

Lao Peoples Democratic Republic

Peace - Independence - Democracy - Unity - Prosperity

## Technical Booklet 1

# Procedures and Methods for Land Use Planning and Land Allocation

System 1  
Participatory Village  
Development and  
Sustainable Land Use

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Lao-Swedish Forestry Programme, June 2001

## Foreword

*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 its 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.*

20 March, 2001

Minister for Agriculture and Forestry



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## Participatory Village Development and Sustainable Land Use System



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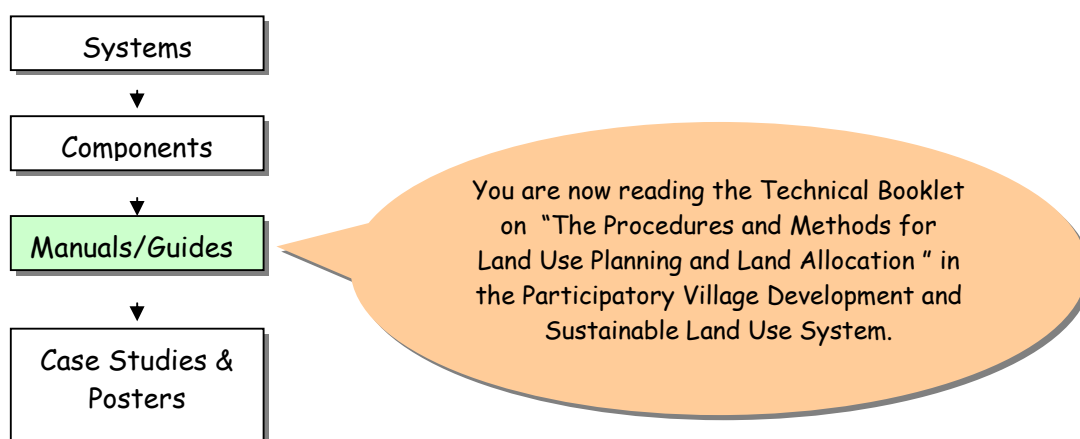
**About this Document**

## 1. Intended Audience of this Technical Booklet

- Heads of Provincial Forestry and Agricultural Sections.
- Heads of District Agriculture and Forestry Offices.
- District Land Use Planning and Land Allocation Officers.
- Regional Forestry and Agricultural Training Centres (RTC).

## 2. Explanation of “Manuals/Guides/Technical Booklets”

Manuals/Guides and Technical Booklets are documents that provide practical information on procedures and methods for implementing activities at field level. They have been developed based on experiences at the local levels under the model/method development programme during Phase 4 of the LSFP. Documents have been produced in both the English and Lao languages for each of the four systems in the model/method development programme.



## 3. Purpose of this Document

- To summarise the procedures, methods and practices for participatory land use planning and land allocation (LUP/LA) as tested and practised in target areas of the LSFP.
- To provide guidance for provincial, district and Training Centre personnel involved in land use planning and land allocation at the village level.

## 4. Information Provided in this Document

- An introduction to the 10 stages in the participatory LUP/LA process.
- A summary of the procedures, methods and practices in each of the 10 stages of participatory LUP/LA.

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# Introduction

The following is a summary of the process for land use planning and land allocation that has been adopted by the Government of Lao PDR. The various steps were established from field experiences between 1996 and 2001. Eight of the stages were first adopted at the National Land Use Planning and Land Allocation Conference in July 1997. Since 1997 the Land Use Planning Sub-project of the Lao Swedish Forestry Programme (LSFP) has continued method development activities which have resulted in improvements and changes, there now being 10 stages in the process. These stages and the various steps within each of the stages are presented in this document.

The steps presented have sets of activities that are undertaken during village land use planning and land allocation activity. While the stages are described stage by stage, flexibility is recommended during implementation depending on the situations that are encountered in each village.

Within each step are a series of activities that are necessary for the successful accomplishment of LUP and LA in a village. These activities are also described stage by stage, however when LUP/LA is implemented, flexibility is recommended.

## The LUP/LA Process

LUP/LA is not a rigid procedure. The 10 stages of LUP/LA may be carried out in phases depending on circumstances. In some cases it may be preferable to undertake LUP and LA over a period of months if staff resources are limited or funds are insufficient. In other cases the land use situation in a village may be quite complicated, making it preferable to do the LUP and LA during a number of separate visits over one, two or three years to enable problems to be resolved progressively.

