. A standard form such as the Loan Application Form included below should be filled in, with the assistance of a committee member and/or a DAFO facilitator if necessary, before a loan is made. Another form is necessary to list costs and expected sales and profits (or gross margins).

All accounts must be open to view by the members. Transparency is important for community confidence in the committee. This is particularly important where there is competition for loans.

Savings and loan groups would normally open a savings account with a bank in which to keep large amounts during low lending periods. But this should be minimized as bank interest rates offered to depositors are below market rates, partly because bank rates have remained behind high inflation rates. It is suggested that the S&L group committee could call a village meeting to discuss new projects for which loans could be taken out, in order to reduce the size of the group’s bank account.

Established savings and loan groups can approach a bank for a solidarity or joint liability loan.

‘Revolving Funds’ or Savings and Loans Groups

It is generally agreed now that support for savings and loan groups is preferable to ‘revolving funds’ as the latter, as usually constituted, are based only on a grant from outside, and do not involve savings. They do not therefore confirm as high a degree of self-reliance or ownership on the villagers as S&L groups. Revolving Funds have not performed well partly for this reason and partly because of inadequate training. In addition some are managed by DAFO rather than by the villagers, as seems to be the case in Luang Phabang.
<table>
<thead>
<tr>
<th>REVOLVING FUNDS</th>
<th>SAVINGS AND LOAN GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCE OF FUNDS</td>
<td>Based only on a grant from outside. Do not involve savings.</td>
</tr>
<tr>
<td>SUPPORT for SELF-RELIANCE</td>
<td>Lower</td>
</tr>
<tr>
<td>REPAYMENT</td>
<td>Loans are less likely to be repaid</td>
</tr>
<tr>
<td>UNNECESSAY WANTS</td>
<td>Unnecessary consumption may not be affected</td>
</tr>
<tr>
<td>BANK DEPENDENCY</td>
<td>The villagers are more likely to become dependent on banks</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Reaching the Goal: An Alternative Way of Materially Assisting**

*Extension in the villages* is one of, if not the key component that must contribute to the goal of increased sustainable development. Through increased non-forest production we can decrease the dependence on the forest and increase the openness to new ideas on conservation. Sustainability requires a degree of self-reliance in the target villages at least, and preferably nationally. But some well chosen outside material assistance will speed up progress towards these aims.

Some outside funding is especially important for poor villagers in poor villages, which is a high proportion of the people in the target villages. In general partial grants may be appropriate for new high-risk activities, such as steep land agro-forestry trials, especially for leaders when few will try the new idea, and the poorest. But villagers would usually be asked to contribute some resources other than land, tools and labour in order to demonstrate their real commitment. What proportion early villager adopters and outsiders should each contribute for cash costs should depend on apparent wealth of the household, risk, and other variables. Different grant proportions could be tried in different villages.

Savings and loan groups should be started where suitable in selected target villages as soon as possible following thorough training of leaders and the whole village. Encouragement may be needed. Some outside funds, gradually and conditionally offered, may be of value for these groups if production activities based on loans are to start fairly quickly, say within 3 months. These funds may be a grant from a foreign or government funder, or a loan from APB or perhaps elsewhere. It is important that villages begin savings in groups, as grants from foreign projects at least cannot, of course, continue.

**Deposits and Interest**

Savings groups can easily charge a higher rate of interest to borrowers than is paid to depositors (members) so creating a ‘margin’. The margin might be called the members’ return or profit (or loss if negative), but it should cover a fixed administration charge that goes to an elected committee, and possibly a village fund allowance. The margin should also be high enough to accumulate some funds to cover the risk of defaulting. Depositors and borrowers rates should compete with other rates available. These will be high if inflation is high.
Rates charged to borrowers should vary, with the highest rates possibly for non-members who wish to invest in trade, and the lowest rates for the poorest members who have medical emergencies.

There are two general approaches to savings and interest. The first is easier and the other is more flexible. The first demands a fixed savings rate per month. Members pledge to keep up a constant deposit rate. Withdrawals may not be possible at first. The interest can easily be calculated. The second allows any deposit and withdrawal amount each month. Interest calculations require higher skill and diligence. With the second approach members tend to vary markedly in their savings behaviour.

A third in-between method, demands a constant monthly deposit, but allows an irregular deposit say at 3 or 6 monthly intervals as well as withdrawals. This may be the best. The irregular deposit would be entered in another line or page. This allows some flexibility but keeps the discipline and allows fairly easy calculations. Perhaps the three methods could be tried and compared?

Small grants to savings and loan groups is considered a better method of subsidy in the long term than direct subsidy grants to individuals as happens in cropping trial support, or loans to a few individuals from DAFO (revolving funds). Both of these are the on-going methods of supporting the villagers’ agricultural activities. Partial grants to individuals may be appropriate when few are interested otherwise. In some target villages old ‘revolving funds’ may be available for adding to S&L funds. The small grants to S&L groups can be used to set up ‘Sustainability Funds’ which are then used for especially low interest loans for new sloping land farming systems and perhaps other chosen activities.

Women

Women might be given special loans or special consideration if necessary in the village situation. At least when women lead the activity it is they who should manage the loan. In activities where women are handling most of the workload they should be given the loan. For example, Khamu women do nearly all the planting, weeding and carrying of rice. Any loan enabling a technology upgrade, if that is possible, should go to the women. A separate women’s savings and loan group may be appropriate. Women tend to be more interested in savings than men. This might be combined with the men’s group when the genders agree!

Rehabilitated Revolving Fund

A few existing villager managed revolving funds from LSFP Phase III are still working reasonably well.

Where Revolving Funds are not working well in target villages

- They might be rehabilitated: When feasible repayments are encouraged, some previous defaulters will come forward.
- Revolving funds might be incorporated into savings and loan (S&L) group accounts where possible.

An agreement with any newly formed S&L group on the management of the revolving fund is needed. This will be easier when the S&L group has many members.
Bank Loans?

APB accepts ‘group-based collateral’ or joint liability. Grants to the groups may gradually give way to bank loans as knowledge and confidence are gained. This change need not be pre-determined. It depends on the activity, the group and other conditions. Importantly the interest rate for bank credit will be less than the interest rate the group can charge borrowers. But it is also possible that with one or two seed grants they may develop their own savings capacity to the level of long term village self-sufficiency. Effort has to be put into not only encouraging savings per se, but also discouraging wasteful and damaging consumption of any kind.

The bank could also lend to the S&L groups for on-lending to villagers. This would be most efficient if the Savings and Loan Groups is operating efficiently.

Conclusion on Finance

In summary it is proposed that the following two steps are optimum:

- Support the establishment and management of savings and loan groups

After dialogue-training and other idea inputs, consider seed grants to operating savings and loan groups, and possibly small partial grants to leading individuals to facilitate sustainable production. The seed grants to S&L groups we have called ‘sustainability funds’.

Guidelines on Setting up a Savings and Loans Group

Finance options are discussed with villagers at the first dialogue day. The idea of a savings and loan group is explained at the general whole-village training day. Unless a consensus is expressed to the contrary, the village is then offered training and assistance in the setting up and management of a savings and loan group. Our experience is that this idea is strongly supported. So the training takes place in the next two weeks or so after the follow up days (see above).

The villagers are informed that they should come if they are interested, not only if they definitely want to join. Many more come than eventually join on the first day.

The concepts are introduced and repeated in different ways with several members of staff assisting to introduce the ideas. Many questions are answered. The sustainability fund idea is not introduced at this stage. The emphasis is on village self-reliance. Savings is related to the avoidance of unnecessary consumption. Deposits and withdrawals are explained. The savings account books are introduced. Interest paid to savers and interest paid by borrowers is explained and compared. The type of projects that a borrower might use the loan for are discussed. The loan form books are briefly introduced. The possibility of variable interest rates for different types of borrowers are explained. The ‘margin’ between the interest rates and the uses to which this margin might be put are covered.
When the villagers appear to be gaining a degree of understanding, a show of hands is asked for to see how many would like to join at this stage. It is explained that it is not necessary to join immediately, but if you join now you have the advantage of learning the methods in more detail now, you will participate in the election of the committee, could become a committee member and you will benefit from membership now. An initial deposit is needed to be a founding member.

Now a list of those that wish to join is made. From and by this list a committee of about 7 is elected. We have successfully recommended at least two of the committee should be women. Following the election the first deposits are taken and recorded.

The rest of the time focuses on the new members and the committee. The roles of committee members are discussed. The other concepts are explained again and in more detail with more discussion. A lot of time is taken with discussion of interest rates and margins.

On the second day the rules for the group are drawn up by the group with suggestions and comments from staff. After this process a possible set of rules can be handed out to stimulate further discussion.

**A Possible Set of Rules for a Village Savings and Loan Group**
(with short guidelines on special points)

Here suggestive figures and words are included but if a translated copy is handed out to villagers it is suggested that these figures are omitted and gaps are left for each village to fill in an appropriate amount or words, after discussion.

**Membership and Committee**

Only village residents have the right to be group members. *Founding members are those that agree to make a deposit of at least ..........(5,000) Kip at the first meeting.*
*A committee will be elected from the founding members as soon as the group forms.*
Members could state whether or not they want to run for the committee before the elections.

The *committee* will consist of:
- A head
- An accountant and deputy accountant
- Two loans officers
- Two or four advisers

At least two members of the committee should be women.

The committee should call a meeting of the members every … (6) months.
An election for the committee should be held every .....
At the second meeting a set of rules such as these should be agreed to.
Special meetings will be held every .....(12) months.

☐ Three accounts may be kept: Cash on hand, Savings (Deposits) and Loans. A Bank account may be opened.

**Saving, Deposits and Withdrawals**

- Membership and Saving/Depositing among members will be encouraged by the committee and members. The committee will point out the types of expenditure that could be avoided in order to save more.
- All members shall deposit money fairly regularly if at all possible. A member who does not deposit regularly should be asked to explain by the committee.
- Deposits and withdrawals will be accepted by the accountant monthly, bimonthly or quarterly (cross out ones not wanted)
- All members shall have a deposit book.
- Deposits, withdrawals and interest shall be recorded in that book at the time of the transaction, as well as in the group's savings (deposit) account book.
- Deposits and withdrawals and interest calculations will be accepted by the accountant monthly (or quarterly)
- Deposits will be a minimum of .......(2000) baht per time.
- Members should give the committee ........ (one month’s) warning if the withdrawal exceeds ...............(20,000) Kip.

**Savings Account Book**

It is recommended that a fixed page book be used as a savings account book. Each member’s accounts would be kept on one page or one double page. When the double page is full a new double page would be started at the back of the same book or in a new book.

The format could be as shown below with an example for 3% interest with quarterly (3 monthly) transactions only. A special column is recommended for interest so that it is clear to depositors how much interest they received. Both member and committee member should sign after each transaction to increase confidence.

At each transaction the calculation of interest on the balance shown at the previous date is carried out first. Then any deposit and the interest are added to the balance and any withdrawal is subtracted to get the new balance. Note that in this example transactions take place every three months so the interest is 3 x 3 % per month.

<table>
<thead>
<tr>
<th>Date</th>
<th>Deposits</th>
<th>Withdrawals</th>
<th>Interest</th>
<th>Balance</th>
<th>Member’s signature</th>
<th>Committee member’s signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-6-99</td>
<td>10,000</td>
<td></td>
<td></td>
<td>10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-9-99</td>
<td>5,000</td>
<td>1000</td>
<td>900</td>
<td>15,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-12-99</td>
<td>2,000</td>
<td>2,000</td>
<td>1431</td>
<td>15,331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-3-00</td>
<td>15,000</td>
<td>10,000</td>
<td>1380</td>
<td>31,711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-6-00</td>
<td>13,000</td>
<td>2,854</td>
<td>47,565</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Husband and wife should both sign for withdrawals, although only one signature would be suitable for deposits.

**Reserve**

The committee will keep a reserve of at least .....(2) per cent of the deposits for emergency loans and withdrawals.

**Lending method**

Members and non-members can obtain loans.
In only special cases will non-members from other villagers be considered for a loan.
The committee will decide on appropriateness.

**Notifying Members of Availability of Funds**

When a loan is returned, the committee will place a simple notice in large letters on the ‘village notice board’ asking for applications to borrow this money. ........(3-7) days are allowed before applications are closed.

**Making an Application**

Applications should be submitted on a standard form. Applicants may be asked some questions after they submit their proposal on the form. Loan applications will be considered as soon as possible after closing day.

**Criteria for Lending**

The committee will discuss the applications and decide on the best proposal(s) to support for a loan. The criteria for the loan will include:

1. likelihood of a long term success (sustainability),
2. the needs of the family
3. women borrowers would usually get some preference,
4. newness of the idea in the village (new ideas would usually be favoured),
5. the social/cultural acceptability of the idea
6. has the family a regular depositing record
7. will village labour be hired
8. the size of the loan (small loans could be given some preference),
9. the guarantee, or the reputation of the borrower and the family,
10.all adults in the family supported the borrowing (by signature)
11.have they have received a loan before (new borrowers would usually be favoured),
12.has the borrower a good repayment record
13.any other debt of the borrower
14.is the family spendthrift or not
15.a borrower who agrees to repay the loan regularly rather than in a lump sum could be given some preference
16.a group of borrowers could be favoured
17.a member would usually be favoured over a non-member,
18.loans up to .....(one) year could be OK for very good projects.
All these criteria will be balanced together when choosing borrowers.

For a production group loan all group members guarantee the loan together (joint liability).

Borrowers must have signed permission from adult children and spouse.

The notice of funds available for loan is posted on the village notice board. If after (3-7) days insufficient loan applications are made, the committee will call a meeting of members to discuss possible projects for which a loan would be appropriate. If after a further (3-7) days still insufficient loan applications are received the money will be deposited in the bank, in a new account if necessary. In this case the next borrower will be responsible for (50) per cent of the travel costs (bus fare and a committee member’s time) to withdraw the money.

The loans officers will check on activities of borrowers and follow up on defaulting (overdue principal and interest on loans).

**Interest rates**

*Depositors* receive interest at (3) per cent per month. This is recorded in the depositors book (monthly or quarterly) or when the book is next presented to the committee, as well as in the group deposits account book. The monthly interest for a depositor is calculated from the amount in the deposit book at the regular time agreed on, before further deposits are made. Higher or lower amounts at other times are not used in the calculation.

**Loans**

Interest Payable on Loans

1. To members for agriculture and handicraft: (5) per cent per month
2. To non-members agriculture and handicraft: (8) per cent per month
3. To members for trading and industry: (8) per cent per month
4. To non-members for trading and industry: (10) per cent per month
5. To members (or family) who are sick: (2) per cent per month till one week after well again.
6. To non-members (or family) who are sick: (4) per cent per month till one week after well again.

- Any loan of more than (100,000) kip will require a respected guarantor’s signature, a physical or biological mortgage guarantee, or a group guarantee.

- If a borrower deviates from the agreed activity, or pay back of principals and interest on the loan according to the agreement, they will be obliged to pay (3) per cent more than the agreed rate, and/or pay back the loan immediately depending on the degree of deviation from the plan.
If a borrower has followed the agreed plan diligently, but has had very bad luck, his or her loan period will be extended without penalty at the discretion of the committee. This should not usually be the case.

Defaulters will be asked to pay immediately if they have no reasonable reason why they have not paid the interest and returned the principal according to the agreed schedule.

Any guarantee will be forfeited after a default period of …… months, unless a very good reason can be given.

A guarantor will be asked to pay in lieu of the borrower after a period of …… months, unless a very good reason can be given.

Note: The ‘margin’ between the interest received from borrowers and the interest paid to depositors will vary according to the proportion of borrowers at each interest rate and the number of defaulters. The margin will only be constant if all loans are made at one interest rate and there are no defaulters on either interest or principal. The margin may change frequently. For example if all borrowers pay 5% interest and return their principal as planned, and depositors are paid 3%, the margin is 2%. But if one borrower, pays 8% or one person defaults, this is not so.