**Table 1: Summary of the Stages in LUP/LA**

Stage	Details
1	LUP and LA Preparation
2	Village Boundary Delineation and Land Use Zoning
3	Data Collection and Analysis
4	Village Land Use Plans
5	Forest and Agricultural Land Allocation Decisions
6	Field Measurement of Agricultural Land
7	Forestry-land Agreements and Transfer of Rights to Villagers
8	LUP and LA Information Storage
9	Agricultural Land Allocation Records
10	Monitoring and Evaluation

## Activities in LUP/LA

### Stage 1: Preparation for Implementing LUP/LA Activities

#### ❖ Staff Preparation

##### **Prepare Implementation Teams at District and Provincial Levels and Conduct Training for Team Members:**

- Select appropriate staff to conduct LUP/LA procedures.
- Provide training on LUP/LA methods and activities.
- Define the team tasks at village level.
- Prepare LUP/LA forms and documents.

##### **Prepare Survey and Mapping Equipment and Materials:**

- Select 1:100,000 or 1:50,000 topographic map sheets covering the target village area for use in land use planning and drawing village land use maps.
- If available choose aerial photos at scales between 1:5000 to 1:30,000 to help identify village boundaries, land uses and land ownership.
- If aerial photographs or satellite images are available, use them to interpret and define, forest types and land use areas in the target village area.
- Ensure that all essential equipment for mapping, land measurement and area measurement is available for use in the village.

##### **Arrange for Neighbouring Villages to Attend the LUP and LA Exercise in the Target Village:**

- Prepare a written invitation for senior representatives from neighbouring villages to attend the LUP and LA activity.
- Send the invitation to the neighbouring villages 3 days before the LUP and LA activities are due to start in the target village.



## ❖ Villager Preparation or Orientation

### **Explain the Implementation Activities and Methods of the LUP Process to the Village Committee and Village Organisations:**

- Collect general village information and prepare village profile.
- The various steps and work activities that will be undertaken during the LUP and LA exercise.
- Data collection activities which will be undertaken.
- Provincial and District land allocation provisions and instructions.
- Advise that there will be a LUP and LA committee formed and request the villagers consider the membership of the committee.
- Explain that a village forest and agricultural land management agreement will be prepared
- Explain activities in which women will be involved.

### **Explain GoL Policies, Regulations and Objectives to Villagers:**

- Explain the detail in the relevant GoL decrees and regulations to villagers in the target village and to elders from villages with adjoining boundaries.
- Explain about land use options for agricultural land to villagers.
- Present the names of persons selected for the village LUP/LA committee and prepare the village LUP and LA Committee Formation Document.
- Explain the potential rights, responsibilities and benefits for villagers from LUP and LA.

## **Stage 2: Survey and Mapping of Village Boundary and Forest and Agricultural Land Use Zones**

### **❖ Determine Village Boundaries and Prepare Boundary Agreement**

- Discuss the location of target village boundaries with village elders/leaders and village elders/leaders from neighbouring villages.
- Use "ground sketches", topographic maps and aerial photographs if available, to reach agreement on the land boundaries of the target village.
- Survey/inspect the village boundaries to verify the agreed boundaries.
- Resolve inter-village boundary disputes using negotiations and site inspections
- Complete a written document to indicate that agreement on the village boundary has been reached.
- Indicate the village boundary with strategically placed sign boards.

### **❖ Draw a Village Base Map**

- Method 1: If only topographic maps of 1:100,000 are available, use pantograph or scale ruler to prepare a village base map of scale 1:10,000 or 1:5,000 depending on the size of the village area.
- Method 2: If aerial photographs of scale 1:30,000 down to 1:5,000 are available, prepare a village base map of scale 1:10,000 or 1:5,000 depending on the size of the village area.
- Indicate on the map the following features: the village boundary, roads, tracks, streams and other important landmarks.

### **❖ Survey Village Landmarks and Topographic Features to Establish Village Reference Points:**

- Prepare survey instruments such as hand compass, inclinometer, measuring tape, topographic map, field maps of 1:5,000 or 1:10,000 and aerial photographs if available.