Repayments

Repayments of interest and principal for loans longer than one month can both be made monthly or as a lump sum at the end of the loan period. Either:
1. a borrower that agrees to repay monthly could be given some preference, or
2. a different interest rate could be used, or
3. all borrowers could be obliged to follow the same schedule.
4. Borrowers can determine their own schedule with a …..(one) year limit with no penalty.

Payment to the Committee

The committee is entitled to a payment equal to either:
1. ………..(0.5 – 1) per cent of the deposits per month.
2. ………..(0.5 – 1) per cent of the loans per month.
3. ………..(40-60) per cent of the margin.
The third option is more flexible and may be more appropriate as it should motivate the committee to maximise the loan repayments.

Note:
For example, in the first and second cases 0.5% of 1,000,000 kip the committee would receive 5,000 kip to divide between them.
In the second case if 1,000,000 is all lent successfully at 5%, the margin would be 20,000 kip per month. If the committee receives 40% this is 8000 kip monthly.
The committee should discuss this with the members.
The committee might share the amount as follows:
A head 20%  
An accountant 30% and deputy accountant 15%  
Two loans officers 15% each  
Four advisers share 5% each

**Note on Inflation**

If inflation is serious the value of the money deposited (saved) and lent will fall over time. For example, with a depositor’s rate of 3% per month and inflation at 2% per month, the real interest received is only 1%. It must be remembered that many villagers were just ‘sitting on’ their money before the establishment of the S&L group. They were losing the total inflation rate then. Now at least depositors are gaining 3% per month or a little over 36% per year. An effective inflation rate at the village could be calculated from survey data. This will be different from the national rate. As well it will be variable in time, and of course, vary between villagers who buy different products in various proportions. The ‘inflation’ or ‘deflation’ rate of the main cash crops such as jobs tears and handicrafts affects the degree to which inflation of purchased goods impacts on the villagers.

Villagers need to discuss whether they feel the interest rates are sufficient, or too high if inflation has fallen. A short training session may be required. If villages wish to change the interest rates they can call a meeting of members, as outlined below. When inflation is close to or higher than the interest rate paid to depositors, value is effectively transferred to borrowers. If borrowers are on average poorer, as at least sometimes seems to be the case, then the better-off villagers are assisting the poorer villagers. This may be acceptable to the community.

**Periodic Reports to Government**

The committee must prepare a summary report for inspection by a government staff member every …. months. This should include summaries of the savings (deposit) account, loan account and if held, the bank account.

**Other Use of the Margin (Profit)**

The committee has the right to use a part of the margin to cover their necessary stationery and travel expenses. This should be done before the margin is calculated. The Committee can decide to set aside a percentage of the ‘margin’ for village development purposes (i.e. after the margin is calculated). Any amount decided here can be distributed after the committee has received its fee.

The margin remaining at the end of any agreed period, such as one year, can be lent out or distributed to members in proportion to the interest received on deposits. For example in the case of 3 members.
1. Received 10,000 kip in interest
2. Received 20,000 kip in interest
3. Received 20,000 kip in interest.

The percentage of total interest is 20%, 40% and 40%.
Thus if the margin remaining is 30,000 kip, 1. gets 6,000 kip and the other two get 12,000 kip each. The DAFO accountant might be asked to help with the calculations.

**In the Case of an Imminent or Actual Loss**

If defaulting is high with poor guarantees or very few loans are made and the fund is deposited in a bank account, a meeting of all members should be called to discuss the problems. A government adviser should be invited. Through discussion it may be possible to persuade defaulters to pay up or help them find the new income, or ‘restructure’ their loans, and think of new projects suitable for loans. It could also be agreed to accept a 2% or even 1% savings interest rate at the next transaction time, and until the problem is solved.

**Keeping and Inspecting Accounts**

- The accountant and his deputy have the responsibility to keep the accounts accurately.
- Three accounts may be kept: Cash on hand, Deposits and Loans. A Bank account may be opened.
- The members’ deposit or savings accounts will have interest entered and balanced after each deposit period.
- The committee head should inspect the accounts after each deposit period.
- Any member has the right to inspect any of the accounts after giving one day’s notice.
- District staff members including the DAFO extensionist and the DAFO accountant have the right to inspect the accounts after giving one day’s notice, if necessary.
- The district government may decide to audit the accounts at regular intervals. This is recommended.

**Changing Rules**

The committee will call a meeting of members when a majority of the committee believes that any of the agreed rules should be reviewed.

Any member or group of members of the S&L group can call a meeting of all members if they can obtain the signatures of at least…….(20) per cent of the members on a letter calling for a group meeting.

At regular meetings a specific opportunity will be given for anyone wishing to discuss the agreed rules. The rules can be changed with agreement of ……..(60) per cent of members present, as long as more than …….(50) per cent of members are present.

**Theft or Corruption**

Any committee member found stealing group money or taking bribes to support a loan will be expelled from the committee and savings and loan group and may be reported to the police at the discretion of the remaining committee. Any person found bribing a committee member to support a loan will be denied loans for at least ……(2) years.

The first version of the sustainability funds rules below is an ‘original’ agreed with the S&L committees of six villages in 1999. The second version is a modified one for this manual.
‘Sustainability Funds’: Rules for Use of LSFP Grant to Savings and Loan Groups, Luang Phabang

(This version is the Original agreed with S&L committees)

The Lao-Swedish Forestry Programme is proposing to make conditional grants to operating savings and loan (S&L) groups. The grant to be offered now is 500,000 kip. The conditions are as follows:

The S&L group has successfully completed at least one lending cycle.
The group makes a long-term (at least 3 years) interest free loan of about 10 per cent of its existing (main) fund to add to the grant of 500,000 kip to form a new ‘sustainability fund’
The new fund will be used to lend primarily for new or improved steep-land farming systems, but in the dry season when much less activity of this type is likely, other loan activities are possible. Anyone wanting a steep-land loan in the dry season, for say the establishment of a nursery must be given preference. The DAFO extensionist responsible for the village must be asked to approve all loans. Thus all loans for each season should be considered together at one time for each season.

1. The interest rate will be 2% for steep-land farming systems and 5% for loans for other projects in the dry season. Variation of these rates can be made only at the discretion of the DAFO extensionist.
2. The committee managing the main fund would also manage the sustainability fund.
3. The committee will have the right to use a part of the interest returned to the fund to pay for their stationery and travel expenses connected with the fund’s administration.
4. The committee will have the right to 50% of the interest as a monthly administration fee.
5. Remaining interest will be used to build the fund.
6. After 3 years the total amount in the sustainability fund can be combined with the main fund and lent out at any rate the members agree on, or it could be kept separate with the same or modified conditions at the members’ discretion.
7. The consideration of the loan applications (hearings) would be open to all members to listen.

Criteria for Lending from the Sustainability Fund

Notice of funds available for loan would be posted on the village notice board. After 3 days applications would be closed and considered. If possible the proposal should be submitted in writing on a standard form, but if not it should be written down by the committee on the form. Borrowers state in detail the design of their steep-land plot. Any borrower can ask the DAFO extensionist for advice or a short document on steep-land farming systems. The committee could ask the extensionist for more training for the village as a whole or for an interested group. The committee would discuss the applications (at hearings) and decide on the best proposal(s) to support for a loan, with the advice of the extensionist.
Special criteria for a 2% steep-land farming loan would be a farm design showing:
1. Planting, improvement or maintenance of a steep-land farming system which shows some improvement over standard shifting cultivation. Improved fallow is acceptable.
2. Concern for minimising erosion and/or soil loss
3. Concern for diversity in time and space
4. Concern to maintain soil structure and fertility
5. Loans up to one year could be OK for very good projects.

Special criteria for 5% dry season loan would be:
1. Some favouritism for poor families
2. A new idea in the village would be favoured

Some general criteria for both wet and dry season loans. The following conditions would get some preference:
1. The guarantee, or the reputation of the borrower and the family is good.
2. The whole family supported the borrowing, with signed permission from spouse, adult children and parents or other close relatives in household.
3. The form is clearly and fully filled out by the applicant
4. Women borrowers
5. A small loan
6. The borrower has a good repayment record
7. A borrower who agrees to repay a long-term loan regularly, not in a lump sum.
8. A group of borrowers could be favoured over an individual borrower. For a production group loan all members guarantee the loan together (joint liability).
9. A member would usually be favoured over a non-member.

All these criteria would be balanced together when choosing borrowers
When committee members are seeking a loan they must not participate in the discussion of their application.

If after 3 days of notice of funds available for loan is posted on the village notice board, insufficient loan applications are made, the committee will call a meeting of members to discuss possible projects for which a loan would be appropriate. If after a further 3 days still insufficient loan applications are received the money will be deposited in the bank, in a new account. In this case the next borrower or borrowers will be responsible for the travel costs (bus fare and a committee member’s time) to withdraw the money.

In the event that a 2% steep-land loan is not used in the agreed way, the borrower will pay a penalty. Either the borrower pays a higher interest rate from 5%-8% according to the degree of difference (transgression) or is barred from borrowing for a further 1-2 years, or both, at the committee’s and extensionist’s discretion.

The S&L committee can agree to these conditions by the head, the accountant and the most senior woman committee member signing below and returning the form to LSFP.

Village name………………………..……  Date………………
Head of S&L Group……………………………Accountant…………………………
Senior woman committee member……………………….
‘Sustainability Funds’: Rules for Use of LSFP Grant to Savings and Loan Groups, Luang Phabang
(This version was modified for this Manual)

Conditional grants have been made in LSFP to operating savings and loan (S&L) groups. The first grant offered was 500,000 kip per group. Further grants were made at the time of the second years steep land planting. The conditions are as follows:
The S&L group has successfully completed at least one lending cycle.
The group makes a long-term (at least 3 years) interest free loan of about 10 per cent of its existing (main) fund to add to the grant of 500,000 kip to form a new ‘sustainability fund’
The new fund will be used to lend primarily for new or improved steep-land farming systems, but in the dry season when much less activity of this type is likely, other loan activities are possible. Anyone wanting a steep-land loan in the dry season, for say the establishment of a nursery must be given preference. The DAFO extensionist responsible for the village must be asked to approve all loans. Thus all loans for each season should be considered together at one time for each season.

1. The interest rate will be about 2% for steep-land farming systems and about 5% for loans for other projects in the dry season. Variation of these rates can be made only at the discretion of the DAFO extensionist.
2. The committee managing the main fund would also manage the sustainability fund.
3. The committee will have the right to use a part of the interest returned to the fund to pay for their stationery and travel expenses connected with the fund’s administration.
4. The committee will have the right to 50% of the interest as a monthly administration fee.
5. Remaining interest will be used to build the fund.
6. After 3 years the total amount in the sustainability fund can be combined with the main fund and lent out at any rate the members agree on, or it could be kept separate with the same or modified conditions at the members’ discretion
7. The consideration of the loan applications (hearings) would be open to all members to listen.

Criteria for Lending from the Sustainability Fund

Notice of funds available for loan would be posted on the village notice board. After 3 days applications would be closed and considered. If possible the proposal should be submitted in writing on a standard form, but if not it should be written down by the committee on the form. Borrowers state in detail the design of their steep-land plot. Any borrower can ask the DAFO extensionist for advice or a short document on steep-land farming systems. The committee could ask the extensionist for more training for the village as a whole or for an interested group. The committee would discuss the applications (at hearings) and decide on the best proposal(s) to support for a loan, with the advice of the extensionist.
Special criteria for a 2% steep-land farming loan would be a farm design showing:
1. Planting, improvement or maintenance of a steep-land farming system which shows some improvement over standard shifting cultivation. Improved fallow is acceptable.
2. Concern for minimising erosion and/or soil loss
3. Concern for diversity in time and space
4. Concern to maintain soil quality
5. Loans up to one year could be OK for very good projects.

Special criteria for 5% dry season loan would be:
1. Some favouritism for poor families
2. A new idea in the village would be favoured
3. A tree nursery

Some general criteria for both wet and dry season loans. The following conditions would get some preference:
1. The guarantee, or the reputation of the borrower and the family is good.
2. The whole family supported the borrowing, with signed permission from spouse, adult children and parents or other close relatives in household.
3. The form is clearly and fully filled out by the applicant
4. Women borrowers
5. A small loan
6. The borrower has a good repayment record
7. A borrower who agrees to repay a long-term loan regularly, not in a lump sum.
8. A group of borrowers could be favoured over an individual borrower. For a production group loan all members guarantee the loan together (joint liability).
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In the event that a 2% steep-land loan is not used in the agreed way, the borrower will pay a penalty. Either the borrower pays a higher interest rate from 5%-8% according to the degree of difference (transgression) or is barred from borrowing for a further 1-2 years, or both, at the committee’s and extensionist’s discretion.

The S&L committee can agree to these conditions by the head, the accountant and the most senior woman committee member signing below and returning the form to LSFP.

Village name……………………… Date………………
Head of S&L Group…………………………Accountant…………………………
Senior woman committee member…………………………
## Formats for Savings and Loan Groups

**Cash Book (Combined for Main(M) and Sustainability Fund(S))**

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Input or Output</th>
<th>Fund</th>
<th>Transaction Type (Savings deposit or withdrawal, Principal out or in, Interest in, To or from bank, Donation in or out)</th>
<th>Input</th>
<th>Output</th>
<th>Cash on Hand</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-4-00</td>
<td>I</td>
<td>M</td>
<td>Deposit at Bank</td>
<td>40.000</td>
<td>400.400</td>
<td>440.400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5-00</td>
<td>Xang</td>
<td>I</td>
<td>M</td>
<td>Loan Principal and Interest repaid</td>
<td>50.000</td>
<td>450.400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-5-00</td>
<td>Boonpheng</td>
<td>I</td>
<td>M</td>
<td>Deposit by</td>
<td>10.000</td>
<td>460.000</td>
<td>450.400</td>
<td></td>
</tr>
<tr>
<td>31-5-00</td>
<td>Phinkaew</td>
<td>O</td>
<td>M</td>
<td>Borrowing</td>
<td>200.000</td>
<td>260.000</td>
<td>460.000</td>
<td></td>
</tr>
<tr>
<td>10-6-00</td>
<td>Lek</td>
<td>I</td>
<td>S</td>
<td>Principal repaid by</td>
<td>250,000</td>
<td>610.000</td>
<td>260.000</td>
<td></td>
</tr>
<tr>
<td>15-6-00</td>
<td>Sianuwong</td>
<td>I</td>
<td>S</td>
<td>Interest paid on loan</td>
<td>20,000</td>
<td>630.000</td>
<td>610.000</td>
<td></td>
</tr>
<tr>
<td>16-6-00</td>
<td>Bounmali</td>
<td>O</td>
<td>M</td>
<td>Borrowing</td>
<td>100,000</td>
<td>530.000</td>
<td>630.000</td>
<td></td>
</tr>
</tbody>
</table>

Note: The cash book is tentatively combined for the two funds. All cash that the committee receives or ‘gives’ out must be entered here first. This is a basic signed record. The person’s name is important, and whether it is coming in or going out. After that the fund involved and the reason for the input or output should be noted. Then the amount is entered and the balance calculated. Note that cash on hand does not show how much is held by each fund. The data must be entered into other tables to find this out. If this book is kept accurately then at any time if there is a dispute it can be solved by returning to here.
The next four formats are separated for savings and loans for the main fund.

The following format for savings accounts can be used both for the members savings booklet and the committees record in which a separate page is used for each member in a printed book. It is recommended as it is:

- clear,
- the Committee’s record is the same as the members savings ‘savings deposit book’,
- allows withdrawals and interest to be recorded in distinct columns,
- allows transactions on any day,
- allows a variable number of transactions between members, and
- requires both saver and committee member to sign for confidence.

Members savings books should be printed so a double page is half A4, stapled twice and given a strong cover with a good design.

A4 books of such formats for the committee should be produced, stapled at about four points, in the centre to reduce the chance of pages being lost. A list of members should be written on an introductory lined page or inside the front cover and the pages numbered so each member’s account can be found easily.
# Savings Account: Savings and Loan Group

Village…………………………………….. Member’s Name(s)…………………………………

<table>
<thead>
<tr>
<th>Date</th>
<th>Deposits</th>
<th>Withdrawals</th>
<th>Interest</th>
<th>Balance</th>
<th>Member’s signature</th>
<th>Committee member’s signature</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
Prospective borrowers should fill this form out, with help if necessary.

**Production Activity Loan Application**

<table>
<thead>
<tr>
<th>Village name:</th>
<th>Fund Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name(s) of borrower(s) (M, F)</td>
<td></td>
</tr>
<tr>
<td>Name of head of production group</td>
<td></td>
</tr>
<tr>
<td>Membership of S&amp;L group</td>
<td></td>
</tr>
<tr>
<td>Activity type</td>
<td></td>
</tr>
<tr>
<td>Amount of loan proposed</td>
<td></td>
</tr>
<tr>
<td>Total Time of loan proposed</td>
<td></td>
</tr>
<tr>
<td>First and last month of proposed loan period</td>
<td></td>
</tr>
<tr>
<td>Expected monthly rate of interest</td>
<td></td>
</tr>
<tr>
<td>Proposed payment of interest and repayment of principal</td>
<td>Date</td>
</tr>
<tr>
<td></td>
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<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Guarantee offered</td>
<td></td>
</tr>
<tr>
<td>Production activity details, Including new technology proposed</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>Aims of the activity</td>
<td></td>
</tr>
<tr>
<td>Responsibilities in group</td>
<td></td>
</tr>
<tr>
<td>Relevant skills and experience in group</td>
<td></td>
</tr>
<tr>
<td>Training proposed</td>
<td></td>
</tr>
<tr>
<td>Proposed source of Material resources</td>
<td></td>
</tr>
<tr>
<td>Approx. slope of land to be used</td>
<td></td>
</tr>
</tbody>
</table>

Signature of Borrower…………………………….  
Please write any further information on the back or attach firmly to this sheet
The S&L committee should fill this out based on information in the last form.

**Loan Form**

<table>
<thead>
<tr>
<th>Village name:</th>
<th>Fund Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Name(s) of borrower(s) (M, F)</th>
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<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Name of head of production group</th>
<th></th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Membership of S&amp;L group</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Date loan made</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Amount of loan</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Interest rate per month</th>
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<table>
<thead>
<tr>
<th>Penalty rate for late payment or other serious deviation</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Period of loan</th>
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<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Agreement on payment of interest and repayment of principal</th>
<th>Date</th>
<th>Interest</th>
<th>Principal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<th>Total</th>
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<table>
<thead>
<tr>
<th>Guarantee</th>
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<table>
<thead>
<tr>
<th>Activity type</th>
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<table>
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<tr>
<th>Location</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Other factors influencing the decision to loan</th>
<th></th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Signature of Borrower……………………………</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Signature of Committee Member…………………………</th>
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<tbody>
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</table>

**Actual Repayments Made**

<table>
<thead>
<tr>
<th>Date Payment Due</th>
<th>Date payment made</th>
<th>Interest</th>
<th>Principal</th>
<th>Amount Outstanding</th>
<th>Signature of Borrower</th>
<th>Signature of Committee Member</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

72
# Loan Form Example

<table>
<thead>
<tr>
<th>Village name:</th>
<th>Thinkaew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name(s) of borrower(s) (M, F)</td>
<td>Pheng, Boun, Jan, Thong</td>
</tr>
<tr>
<td>Name of head of production group</td>
<td>Jan</td>
</tr>
<tr>
<td>Membership of S&amp;L group</td>
<td>Yes</td>
</tr>
<tr>
<td>Date loan made</td>
<td>1/11/2000</td>
</tr>
<tr>
<td>Amount of loan</td>
<td>100,000 kip</td>
</tr>
<tr>
<td>Interest rate per month</td>
<td>5%</td>
</tr>
<tr>
<td>Penalty rate for late repayment or other serious deviation</td>
<td>8%</td>
</tr>
<tr>
<td>Period of loan</td>
<td>4 months</td>
</tr>
<tr>
<td>Agreement on payment of interest and repayment of principal</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Interest</td>
</tr>
<tr>
<td>1-1-2000</td>
<td>10,000</td>
</tr>
<tr>
<td>1-3-2000</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Guarantee</td>
<td>Joint group guarantee</td>
</tr>
<tr>
<td>Activity type</td>
<td>Alley cropping using alternate rows of katin and vetivia grass dividing rice fields with banana, lime, oranges and paper mulberry.</td>
</tr>
<tr>
<td>Location</td>
<td>2 kilometres west of village and 500 metres east of village</td>
</tr>
<tr>
<td>Other factors influencing the decision to loan</td>
<td>Family is honest and hard working Leader repaid first loan on time Group led by woman</td>
</tr>
</tbody>
</table>

Signature of Borrower………………………………

Signature of Committee Member…………………………

## Actual Repayments Made

<table>
<thead>
<tr>
<th>Date Payment Due</th>
<th>Date payment made</th>
<th>Interest</th>
<th>Principal</th>
<th>Amount Outstanding</th>
<th>Signature of Borrower</th>
<th>Signature of Committee Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1-2000</td>
<td>3-1-2000</td>
<td>10,000</td>
<td>50,000</td>
<td>50,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3-2000</td>
<td>1-3-2000</td>
<td>5,000</td>
<td>20,000</td>
<td>30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-4-2000</td>
<td>1-4-2000</td>
<td>2,400</td>
<td>30,000</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Production Activity Loan Application for Sustainability Fund**

**Village name:**

<table>
<thead>
<tr>
<th>Name(s) of borrower(s) (M, F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of head of production group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Membership of S&amp;L group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of loan proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Time of loan proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First and last month of proposed loan period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected monthly rate of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed payment of interest and repayment of principal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guarantee offered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production activity details, Including new technology proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aims of the activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsibilities in group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relevant skills and experience in group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed source of Material resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approx. slope of land to be used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Signature of Borrower……………………………..

Please write any further information on the back or attach firmly to this sheet
Example Calculation of Change of Margin with set up of Sustainability Fund

Under the new arrangement the main funds margin would be increased. All members would have the right to borrow at 2% to plant steep-land farming systems and at 5% for dry season activities. Below is a simple example calculation of how the establishment of this new fund could affect the fund’s margins. The depositor’s accounts including interest at 3% would be as before.

If the total in the existing fund is 1,000,000 kip, and if depositors interest is 3 % and loans are all made at 5% without default, the margin of the main fund is reduced by 30,000 kip per year. When the sustainability fund loans are made at 2% for 7 months the ‘margin’ of the sustainability fund is 31,500 kip. When the funds are loaned in the dry season for 5 months at 5% the ‘margin’ is 67,500 kip. The increase in the total margin is 69,000 kip. The calculation is made below:

### Main Fund Margin

<table>
<thead>
<tr>
<th></th>
<th>1,000,000</th>
<th>900,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main fund totals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly interest at 5% received on loans from two different fund totals</td>
<td>50,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Monthly interest at 3% for depositors remains constant</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Expenses</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Monthly interim margin</td>
<td>15,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Committee fee, perhaps 50% of interim margin</td>
<td>7,500</td>
<td>5,000</td>
</tr>
<tr>
<td>Margin</td>
<td>7,500</td>
<td>5,000</td>
</tr>
<tr>
<td>Margin for 12 months</td>
<td>90,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Reduction in margin:</td>
<td>30,000</td>
<td></td>
</tr>
</tbody>
</table>

### Sustainable Fund Margin for Steep-land Loans

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund total</td>
<td>600,000</td>
</tr>
<tr>
<td>Monthly interest at 2% received from loans</td>
<td>12,000</td>
</tr>
<tr>
<td>Expenses</td>
<td>3,000</td>
</tr>
<tr>
<td>Monthly ‘interim margin’</td>
<td>9,000</td>
</tr>
<tr>
<td>Committee fee, perhaps 50% of margin</td>
<td>4,500</td>
</tr>
<tr>
<td>‘Margin’</td>
<td>4,500</td>
</tr>
<tr>
<td>‘Margin’ for 7 months</td>
<td>31,500</td>
</tr>
</tbody>
</table>

### Sustainable Fund Margin in Dry Season

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund total</td>
<td>600,000</td>
</tr>
<tr>
<td>Monthly interest at 5% received from loans</td>
<td>30,000</td>
</tr>
<tr>
<td>Expenses</td>
<td>3,000</td>
</tr>
<tr>
<td>Monthly ‘interim margin’</td>
<td>27,000</td>
</tr>
<tr>
<td>Committee fee, perhaps 50% of margin</td>
<td>13,500</td>
</tr>
<tr>
<td>‘Margin’</td>
<td>13,500</td>
</tr>
<tr>
<td>‘Margin’ for 5 months</td>
<td>67,500</td>
</tr>
</tbody>
</table>

### Totals

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ‘margin’ for Sustainability Fund from two seasons</td>
<td>99,000</td>
</tr>
<tr>
<td>Increase in margin</td>
<td>69,000</td>
</tr>
</tbody>
</table>
Summaries Main Fund

These tables are to be filled in periodically by the S&L group accountant. At first it is suggested they be done monthly then later at longer intervals if desired. Examples are included here. Note some of the amounts are arbitrary and other copied or calculated, sometimes based on assumptions. After training offered to the committee and reviewing the nature and value of these summary account tables with S&L members they should be printed in book form.

**Main Fund Savings Account**

Interest 3 % per month

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Period</th>
<th>Total balance at end beginning of period</th>
<th>Total deposits during period</th>
<th>Total withdrawals during period</th>
<th>Total interest on savings due during period</th>
<th>Balance at end of period</th>
<th>Progressive total interest on savings</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-3-00</td>
<td>March</td>
<td>2.300.400</td>
<td></td>
<td></td>
<td></td>
<td>2.300.400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-4-00</td>
<td>April</td>
<td>2.300.400</td>
<td>55.000</td>
<td>20.000</td>
<td>69.012</td>
<td>2.404.412</td>
<td>300.000</td>
<td></td>
</tr>
<tr>
<td>31-5-00</td>
<td>May</td>
<td>2.404.412</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Calculate interest on balance of previous period.

**Main Fund Loans Account**

Interest rates 5% and 8% per month

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Total principal outstanding at beginning of period</th>
<th>Total loans made during period</th>
<th>Total principal repaid during period</th>
<th>Total interest paid during period</th>
<th>Total principal outstanding at end of period</th>
<th>Total interest outstanding at end of period</th>
<th>Progressive Total Interest Paid and Due</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-4-00</td>
<td>1.800.000</td>
<td>300.000</td>
<td>1.200.000</td>
<td>80.000</td>
<td>900.000</td>
<td>10.000</td>
<td>500.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>230.040 to sus fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Outstanding includes interest expected whether or not overdue.
Progressive total interest paid and due is needed to calculate total amount in fund (see table below)
Main Fund Loans Account (Alternative Format)
Interest rates 5% and 8% per month

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>March</td>
<td>April</td>
</tr>
<tr>
<td>Total principal outstanding at beginning of period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total loans made during period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total principal repaid during period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total interest paid during period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total principal outstanding at end of period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total interest outstanding at end of period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progressive Total Interest Paid and Due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overdue Loans, Main Fund

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Period</th>
<th>Total principal and interest overdue for more than a certain number of months at end of period</th>
<th>Written off</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Period</th>
<th>Principal</th>
<th>Interest</th>
<th>Principal</th>
<th>Interest</th>
<th>Principal</th>
<th>Interest</th>
<th>Principal</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-4-00</td>
<td>April</td>
<td>200.000</td>
<td>10.000</td>
<td>100.000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: ‘Written off’ means the committee does not expect that the fund will ever receive this money.

Main Fund Bank Account

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Period</th>
<th>Balance at beginning of period</th>
<th>Total deposits</th>
<th>Total withdrawals</th>
<th>Total interest</th>
<th>Total fees and charges</th>
<th>Balance at end of period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Period</th>
<th>Balance at beginning of period</th>
<th>Total deposits</th>
<th>Total withdrawals</th>
<th>Total interest</th>
<th>Total fees and charges</th>
<th>Balance at end of period</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-4-00</td>
<td>April</td>
<td>100.000</td>
<td>40.000</td>
<td>30.000</td>
<td>-</td>
<td>10.000</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Note: If the balance rises to a high figure, the committee could call a meeting of members to discuss loan ideas.
# Cash Flow for Main Fund

<table>
<thead>
<tr>
<th>Period</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALANCE AT BEGINNING</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OF PERIOD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>55,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal returned</td>
<td>1,200,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest paid</td>
<td>80,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inputs from bank</td>
<td>30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donations received</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL CASH INPUTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawals</td>
<td>20,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans made</td>
<td>300,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outputs to bank</td>
<td>40,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Committee’s expenses</td>
<td>20,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Committee’s fees</td>
<td>5,494</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donations made</td>
<td>10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL CASH OUTPUTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BALANCE AT END OF PERIOD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The amounts here are ONLY cash. No book entries, expectations or hopes.

## Main Fund Margin During Period
(Used for Calculating the Committee’s Fee)

<table>
<thead>
<tr>
<th>Period</th>
<th>Comment</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total interest paid by borrowers</td>
<td>(cash)</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>2. Total bank interest</td>
<td>(book entry)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Total interest received</td>
<td>(1+2)</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>4. Total interest due to depositors</td>
<td>(book entry)</td>
<td>69,012</td>
<td></td>
</tr>
<tr>
<td>5. Margin during period</td>
<td>(3-4)</td>
<td>10,988</td>
<td></td>
</tr>
<tr>
<td>6. Percentage due to committee</td>
<td>(members agreed)</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>7. Amount due to committee</td>
<td>(5x6)</td>
<td>5,494</td>
<td></td>
</tr>
<tr>
<td>Progressive total fees paid to the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>committee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progressive Total Expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: If the members and committee are diligent and actual interest paid follows loan plans, the committees margin is higher each month.
### Donations Register for Main Fund and Sustainability Fund

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Period</th>
<th>Donations received during the period</th>
<th>Donations made during the period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Source and type of donation in</td>
<td>Amount</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Source and type of donation out</td>
<td>Amount</td>
</tr>
<tr>
<td>30-4-00</td>
<td>April</td>
<td>LSFP grant for Sustainability Fund</td>
<td>700.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(used to buy seedlings)</td>
<td></td>
</tr>
<tr>
<td>20-5-00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Donation to Village Committee for Wood for Notice Board</td>
<td>100.000</td>
</tr>
<tr>
<td>15-6-00</td>
<td></td>
<td>Donation from visiting study group</td>
<td>80.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### (Progressive )Total Amount in Main Fund

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings Balance</td>
<td>2,404,412</td>
<td></td>
</tr>
<tr>
<td>Progressive total interest paid and due by Borrowers</td>
<td>500,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL INPUTS</td>
<td>2,904,412</td>
<td></td>
</tr>
<tr>
<td>Progressive total loans to Sustainability Fund</td>
<td>230,040</td>
<td></td>
</tr>
<tr>
<td>Progressive Total of Committee’s Expenses and Fees</td>
<td>65,000</td>
<td></td>
</tr>
<tr>
<td>Progressive Total Loans Written Off</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Progressive interest paid on savings</td>
<td>300,000</td>
<td></td>
</tr>
<tr>
<td>Donations made</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL OUTPUTS</td>
<td>605,040</td>
<td></td>
</tr>
<tr>
<td>TOTAL IN FUND</td>
<td>2,299,372</td>
<td></td>
</tr>
</tbody>
</table>

Note: This total amount in main fund includes cash, book entries and expectations.
## Sustainability Fund Summary Accounts

### Major Input and Output Register for Sustainability Fund

<table>
<thead>
<tr>
<th>Date</th>
<th>Source</th>
<th>Amount</th>
<th>Destination</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4-00</td>
<td>LSFP grant</td>
<td>500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-4-00</td>
<td>10% transfer</td>
<td>230,040</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Sustainability Fund Loans Account

Interest rate 1-2% per month

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Total principal outstanding at beginning of period</th>
<th>Total loans made during period</th>
<th>Total principal repaid during period</th>
<th>Total interest paid during period</th>
<th>Total principal outstanding at end of period</th>
<th>Total interest outstanding at end of period</th>
<th>Progressive total Interest Paid and Due</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-4-00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: An alternative format as for the main fund could be set up.