- Prepare materials to assist surveys such as survey posts, paint, bush knives, and digging hoes.
- Survey all important roads, tracks and other features which can not be drawn from the topographic map or the aerial photographs.
- Place permanent survey marker posts along the survey lines at 100 meter intervals and paint the reference data on each post.
- Record the various survey data on field survey form
- Draw the surveyed lines and reference points on the base map.

### ❖ **Identify Village Forest and Agricultural Land Use Zones**

*(Refer to Technical Booklet 3, "Forest and Land Use Zoning" for more details)*

- Survey the village forest areas with villagers to gather data with which to identify forest types, land use zones and locations.
- Use the enlarged maps and aerial photographs (if available) to reach agreement on the locations of various forest and agricultural zones with the LUP and LA committee. Zoning should be consistent with government criteria relating to forest and agricultural land use.
- Draw the surveyed village forest and agricultural land use zones on the 1:10,000 or 1:5,000 scale village base map.
- Calculate the total village area (within the agreed boundaries) and calculate the areas of the various forest and agricultural land use zones.
- Indicate the various forest and agricultural land use zones with sign boards.
- Prepare a village sign board showing the village land use zones and topographic features.

## **Stage 3: Data Collection**

### **❖ Gather Information on Village Land Tenure, Land Use and Land Claims**

- Understand how the customary shifting cultivation system works.
- Determine what changes have occurred to the system in the last 10 years and why the changes occurred.
- Identify factors within the system that will affect the proposed land allocation activity.
- Record details of all paddy lands, permanent farming lands (orchards and commercial trees) and upland fields which farmers are presently using i.e., current land use.
- Record details of all upland fields previously used i.e., land ownership situation.
- Record details of agricultural land parcels each family wishes to claim so data is available to facilitate land measurement activity.

### **❖ Gather Socio-Economic Information and Data on Perceived Problems and Needs**

- Conduct a socio-economic survey of all families in each unit in the village.
- Conduct a problem/needs survey of all families when socio-economic data is being collected.
- Conduct a women's meeting; arrange discussion groups to record their views and problems on the agricultural production and forest management systems.
- Collect economic crop/commodity data to assist with land allocation.
- Collect data on births and deaths and migration details for estimating crude population growth rates.
- Collect NTFP data from both female and male informant groups.

## Stage 4: Village Land Use Plans

*(Refer to Technical Booklet 7, "Demonstrating Land Use Practices in the Uplands" for more details. LUP staff should co-operate with extension staff in preparing village land use plans. Extension staff should be responsible for the implementation of demonstrations and extension activities)*

- Conduct staff and villager awareness training on the definition, objectives and activities in forest and agricultural the land use planning.
- Review and use existing village forest and agricultural land management agreements to help prepare village land use plans with villagers.

### ❖ Step 1: (LUP and Extension staff)

#### For Forest Zones:

- Use the forest use zones delineated and mapped in Stage 2 for preparing village forest use plans.
- Prepare initial forest land use zone management agreements with villagers.

#### For the Agricultural Zones:

- Define appropriate agricultural land use classes for lowland, sloping land, irrigated land, grazing land etc.
- Select suitable land use options based on land use classes & land slope.

### ❖ Step 2: (LUP and Extension staff)

Prepare a long term land use demonstration involving several farmers with land of different land use classes and slope using the following steps:

- Conduct meetings with farmers to explain the objective of a land use demonstration.
- If villagers express interest in a demonstration, select a demonstration site in consultation with interested families
- Select demonstration participants.
- Conduct a field survey of the site to define land ownership and land parcel boundaries and to record land slope data.
- Prepare a sketch map of the site showing land ownership and current land use.

❖ **Step 3: (Extension staff)**

- Prepare a demonstration activity plan with participating families based on land slope and farmer land use preferences.
- Prepare a budget for the activity plan.
- Verify activity plans with participating families prior to planting time.
- Implement demonstration activity plans with farmers.
- Conduct land use demonstration field days or farmer exchange visits.
- Monitor results to facilitate planning for the second year.

❖ **Step 4: (Extension staff)**

- Expand demonstration activities with other interested farmers in the second year based on land slope and farmer land use preferences, using similar procedures explained in Step 2 above.
- Implement forest and agricultural land use plans.
- Monitor results and prepare on-going land use plans for the next year.