### Overdue Loans, Sustainability Fund

<table>
<thead>
<tr>
<th>Date at end of period</th>
<th>Period</th>
<th>Total principal and interest overdue for more than a certain number of months at end of period</th>
<th>Written off</th>
</tr>
</thead>
<tbody>
<tr>
<td>All overdue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overdue more than 3 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overdue more than 6 months</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Principal</th>
<th>Interest</th>
<th>Principal</th>
<th>Interest</th>
<th>Principal</th>
<th>Interest</th>
<th>Principal</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-4-00</td>
<td>April</td>
<td>200,000</td>
<td>10,000</td>
<td>100,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
### Cash Flow for Sustainability Fund

<table>
<thead>
<tr>
<th>Period</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BALANCE AT BEGINNING OF PERIOD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants received</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers from Main Fund</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal returned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest paid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL CASH INPUTS**

|              |       |       |     |
| Loans made    |       |       |     |
| Committee’s Expenses |       |       |     |
| ?Committee’s Fee |       |       |     |

**TOTAL CASH OUTPUTS**

|                         |       |       |     |
| BALANCE AT END OF PERIOD |       |       |     |

### Sustainability Fund ‘Margin’ During Period

(Used for Calculating the Committee’s Fee)

THIS NEEDS TO BE DISCUSSED

<table>
<thead>
<tr>
<th>Period</th>
<th>Comment</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total interest received</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Percentage due to committee**

(members agreed)

**Amount due to committee**

Note: This is not really a margin as there are no members deposits
### (Progressive) Total Amount in Sustainability Fund

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressive total grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progressive total transferred from main fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progressive total interest paid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### TOTAL INPUTS

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressive total loans written off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progressive committee's expenses and fees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### TOTAL OUTPUTS

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PERIOD</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL IN FUND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Summary of Accounts and Registers

<table>
<thead>
<tr>
<th>At end of Period</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN FUND</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Amount in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings Balance</td>
<td>2.404.400</td>
<td></td>
</tr>
<tr>
<td>Principal Outstanding</td>
<td>900.000</td>
<td></td>
</tr>
<tr>
<td>Principal Overdue</td>
<td>200.000</td>
<td></td>
</tr>
<tr>
<td>Cash on Hand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Account</td>
<td>100.000</td>
<td></td>
</tr>
</tbody>
</table>

| **SUSTAINABILITY FUND** |       |     |
| Total Amount in         | 730.040 |     |
| Principal Outstanding   |       |     |
| Principal Overdue       |       |     |
Later Steps in More Detail

Ideas to use in Various Farming Training

**Guidelines on Contour Definition**

1. If contour farming such as alley cropping is desired by farmers plan a day to train them in contour definition.
2. Prepare A-frame or plastic hose to define contour lines.
3. Make an appointment with the group leader to run a demonstration contouring day.
4. With the group, select one or two farming families on whose plots to conduct the demonstration. These should be close to and within *sight* of the road if at all possible.
5. Conduct training contouring with the chosen farmers (female and male) while encouraging the others in the group not only to look on and discuss, but physically help.

**Establishing New Trees and Other Crops on Sloping Land**

** Obtaining Tree Seedlings**

1. Contact nurseries to discuss likely needs and costs as soon as initial impressions of villager interest in species, varieties and seedling numbers is known. Try to obtain the best varieties for the conditions. Chose varieties that seem to be more disease resistant.
2. Visit the most promising close by nursery to inspect and discuss processes, stock, project needs, and prices.
3. Inform villagers at the next appropriate opportunity of the likely species and varieties available. Firm up the number of each type required.
4. When choosing seedlings if possible reject poorly grown, or diseased seedlings with highly twisted and bent roots, in so far as this can be seen. Roots will become too twisted and bent if in a tube for too long.
5. Pack seedlings in one layer in boxes for transport by truck.
6. Water well and keep in shade on arriving.
7. Harden off seedlings before planting Gradually reduce watering and shade in two weeks before planting.
8. Carry seedling carefully to the field.

**Guidelines on Organizing Field Planting**

1. Make sure planting material is available and hardened off.
2. Make an appointment with the group leader to run a demonstration planting day. Groups from more than one village could be combined.
3. Conduct training plantings with the two farm families where contours have been defined if these are required.
4. Encouraging the others in the group to look on, discuss and physically help.
5. The DAFO facilitator can assist say two farmers. The others in the group can learn then go to plant on their own fields.
6. Encourage the women to participate. If women don’t attend ask the men to invite their wives. Conversely too.
7. Farmers with road in-sight fields with demonstrations should be given special assistance to try as many ideas as possible. Partial grant funding for farmers within sight of the road could be greater than for others. If necessary for action, some or all planting materials should be given to in-sight demonstration farmers.

**Hedgerow Planting**

Leguminous seed may need to be treated prior to planting. Soak in 75 degree water for a minute then add cold water and soak overnight. Sow less than 2 cm deep. Could add a little phosphate.

Leguminous shrub species such as Crotalaria (probably not Leucaena as it is not adapted to acid soils) should be planted in two close rows along the contour about 3 or 4 metres apart vertically. The spacing can vary according to the aim of the hedges. If it is to control soil loss down slope then steep slopes require closer spacing. If it is to provide mulch and humus to the alleys than poor soils require close spacing. If other techniques are contributing to either of these aims, then spacing might be increased. If only one row of legumes is used the spacing should be less. Hedges have their negative as well as positive effects. They take up room for food or exchange crops. Over time if other crops serve the purpose of the hedges, they can be removed. They may in any case whither if shaded out by trees.

Hedges should be pruned before seed is shed in about January. Seed can be harvested and used or sold. The prunings are placed between the hedges for mulch and humus and/or along the hedges for soil loss management. Leafy material can be separated from stalks, using the leaves for mulch/humus and the stalks for early soil loss control. Later the stalks might be used for fuel.

**Tree Planting**

1. Arrange tree planting sites along the contour with sufficient spacing that the branches of adult trees just touch.
2. If two or more rows are to be placed one immediately above the other, site the trees alternately so that the trees of the two or more rows form *equilateral triangles*. This is better for efficient use of space and better for erosion control. As trees are planted along contours, whether independent of, or along and/or between hedgerows, the space will become too slight if the land becomes much steeper so one row of trees will have to be forgone, or pruned or cut out when it gets too big.
3. Weed around planting areas after first rains several weeks before planting. Remove roots of perennial weeds where possible.
4. Dig holes 60 cm x 60 cm x 60 cm especially if the sub-soil if hard and rocky, and if farmers have a lot of rich soil and organic matter to place in the hole
5. Place top soil up slope
6. Place sub-soil down slope. That which is not returned to hole place in arc around the lower side of hole.
7. Return soil to holes while mixing at least a bucket of organic rich material, preferably dried dung or compost, organic rich soil from the flats and decayed litter or humus, but not straw. Place a higher concentration of rich organic matter near the bottom on the hole.
8. Include organic fertiliser if available and recommended by specialists, 0.5 kg per tree, placed mainly near the base of the hole about 1-2 weeks before planting.
9. Consider a teaspoon-full of Furadan-R for incorporation into the hole before planting to guard against ants and termites.
10. Plant seedlings by forming a small hole, then slitting tube carefully. Generally plant to same depth as they were in the tube. Mound up soil a little so top of roots a few centimetres above the level of the natural soil level. Grafted and budded trees should be planted with the graft/bud union at least 10 cm above the ground to prevent suckering from the scion and reduce infection of the union with diseases. Firm up soil around the seedling.
11. Place a firm stake and tie seedling with wide strip of plastic, cloth or rubber.
12. Put litter, including straw, around the seedling as a mulch about 10 cm thick, but keep free from the stem for about 10 cm.
13. Make protecting fence around seedling
14. Water a little if rains not expected that day.

**Soil Structure and Plant Nutrients**

It is important that top soil (A horizon) with a high level of organic matter should be maintained so as to enable infiltration of rainwater. If the top soil is lost by erosion the subsoil (B horizon) which is more clayey and less permeable will not let enough of the rainfall enter. Thus the water will runoff down slope and erode the soil further. A soil high in organic matter not only allows infiltration, but tends to store the water to some extent. Soil permeability is also important for air infiltration to the soil. Organic matter also encourages fungi that bind soil particles together. Moreover a layer of litter and vegetative cover is needed to break the impact of rainfall. Grains of exposed soil are easily dislodged and thus transported down slope. Moreover organic matter stores much of the plant nutrient matter in the soil. It is the fallow in shifting cultivation that restores the organic matter layer to the soil. Thus in permanent agriculture it is important that methods are used which generate and maintain this material.

Tree roots are particularly important to stabilize soils at depth and stop landslides on steep slopes. Any field of shallow rooted crops should be accompanied by tree rows along the contours every five metres or so. If crowns are large this distance will have to be greater. In fact it is doubtful whether crops such as pineapples that are shallow rooted and have become popular in 2000 are a long term option in their present near mono-species form on steep slopes. Pineapples should be grown on the lesser slopes if large areas are desired. They are good at reducing erosion when planted closely along contours but their roots are all shallow and so have no impact on potential slide planes at depth.

All plant nutrients except nitrogen come from rock weathering or are added by animals or humans. Nitrogen is ‘fixed’ from the atmosphere. Nutrients are lost by erosion, leaching and removal of crop products and other parts of crops by farmers or possibly animals. Nutrient deficiencies can be recognised mainly by different leaf colouring. The so called primary nutrients, because of the large amounts required, are nitrogen, phosphorus and potassium.
Nitrogen deficiency shows as a leaf yellowing and especially on the veins. It should be supplied and replenished by growing leguminous cover crops. Very dark green leaves indicate a phosphorus deficiency. This as other deficiencies can be rectified to some extent by digging in dried manure from the farm. This should be applied within a few weeks of ‘dropping’. Yellow mottling illustrates a potassium deficiency. Potassium is derived quickly from burning organic matter as in traditional shifting cultivation, so home fire ashes could be used as a start. Excess amounts of some elements, such as aluminium that tends to be dissolved in acid soils, can cause toxicity and may have similar symptoms to phosphorus deficiency.

It may be possible for some farmers to raise poultry such as chickens in a fenced ‘orchard’ area on the slope, so more rapidly recycling nutrients in the process.

If nitrogen is required over that supplied by legumes, it is required during major growth periods. The amount of potassium needed is higher at maturity or during fruit production so potassium sources should be spread then.

Chemical fertiliser in the right proportions of NPK can also supply plant needs, but at a cash cost. Many other elements can be deficient. When a group of farmers have a viable sloping land farm they should be trained in the other signs to watch for and ways of overcoming them. Eventually soil samples from a sample village could be sent to Vientiane for analysis.

Some fertilisers are easily leached and so should not be spread in large amounts. Others, particularly rock phosphates are slower release and so do not need to be spread so often. Slope soils tend to be acid so fertilisers that tend to reduce acidity are best. Dolomite is slow release, supplies calcium and magnesium and reduces acidity. Ground rock phosphate rock is recommended for tropical acid soils as it dissolves slowly and thus is not fixed rapidly.

Apply any fertiliser in a circular area around the trees in the weeded area up to one metre diameter and following the area under the crown as it grows out. Small amounts might be placed in the hole mainly towards the bottom. Do not apply any additional fertiliser until first flush of growth 1-2 months after planting. First application should be only 30-40 kg.

**Inter-crops, Cover Crops, Weeding and other Maintenance**

Inter-crops or cover crops can be grown for cash, home use, managing soil erosion or maintaining soil fertility, by increasing nitrogen and other nutrients and organic matter. Most such crops are annuals but may have longer growing periods. Especially if legumes are not grown in the first year they should be rotated with legumes. Soil fertility will drop if special practices are not followed.

Leguminous low cover crops and inter-crops are best planted in continuous strips along the contour but in a thinner strip near the tree to reduce competition. Cover crops are especially worthwhile on poor soils. Where possible it best to rotate cover crops to reduce disease and pests. Legume seed should be treated (inoculated) with Rhizobium bacteria before planting. Look for large volumes of pink to red nodules on the legume roots indicating high levels of nitrogen fixation. Cover crops will soon be shaded out by growing tree crowns. Leguminous crops may also increase other nutrients such as P, K, Mg.
## Record of Sloping Land Plantings in Village

<table>
<thead>
<tr>
<th>Village Name</th>
<th>District:</th>
<th>Province:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Date work started
- Date contouring demonstrated
- Date planting demonstrated
- Map type attached
- Farming Systems planted

<table>
<thead>
<tr>
<th>Group leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Names of farmers in each group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crops planted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key cultivation methods recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Names of farmers where special assistance is given</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff assisting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date and donation for Sustainability Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
**Record of Sloping Land Plantings for Each Farmer**
Farmers should be shown how to fill out these forms themselves.

<table>
<thead>
<tr>
<th>Name of Village:</th>
<th>Name of Farmers -Wife:</th>
<th>Husband:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Single person:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Slope range (approx)</th>
<th>Aspects (direction of slope)</th>
<th>Crops planted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additions to soil</th>
<th>Key cultivation methods used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost of inputs</th>
<th>Subsidies from LSFP directly to farmer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Loans from S&amp;L (amount and terms)</th>
<th>Farmers previous experience in this area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Slash weeding is better than clean weeding except immediately around the tree, or if planting cover crops or inter-crops and mulching. Weed at least twice in the wet season. However slash weeding will encourage dominance by grasses so some hoeing of grasses is suggested together with slashing. However on steep slopes a contour strip of grass may be needed to control soil loss down slope especially when trees are young. Weed the area up to half a metre from seedlings increasing the area to follow the crown out as it expands. Do not hoe deeply and do not move soil outwards. Keep the natural land level.

When the tree canopy develops farmers could consider planting shade tolerant crops, possibly shrubs, and leguminous ones such as Crotalaria if not already, or perhaps even if, planted as hedges along contours.

Diverse multi-story gardens make use of the fact that 20 percent of normal sunlight is adequate for maximum growth rate. So the plants at low levels receiving this amount of sunlight can still grow at optimum rates.

Branches, leaves and fruits that appear diseased should be removed.
Training in recognition of pests and manual for pest management by weekly inspection should be done in the second year.
Consideration of pollination cultivars for some crops such as tamarind will be necessary. A fire-break should be cut between the tree garden and any fallow to be burned.
Guidelines on Notice Boards

Notice boards should be erected on the road and at the plot for the key early sites in each district.

The notice board at the road side is probably best set up perpendicular to the road and painted on both sides. This is easier to read than a notice parallel to the road, and painted on one side, unless set back and in very large letters. The key information of value to farmers passing should be in large letters. This would include the type of farming system. The crops might be visible and would not have to be on the roadside notice. If the crops cannot be seen, some listing might be worthwhile, but in large letters. The names of the funders and the government agency responsible can be in smaller letters. This is of much less significance to farmers.

The notice at the plot should have more agricultural detail and can be in much smaller letters.

A village notice board should also be erected especially for informing villagers of
1. funds available for loans
2. urban market prices

Monitoring

What is monitoring?
Monitoring is the collection of indicator data and farmers views about their work. Indicators should be at least roughly measurable, e.g.
- number of training days at NTC
- number of women leading groups
- number of families trying to control erosion and soil loss,
- soil loss from standard plots,
- annual yield of plots

Farmers views can be obtained by informal discussion with the production groups.

As far as possible indicators should measure something important. Time can be wasted measuring trivial indicators.

Why monitor?
1. Find and solve problems as they occur.
2. To carry out a major evaluation and a programme improvement.

Monitoring is only useful in so far as it leads to some sort of evaluation and action to improve the programme.
What is Evaluation?
Evaluation is the use of monitoring and other survey data to report on the costs and benefits of an activity, component or programme. The outputs and outcomes can be compared with the aims. Costs and benefits can be ‘social’, ‘economic’, environmental and in other categories. Evaluation may be periodic following each monitoring round, or at the end of a phase, project or programme.

Monitoring is not Inspection

Inspection implies a penalty such as fine if the rules have not been followed.

Monitoring and monitoring must be done by different teams.

Monitoring is just data collection without penalty for poor results

‘Control Villages’

We should compare target villages and non-target villages. The non-target villages should have as few other projects as possible. These are called ‘control villages’. Why should we study these? So that we know whether progress in non-target villages is similar to that in target villages or not. If progress is similar then we know that our project/programme results would have happened anyway due to a variety of new influences. We need to re-examine our methods. But one control village may be all that can be done, just so the concept is demonstrated.

Base line data

Baseline indicators should not be a different set from what is measured later. A socio-economic questionnaire survey should be carried out in all villages. The first time this was carried out it provides a type of base line data. As a project often starts a new activity, the first time this is measured is also a type of baseline.

Subjective Monitoring

Groups of villagers, either existing production groups or other groups can be interviewed as a group to get their views on progress. These are sometimes called focus groups. This has the advantage of stimulating discussion and new ideas, but it must be remembered that group leaders tend to dominate and others will be unlikely to contradict them.

Types of Indicator

It is suggested that monitoring should include three types of indicators, at least two of which have two sub-types:
1. Government institutional
   A. input (resource) indicators (staff and staff training, finance, equipment and materials)
   B. staff action at lower level of settlement hierarchy
2. Village level or ‘intermediate’ or output indicators
   A. Villager activity in village
   B. Village institutional progress
3. Outcome, impact or achievement indicators.

Types one and two are also called process indicators by some, but this assumes that the ‘outcomes’ are not part of an ongoing stream of causes also. Base line data could be of all three types.

Governmental institutional indicators can be seen as two types.
A. Input (resource) indicators are those which show progress in management and staff training, the use of equipment and materials procured, eg an indicator of organisational capability.
B. Staff action in lower levels of the settlement hierarchy i.e. when provincial staff work at the district and village level, and district staff work at the village level. This is hopefully a step further than A type.

Village level or output indicators are those which illustrate the combined effect of government work levels in villages and village leadership, and enthusiasm, such as the number of villagers joining groups. This is the first stage in results from activity, the first steps towards a really useful outcome. They are intermediate between staff indicators such as training and villager capability and achievements in the fields. These village outputs could be divided into two levels:
A. those which show merely the existence of an activity, such as the number of groups formed, and
B. some ‘village level institutional’ progress, such as the number of loans repaid to a savings and loan group.
Each type of indicator is showing some further progress towards useful outcomes.

The outcome indicators are short-term or potentially long-term: those that show a strong prospect of long term benefits for villagers, e.g. contour planting using Vetiva grass. They only point in this direction. They cannot prove long term effects at an early stage. An evaluation would need to investigate not only short term benefits such as immediate production, but evidence of probable sustainability, such as evidence that soil fertility is being enhanced and villager understanding of finance and markets is increasing.

Good Indicators are Often Hard to Measure

In general the more meaningful an indicator the harder it is to measure. For example, it is easy to measure the number of times staff simply do a clearly defined action, but very hard to measure the prospect of sustainability. We must put some effort into the latter. Some indicators could involve considerable interviewing and observation. It may be useful to start with a wide range of indicators, some of which could be dropped over time. Alternatively we could start with the easier indicators and progress to more difficult ones as experience is gained. This limits the amount of the base line data, but accepts the learning process that is part of model development.

Actual long-term benefits will need another evaluation effort in the future. Evaluation might be the responsibility of the Provincial Extension Officer, backed up and monitored by a special central team.
Some Issues in Monitoring

♦ Care should be taken to measure the number and type of indicators which is cost-effective.
♦ Is monitoring using indicators properly called top down? Could it be merely an objective scientific process in which the villagers participate by giving answers and learning much in the process? Focus groups for subjective monitoring are complementary rather than an alternative method.
♦ Care should be taken to balance the effort put into monitoring in various project components and the action that might be monitored in those components.
♦ Indicators need to be appropriate for the component. Each component should be involved in determining those indicators. It may be difficult to standardize the indicators for a multi-component project or programme. You need to know what is happening or likely to happen in villages before you can decide on the best indicators for villages.
♦ To get the most from monitoring requires an appropriate attitude: open-mindedness
♦ Institutional progress might be monitored at all levels of the hierarchy.

Examples of Indicators

Examples of Staff Training Indicators

- Days of Training for DAFO staff at NTC
- Days of training for DAFO staff at NTC specifically relevant to work
- Number of staff who feel they are competent to carry out the SLEF model

Examples of Staff Action Indicators

- Hours the Chief of the Extension Unit Visits villages
- Hours Provincial Extension Officer visits DAFO or field
- Hours extension staff member spends in village
- Number of hours DAFO staff spend formally training villagers

Examples of Villager Training Indicators

- Number of formal awareness raising and training hours (days) given to villagers
- Number of study tour hours (days) arranged for villagers
- Number of informal training hours (days) given to villagers

Training Events for Villagers:
Name of Village:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Trainers</th>
<th>Type of Training</th>
<th>Trainees</th>
<th>Location</th>
<th>Date</th>
<th>Number attending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>


### Examples of Village Level Indicators

#### Savings and Loan Groups

**A. Villager Activity**
- Number of members in savings and loan groups
- Number of women in S&L groups
- Total savings received by S&L groups

**B. Village Institutional Progress**
- Total repayments to S&L groups

#### Production Groups

**A. Villager Activity**
- Number of production groups
- Number of production groups led by women
- Number of members of production groups
- Number of production plans written
- Number of production plans passed

**B. Village Institutional Progress**
- Number of members of production groups started activity
- Number of members of production groups started activity with sustainable aspect
## Monitoring Indicators Formats

### Basic Monitoring Table

<table>
<thead>
<tr>
<th>Step</th>
<th>Village name:</th>
<th>Facilitator Responsible:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
<td>Done</td>
<td>Month Planned</td>
</tr>
<tr>
<td>Step</td>
<td>Number of Villagers Participating</td>
<td>Number of Staff Members Contributing</td>
</tr>
<tr>
<td>Initial Dialogue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Village Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Whole Village (Options) Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow up Dialogue and Training.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisional Activity Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training for and Setting up of Savings and Loan Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support and Monitoring for S&amp;L Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming Plan Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming Systems Production Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Training in Planting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erection of Boards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support and Monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation and Reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Note: Apart from these tables, various S&L tables and farm record tables should be consulted.

**Sloping land Extension-Finance approach**  
**LSFP, Luang Phabang**

**Village:**                                **Main Ethnic Group:**                   **Population:**              **Date:**

**Monitoring Savings and Loans Groups**

<table>
<thead>
<tr>
<th>Basic Data and Indicators</th>
<th>No.</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date group and fund established</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family members (male and female joint members)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men alone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women alone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women on committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women with leading position on committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total amount in fund on this date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest amount in fund since it was formed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount borrowed now</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan decision method (add more below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of people saving regularly in S&amp;L group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there an identifiable loan cycle?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If so what is approximate number of loan cycles so far</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest loan amount currently</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest loan amount currently</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shortest and longest loan time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of borrowers now</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of women borrowers (alone or leading)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of borrowers since setting up fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of women borrowers (alone or leading) since setting up fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of non-members borrowing now</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate for members borrowing for agriculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate for non-members borrowing for agriculture</td>
<td></td>
<td></td>
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<tr>
<td>Interest rate for depositors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of present loans that are rollovers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of rollovers since beginning of fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of loans outstanding more than three months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total amount of loans outstanding more than 3 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of loans not paid by due date since start</td>
<td></td>
<td></td>
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<tr>
<td>Total amount of loans not paid by due date since start</td>
<td></td>
<td></td>
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<tr>
<td>What is the overdue penalty if any?</td>
<td></td>
<td></td>
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<tr>
<td>Number of families waiting to borrow</td>
<td></td>
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<tr>
<td>Total amount these families wish to borrow</td>
<td></td>
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</tr>
</tbody>
</table>

**Other Comments/ Action Required:**
### Current Loans in General or Main Village Fund

<table>
<thead>
<tr>
<th>Amount</th>
<th>Male or Female Leader</th>
<th>Status of Borrower</th>
<th>No. of months</th>
<th>Interest rate</th>
<th>Activity- fund use</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Comment/ Action Required:**

### Current Loans in Sustainability Fund

<table>
<thead>
<tr>
<th>Amount</th>
<th>Male or Female Leader</th>
<th>Status of Borrower</th>
<th>No. of months</th>
<th>Interest rate</th>
<th>Activity- fund use</th>
</tr>
</thead>
<tbody>
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</table>

**Comment/ Action Required:**

### Village Training Monitoring

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of training events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number attending initial training day</td>
<td></td>
<td></td>
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<tr>
<td>Number attending follow up day</td>
<td></td>
<td></td>
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<tr>
<td>Number attending training for savings and loans</td>
<td></td>
<td></td>
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<tr>
<td>Number attending specialized production training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number going on local study tour</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comment/ Action Required:**
### Monitoring of New or Improved Production Activities

<table>
<thead>
<tr>
<th>New or Improved Activity</th>
<th>Activity Leader</th>
<th>Number of sites</th>
<th>Details/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Comment/Action required:**

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### Monitoring of Production Groups

**Comment:**

---

### Provisional Outcome Monitoring:

*(maintenance of new system, increased production, increased sales, self-reliance, sustainability)*

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Families planting new steep-land farming system for first time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families planting /maintaining new steep-land farming system for subsequent year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families implementing erosion control measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families implementing plot soil loss control measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families with evidence of reduced erosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families with evidence of reduced soil loss from plot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families planting legumes as soil improvers in other ways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families increasing garden/orchard diversity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families with increased productivity greater than 10% (if rainfall same)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of families selling new products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women leading activities having any of above</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comment/Action Required:**

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Evaluation

Specialists would see the method outlined here as very introductory and approximate. Nevertheless this is a more difficult process than some of the other ones proceeding and might be left till the second year in any one district.

Evaluation should be holistic. Different disciplines tend to use their own methods, so it is important that a team be assembled if a holistic evaluator is not available. For an extension-micro-finance project in Northern Laos a team should be led by a more holistic thinker such as a rural human geographer and be composed of an agriculturalist, rural economist or financialist and anthropologist. Either the leader or the anthropologist should be a woman if possible.

Simple tables are given below for collecting basic data on prices of inputs and outputs to arrive at a gross margin or profit. A more complete financial analysis, a time discounted financial analysis needs expertise with a spread-sheet programme on a computer.

The table entitled possible variation in crop production and sales helps to understand risk. Many analyses only use average figures i.e. average rainfall, and average yields. The risk is otherwise. Production rises and falls with the weather and prices rise and fall.

*Three Extension Methods in Luang Phabang*

Tables are given below briefly and provisionally comparing three extension methodological models in use in LSFP in Luang Phabang in 1999-2000. All methods should be evaluated.
### Comparing Three Methods of Extension used in Luang Phabang in 1999

<table>
<thead>
<tr>
<th>Planning, Decentralization and Flexibility</th>
<th>Model Farmers – DAFO Loans (PML) Method</th>
<th>PMS (NTC)</th>
<th>Sloping Land Extension-Finance Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAFO makes decisions on types of crop and loan. This enters annual DAFO plan. This is submitted to DoF. Such plans can be changed a little quarterly</td>
<td>Village planning first in one large stage Model farmers and weavers. Savings groups</td>
<td>DAFO facilitator and Villagers make plans general annual plans. DAFO head assesses training/activity/funding plans periodically Plans are easily changed to adapt to changing circumstances. The method does not start with a village plan, but builds towards one over several years.</td>
<td></td>
</tr>
</tbody>
</table>

| Participation | Model farmer helps chose the crop or livestock | Villagers contribute to village plan. Villagers determine rules of S&L group | Villagers chose activities after dialogue and training. Groups are formed. Villagers determine rules of S&L group. |

| Number of households involved in activities | 1-2 usually | A few families in production groups About 50 join S&L groups | About 10 in first phase. Increases after that. About 50 join S&L groups |

| Main Production Activities | Flat-land and livestock | Mainly flat land, livestock and near village | Phase 1 starts with sloping land farming systems |

| Training | Demonstration farmers are trained together in seminar room | General whole-village training is followed by follow-up training and dialogue and specialised training in S&L groups and SLFS |

| Quality of Activity | High | Very variable |

| Source of funding | LSFP loan through DAFO ? then Savings group | Own savings and partial LSFP grants |

| Changes over time | Demonstration farmers may be chosen to become model farmer or family after some time. | Three phases: 1. S&L and SLFS 1. Reinforcement, Sustainability funds, household planning, other activities 2. Reinforcement and Village Development Planning |

### Issues to Compare:
- Ease of Introduction
- Idea introduction
- Self-reliance
- Spread
- Sustainability
**Estimate of Key Costs and Benefits for a Production Activity**
(Short-term financial evaluation)

### Agricultural Production Costs

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>Amount</th>
<th>Unit Cost (Kip)</th>
<th>Total Cost (Kip)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash Purchases</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Production inputs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport for purchases</td>
<td>Trips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport for sales</td>
<td>Trips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Labour</td>
<td>Days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>Days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processing</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Labour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Dates

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date activity will start</td>
<td></td>
</tr>
<tr>
<td>Date production will finish</td>
<td></td>
</tr>
<tr>
<td>Storage period</td>
<td></td>
</tr>
<tr>
<td>Dates produce likely to be sold</td>
<td></td>
</tr>
</tbody>
</table>

### Possible Variation in Crop Production and Sales

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit (yield)</th>
<th>Area</th>
<th>Total Production</th>
<th>Minimum Likely Unit Sale Price</th>
<th>Maximum Likely Unit Sale Price</th>
<th>Minimum Likely Total Sales</th>
<th>Maximum Likely Total Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum likely annual production</td>
<td></td>
<td></td>
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<tr>
<td>Maximum likely annual production</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Expected annual production</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## Estimated output price

<table>
<thead>
<tr>
<th>Sales</th>
<th>Unit</th>
<th>Amount</th>
<th>Unit price</th>
<th>Total</th>
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<tbody>
<tr>
<td>Cash Sales</td>
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<tr>
<td>Non-Cash</td>
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<td>Exchange</td>
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<td>Use at Home</td>
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<td>Gift</td>
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<tr>
<td><strong>TOTAL PRICE</strong></td>
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## Estimated Basic Profit (or Margin)

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<tr>
<td><strong>TOTAL PRICE</strong></td>
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<tr>
<td><strong>TOTAL COSTS</strong></td>
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<tr>
<td><strong>BASIC PROFIT</strong></td>
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</table>

This is a short-term financial evaluation, not a full evaluation. This does not include social and environmental factors in the short term, nor long-term costs and benefits.

Margin does not include costs of major equipment that are spread over several crop or farming system types. When using simple technology profit and margin are to same.

## Reporting

- Reporting is systematically writing down the **aims, reasons, methods, results** of your actions, and **conclusions** and a **summary**.

Commonly people write two kinds of reports (technical and periodic or progress) but they should not really be very different. Technical reports describe a specific piece of work, but they refer to a specific time period. Often such reports are also periodic as work may take place over a long period. Usual periodic or progress reports a written monthly, quarterly, half yearly or yearly. They usually describe the routine work of a work unit, and may cover several topics which are not closely related.

All reports should be accurate, logically set out and written, complete, relevant, useful, clear, and interesting. Many do not achieve ‘Interesting’. If your report is boring and no one reads it you might well not have written it. A summary is absolutely necessary as about 90 per cent of people will only read the summary and flip through the rest. A summary must summarize the main important points not everything in the report. Make sure the summary includes the key points you want others to take action on. A separate section should ask for action or at least make recommendations, including for yourself. Very little work is so good that a report will have nothing for action or no recommendation.
Many reports are never acted upon. Most reports never receive feedback. This is either because the report was not clear and interesting, or the reader does not think the matter is important compared with other tasks. Reports not acted upon and those without feedback are not much better than unread reports. Feedback is the responsibility of the person expecting the report. Action may be the responsibility of the same person or yourself.