## **Stage 5: Forest and Agricultural Land Allocation**

### **❖ Summarise and Analyse the Village Information collected in Stage 3 and Determine Agricultural Land Allocation Criteria**

- Socio-economic survey data summary and analysis.
- Problem/needs survey data and women's data analysis (using a problem solving meeting to consider causes and solutions with representatives from all families).
- Population growth rate data analysis.
- Identify and study the types of data that are critical for allocation of land for economic agricultural crops and commercial agro-forestry tree crops, ie, areas required for economic production.
- Agree on land allocation strategies and criteria for the village based on the results of the data analysis.
- Summarise the family agricultural land claims and socio-economic data from the socio-economic and land use /ownership data forms in readiness for the agricultural land allocation meeting.

### **❖ Village Land Use Planning and Land Allocation Meeting**

- Use the land use zoning map to discuss land use management with villagers before allocating agricultural land.
- Verify forest categories/zones with villagers.
- Reach agreement on appropriate land uses for each of the land use zones.
- Verify with villagers the land which lies within the agricultural land use zone.
- Negotiate with the LUP and LA committee and cultivators to relinquish farming plots in "critical" forest land areas.
- Explain that reserve land should be set aside within the agricultural zone to cater for future family divisions and population growth.

### **❖ Verify Land Ownership, Review Land Claims and Allocate Land**

- Use the agreed land allocation criteria for the village to allocate permanent and fallow fields for each family.
- Read out the land claims and pertinent data for each family for consideration by the villagers.

- Invite each family to verify their plots of permanent crop land used and fallow fields claimed.
- Consider families claims for temporary land use rights for permanent crop land and fallow fields.
- If there are disputes and counter-claims over plots of land claimed, use villager consensus to mediate and resolve the problems.
- Ensure that agricultural plots are allocated only within the agricultural land use zone.



## **Stage 6: Field Measurement**

### **❖ Conduct Field Measurement of Agricultural Fields and Record Information Concerning Land Use**

- Prepare 1:10,000 or 1:5,000 scale field maps for each survey team to facilitate finding the plots and locating agricultural fields accurately on the map.
- Prepare a list of the plots to be measured for each measuring team.
- Provide each measuring team with a set of instruments and field survey forms for each measuring group before going to measure fields.
- Measure all sides and the boundary angles of all fields (fallow and in use) and record data on the field survey forms.
- Measure land slope in % and record soil condition for each field on the field survey forms.
- Agree on proposed land use for each of the plots measured and record the land use on the field survey forms.
- Locate each field based on proximity to the established reference points and record details to identify the field.
- Draw a sketch map of each plot on the field survey form.
- Mark and identify on the field map the location of each agricultural plot measured.

## **Stage 7: Preparing Agricultural and Forestry Agreements and Transferring Land Use Rights to Villagers**

### **❖ Prepare Temporary Agricultural Land Transfer Certificates and Land Use Contracts for Each Family**

- Use data from field measurement to calculate allocated plot areas and prepare the land transfer and contract forms.
- Discuss the detail with each family and verify correctness, i.e., number of plots, areas of plots, proposed land use, appropriate conservation practices.
- Sign the Land Transfer and Contract forms.

### **❖ Confirm Forest and Agricultural Land Use Zones with Villagers Using the Completed 1: 10,000 Village Map**

- Confirm locations, areas and uses of forest zones.
- Confirm locations, areas and ownership of agricultural land parcels.
- Confirm that spare land in the agricultural zone will be available for family division and population growth rates in the future.

### **❖ Prepare Village Forest and Agricultural Land Management Agreement**

*(Refer to Technical Booklet 2, "Methods for Preparing Village Forest and Agricultural Land Management Agreements" for more details)*

- Use the land use zoning map to discuss appropriate forest and agricultural land management rules for each of the land use zones.
- Examine the existing village rules and agreements (if available).
- Discuss existing rules with LUP and LA Committee, propose improvements and provide opportunities for the committee to include articles relevant to the village.
- Conduct follow-up meeting with the LUP and LA Committee to discuss, review and update the agreement.
- Present draft agreement to the villagers and give them an opportunity to discuss, comment, change and agree with the agreement.

- Endorse and have the agreement signed by the Village Head, the LUP and LA committee and the District Governor.

#### ❖ **Summarise LUP/LA Activities with Villagers**

- Arrange a general village meeting with villagers, both men and women.
- District staff advise villagers of the purpose of the meeting.
- District staff present a report on the activities, achievements and problems of the LUP exercise.
- Using the village map, confirm the location of the village boundaries, agricultural production areas and forest category areas to ensure the villagers and neighbouring villages agree.
- Present the village forest and agricultural land management agreement and give recommendations for appropriate land use.
- Hand-over the temporary land transfer documents and contracts to families.
- District provides further suggestions and recommendations for village consideration.
- Village Head presents comments on the activities completed and agreements reached with the District Office.

## **Stage 8: LUP/LA Information Storage**

*(Refer to Technical Booklet 4, LUP/LA Information Storage Methods for more details)*

- ❖ **For each village in which land allocation is implemented prepare copies of each of the following:**
  - Village forest and agricultural land use maps and sketch maps.
  - LUP/LA Committee Formation Record.
  - Inter-village Boundary and Management Area Agreements.
  - Boundary Dispute Resolution Records.
  - Village Forest and Agricultural Land Management Agreement
  - Village land use planning data (socio-economic, land use, data summary, population, NTFPs etc).
  - Village land allocation data (TLUCs and LUCs).
  - Village LUP/LA reports.
  
- ❖ **Store all documents in hard-back clip folders; one set at DAFO and one set at the village.**
  
- ❖ **Store maps in mapping cylinders or cabinets; one set at DAFO and one set at the village.**

## **Stage 9: Agricultural Land Allocation Records**

*(Refer to Technical Booklet 5, Establishing TLUC Record Books for more details)*

**❖ When land allocation is completed in each village a Temporary Land Use Certificate Record Book needs to be established at the DAFO following the steps below:**

- Collect all TLUCs and label each TLUC with consecutive DAFO numbers.
- Cross-check the details of each TLUC document against each accompanying Land Parcel Map.
- Label each parcel on the Village Land Use Map with a unique number.
- Cross-check the details of each TLUC against the Village Land Use Map.
- Transfer the parcel numbers from the Land Use Map onto the TLUCs.
- Correct the errors found in the TLUC's the Village Land Use Map.
- Transfer data from the TLUCs to the Parcel Checklist.
- Compile the Land Allocation Record Book (Transfer the data on the Parcel Checklist to the TLUC Record Book).
- Store the TLUC Record Book, Village Land Use Map and TLUC documents using Information Storage procedures (see Stage 8 above).

## **Stage 10: Monitoring and Evaluation**

*(Refer to Technical Booklet 8, Monitoring and Evaluation for LUP/LA) for more details)*

- ❖ **Prepare monitoring and evaluation procedures and forms and field test the procedures and forms.**
  
- ❖ **Conduct field monitoring with district staff, the village LUP/LA committee and villagers including:**
  - Progress or activity monitoring.
  - Monitoring impact of LUP/LA on communities.
  - Monitoring of staff adoption of LUP/LA procedures and methods.
  - Functioning and capability of village LUP/LA committee; including management of forest and land resources, the implementation of the village forest-land use agreements, resolving land use disputes, etc.
  - Villager adoption of appropriate land uses and conservation farming practices.
  
- ❖ **Conduct inspections with district staff, the village LUP/LA committee and villagers, including investigations and problem solving of:**
  - Boundary infringements.
  - Land use zoning infringements.
  - Land parcel use infringements.
  - Village Forest-land Use Agreement infringements.
  - Inter-village land use disputes or conflicts.
  
- ❖ **Prepare a report for supervisors and feedback monitoring results to the District and local levels.**

## **Glossary of Terms and Acronyms**

<b>DAFO</b>	District Agriculture and Forestry Office
<b>DoF</b>	Department of Forestry
<b>GOL</b>	Government of Lao PDR
<b>LSFP</b>	Lao Swedish Forestry Programme
<b>LUC</b>	Land Use Contract
<b>LUP</b>	Land Use Planning
<b>LUP/LA</b>	Land Use Planning and Land Allocation
<b>PAFO</b>	Provincial Agriculture and Forestry Office
<b>PFO</b>	Provincial Forestry Office
<b>RTC</b>	Regional Training Centre
<b>TLUC</b>	Temporary Land Use Certificate
<b>NTFP</b>	Non-timber Forest Products