- A technical report should have at least 6 main sections:
  1. Aims: What are you trying to achieve?
  2. Reasons: Why are you trying to achieve these aims? This might be called background. It will include a brief history of the work. The reasons for the timing and location of the work should be given. Explain the contents
  3. Methods: How will you achieve it?
  4. Results: What did you actually achieve?
  5. Discussion: What is the significance and importance of the results. You must include the negative results. If something failed say why.
  6. Conclusion: A summary of the discussion. Was it worthwhile? What, why and how should you do it next time.
  7. Action Required: What must the relevant reader do to help to improve the work referred to. Feedback expected could be mentioned.
  8. Summary: The main points from 1-7.

A periodic progress report should be similar, but aims, reasons and methods may not be relevant if you are working on very routine matters, nevertheless it is worthwhile thinking about them. The problem is that routine work can become so routine that alternative approaches are not explored, work becomes boring and efficiency drops. At least each year all assumptions should be examined. Are you doing this the best possible way. Monitoring could form a major section rather than results. A discussion of monitoring should include a discussion of problems, successes, constraints and opportunities.

- Each section should have one or more paragraphs of text.
- Use only necessary words
- Do not repeat yourself
- Explain specialized words
- Each sentence should have one idea
- Use tables, maps, graphs, flow charts and other diagrams where possible.
- Details should be listed in a table.
- The details in the table should be analysed in the text.
- Spatial relationships can be shown in a map
- Numerical relationships can be shown in a graph
- Causal relationships can be shown in a flow chart
Presenting Your Report

- Presenting usually means to speak at a meeting, preferably with visual aids.
- Visual aids are flip charts, use of the white board, overheads, slides, photos or diagrams passed round.
- First the report must be a good one.
- Get your friends and/or your supervisor to give you a critique
- Improve your report

♦ When you present you can read the report or speak from notes.
♦ If you read you must read in an interesting way.
♦ If you speak from notes you must understand the subject well
♦ Visual aids make the presentation more interesting, clearer and more memorable.
♦ You should practise presentation in front of the mirror at home.
♦ Visual aids must be understandable from the back of the room.
♦ You must speak loudly enough and clearly enough to be understood at the back of the room and by those who do not know your accent.

Make sure your speech and visual aids come in a logical order.
Conclusions

Effective extension is a complex and thus difficult process. To carry out well requires well developed skills in a well led team. This requires considerable learning using one or more of the available methods, and some experience. Well done extension changes people’s lives markedly. This is a massive responsibility and challenge.

As the process is difficult it is best to move from simple to complex without ignoring what is most important. Start with the simplest and easiest but cost-effective options and move towards more complex options and a greater number in combination. It is also best to start with locations with easy access to the relevant offices, until the methodology is well known.

Many relevant ideas are to be found in the author’s Final Report entitled ‘The sloping land models, skills and collaboration’ apart from this manual.

Aims and methods interact in a complex fashion during implementation, to result ultimately in a sustainable enviro-socio-econo system or livelihood system.

Methods lead in steps to further methods, new conditions which are both aims of the previous method and further methods with their own aims. The programme goal is the outcome of extension. LSFP is helping the government to devise better ways to help the villagers. This is an exploration of ideas which will go on into the future. All development methods can be improved, and indeed will have to change as the conditions change in time and space.
List of Important Guidelines in the implementation of the Sloping Land Extension-Finance Model
(In a rough order of importance. Actually all of these are important)
(Flexibility must be within guidelines)

1. Outside funding will only be possible after thorough dialogue and training
2. Outside funding must not be promised
3. Emphasis must be put on material self-reliance.
4. Dialogue, both formal and informal, must come first
5. Earlier research and study can provide guidelines as to the critical development issues.
6. Government policy provides guidelines on the critical approaches to rural development
7. Don’t try to start many activities at once. About two new activities per year might be suitable if a DAFO staff member has responsibility for about three villages.
8. Leaders and groups must be encouraged to try to use their own resources first.
9. A savings and loan group(s) should be strongly encouraged to raise financial self-reliance.
10. Offer training in the formation and management of savings and loan groups.
11. Involve the villages in any action you are taking where it is feasible
12. Monitoring must start early so you must choose the indicators early
13. Training should be provided according to need and desire
14. Directly encourage the women to make decisions for themselves and act independently
15. Arrange or offer training on each specific activity
16. Any funding plans must be passed at least by the DAFO head team
17. Activity groups should be encouraged in order to strengthen communication and mutual support in the village
18. Offer training in self-reliance, sustainability and finance early on in the extension process
19. Encourage the men to involve the women in activities and decision making
20. Sustainability, both environmental and socio-economic, should be promoted
21. Evaluate each activity’s progress at least annually
22. Its best to usually try to get a village activity leader to form a group
23. Small easy activities can be started quickly
24. Where appropriate encourage the larger ethnic group to invite the smaller group to join in
25. Encourage analytical discussion of problems, solutions, opportunities and constraints
26. Report on the evaluations. This must become feedback to next years plans.
27. Help the villagers plan each activity and especially those requiring budget support
28. Offer backup as each activity is implemented
29. Present the reports verbally and visually in the village and at an office meeting
The Key Model Concepts Explained

Below the major concepts are explained and discussed in more detail.

Staff Skill Development for Extension

Training workshops and short courses as well as on-the-job training in extension, skills development, planning and job descriptions and management were organised in Luang Phabang for staff from Luang Phabang and Xaignabouli. The benefits can mainly be seen in village farming and financial activities, but also in the new style of extension planning in 1999-2000 in LPB. But this section is not about this initial staff training, but about the staff learning that could be led by the Northern Training Centre (NTC) at Xieng Ngeun in the future.

Staff learning or skill development, not only training, must be led by the NTC.
The key issues in skill development are:
  o Who will learn?
  o What to learn?
  o How to learn it?
  o How to resource it?
  o Where to learn it?

All five can be controversial. Skill development can take place at staff offices with team initiative, at low cost, somewhere else such as the training centre at greater cost, or with outside trainers, such as those from the NTC also at greater cost. The reality is that most learning will take place with direct training from NTC staff whether at the training centre or at a provincial or district location (outreach training). But it will be cost-effective to put effort into other methods as well.

To what extent is skill development the basis of development? It is possible to argue that little else is critical for sustainable development.

Towards A Decentralised Skill Development Methodology

A ‘skill development methodology’ that has been proposed that could be used and led by the NTC. This model involves an analysis of skill development needs in contrast to training wants. The completion of an individual skill development plan and a comprehensive skill table are possible steps. As understanding increases it is possible to analyse the development process. Thus staff can focus on the most appropriate skills to learn and then on various methods of attaining them. For a team to decide on what is appropriate for each person to learn is not easy.
Methods Of Skill Development

Several of the possible range of skill development methods are currently used in the programme.

Current methods
Short and long courses,
in your own language and others,
at NTC, Vientiane, other provinces and overseas
Workshops and seminars
Study tours nearby, other provinces and overseas
On-the-job training

Some of those not yet developed in the programme that could be useful.
Self-driven learning
Co-operative or exchange learning
Distance schooling,
Library access – a good learning environment
Outreach training run by the training centre

Each method is suitable for different circumstances, such as the existing level of skill of those wishing to learn, the local facilities, the skills of the local teachers/trainers, the distance to facilities and teachers, the funds available, the subject for learning etc. The cost-effectiveness is important. Local leadership is the key need.

Skill Needs Analysis

The difference between training wants and skill development needs of unit/ region/ nation must be considered. Staff should be shown that personal ambition cannot be used to justify the skill development budget. The reasons for learning must be based on the local village and town conditions, established skills government staff, and the model aims and methods of the programme. The methods to be used in a programme may be complex and in dispute, so it may not be easy to agree on skills required. It is easier to survey training wants than find out the regions needs for skill development. The needs of the organisation at any level are less important than the needs of the region or nation.

An analysis of the established skills and needed skills requires an analysis of the team. A skill held by one member may mean another member might not need it.

When we discuss skill development should we discuss university and technical college disciplines and degrees to be sought, or rather should we consider specific skills, such as spread sheeting, map drafting, personal communication and steep-land agriculture. We need to look at the socio-economic and biophysical conditions which we are assisting to develop, and the specific skills we lack. Specific courses may be more suitable than degree courses.
An integrated development methodology of skill development is needed. Ideally this should include all ministries. But a decentralised model applicable to NTC and the provinces is a first step.

**Specialisation and Generalisation in DAFO**

As an initial step in planning skill development we can look at the present skill structure of DAFO and several proposals for future skill development.

At the district (DAFO) level should teams have members of one skill or a mixture of skills, or both? There are three competing views:

1. All staff should be relative specialists, as now,
2. All staff should be generalists or
3. There should be a mixture.

The change to the second would take considerable time, under at least mountainous conditions, and assumes that specialised skills will be available in the province. The third approach accepts the need for local specialists whose skills can be upgraded, and others who can gradually move towards general skills. It should be noted that the greater the complexity of the production and local livelihood system the more specialists will be appropriate.

DAFO personnel are at present seen as specialists. Short courses in community development/extension will not make them into generalists but give them another rural speciality. It will require several other courses, including steep land farming systems and rural socio-economics and a lot of experience to make them into rural generalists.

I believe that the ideal in DAFO units, considering that they have staff of about 20-30 people, is probably a mixture of generalists and specialists. The specialists at provincial level are unlikely to ever be so available that DAFO can afford to be without specialists in small and large livestock, steep land farming systems, and savings-loans-credit and marketing, at least. This is only four or five field specialists out of 20-30. Up until land allocation is complete a land and forest survey-allocation team is also needed. This might mean about half of DAFO needs to be specialist in the short term.

Given the degree of specialisation that now seems to exist, the trend might be towards general skills, but the need to upgrade the special skills of selected staff should not be overlooked. It would be best to choose certain staff to have specialist skills upgraded while certain staff are given broad training. The choice of staff for each stream must be carefully made.

It should also be remembered that most generalists in government and among consultants are of moderately advanced age. They started as specialists and gradually over many years became generalists. It might be better to first build DAFO units into able, diverse and integrated teams of specialists with a few older generalist leaders, then to gradually arrange training for generalisation.
A form of action research that has not been possible is the testing of different DAFO structures. To ‘stabilise shifting cultivation’ requires a huge effort. Now that a form of land allocation is already quite widespread, it is opportune to devote a greater part of DAFO staff in mountainous areas to promoting permanent sloping land farming systems for long term food security, better nutrition and cash sales. This exercise is basically extension. Teams of sloping land extension staff under experienced leaders are needed in all northern region DAFOs (as well as DAFOs in other regions). Perhaps a separate team in each DAFO could work on small area/home based/flat land activities, such as irrigation pig raising and weaving for cash sales.

**Northern Training Centre (NTC)**

The full name of the NTC is the Northern Region Agricultural and Forestry Extension Training Centre. It has a southern counterpart in Sepone District, Savannakhet.

The NTC is explicitly for extension training or training for extension staff. As the range of extension models expands it should have a role in critically comparing and analysing them.

- It will be helped in these tasks by staff from outside the centre. This could include SCR, TIS, PFO and DAFO staff. The challenge ahead is too big for the staff of the NTC alone. All capable staff in the province and indeed in the region could contribute.

**Institutional Collaboration/Integration in Luang Phabang**

Apart from the integration of extension, gender and on-farm research, good progress has already been made in a wider collaboration or integration of work units as a contribution to institutional strengthening. In Luang Phabang we have been moving towards an *integrated development method* based on staff skill development with contributions from all local extension, teaching and research institutions, and testing of a process of extension and field trials.

- NTC is running workshops and courses with contributions from four other institutions: SCR, TIS, PFO, and DAFOs. These will be developed into courses over time, as a new curriculum development process.

New courses at NTC are being selected with the help of a wide range of people.

The important role of NTC is to train DAFO staff for the region, rather than directly train villagers, although direct training should be seen as part of NTC research. DAFO staff require further training in sustainable development and more specialized topics.

All the Forestry institutions and some of the Agricultural ones in Luang Phabang were collaborating well in mid 1999, tending towards an integrated effort, with more focus on target villages and steep-land farming-forestry systems. The integration or collaboration idea was slow to take off, but by mid 1999 with some firm experience, it was progressing rapidly. The new extension approach is facilitating integration.
Luang Phabang is fortunate in having two adaptive research centres and a training centre. The integration that is possible here will not be replicable elsewhere. Through the NTC, however, the experience can be transmitted to other provinces.

NTC has already developed its own model of extension in Xieng Ngeun district as part of capacity building. For NTC to train DAFO staff and for them to train villagers is the key to sustainable agricultural-forestry extension.

Collaboration of the research, tertiary teaching and extension institutions (at least NTC, PFO, PAO, PLFO and NAFRI) in at least this province would be worthwhile. Should research and teaching at the regional level be combined as in universities? Could SCRP’s mandate be widened in a disciplinary sense and reduced in a spatial sense to coincide with NTC’s responsibilities?

If the Luang Phabang research institutions are to contribute rapidly to all the provinces in the north they must first help the teaching institutions further train present DAFO staff. This should happen more or less before more extensive research is carried out. We have enough knowledge in books and reports at least. More should be invested in translation.

A methodology called Institutional Collaboration for Rural Development has been proposed.

**Workshops and Curriculum Development at NTC**

Where skills in a training institution are limited it is possible to use workshops with contributions by a wide variety of people to help develop ideas for a curriculum. Other staff can contribute to courses, seminars and workshop on a regular or ad hoc basis. New curricula could be developed in stages starting with workshops with contributions from many people. NTC staff would then discuss with the better contributors whether they could present a longer lecture. From this and some extra study a short course could be prepared. This could expand if the demand is there. There would be no need for one person to go through a long study and curriculum writing process if the skills are there but scattered about.

Similarly it is appropriate that the NTC conduct research as they are doing in several nearby villages. This is part of capacity building. This experience is critical for teachers. This should be integrated if possible with the action research of the extension component discussed below.

The four NTC workshops referred to above are suggested to cover topics broadly as follows:
1. Gender
2. Steep-land or sloping land agriculture and ‘agro-forestry’ (farming systems)
3. Extension-finance and Research-extension models and methods
4. Teak plantation management
After one or perhaps two runs of workshops it is expected that it will be easier for NTC staff to take on most of the curriculum development and teaching, with inputs from specialists in other institutions. The concept of one institution taking on both applied research and teaching is an important one that has been the mainstay of universities for several centuries. The researcher gains from the stimulation of the students and the teacher gains by being exposed to the challenge of research. There is no reason why NTC staff should not continue to do some adaptive research (model development) in nearby villages, and adaptive research staff not give say weekly lectures at the NTC. The research could be conducted in conjunction with other institutions in Luang Phabang.

Workshops on the following topics are recommended in the future:

1. Marketing
2. Agriculture, food and health
3. Land, population and health
4. Sustainable development

Co-operation with other ministries will be needed for these courses. Indeed couldn’t this NTC become a general government training centre?

**Skill Allocation**

Skill development planning should also consider the allocation of personnel or skills to various units and sub-units. Rather than organizing skill development, other appropriate jobs might be found for people with inappropriate skills, or who lack particular skills. The question of skill development needed is related to the allocation and delegation of tasks and skills. Tasks can be semi-permanently *allocated* to others, or temporarily *delegated* from time to time.

Sometimes people can be given different responsibilities to better fit their natural skills. Moving people to more appropriate posts can be as important as training. Training is not the only answer. People with the perseverance to check large amounts of data might make good accountants. People with good discussion abilities make good team leaders and extensionists. Extension in Lao PDR, or the facilitating of the development of people’s lives, requires many thousands of skilled face-to-face communicators. These people should be chosen not only on the basis of qualification but on the basis of personality, or ‘potential personality’. Why send your best speaker to work as an accountant, and your best details checker to be an extensionist? Personality is probably more important than knowledge, as the latter can more easily be gained. An institution can be strengthened quickly and cheaply by fitting the right people to the right jobs.

But over the long-term development takes place largely through skill development. The question is what skills and how do we get them. It is very hard to decide which skills each member of a team should learn. Cost-effective methods of obtaining those skills can be nearly as hard to decide. This is applicable to staff, villagers, and advisers.
Sustainable Development

What does this sustainable development mean? It means a better livelihood that is ongoing. Sustainability means continuous human livelihoods at least at a similar standard of living, so sustainable development means a better life for all in the long-term. At the local level it involves the socio-economic and ecological production systems, or together, the local livelihood system. This is in effect a production, exchange and living system.

Elements of Sustainability:
- Population
- Health
- Social relationships
- Land
- Water
- Forest
- Production
- Exchange

Sustainability is influenced by:
- Population size and the proportion of children and old people
- Disease, injury and addiction
- The amount, type and use of land and forest
- Human relationships in the village and between the village and town including buying and selling and extension.
- Range and type of farming
- Roads, electricity, water supply
- Other government services

This manual is mainly about agriculture or farming systems and ways of resourcing these.

Using the land and forest includes
1. Conserving some forest and using other parts so the forest does not become degraded and die
2. Increasing production per person by
   - Reducing erosion,
   - Growing new crops
   - Using new varieties
3. Keeping the total production fairly stable to rising by
   - Growing crops in a ‘permanent’ plot
   - Growing a variety of different crops in space and time
   - Reducing crop pests and disease

- Sustainability requires population management. Births should be spaced, so girls should get as good a schooling as possible and have easy access to modern birth control technology.
For health any new farming systems must provide
A varied diet
Some cash income

Relationships are important,
Including those between women and men. Sustainability is increased if women are given
an opportunity to lead activities in the home and on the farm.
Co-operation is critical to long –term human life
Co-operation in groups increases self-reliance
Self reliance needs knowledge/understanding
For village self-reliance, village leaders must be able to seek new ideas in other villages
or towns.

To be environmentally sustainable agriculture must
❖ Minimize erosion
❖ Reduce the chance of being wiped out by pests or disease
❖ Minimize chemical inputs
❖ Be able to survive major price changes for farm inputs and outputs

The exchange system (trading) must continue efficiently and equitably.

It will be important that families have a varied diet for good health:
❖ rice, preferably slightly milled, possibly other serials
❖ several types of vegetables
❖ several types of fruit
❖ legumes
❖ fish and other meat

So either villagers must grow, gather, exchange or buy to get them. You need enough of
the right type of land or enough wild area or products you can exchange or sell.

Villages need some cash income for important things they cannot make themselves
They must sell some produce.

But for on-going improvements in livelihoods they must be:
➢ as self-reliant as possible
➢ adapt to changing conditions
**Self-Reliance**

This programme is supporting village development, but to be worthwhile any development must continue after the project finishes. It must be sustainable.

To make sure of this we wish to promote a high degree of village self-reliance.

- In funds
- In organization
- In knowing where and how to get new information and increase understanding. In learning how to solve problems and seize opportunities themselves.

- Self-reliance in funds means using your own savings to invest as well as seeking funds from outside the family. If funds only come from outside you may become dependent on them like a drug. But then suddenly they stop. A village savings and loan group can help reduce this risk.
- In organization means establishing village groups of various types which strengthen mutual support
- Knowledge means if you know how and where to find information and ideas you can progress. The more you can learn how to solve problems and seize opportunities yourself, the more you will be independent of others.

**Increasing Long-term Steep (Sloping) Land Production**

**Reducing Erosion (Soil Loss to Streams) on Steep Slopes**

- Improved Shifting Cultivation (total rotation)
  1. try to minimize erosion
  2. add soil enhancing plants to fallow
     Don’t burn
     Burn in strips. Leave some vegetation
     Logs and stones along the contour
     Maximize soil quality by enhancing the fallow by growing legumes

- Stable (Permanent or Stationary) farming
  1. Structures and plants along contour, with permanent lines and strips and strip rotation (alley cropping)
  2. Diverse and dense tree and other crops with or without contour planting and structures

Maximize
- early rainy season vegetation cover
- litter and soil organic matter
- crop diversity and density
Minimize cultivation
Along the Contour, farmers should arrange, dig or plant

- Logs or stalks
- Ditches and bunds (various sizes)
- Stone lines (walls)
- Trees of many types
- Legume hedges
- Other long term crops, such as pineapples
- Grass strips such as Vetiva grass
- Rough fences

And Combinations of the above

The Multiple Uses of Various Trees and Shrubs

1. Timber
2. Fuel
3. Fruit
4. Medicine
5. Fibre
6. Fodder for large livestock
7. Nitrogen in soil
8. Adding organic matter and other nutrients to top soil through litter
9. Reduce rain impact and therefore erosion
10. Reduce runoff and therefore full soil loss
11. Shade for crops, animals and humans
12. Shelter from rain
13. Shelter from wind
14. Carbon dioxide absorption and Oxygen production
15. Water use and transpiration where groundwater recharge is excessive
16. Mist condensation

The Twelve Benefits of Diversity

A diverse range of trees, shrubs and other perennial, biennial and annual plants has many values. The diversity can be in time or space. Different plants can be planted in rows or strips along the contour or mixed together like a forest.
Diversity:
1. Usually reduces erosion, especially if planted along the contour and densely
2. Reduces the effect of market price oscillation
3. Can improve the family diet by providing a range of food
4. Spreads the products that can be eaten through the year
5. Spreads the products that can be sold through the year
6. Spreads the labour input through the year
7. Reduces the damage from pest and disease attack
8. May reduce the likelihood of pests and disease attack
9. Can provide a range of foods for livestock
10. Can provide other inputs for household use
11. Can provide food that can be eaten while working in the field
12. Makes better use of the soil and water resources available

Markets

Knowledge of Market types and prices contributes to Sustainable Development

Farmers may be under contract to sell to one trader, or be an independent planter, free to sell to any buyer. Those under contract may have received a loan or advance of farming inputs from the trader. If they have sufficient funds or other resources to plant without a trade loan and contract, they have greater freedom and possibly greater risk. Savings and loan groups may help enable farmers to gain this freedom to sell to any buyer at any location and at the highest possible price, together with the risk that the market will be over-supplied and the price may fall below the contract price.

Farmers could also form independent groups to market produce. These may be the same as production groups or separate. Groups could agree to have two members to sell for them in the town.

If DAFO can supply up-to-date town market prices to villagers on a regular basis it would help villagers to be independent. DAFO could supply lists of prices, say weekly or more often at critical times. These could be placed on a village notice board. A table of prices might look like that below.

WHAT are the MARKET PRICES?
Date:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Village On Road</th>
<th>District Town</th>
<th>Provincial Town</th>
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If such tables are kept on the village notice board, villagers can see how prices are changing. Alos extension staff could periodically prepare graphs from the tables.
Government Policy and Sustainability

The government has several overall policies that are supported by the SLEF methodology: control of shifting cultivation, food security, commercialisation of agriculture, etc. Which of the last two are promoted more will depend on villager attitudes and knowledge, as well as conditions and opportunities. In most target villages in the LSFP region in Luang Phabang land allocation with the aim of stopping shifting cultivation has already been carried out. A special area is allocated for tree crops, but further tree planting may be stimulated if rice can be purchased. A trend has already been established towards cash cropping, but environmentally sustainable farming was rare before 1999.

New farming systems are needed that provide a varied diet, some cash income, minimize erosion and reduce the chance of pest and disease plagues. Erosion may even occur under teak mono-culture. Moreover mono-culture or widespread planting of a few species exposes the individual villagers and the region to the risk of major loss. Increased area and diversity of non-teak tree crops is probably desirable. Cultivation, planting and small structures along contours must be encouraged.

Sustainability involves the ‘socio-economic system’ and the ecosystem or an integrated ‘livelihood system’. The more ‘permanent’ the agricultural development through the planting of diverse tree and associated crops along contours, the more market exchange will be necessary, as rice production will drop. This development will depend on adequate prices and thus transport and other market facilities. Crop diversity versus specialization is an ‘economic’ as well as an ecological issue. Specialization can give higher profits but also greater loses. How do we arrive at a suitable level of diversity? The environmental and socio-economic consequences of diversity must be considered together. For example, if a steep land farming system is developed in which forage trees are important, and the price of the relevant livestock falls dramatically the farming system is no longer sustainable.

Self-reliance in idea generation is a key to sustainability. It is important to assist villagers to learn more how to think for themselves, to develop local leadership which can lead idea development, and the seeking of outside resources not easily available. If villagers are dependent on the town that offers all ideas, things and money, they are less likely to prosper in the long term. An integrated analysis is necessary. This extension-finance model will be addressing these constraints and opportunities.
Participation, Groups and Facilitation

All activity in the village is done with maximum villager participation in every way. (The DAFO facilitator also participates!)

- to make sure of a high commitment
- to maximize self-reliance
- thus maximize the chance of local socio-economic sustainability.

Groups are organised:

- For wide participation
- To increase mutual support
- For increased communication
- To use minor leadership potential through the village community.
- To increase the efficiency of training

All activity in the village is done with maximum villager participation in every way to enhance commitment, self-reliance, extension efficiency and effectiveness and local socio-economic sustainability. The DAFO facilitator participates to offer new ideas, guide discussion and information collection and assist access to outside resources.

Villager commitment is demonstrated by participation in planning and management, and by participation in contributing material and financial resources and labour. Groups are formed for dialogue, savings and loans and for training, exchange of production experiences and support, but villagers will usually wish to operate their activities in families or households. Group formation as well as activities and technology that are chosen enable as many families as possible to participate.

Group formation furthers community communication and mutual support. Members can be encouraged to share their technical knowledge. Group formation takes advantage of minor leadership potential through the village community. Each group may have one or more leaders who can be given special training, and so pass this on to other members. But whole groups can also be trained. Gaps emerging between leaders and members should be guarded against. The method does not rely on a very small number of village volunteers, although their leadership can be encouraged. It is considered too great a task in many cases for one villager to disseminate all but the most basic ideas to other villagers.

Any individual or group receiving any material assistance that might be offered will be asked to contribute as much in the material sense as possible to make sure the response is based on a genuine interest.

Some activities would be best done in village wide groups of voluntary labour. These include track and road building, irrigation canal construction and school building. Such activities not only achieve a physical task, but help bring the people together in a community.
Although participatory discussions of problems and solutions may be useful, this need not dominate the early dialogue and choice of activities. Some problems such as rats may be beyond the programme to solve, except in a ‘lateral’ way by contributing to changes in the farming system. Opportunities provided by new techniques, crops, farming systems and markets may be more cost-effective ways of proceeding than directly trying to solve problems concerned with present production activities. This needs to be discussed, and will vary from case to case.

Every programme or project is more or less ‘top down’ and ‘bottom up’. Some recommend the ultimate bottom-up approach in which the programme staff essentially wait for the villagers to suggest, discuss, plan, request and implement etc. If the inputs from outside, whether of information, ideas or material assistance, is minimal progress may be self-reliant, but it must be accepted that it will also be very slow. How can we speed it up and yet maintain an appropriately high degree of villager self-reliance?

The simple answer is that dialogue, training and material assistance (usually money in one form or another) must be sensitively provided. The helpers must be skilled (trained) in the issues at stake. They should think of themselves as facilitators. Listening is a key skill but inevitably they will be teachers also, by questioning if not by telling. One can sometimes join the discussion and sometimes withdraw. Encouragement for the formation of different types of discussion groups might be given. Although we would usually not start by explaining our view of the issues, it is usually worthwhile to explain the principles of self-reliance and sustainability without giving a too narrow set of options for action. When problems and solutions are discussed, the facilitator should normally refrain from giving a suggestion until many others have. Suggestions can be given in the form of an open-ended question such as ‘why do you think your rice harvest drops each year?’

However, the facilitator’s active participation can often be useful. For example, if villagers are asked to list problems without outside intervention, they may tend to confuse problems with local conditions. Low rainfall is often seen as a problem, whereas it could equally be said that the farmers’ limited understanding of alternative approaches to rainfall variability is the problem. Just as with rich country farmers, this can be more or less solved by dialogue-training. When dialogue should cease for the time being and a study tour or more formal training should be offered can be agreed on jointly. Flexibility allows the facilitator to feel her way without rigid prescriptions.

**Non-dominant Classes and Populations**

Due recognition is given for the needs of women, different ethnic peoples, age classes, the especially poor and people suffering from any disadvantage. Progress in these areas stems from the understanding and sensitivity of the government staff. Non-dominant classes and populations may be encouraged to form separate discussion or production groups or join with others.
Ethnicity or the socio-economic significance of different ethnic groups is a key development issue in mountainous country. What are the key differences between the three topographically defined ethnic populations, and their sub-divisions, as far as research and extension are concerned? Gender and ethnicity are especially linked issues in mountain peoples’ development because of poor communication and transport. Especially women from the Lao Theung (Mon-Khmer hill peoples) and to a lesser extent Lao Sung (Hmong and Mien (Yao) highlanders) have low status. Their cultures have until recently long been isolated from progressive thinking. Special effort will be needed to involve the Lao Theung (Khamu in Luang Phabang) women in decision making.

Training is needed for DAFO staff on gender, ethnicity and the needs of disadvantaged individuals and households. We should be careful not to overemphasize increased production that can be obtained by working with a few wealthier or better educated male farmers. Women tend to be more interested in food self-sufficiency for the family, but this desire could easily be overlooked in the face of male confidence in meetings. Thus separate meetings with women only are probably advisable. It is important that commercial activity does not jeopardize family nutrition, not only by occupying excessive land area, but by letting the men control the income obtained. In many if not most cultures men tend to spend a lower proportion of their income than women on family welfare (Ireson, 1996). We should also be sensitive to conflict that might be caused or exacerbated by extension.

It is important that commercial farming does not reduce family nutrition, not only by occupying large land areas, but by letting the men control the income. Women are also more interested in family planning and can be trained and assisted with access to appropriate resources.

Extension staff should all promote the self-confidence, knowledge and independent thinking of women in order to promote a better family life.

Planning, Decentralization and Trust

**Planning in extension takes place at three levels:**
1. A document developed on ‘flexible’ extension and this manual were a major part of the former.
2. Annual planning by DAFO staff with higher level assistance.
3. Planning of activities by the extension workers and villagers

- Government staff at different levels of the urban hierarchy must have different types of duty.
Suggested Responsibilities under Decentralization

- All local officers from the smallest towns (districts) are given the authority to make village level decisions in conjunction with the villagers,
  District (DAFO) Head team: Back-up and supervision
  District (DAFO) Staff:
  1. Lead dialogue towards understanding and activity.
  2. Assist with access to credit, resources, technology and training

- The role of staff in larger towns (provincial and central): method development, training of other staff, back-up, evaluation and supervision of evaluation
  Vientiane (DoF): Budget in general, method development, supervision of evaluation
  Province (PFO): Back-up and evaluation
  Regional Training Centre: Formal (and informal?) training of provincial staff and possibly some senior DAFO staff, then training of more junior DAFO staff.

Villagers: Make it happen

- This system requires that the staff from larger towns trust the staff from the smaller ones, after training.

Evolution of Village Planning

In this model Activity planning takes place in the village with DAFO assistance.

- Other larger plans may be organized such as a training plan or a season plan.
- Many small plans will be written.
- Small initial actions can lead to following actions that grow when understanding and enthusiasm grow.
- Planned actions proliferate and later the villagers may decide to combine some of them and include them in a village plan.

- This is an alternative to Initial Village Planning or what is called village development planning in Laos.

So we have
  - Gradual village planning which is proposed here.
  - Initial village planning, which is present practice.

This manual is a part of the development of a methodological model of extension. It is about the method to be used. Annual planning / budgeting is generalized. The annual budget is submitted and ‘passed’. It could contain known key features of villages to be targeted. But in principle it cannot contain details of the activities that will be pursued as that will stem from dialogue in the village, possibly some survey and training that is part of on-going extension. As villages become better known the annual plan can contain more details but care should be exercised not to try to predict details of optimal activities nearly a year ahead.
Planning of activities by the extension workers and villagers is carried out over the short term and seasonally, but plans are always open to rational modification after discussion among all parties at the local level.

In 1993 a major decentralization step was implemented in DoF (Souvanthong, 1995). Pravongviengkham (1998) outlines the present decentralization policy. Much progress has been made in this area. Government staff at different levels of the urban hierarchy must and do have different types of duty. Any role or duty should be carried out at the level at which it is most cost-effective.

In this SLEF model, all local officers from the smallest towns (districts) are given the authority to make village level decisions in conjunction with the villagers, on a daily and weekly basis within the framework of short-term or activity plans which could be regularly or irregularly, submitted to DAFO head teams, and if necessary to provincial institutions. Seasonal plans may also be formulated for the villages. Each village should have one facilitator specifically responsible for that village. Hopefully no one will be responsible for more than a few villages. The heads of district teams (DAFO) would play a monthly back-up, advisory and monitoring role. Short-term plans could be changed with the authority of the DAFO heads and deputies. The right to this decentralization and flexibility requires high transparency and accountability on the part of DAFO staff.

The role of staff in larger towns (provincial and central) and training centres, at whatever level of the urban hierarchy, is to lead the development of the methodology, offer training, evaluate and propose changes, usually at long intervals, and supervise monitoring and be prepared to offer support when required. Anything more than this hinders the free flowing relationship between local staff and villagers. In the medium term the Northern Training Centre could take responsibility for method and curriculum development, training of the provincial staff and perhaps some senior district staff, and in the long term further training of all DAFO staff. Vientiane must assist as a minimum with supervision of evaluation, and preferably also with method/model development. The province would provide back-up, supervise monitoring and carry out regular evaluations.

This system requires that the staff from larger towns trust the staff from the smaller ones. This trust can be developed through the role of the larger towns described above. The district staff must be trusted with the budget once the method of use has been agreed on. But regular monitoring of fund use takes place. The district staff are ‘accountable’ for actions, outputs and outcomes. This means that if evaluations show weaknesses, the district staff must understand this and promise to improve next time.
PRODUCTION ACTIVITY PLAN

If funds are to borrowed from the savings and loan group another form is needed (see below)

<table>
<thead>
<tr>
<th>Name of Village</th>
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<tr>
<td>Name of Province &amp; District</td>
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<tr>
<td>Activity Type</td>
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<tr>
<td>Number in Group</td>
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<tr>
<td>Number of Women</td>
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<tr>
<td>Name of Group Leader</td>
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<tr>
<td>Production Activity Details</td>
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<tr>
<td>New Technology Proposed</td>
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<tr>
<td>Reasons for the Activity</td>
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<tr>
<td>Aims of the Activity</td>
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<tr>
<td>Responsibilities in Group</td>
</tr>
<tr>
<td>Relevant skills and experience in Group</td>
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<tr>
<td>Training proposed</td>
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<tr>
<td>Number in group who are members of savings and loan group</td>
</tr>
<tr>
<td>Proposed Source of Material Resources</td>
</tr>
<tr>
<td>Slope of Land to be used</td>
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</table>

(Costs and Benefit Calculation would be on a separate sheet)
Training Of Villagers

Extension is the Facilitation of Farmer Learning and Access to Resources

The main key to development is learning, so how do we learn?
Including students, government staff, consultants, farmers, all of us, learn?
To practice ‘extension’ you must know how people learn.

Learning

We learn, depending on our previous learning and the opportunities, by a combination of:

1. listening and watching
2. trying, doing, failing, succeeding
3. discussion: exchange of information and opinion
4. drawing, painting
5. reading and note taking
6. writing: description, synthesis and analysis
7. questioning, being questioned.

Comments on Ways We Learn

- The above list is in a rough order of difficulty.
- In a village we would always find the first three. But outsiders can help raise the level of use of all three.
- Children may have materials for drawing. Could we involve children in cartoon production (see below)?
- People may later become literate and so read and write. Where and when would literacy classes be worthwhile as part of extension?
- Questioning is a formal process that in developed countries used to only start at university level, but is now beginning in secondary schools. However it could be promoted at all levels.
- New technology such as film, video, and computers has advanced all learning methods, more or less. There are some retrograde influences.
- Extension or facilitation can help using all seven of the above methods.
- Training in the SLEF model takes place in two main stages:
  - Initial general awareness and training such as sustainability
  - Activity training including savings and loans

Rewards and Punishments

At another level it is possible to say that we learn when we perceive or expect a benefit or reward from new knowledge or action and/or receive a cost or punishment for some action. This is called reinforcement. The positive type is known to be most effective.
In extension the perceived or expected benefit is higher and perhaps more varied production and the opportunities that brings. The cost is both the resources required and the possibility of partial or whole failure.

However it is not necessary to perceive an obvious reward or punishment to learn. Most people learn also when the topic is interesting and well presented. It might be said that the enjoyable learning time is the reward, but this seems to be stretching the concept of reward. In other circumstances we ‘learn’ without intention and often without realizing we are learning, as when we watch cunning advertisements.

Training of villagers can use a wide variety of methods and locations including the mass media. In particular:

<table>
<thead>
<tr>
<th>Training Type</th>
<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>1. Specialized and General</td>
<td>♦ Training takes place in both specialized and general topics. The latter could include ‘steep land farming systems’ and ‘self-driven, sustainable development’.</td>
</tr>
<tr>
<td>2. Savings and Loan Groups</td>
<td>♦ The setting up and management of savings and loan groups is a major part of training.</td>
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<tr>
<td>3. Northern Training Centre</td>
<td>♦ NTC is not usually expected to train villagers directly, but local DAFO staff may hire the Centre</td>
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<tr>
<td>4. VDCs</td>
<td>♦ VDCs and other leaders, including extension and forestry volunteers will be offered training where appropriate.</td>
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<tr>
<td>5. Roles of Research Centres (NAFRI)</td>
<td>♦ Villagers should be informed of activities and results at the local research centres. Centres can be called upon to contribute when appropriate. For example, SCR and TIS can be called upon to conduct tours of their trials and demonstrations, give talks in the Centres and in villages and help conduct some trials (activities) in villages.</td>
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<tr>
<td>6. Inter-Village Idea Exchanges</td>
<td>♦ Training may involve people from more than one village. Certainly exchanges between villages will be encouraged.</td>
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<tr>
<td>7. Gender</td>
<td>♦ Women should be encouraged and assisted to attend training on all possible topics. Training should be relevant to women. Separate training for women may be appropriate or couples could be encouraged to come together. Women might be trained in self-confidence and independent expression.</td>
</tr>
<tr>
<td>7. Demonstrations Near Roads</td>
<td>♦ Where possible villagers with land near and in sight of roads will be encouraged to participate in new activities so they can easily act as general demonstration sites. Successful sites near roads could have an informative sign erected on the road and at the plot.</td>
</tr>
<tr>
<td>8. Literacy Training</td>
<td>♦ It may be cost-effective to introduce literacy training in conjunction with cartoons.</td>
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</table>
| 9. Camera | ♦ A camera is very useful and can open the possibility in particular for the use of slides in training. If necessary training centres
should be provided with a slide projector.
**Villager Training Summary**

<table>
<thead>
<tr>
<th>PLACES</th>
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<tbody>
<tr>
<td>♦ In-village lectures</td>
</tr>
<tr>
<td>♦ In Training Centre or other seminar rooms</td>
</tr>
<tr>
<td>♦ Local study tours to research centres:</td>
</tr>
<tr>
<td>♦ Local study tours to other villages: inter-village idea exchanges</td>
</tr>
<tr>
<td>♦ In village farm tours</td>
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<tr>
<td>♦ Distant study tours</td>
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<table>
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<tr>
<th>PARTICULARS</th>
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<tbody>
<tr>
<td>➢ Starting with whole-village training</td>
</tr>
<tr>
<td>➢ For women as well as men</td>
</tr>
<tr>
<td>➢ For Savings and Loan Groups and steep-land farming systems in Phase 1</td>
</tr>
</tbody>
</table>

**Mass Media Extension**

In Australia farmers learn more from newspapers than they do from the government. In Lao PDR extremely few farmers can read well so this is not an option, but most can understand spoken Lao so can listen to the radio and could watch a video in Lao. Most can read a little so they could at least struggle with a cartoon.

A radio programme, cartoons and a video are proposed to contribute to the extension effort. They can be seen as trials, as part of the model building and testing idea, as adaptive action research. They should be objectively evaluated, comparing socio-economic costs and benefits or impact. They could complement the three largely face-to-face field extension methods.

Media extension should be introduced gradually as skills and experience grow in any district. Possibly they could be introduced in a second group of villages after a district has had experience with the three phases of SLEF.

Few villagers have television so it will be necessary to invite villagers to watch the video either in the village or at the training centre or similar.

The three communication media activities could be produced around the activities, but could quickly have an impact outside them. Some or all villages can be offered a media trial: separate and/or a combination of cartoons, videos and encouraged to listen to the radio programme (an estimated 60-70% of villagers have radios and they are said to listen to them much of the day). For selected villages without other activities, progress in those with the new media effort and those without could be compared.
Radio Programme

A radio programme can be produced as a collaboration between an Extension Unit and government radio with the participation of other relevant units working such as NTC, DAFO, SCR and TIS). The programmes would be produced in villages chosen by government personnel, some other locations such as markets, and at the Radio station.

Training would be organized in field interviewing for government staff.

Programme Concept:

It is proposed that the programme be in a discussion or debate format, chaired by an interviewer. Extension and other staff from PFO, DAFO and NTC would identify rural topics of interest as well as the people to participate in the programmes. These would include villagers, government staff and others such as traders. The discussion topic and usually two or more participants would be chosen to create an interesting story, problem or issue usually involving a disagreement of attitude, fact or feeling. At least one PFO or DAFO officer would be included in the interview to help adjudicate and summarize the issue for the listeners. The aim is to create an exciting and informative programme that villagers will want to listen to and can learn from.

The radio programme will of course go to out to all villages in the region, but we will be able to encourage certain villages to listen and perhaps hold weekly discussion groups after the programme is over. If villages are chosen which have no other government extension activity, it will be possible to compare the thought and action in these villages before and after the programme, and others without the activity or encouragement to listen to and discuss the radio programme. Some villagers could be also offered cartoons and/or video.

Cartoons

Cartoons are an effective form of communication for semi-literate as well as literate people. They can be produced locally using simple language appropriate for most villagers.

A local artist could be hired to sketch ideas for the cartoons while accompanying and interacting with extension officers and villagers. The extension officers would contribute to the cartoon story and dialogue. The artist would carry out some basic training of government staff and perhaps some village children in drawing. A draft version of the cartoons should be photocopied for testing on a sample of villages.
An Extension Video

A one-hour video could be produced showing extension methods and results. The video could be made in two half-hour parts: Part A would be a video to illustrate and compare the two face-to-face extension methods:
- Village Planning – Model (Demonstration) farms (and Revolving funds)
- SLEF (previously known as Flexible or Spatdggof Extension)

Part B would show the results for the methods.

The video production would have two aims:
A. To assist in the evaluation of the methods by officials of the government nationwide. The video could be viewed in conjunction with reading of documents.
B. To show new organization and production methods to villagers, i.e. to be a part of extension.

A five day trip and a follow up 3 day trip for a trainer to come to teach video methods to NTC is suggested.

Summary on Media Extension

Radio
1. For the illiterate and literate
2. Keep within acceptable limits by having Radio interviewer
3. Keep authoritative by having government staff as well
4. Arrange for training of government staff
5. Make more interesting by:
   6. Choosing interesting topics
   7. Controversy
   8. Having two or more people at a time
   9. Including villagers

Cartoons
1. For the semi-literate
2. Hire an artist
3. Bring the artist on extension trips
4. Everyone discusses ideas
5. The artist draws ideas
6. Cartoons completed at home
7. Cartoons are photocopied for testing
8. Cartoons are printed in large numbers
9. Evaluate by discussion and interview

Video
1. Test local skills and equipment first
2. Hire a trainer for 5 days
3. Begin video on extension methods
4. Hire trainer for 3 more days
5. Continue video on methods
6. Make video on results
7. Use videos in extension and evaluation of methods
8. Evaluate video

## Flexibility

Flexibility within guidelines

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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<tbody>
<tr>
<td>1. Village production activities</td>
<td>Field activities can be planned, implemented and modified quickly</td>
</tr>
<tr>
<td>2. Exact steps</td>
<td>Work can vary according to the local conditions.</td>
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<tr>
<td>3. Introduction of new ideas</td>
<td>New ideas can be quickly adapted. Staff can learn as they practise.</td>
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<tr>
<td>4. The way funds are used</td>
<td>The annual plan is generalized and uses unit costs so that quarterly and especially monthly plans can contain more detail as the conditions are gradually better known. Grants to individual farmers or S&amp;L groups</td>
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</table>

- Different approaches can be tried in different villages, so as to compare impacts.
- It is easy to coordinate with other institutions

Flexibility is possible in the exact steps to be followed in the extension process, planning of village production activities, and the way funds are used, all within guidelines. Field activities can be planned, implemented and modified quickly. Work adapts to villager knowledge and feelings, to the weather and the market, to training opportunities and to training demands. It adapts to village life and what the towns and centres have to offer. It adapts to changes resulting from earlier activities. Flexibility allows quick adaptation to new ideas. The government staff are learning all the time and use their new knowledge to improve their methods.

Different approaches could be purposefully tried in different villages, so as to compare impacts. There is no need to follow exactly the same order or process in each village, quite apart from the adaptability referred to above, as long as the differences are documented (reported on). For example, we have varied the proportion of funding granted directly to farmers. A greater or lesser emphasis could be put on pre-activity survey/study of village conditions.

There are two views on village study in the village development process. One is that thorough study should proceed production or other development activities. The other, which tends to be favoured here, is that study and activity can parallel each other. It can be best to facilitate small income generating activities to gain the villagers’ confidence and support before detailed study or even environmental work. This reflects the villagers’ commonly perceived interests or wants. Mistakes are minimized as all work is a
collaboration with the villagers, and activities start gradually and are always open to adjustment.

Flexibility is possible due to the trust and authority given to the district agricultural-forestry officers (DAFO) under the guidance of their head team. This is discussed above.

The better an area and its people are known, and the more villages have new ongoing activities, the more standardized the procedures can become, but participation and flexibility should always be preserved. The standardization itself should be flexible. Standardization can result in greater cost-effectiveness, but probably mainly where the programme is large, inequality is not marked, and conditions are socio-economically and environmentally fairly uniform.

Flexibility should not however be an excuse for fickle deviation from any plan. It is wrong for ‘flexibility’ to be invoked when staff wish to take a short cut in the process to ‘save time’ or ‘take a rest’ when this has not been discussed by the team and entered into a modified plan. This is not flexibility but a work irregularity.

References


Souvanthong, Pheng, 1995. Shifting cultivation in Lao PDR: and overview of land use and policy initiatives. IIED.


See also many references in Tuckson (1998).
FEEDBACK

This manual is still under development

To help us improve this manual:

Your Type of Work:  Adaptive Research,  Extension,  Management,  
Other .(State)…………………..
Please tick one or more of the above

Ranking of Aspects of the Manual:

<table>
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<th>Low</th>
<th>Medium – Low</th>
<th>Medium</th>
<th>Medium - High</th>
<th>High</th>
<th>Very High</th>
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<tbody>
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<td>1. Interest</td>
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<td>2. Proportion Understood</td>
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<td>3. Importance of Ideas for Work</td>
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<td>4. Ability to Apply New Ideas Now</td>
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<td>5. Clarity of writing</td>
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<td>6. Organization of manual</td>
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<td>7. Desire to Learn More</td>
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<td>8. Overall Quality</td>
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Strong points of manual:

Weak points of manual:

About Which Topics Would You Like More:

Other Comments and Suggestions: