



MANUAL  
for Government Staff  
and Development Workers

PARTICIPATORY  
LAND USE PLANNING  
PLUP

in Rural Cambodia



# PARTICIPATORY LAND USE PLANNING

PLUP  
in Rural Cambodia

MANUAL  
for Government Staff  
and Development Workers

Ministry of Land Management, Urban Planning and Construction



**Compiled and edited by:**

Florian Rock, Consultant on Natural Resources Management

With contributions by all Projects and Participants from Workshops on PLUP

(September 1999, April 2000, June 2000, March 2001)

**Conceptualized and sponsored by:**

Sustainable Management of Resources in the Lower Mekong Basin Project, MRC/GTZ

**Published and distributed by:**

Ministry of Land Management, Urban Planning and Construction (MLMUPC) through  
National Task Force on PLUP

**Designed by:** Li Migura

Phnom Penh, December 2001



## Contributions, Acknowledgements

This manual came into existence through a process of two years. Many organizations and individuals participated either with technical advice and project documentation, case studies, relevant information, and also financially:

### Government Organizations

- Ministry of Agriculture, Fisheries and Forestry; Department of Forestry and Wildlife
- Ministry of Agriculture, Fisheries and Forestry; Department of Agronomy
- Ministry of Agriculture, Fisheries and Forestry; Department of Fisheries
- Ministry of Agriculture, Fisheries and Forestry; Provincial Forest Office; Mondulkiri
- Ministry of Environment, Department of Nature Conservation and Protection
- Ministry of Land Management Urban Planning and Construction; General Department of Land Management and Urban Planning
- Ministry of Land Management Urban Planning and Construction; Department of Cadastre and Geography

### Non Government Organizations

- Concern Worldwide
- Handicap International
- World Wide Fund for Nature

### Projects

- CBNRM (Cambodia Area Rehabilitation and Regeneration Project and IDRC), Ratanakiri
- Cambodia German Forest Project; (Technical Cooperation-Federal Republic of Germany), Kompong Speu
- Land Use Planning Unit for mined Area, (Cambodia Area Rehabilitation and Regeneration Project and World Vision International-Cambodia), Battambang
- Land Management Project, (Technical Cooperation-Federal Republic of Germany), Cambodia
- Participatory Natural Resources Management of the Tonle Sap Region, (Food and Agriculture Organization of the United Nation), Siem Reap
- Integrated Food Security Program; (Technical Cooperation-Federal Republic of Germany), Kampot
- Participatory Management of Mangrove Resources, Koh Kong
- Provincial Development Program; (Technical Cooperation-Federal Republic of Germany), Kompong Thom
- Non Timber Forest Products Project, (Oxfam GB), Ratanakiri
- Sustainable Management of Resources in the Lower Mekong Basin Project, Cambodia

### Individuals

- Christoph Feldkötter; Consultant for GIS, Cambodia
- Doug Henderson; Consultant for Community Forestry
- Florian Rock; Consultant for Participatory Land Use Planning
- Melissa Marschke; Project Advisor for Participatory Management of Mangrove Resources
- Meng Monyrak; Consultant
- Paul Im; Consultant (earlier), now ADB, Cambodia
- Wayne Gum; Consultant
- Renaud Bailleux; FAO
- Gordon Paterson; NTFP

## List of Abbreviations and Acronyms

CB-NRM	Community Based-Natural Resources Management
CF	Community Forestry
CF-WG	Community Forestry Working Group
CPR	Common Property Resources
DAFF	Provincial Department of Agriculture, Forestry and Fisheries
DFW	Department of Forestry and Wildlife, Phnom Penh
DoA	Department of Agronomy, Phnom Penh
DoE	Provincial Department of Environment
DoF	Department of Fisheries, Phnom Penh
DRDC	District Rural Development Committee
FAO	Food and Agriculture Organization, Rome
GDCG	General Department of Cadastre and Geography in MLMUPC
GDLMUP	General Department of Land Management and Urban Planning
GIS	Geographic Information Systems
GPS	Global Positioning System
HRD	Human Resource Development
IO	International Organizations
JFM	Joint Forest Management
MAFF	Ministry of Agriculture, Forestry and Fisheries
MLMUPC	Ministry of Land Management, Urban Planning and Construction
MoE	Ministry of Environment
MoEF	Ministry of Economy and Finance
Mol	Ministry of Interior
MolME	Ministry of Industries, Mines and Energy
MRC	Mekong River Commission
MRD	Ministry of Rural Development
NGO	Non-Governmental Organization
NCFP	National Community Forestry Project (CONCERN Worldwide)
NTFP	Non-Timber Forest Products
NR	Natural Resources
NRM	Natural Resources Management
PA	Protected Areas
PLUP	Participatory Land-use Planning
PRA	Participatory Rural Appraisal
PRDC	Provincial Rural Development Committee (SEILA)
RRA	Rapid Rural Appraisal
UNEP	United Nations Environment Programme, Nairobi
VDC	Village Development Committee
VR	Village Regulations



## How to use this PLUP Manual

Your main interest is:	You should read chapter(s)
to understand first of all <b>what PLUP stands for</b> and what this manual is all about	1.1   1.2   1.3   1.4
to know more about and understand the <b>legal framework for land use planning</b> in Cambodia	2.1   2.2   2.3 annex 2
<b>policy development</b> in land management on a national level	2.1   2.2   2.5 annexes 2 and 4
<b>land classification</b> systems for land management	2.3   2.4   3.7 annex 3
to understand <b>who is involved</b> and who actually conducts the PLUP process	2.5   3.1   3.6   4.4   4.6   4.7 annexes 4 and 5
to set up a <b>training program</b> in relation to PLUP for field staff	3.1   3.2 annexes 5 and 6
to know more about the <b>support services and the data resources</b> available as well as the materials and equipments you will need to improve your on-going or planned PLUP activities	3.3   3.4   3.6 annexes 7, 8 and 9
to know specifically about <b>mapping</b> and mapping techniques	4.2.3 and annex 9
particularly on the " <b>participatory</b> " aspects of PLUP and you want to know more about the <b>use of PRA in PLUP</b>	1.2   3.2   4.2 annexes 1 and 11
to know <b>where to start</b> with PLUP, how to select a planning area and how to expand PLUP at a later stage	3.5 and 4.9
to know and understand the specific <b>steps and procedures</b> applied in PLUP	4. annex 10
to assist villagers in the development of <b>village</b> regulations as part of your on-going activities in community forestry, CB-NRM or PLUP	4.5.2, annex 12 some examples of village regulations in chapter 8
to assist villagers in drafting their <b>community management plans for forest or fishery areas</b>	4.5.3, annexes 13 and 14 some sample management plans in chapter 8
to understand the role of <b>monitoring and evaluation</b> in PLUP	4.8 case studies on impact assessments in chapter 8
the implication of conducting <b>PLUP under special conditions</b> in Cambodia, such as in Protected Areas/National Parks, in ethnic minority areas, or in de-mined areas	5.

## Table of Contents

<b>1. Introduction</b>	<b>1</b>	<b>4.2.1 First Phase</b> Participatory Appraisal/ Information Collection	<b>39</b>
1.1 Target Groups and Purpose of this Manual	2	4.2.1.1 Analyzing Socio-economic Aspects in the Working Area	40
1.2 Definition of Participatory Land Use Planning	4	4.2.1.2 Analyzing Institutional Aspects in the Working Area	42
1.3 Goal and Justification	7	4.2.1.3 Analyzing Current Land and Natural Resources Use Patterns	42
1.4 Conceptual Framework and Principles	7	4.2.1.4 Analyzing Current Land and Natural Resource Use Conflicts Changes in Resource Use	43
<b>2. Framework Conditions</b>	<b>9</b>	<b>4.2.2 Second Phase</b> Preliminary Analysis of Information and Feedback to the Entire Community	<b>45</b>
2.1 Legal Aspects	10	<b>4.2.3 Third Phase</b> Transect Walks, Mapping and Modelling	<b>46</b>
2.2 National Policies with regard to Land Management	12	4.2.3.1 Assess and Map Present Land Use and/or Prepare Models	46
2.3 Land Tenure Issues	14		
2.4 Land Categories	18	<b>4.2.4 Fourth Phase</b> Feedback to Entire Community	<b>49</b>
2.5 National Institutions with Relevance to PLUP	19		
<b>3. Getting Started (Step 0)</b>	<b>23</b>	<b>4.3 Step 3 Preliminary Identification and Screening of Options</b>	<b>50</b>
3.1 PLUP Facilitation Teams and their Tasks	24	4.3.1 Identification of Land Use Areas Requiring Changes	50
3.2 Preparatory and On-the-Job Training for PLUP Teams	25	4.3.2 Evaluation of Options	52
3.3 Support Services and Data Resources on the National Level	26	4.3.3 Technical Suitability Assessments	53
3.3.1 Libraries	26	4.3.4 Decision on Best Options for Future Land Use	53
3.3.2 Internet Sites	26		
3.3.3 Mapping and GIS Units	26	<b>4.4 Step 4 Creation of a Management Committee</b>	<b>54</b>
3.3.4 Other Specialized Services	27		
3.4 Materials and Equipment used during PLUP	27	<b>4.5 Step 5 Preparation of Future Land Use Plan, Village Regulations, and Detailed Management Plans</b>	<b>56</b>
3.5 Selection of Planning Area	29	4.5.1 Future Land Use Plan	56
3.6 Stakeholder Analysis and Review of Existing Information	30	4.5.2 Village Regulations	56
3.7 State Land and Concession Areas	31	4.5.3 Management Plans for Communal Areas	59
<b>4. Steps and Procedures of PLUP</b>	<b>33</b>	<b>4.6 Step 6 Submit Land Use Plan, Regulations, and Management Plans for Official Endorsement and Approval</b>	<b>62</b>
<b>4.1 Step 1 Preparation of Field Work</b>	<b>35</b>		
4.1.1 Distribution of Tasks among the PLUP Facilitation Team Members	35		
4.1.2 Inform Local Population and Neighbouring Villages	36		
4.1.3 Introductory Meeting in the Working Area	36		
<b>4.2 Step 2 Situation Analysis in the Community</b>	<b>39</b>		

4.7	Step 7	Implementation of Action Plans and Land Allocation Programs Link to Extension Services and Conflict Resolution	63
4.8	Step 8	Monitoring and Evaluation	65
4.9		Expansion and Time Requirements of PLUP	66
5.		PLUP under Special Conditions	67
5.1		PLUP in Protected Areas/National Parks	68
5.2		PLUP in Ethnic Minority Areas	68
5.3		PLUP in Forest Concession Areas	71
5.4		PLUP in the Fishery Domain	71
5.5		PLUP in De-mined Areas	73
6.		References	78
7.		General Annexes	
Annex 1		Participation in PLUP	1
Annex 2		List of Legal Documents with Relevance to NRM in Cambodia	2
Annex 3		Example of a Land Classification System for Cambodia	6
Annex 4		Institutional Aspects of PLUP in Cambodia	9
Annex 5		Sample Terms of Reference for PLUP Field Teams	15
Annex 6		Human Resource Development Facilities and Opportunities	16
Annex 7		Support Services and Information Resources	20
Annex 8		GIS Support Centres and available Data Sets	23
Annex 9		Maps, Aerial Photos, Satellite Imagery and GPS	27
Annex 10		Flowchart Table on Steps and Procedures in PLUP	35
Annex 11		Description of suitable PRA Tools for PLUP	57
Annex 12		Guidelines and Guiding questions for the Elaboration of Village Regulations and Example of a Village NRM Activity Plan	66
Annex 13		Guidelines on Participatory Forest and Fishery Inventories	70
Annex 14		Example for the Structure of a Community Forest Management Plan	76
Annex 15		Conflict Resolution Mechanisms	78

8.		Special Annexes: Case Studies and Examples of Village Regulations or Community Management Plans	
8.1		Examples of a PLUP/LA process from Lao P.D.R. and Vietnam	80
8.2		Case Study on Community Forestry provided by PNRM (FAO) Siem Reap	82
8.3		Example of a Community Forestry Management Plan provided by PNRM (FAO) Siem Reap - Community Forest of Kompong Phluk Commune	92
8.4		Example of a Community Forestry Management Plan provided by PNRM (FAO) Siem Reap - Community Forest of Bos Thom Village	103
8.5		Case Study on Participatory Monitoring and Evaluation/ Social Impact Assessment by PNRM (FAO) Siem Reap, submitted by Mr. Renaud Bailleux	110
8.6		Example of Village Regulations provided by PDP Kampong Thom (GTZ),Don Laor V.	112
8.7		Example of Community Forestry Statutes provided by CONCERN Worldwide - Chamkar Phnom Kly, Preream Rangsey Village	120
8.8		Example of Community Forestry Statutes provided by CARERE Battambang, Thmey V.	125
8.9		Example of Community Forestry Statutes provided by CB-NRM (IDRC/CARERE) Ratanakiri - Sorm Thom Commune, Oyadav District	130
8.10		Example of PLUP in Ministry Areas of North-Eastern Cambodia and Experiences made in Kroh Lah Village, provided by Mr. Gordon Paterson, NTFP Proj. Ratanakiri	143
9.		Boxes, Graphics (Manual)	
Box 1		Target Groups of this Manual	2
Box 2		Purpose of this Manual	3
Box 3		Definitions for PLUP proposed by FAO & UNEP and GTZ	4
Box 4		Differences between a "traditional LUP" approach and PLUP	5
Box 5		PLUP is a Method	7
Box 6		Statement of the Royal Government on Land Policy	13
Box 7		Land Tenure Issues in Land Management	15
Box 8		Roles of Government Institutions in Relation to PLUP	21
Box 9		List of Criteria for Area Selection	29
Box 10		Approaches used by various Projects in the Development of Regulations	57
Box 11		Key Problems Leading to the Formation of LUPU/ PSC	74
Box 12		Criteria of High Priority Minefields	74
Graphic 1		Resource Tenure Schemes in Cambodia	14
Graphic 2		Process of PLUP	34
Graphic 3		Planning of Different Levels	Annex 4/11



## 1. Introduction

The present manual on Participatory Land-use Planning (PLUP) in Cambodia is the outcome of a series of workshops on PLUP in which many actors involved in the implementation of community forestry approaches and community based natural resources management programs have participated. The organizations represented in the workshops shared their specific experiences, presented inputs and technical papers on specific issues related to PLUP. The majority of people involved in the development of this manual work in projects and provided their inputs from the point of view of practitioners. Others are staff of government organizations and helped in their capacity of being involved in formulating policies and legal documents with relevance to the concept of land-use planning.

The workshops were organized and facilitated by the «Sustainable Management of Resources Project in the Lower Mekong Basin (SMRP)» (MRC/GTZ). In addition to the series of workshops, a consultant on Natural Resources Management and PLUP was given the opportunity to visit a number of the projects concerned and to familiarize himself with their respective field activities in Cambodia. Numerous field reports, technical documents and case studies were collected and evaluated. Then, the same consultant, with the assistance of several other SMRP project staff, compiled a first draft document, which was circulated for comments. Eventually, in May 2001, a final document was elaborated on the basis of the comments and additions made.

The contents of this manual are therefore based on:

- Experiences from various field sites within Cambodia, which are supported by local NGOs, international NGOs, projects of bilateral and multilateral donors, and projects of the Royal Government of Cambodia.
- Experiences from other countries in the region as well as from other parts of the world. Some of these experiences have been documented and are available at resource centers in Cambodia (see chapter 3.3).

This manual has to be regarded as a starting point and will need to be built up, updated and developed further. All involved parties appreciate the need for further field testing, refinement, and more clarification of many of the yet unknown or uncertain aspects of PLUP, may it be legal, institutional, procedural or methodological issue.

The manual, therefore, is considered as a tool for practitioners, which encourages all of the users to keep on learning and improving its scope and its utility. Ideally, it should be updated and revised in regular intervals by all organizations, which have been involved in the formulation of this document and all those, which are going to start PLUP activities in Cambodia in future.

The editor and the many contributors to this manual hope that the coming years of practical field work and the on-going processes of clarification will generate sufficient motivation and energy to keep on improving this manual and thereby increasing its usefulness all stakeholders.



# 1.1 Target Groups and Purpose of this Manual

This manual mainly addresses technical staff with a professional background in agriculture, forestry, fishery, social sciences or cadastre working in the districts and provinces of Cambodia. At the same time this document could also be of use for people working in national institutions involved in natural resources management (e.g. MAFF, MoE, MLMUPC) in view of policy development. Finally, donor organisations could draw on the experiences reflected in this publication to either improve their on-going activities in this sector or the planning of new projects and programs. Contrary to some textbooks on land-use planning, this manual is also written for people without previous working experience in PLUP and with limited technical expertise.

## Target Groups of this Manual

Box 1

- Technical staff with a background in agriculture, forestry, fishery, social sciences or cadastre, working in the districts and provinces of Cambodia.
- Government staff working in the relevant ministries and departments in Phnom Penh (MAFF, MoE, MLMUPC etc.).
- NGOs and other donor organizations funding programs of projects in Cambodia.

The manual describes the basic concept and procedures of a participatory land-use planning process with specific reference to the situation in Cambodia. It attempts to provide some practical advice, orientation and guidance for people interested in participatory planning approaches and land management issues. The document contains some information on the present frame conditions for PLUP in Cambodia, such as legal aspects, tenure issues and the institutional set-up. This information, although quickly becoming obsolete, could be of particular relevance to Government and project staff working in the provinces, who are not always well informed about the latest legal developments taking place in Phnom Penh.

The manual should help decision-makers to create ownership on PLUP and serve as a first rough guide to the formulation of a national PLUP policy, a sub-decree on PLUP and national PLUP implementation guidelines for Cambodia. Furthermore, this document could possibly serve as an orientation for the development of other related guidelines, such as the refinement of the draft community forestry guidelines, or guidelines on joint forest management in concession areas.

In view of the numerous cases of land conflicts, illegal appropriation and un-clarified land ownership issues in Cambodia, PLUP activities are also presented as a means towards the resolution of conflicting land claims and conflict management.

This manual should not be considered as a blueprint textbook, but it describes an approach, a methodology and a set of working steps based on present experiences. Wherever possible, it will also provide the reader with several options for dealing with specific issues from which he will be able to select the best solution for dealing with his particular situation. This flexibility is important and will permit the further adaptation of the methodology to the specific requirements of all parts of the Kingdom of Cambodia.

# Purpose of this Manual

Box 2

- to present the basic concept of PLUP and its procedures under Cambodian conditions
- to document the presently available experience on PLUP in Cambodia
- to provide some practical advice, orientation and guidance for people involved in participatory planning approaches and land management issues
- to serve as a first guide to the formulation of a national PLUP policy, a sub-decree on PLUP and national PLUP implementation guidelines for Cambodia
- to introduce PLUP as a tool towards the resolution of conflicting land claims and for conflict management on the local level
- to contribute to an improved approach to integrated planning for sustainable management of natural resources by the local population



1.2 Definition of Participatory Land-Use Planning

Several organizations have been involved in developing the strategies, methods and tools for PLUP. Major contributions have been made by FAO and GTZ, drawing on their project experiences in a large number of countries.

Definitions for PLUP proposed by FAO & UNEP and GTZ

Box 3

(Participatory) Land-use planning is a systematic and iterative procedure carried out in order to create an enabling environment for sustainable development of land resources which meets people’s needs and demands. It assesses the physical, socio-economic, institutional and legal potentials and constraints with respect to an optimal and sustainable use of land resources, and empowers people to make decisions about how to allocate those resources.<sup>1</sup>

Participatory land-use planning (PLUP) is an iterative process based on the dialogue amongst all stakeholders aiming at the negotiation and decision for a sustainable form of land use in rural areas as well as initiating and monitoring its implementation.<sup>2</sup>

Land-use planning happens in every society and at all times, even if the term as such is not used. Wherever groups of people use land and its resources, land use is planned and certain restrictions are set up. Very often central government adheres to the concept that decisions on land use should be taken by technical and political people on the national level, while in reality many land use decisions are made daily, mostly at the local level where the actual management of resources is carried out. Other decisions with relevance to land use are also made on the provincial or district level with or without knowledge or consent of the national level or the local population. Very often there is an obvious lack of transparency, communication and public consultation even in crucial decision making on land management issues.

It is exactly against this background, that the concept of PLUP has developed over the past two decades. The new PLUP approach focuses on the capacities and needs of local land users, based on the assumption that sustainable resource management can only be achieved if resources are managed by the local populations once they dispose of clear use and tenure rights (for more information on typologies of participation see Annex 1).

This "participatory" approach to land-use planning represents an entirely new perspective to solving land use and resource management issues compared to the top-down and very technically oriented land-use planning approach of the 1960s and 70s.

<sup>1</sup> FAO/UNEP/GTZ (1999): The Future of Our Land - Facing the Challenge  
<sup>2</sup> GTZ (1999): Land Use Planning: Methods, Strategies and Tools

Differences between a "traditional LUP" approach and PLUP

Box 4

Issues/Aspects	Traditional LUP Approach	PLUP
Working Level	Higher Level: Province, District,Watershed	Local Level: Village, Commune, Micro-Watershed
Main Actors	Technical staff from line agencies, Provincial and District administration	Local population, local administration, Process facilitators with some technical background
Main Focus	Identification of optimal land use according to land suitability and enforcement of these practices by the use of incentives or legal directives	Identification of sustainable and equitable land use opportunities on the local level by searching for compromises and coming to agreements between local needs, outsider interests and national policies; transparency is crucial.
Main Criteria	Technical parameters, such as soil depth, soil fertility, slope etc.	People’s perspectives + priorities as well as Government policies + guidelines
Land Tenure	Is usually not considered	Is considered a crucial issue; usually the need for clear ownership or use rights and eventually changes in land tenure are specified during the PLUP process
Implementation	Usually implemented in the form of a study within a fixed time limit	Implemented as a process with a sequence of steps according to the villagers’ pace and time availability
Main Objective	To make best use of land resources according to objective criteria	To strengthen local stakeholders’ capacities for managing their resources in a sustainable way

In addition to the local residents who directly use the land resources in a planning area, other stakeholders in PLUP include the government agencies dealing with the various land resources, the local authorities, any existing coordination committees with regard to land use, NGO and IO projects, private service providers as well as other actors outside the planning area (see chapter 3.6 on stakeholder analysis).

In Cambodia several organizations support community forestry (CF) initiatives and CF units have been created within the Department of Forestry and Wildlife (DFW) as well as within the Ministry of Environment (MoE). When looking at field experience in CF in Cambodia it is obvious that there is a strong overlap between CF and PLUP. The difference is that PLUP takes a wider perspective and should cover all land use areas, such as agricultural land, forest land, grassland and fishery zones within a given planning area (e.g. village or commune). Also PLUP has an even stronger link to the allocation or re-allocation of land use rights to individuals, groups and entire communities. Current practices in community forestry as supported e.g. by CONCERN in Kampong Chhnang and Pursat, by FAO-Participatory NRM Project in Siem Reap or CB-NRM in Ratanakiri can be regarded as one part of the PLUP methodology and could be easily complemented to cover all land categories in a selected community.



Community Forestry, Joint Forest Management, Community-Based NRM and their relationship to PLUP

Keywords	Description	Relationship to PLUP
<b>Community Forestry (CF)</b>  Other similar keywords: Social Forestry Village Forestry	CF deals with the management of designated forest areas by a local community, usually through a community-based organization and according to a management plan as well as specific guidelines or regulations. CF is a form of forest resources management with the aim of satisfying local community's needs (e.g. to meet social, economic, cultural and spiritual needs of present and future generations), forest regeneration and forest sustainability.	By and large, working procedures of CF follow similar steps as PLUP, but usually focus on existing or degraded forest areas within the community boundaries. PLUP should ideally deal with all land use zones in a given planning area and therefore takes a wider perspective. A PLUP process will help to identify CF areas and include these in the overall planning process.
<b>Joint Forest Management (JFM)</b>  Other similar keywords: Consultative Management	JFM deals with a forest management system, which consists of shared responsibilities, duties and benefits between local communities and Government institutions or private investors (e.g. concession companies) with regard to a specific forest area. JFM usually focuses more on exploitation of existing forest resources and is based on a number of regulations and agreements. Usually the direct benefits of JFM for local communities are more limited than in the case of CF systems.	While CF deals with several types of forests (e.g. degraded forests), JFM is more exploitation oriented. JFM can therefore only become part of PLUP in areas with existing forests and where there is an intention to either protect these forest resources through national/provincial conservation efforts or to exploit the resources e.g. under a concession system ("JFM in a concession area"). PLUP can help to identify areas for which a JFM system could be envisaged later.
<b>Community-Based Natural Resources Management (CB-NRM)</b>  Other similar keywords: Participatory NRM	CB-NRM stresses the sustainable management of all natural resources by local communities. Peoples' priorities and needs are given highest preference, while Government structures are mainly responsible for the overall guidance through laws and policies.	CB-NRM is very closely related to PLUP as it deals with the entire spectrum of NR. PLUP has to be regarded as a tool/methodological approach towards achieving CB-NRM. Thus, PLUP is a crucial element of CB-NRM, but it requires more detailed regulations and management plans defined by the local communities in order to achieve sustainable use of all local resources. CB-NRM takes community work one step further.

1.3 Goal and Justification

So, what are the main objectives of PLUP ?

PLUP is a Method

Box 5

- which leads towards achieving more sustainable management of natural resources by local communities,
- helps to analyze present use of the resources and to identify needs for changes due to over-exploitation, illegal use or conflict situations,
- and to clarify present tenure of land resources and prepare the ground for allocation or re-allocation of land and natural resources use in view of securing user rights,
- has an institution/capacity building aspect, as the method will support local communities in strengthening their management capacities as well as clarify the role and responsibility of government institutions and their committees,
- and helps to create transparency on resource use issues and intensify communication on all levels.

**PLUP** is helpful in all areas where there is a present or a foreseeable land use conflict or where natural resources are degraded by conflicting or ill-adapted resource use practices. Conflicts over tenure of land (land disputes) are another frequent starting point for PLUP. The concept of PLUP which focuses on a participatory process will for reasons of practicability always start from the local or lower administrative level (village, commune). In other cases this could also be a sub-catchment or a small watershed. **PLUP** deals with all areas traditionally used or claimed by communities (e.g. forest areas and shrub lands, fishery areas, agricultural land, settlements and minefields). Therefore the PLUP scope is very wide and is about every type of land and every type of resource. If **PLUP** is delayed or not implemented in the case of the conflict situations mentioned above, this could have serious environmental and social consequences. Usually the cost of these consequences will by far surmount the cost of initiating and implementing a proper land-use planning process.

1.4 Conceptual Framework and Principles

The conceptual framework for PLUP is set by legal, institutional, natural resources aspects and the socio-economic situation of the local population. PLUP requires a strong bottom-up planning perspective. Putting local users in the centre of interest, calls for the use of simple, low-cost planning techniques to encourage and foster active participation and consensus finding among villagers. Involvement of outsiders should be restricted primarily to the moderation and facilitation of the planning process. At least initially these outsiders might also have to play the role of strong advocates and defenders of community interest e.g. in cases of conflicts with powerful outsiders. This does often lead to specific role conflicts for Government staff involved in PLUP activities. Under no circumstances the facilitators of a PLUP process should dictate their solutions to villagers or take on a strong advisory function.



## Basic Principles of PLUP

It is a participatory approach, which should encourage and follow the people's perspectives and priorities; it focuses on strengthening local management capacities.

Outsiders mainly perform the role of moderators and facilitators, but can initially also become advocates and general supporters.

PLUP can and should ideally prepare the ground for land allocation procedures.

PLUP usually deals with all land classes regularly used by villagers within their living area.

The PLUP process will eventually lead to organizational arrangements on village and commune level, produce a plan (usually a map) and a set of rules and regulations pertaining to the use of private, communal, open access and state land within the area of the village/commune.

## 2. Framework Conditions

In every country and every region PLUP is submitted to different framework conditions, such as specific legal and institutional aspects, national land policies, land tenure and land classification systems. The following chapters describe the present situation prevailing in the Kingdom of Cambodia.

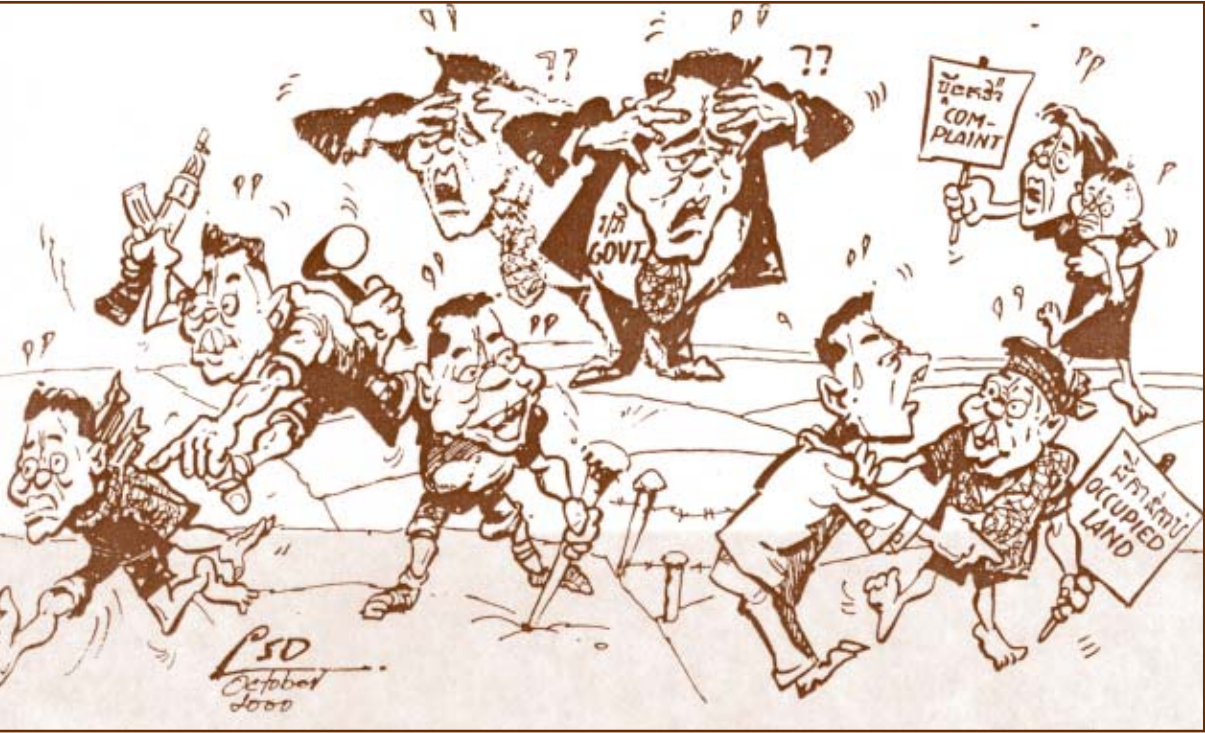




2.1 Legal Aspects

A number of laws and sub-decrees are currently at various stages of preparation and could be passed by the central Government at some time in the near future (see list of all laws and legal documents with relevance to NRM in Annex 2). Most importantly, the new Land Law has been adopted by the Royal Government of Cambodia and endorsed by the National Assembly. Simultaneously a Forest Law and a Fishery Law are also under preparation. Provided that a good harmonization can be achieved among these three major legal documents, these will provide a comprehensive legal base for PLUP in Cambodia. Other legal documents already signed by the Government and with implications on PLUP are:

- the law on protected areas,
- the sub-decree on forest concession management,
- the sub-decree on organizing and functioning of the Ministry of Land Management, Urban Planning and Construction (MLMUPC),
- the sub-decree on the procedure of establishing cadastral index map and land register,
- the new law on commune administration.



Based on the existing and the new laws, the Royal Government of Cambodia would then elaborate clear regulative guidelines for PLUP (e.g. in the form of a sub-decree and precise implementation guidelines). As such documents are not yet available for Cambodia, selected donor-funded projects<sup>1</sup> have started developing their own approaches and adapting them to local conditions.

<sup>1</sup> e.g. FAO-Participatory Management of Natural Resources in the Tonle Sap Area in Siem Reap, CONCERN in Pursat and Kampong Chhnang, CARERE CB-NRM and NTFP in Ratanakiri, PDP-KT in Kampong Thom, LUPU/CARERE in Battambang

One aspect these projects have in common is their objective to strengthen local communities in their management capacities with regard to natural resources and to demonstrate a more participatory approach. Some of these projects work closely together or even integrate the local administration (commune, district and provincial level) and technical staff from the Government services. Thus, despite the vague overall legal situation, practical experiences on community-based natural resources management are available from several provinces and some promising results can be demonstrated. Certain differences exist between the various approaches, although numerous attempts are currently undertaken to strengthen co-ordination and cooperation among the various actors through workshops and regular meetings in working groups (e.g. CF-WG). This diversity of approaches can be regarded as enriching as long as exchange of experience and mutual learning takes place.

The current activities of the projects focus on understanding the present resource use in their respective working areas, mapping of use areas and their boundaries, elaboration of use regulations and building up a local committee in charge of implementing and enforcing these regulations. One of the main elements in this process is usually the drafting of village or use regulations, which set the framework for handing over increased formal management responsibilities to the local population. The regulations and in some cases even more specific management plans for forest or fishery areas are submitted to the higher authorities (commune, district, province) and technical departments (e.g. DAFF) for approval and endorsement. This system of having agreed upon village regulations for all common property resources of a community and a management committee to enforce them has to some degree substituted land allocation based on clearly defined laws and decrees. It is the best possible option under the present legal setting.

By following this procedure the original land tenure does not change, only the resource tenure is transferred to local communities upon approval of their community regulations and specific management plans (e.g. forest management plans). Although this becomes a fast spreading practice it remains doubtful whether it will in the long run provide sufficient resource tenure security to the communities. The village management committees still lack official recognition from the local authorities and their actual role and responsibilities need further clarification. In most cases villagers still heavily rely on project staff or technical staff from the District and Province level to defend their newly acquired management responsibilities in case of conflicts with outsiders.

In order to enable and promote widespread implementation of PLUP the Cambodian Government would have to put in place a clear legal framework and an official policy with regard to land-use planning and land allocation. Any sub-decrees or guidelines on PLUP should incorporate the experiences made by the projects already active in this field. By the nature of PLUP this would require the involvement of several line ministries and their cooperation in the form of multi-sectoral committees from the national down to the local level (see chapter 2.5). Possibly the most important issue in this connection is the need for close cooperation in land-use planning and land allocation between the ministries involved in policy development on land use, decentralisation and legal enforcement on all levels (MLMUPC and MoI) with the NRM related ministries (MAFF, MoE) (see also Annex 4). The Royal Government of Cambodia has therefore taken a decision to give the MLMUPC the mandate of a lead agency in the process of further defining the legal and methodological details of PLUP in Cambodia. Just recently (April 2001), a PLUP network has been created under the leadership of the MLMUPC, which aims at bringing together representatives of MAFF, MoE, MRD, MoIME, IOs and NGOs as well as the private sector.

## 2.2 National Policies with regard to Land Management

The objective for a comprehensive land policy is to encourage a sustainable economic/social development, poverty reduction and good governance. The three priority sectors of any land policy are land administration, -management, and -distribution in view of enhancing the security of land occupation, the legal rights over private land and the management of state property. Conscious of the complex nature of a land policy framework, the Royal Government of Cambodia has recently established an inter-ministerial "National Council on Land Policy" to draft a new land policy document.

In May 2000 the RGC has presented a "Good Governance Action Plan", which "recognizes the effort required for solving land issues as one of the most important issues to alleviate poverty and lay the foundation for an environment conducive to the emergence of good governance in the use of Cambodia's most important resources." It identifies seven factors as "land problems":

- An inadequate legislation
- A general situation of weak governance
- Weak capacity of land registration and land administration.
- Distress sales of land often relating to defaulting on loans.
- Use of outdated data for land use classification and planning.
- Lack of a legal framework to cover the management and use of State land and real estate.
- Land policy and the resolution of land problems are not sufficiently gender responsive

Reforming the Land sector in Cambodia is one of the corner stones of the State Reform Program and for Sustainable Development of the country.

### The RGC is addressing the following action plan

- Strengthening the role of the Ministry of Land Management, Urban Planning and Construction (MLMUPC), which has only been established in 1999, in its mission to lead, coordinate and manage the affairs of land in the Kingdom of Cambodia.
- Elaboration of a comprehensive land policy framework under the guidance of the newly nominated National Council on Land Policy.
- Application and dissemination of the new land law after passing the National Assembly, elaboration of sub-decrees and new land-related regulations and law enforcement. The GDLMUP will prepare guidelines on land management to support the future commune development plans.
- Strengthening the National Committee on Land Conflict Resolution and the Provincial Committees for the Regulation of Land Conflicts. These committees have been established since June 1999 and their main responsibility is to set up effective mechanisms for resolving lands conflicts out of court.
- Strengthening the central and provincial offices for land administration and land management.
- Strengthening the decentralization process by clearly defining commune boundaries, supporting commune development planning and drafting of new regulations on land tax; decentralization and de-concentration are complementary and will call for new mandates, procedures and partnerships.
- Speeding up the land registration (systematic land registration/sporadic land registration).
- Establish a systematic inventory and management system for state land.
- Strengthening the mechanisms for effective co-operation with all stakeholders, (national institutions, Bilateral and Multilateral institutions, NGO's) and inter-institutional co-ordination.
- Build up the human resources and technical capacities at all levels.

The Royal Government of Cambodia is endeavouring to implement a coordinated set of laws, programs of work, and institutional arrangements regarding land which are directed toward enabling the achievement of national goals of economic development, poverty reduction and good governance, as described in the Socio-economic Development Plan, Interim Poverty Reduction Strategy and Governance Action Plan.

### The objectives of these initiatives regarding land are

- To strengthen land tenure security and land markets, and prevent or resolve land disputes
- To manage land and natural resources in an equitable, sustainable and efficient manner
- To promote land distribution with equity
- To reach these objectives, government will endeavour to accomplish the following tasks

### In the area of land administration

- Enactment of the Land Law, complementary laws, regulations and other related legislation
- Operation of the Council for Land Policy to promote and monitor the implementation of land policy in consistency with the direction of the Supreme Council of State Reform
- Creation of a state land inventory and state land classification system
- Implementation and operation of a nation-wide land registration system using both sporadic and systematic registration procedures, including all resolution of land disputes through the local Administrative Commission, Provincial/Municipal Land Dispute Settlement Commissions and the court organs.

### In the area of land management

- Development of land use plans for priority areas including tourism and investment zones, key urban areas and major road corridors
- Co-ordination of land use planning with natural resource management of forests, fisheries, coasts, waterways, mineral deposits in a harmonized legal framework
- Decentralization of land management and planning authority to local/provincial authorities, after the establishment of national land use guidelines/supervisory structures
- Development of procedures for urban land management and re-settlement

### In the area of land distribution

- Execution of a broadly consultative process and pilot projects to create a land distribution strategy for needy groups
- Prevention of illegal land acquisition and land concentration

For the 3 above areas, institutional strengthening, capacity building in land policy implementation and improvement of public awareness of land legislation are priorities. In order to achieve these tasks the Royal Government of Cambodia envisions that a long term Land Administration, Management and Distribution Program (LAMDP) will be implemented, beginning with an initial phase to test approaches, achieve changes, clarify institutional roles and identify financial requirements. Important materials for the success of this program include accurate geodesic networks, aerial photography, base mapping, and up-to-date land information systems.

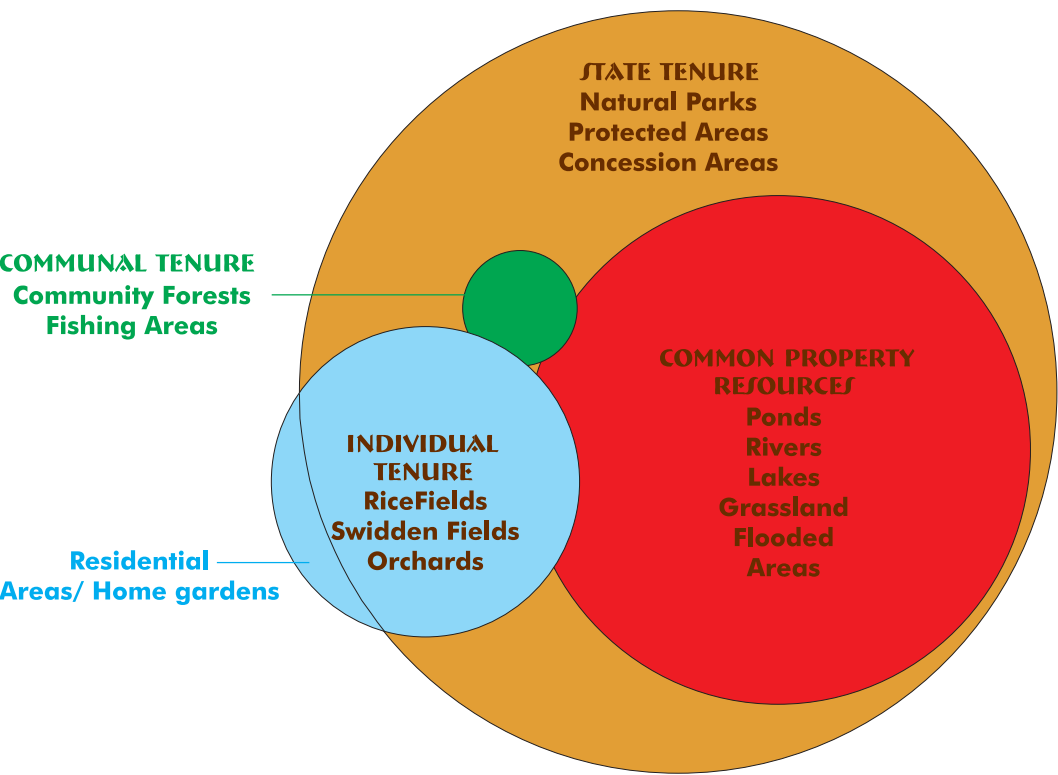


2.3 Land Tenure Issues

In general terms the legal situation in Cambodia only recognizes state and private land tenure. The old Land Law (1992) states: "all land in Cambodia is the property of the state." But Cambodians have the right to possess and use this land. Full private ownership rights could be obtained only on land for housing, whereas on land for cultivation possession and use rights and the right to exclusively occupy could be obtained. Therefore, all land in the rural areas is the property of the state and only for the housing areas and a limited number of rice fields private ownership through land titles has been established. Only a very small proportion of the rural population is actually in possession of a valid land occupation and user rights certificate (land title) for their residential land, rice fields or other farmland. The situation is different when looking at the resource tenure. Four main resource tenure schemes are widely recognized in Cambodia:

- Common property resources (CPR)** - although legally part of the state ownership in the public domain, these resources are traditionally open access areas such as forest areas in various states of degradation, virtually all grasslands and most flooded areas around Tonle Sap.
- State tenure** - this is well established for basic infrastructures, some protected areas and the concession areas leased to investors and business companies.
- Individual or private tenure** - this concerns the homesteads and the home gardens, rice fields, upland farms and plantations as well as swidden agriculture plots.
- Communal tenure** - this is by far the smallest of the four systems and presently only concerns the community forest areas or fishing areas, the majority only created recently by involvement of projects.

Resource Tenure Schemes in Cambodia



Graphic 1

In Cambodian legal documents there is a lack of distinction between common property and state property. Nevertheless it has been observed that considerable areas of common property resources, such as forests, shrub lands, riverbanks, lakes and ponds have in effect become privately controlled. The privatisation of common property means that these resources become less accessible to their customary users, and hence, benefits to the majority of the people have been reduced. Legalised communal resource tenure is still the exception.

In particular the rapid changes towards a free market economy in Cambodia in combination with weak administrative structures have led to widespread cases of land grabbing. This means that common property resources are quickly appropriated and decimated by people on all levels, be it through claims to farmland by urban business people, demobilized soldiers or by simple farmers. The central government, as well as provincial and in some cases even district administrations, have taken similar approaches based on the interpretation of the old land law and have allocated wide proportions of the forest areas and water bodies to private investors or business companies under a variety of lease, sale or concession agreements. Examples are the forest concessions, fishing lots or private estates.

Some of the underlying reasons for this rapid transformation from common property of resources to private ownership are the absence of any management schemes in the vast majority of the open access areas and the ever increasing need for land and resources to fulfil the basic needs of a growing population, but also for income generation. Unfortunately this has in the past led to numerous cases of land speculation, corruption, a sharp increase in land conflicts and further impoverishment of some parts of the rural population. Recent surveys and data on landlessness<sup>2</sup>, land ownership, sales and concentration<sup>3</sup> as well as on poverty<sup>4</sup> seem to prove these tendencies.

Land Tenure Issues in Land Management

Box 7

- the knowledge of public and private land rights (including the inventory of state land and concessions) are crucial for proper land management at local level
- systematic and sporadic land registration has to be regulated
- special attention should be given to indigenous land rights
- secondary rights (right of way, access to water ponds or firewood) should be registered as well
- all land matters should be public (public display, public information)
- principals of the land law should be known to the local people and local administration
- a land status or present land use map (reflecting state property, private property, communal forests, concession areas and protected areas) should be prepared
- the clear demarcation of administrative boundaries (village boundaries, commune boundaries) is crucial
- procedures for settling land conflicts (address provincial land conflict committees) need to be followed
- land allocation is undertaken for rural and urban development
- procedures of land distribution (social concessions, de-mined areas) need to be developed and adhered to in order to fight poverty

<sup>2</sup> Biddulph R./OXFAM (2000): Interim Report on Findings of Landlessness and Development  
<sup>3</sup> Sik Boreak (2000): Land Ownership, Sales and Concentration in Cambodia, CDRI  
<sup>4</sup> UNDP (1997)

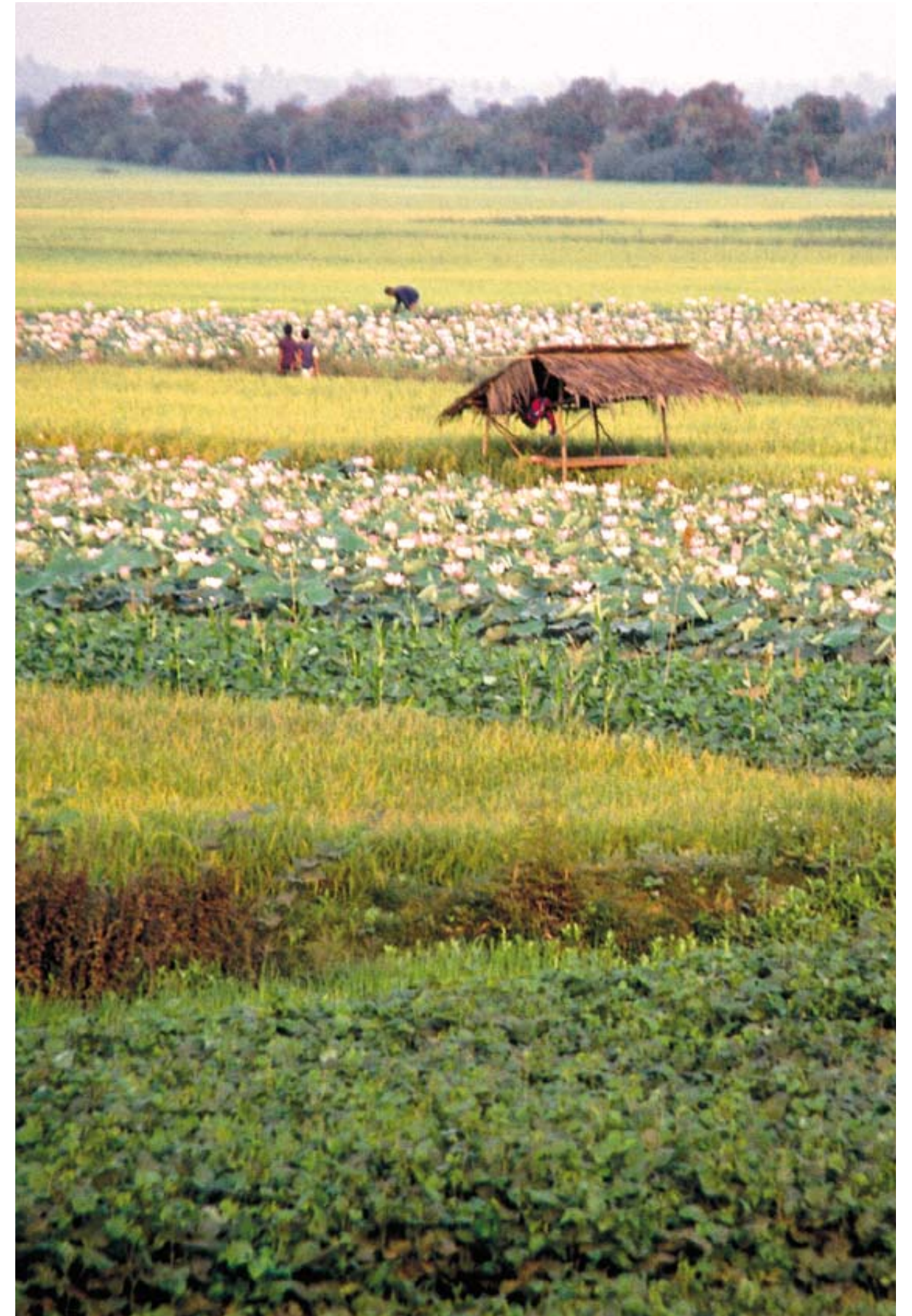


Especially in the ethnic minority areas of Cambodia a well-devised and functioning system of customary or traditional use rights for local communities has been set up and respected for several generations. Numerous studies from Ratanakiri have proven the effectiveness of such systems in the management of forest areas and protection of resources<sup>5</sup>.

An example: a study by Dr. Jefferson Fox of East West Centre, in Poey Commune/ Ratanakiri (1996) found that, regardless of the size of a village, the ratio of population to area (within traditional boundaries) was more or less uniform at around 30 persons per sq.km. This indicates a level of equitability in the way the traditional system shares land between communities. Within the village boundary, around 8% of the land may be under cultivation at any one time. The rest will be under fallow, which appears as a mosaic of secondary forest at different stages of regeneration. Analysis of satellite images for Poey commune indicate that under this system, Old growth forest remains at 50% cover, secondary forest is 40% and open fields (current cultivation) is 5% of the total land area. The rest is made up of roads, residential areas and water bodies. The sustainability of this system depends on maintaining a low population density and the traditional communal tenure system.

The formal recognition of these communal claims by the issuing of communal land certificates has been accepted as an addition to the new land law. This is only valid for ethnic minority communities in the North-Eastern provinces of Cambodia. The law does otherwise not foresee the issuing of communal land certificates, although this could also be a valuable option for existing community forest areas in other parts of the country.

Within an area allocated for communal use, villagers can then in turn allocate individual plots for productive activities by individual families. This is for example suggested by villagers in Ratanakiri in an area of secondary forest re-growth, which is currently used by villagers for swidden agriculture. The sale of land is usually restricted to private land. Some village regulations in Ratanakiri allow the sale of land only if at least 80% of the villagers give their consent<sup>6</sup>.



<sup>5</sup> Paterson, G./NTFP (2000): Resource Management by Indigenous People in North-East Cambodia

<sup>6</sup> Paterson, G./NTFP (2000): Resource Management by Indigenous People in North-East Cambodia





## 2.4 Land Categories

As stated earlier, PLUP should deal with all land categories of a village or commune area. In a typical village situation in Cambodia this will comprise **agricultural land**, such as rice fields, orchards, home gardens or swidden agriculture land, **forest land**, such as spiritual forests, flooded forests or firewood collection areas and many types of permanent and seasonal **water bodies** mostly used for fishing, such as lakes, ponds, rivers or small streams. Apart from these units, there will be the village **settlement area**, as well as **infrastructures** such as roads or paths. Depending on the province, there could also be **grassland areas** and **minefields**. During the PLUP process the present use or functions of all these land categories will be investigated as well as their legal and customary tenure status.

Very often villagers have their own classification of land categories e.g. based on local soil types or specific uses. As these traditional classifications will vary from one part of Cambodia to the other and will make comparisons or the implementation of standardized land allocation procedures difficult, they have to be "translated" into a generally understandable land classification system. It is therefore important to develop and apply a standardized land classification system based on criteria of function/use and on tenure systems (see example of a land classification system for Cambodia in Annex 3). Within many village or commune areas there are units, which have already been allocated for estates or plantations to companies. Sometimes village areas form part of a fast concession or fishing lot. In other cases, village areas partly cover or at least border with national protected areas (e.g. National Parks) or protected areas identified by provincial authorities (e.g. wildlife sanctuaries). For the success of PLUP on village or commune level it is crucial that transparent information on these nationally or provincially allocated protection or management areas are made available before the local PLUP process starts (see chapter 3.7).



It is obvious that one important element of PLUP is the clear definition, mapping and later demarcation of boundaries between the various land categories.

The PLUP methodology can be a useful approach to the clarification and resolution of conflicts over boundaries between the perspective of Government authorities and local views and priorities (see chapter 4.2.1.4). During the PLUP process also the administrative boundaries e.g. between villages and between communes need to be clearly defined.

## 2.5 National Institutions relevant to PLUP

On the national level a number of Ministries and Departments would be directly concerned with any land-use planning program in Cambodia, although none of them has yet a specific section or office dealing with LUP. As mentioned earlier, the MLMUPC has recently been nominated as a focal point and lead agency for a PLUP network. MLMUPC also has the national mandate on land policy development, land management, land administration and land distribution (cadastral services). On the other hand, the Ministry of Interior (MoI) is in charge of guiding the decentralization process in Cambodia, which will have many implications on PLUP in future.

Among the other Government services concerned there is first of all the Ministry of Agriculture, Forestry and Fisheries (MAFF) with the respective subordinate departments (DoA, DFW, DoF) in charge of agricultural development, the management of all forestry and fishery resources outside the protected areas and national parks. The Ministry of Environment is responsible for the protection of all natural resources in a number of protected areas across the entire country.

To a lesser degree, the Ministry of Rural Development (MRD) (e.g. for coordination purposes in the provinces) and the Ministry of Finance (MoF) (e.g. for land tax issues) would also be implied in any LUP process in the country.





All these ministries and departments have technical staff working on the provincial level, in most cases even on district level.

For internal security reasons the armed forces and the police will also have to be represented in any committee or working group dealing with LUP on the national level.

If a national PLUP program on the basis of precise implementation guidelines were to be initiated, this would require the creation of a national land-use planning committee, in which representatives of all the ministries and departments mentioned above would be invited to participate and contribute. On the provincial and district levels the existing system of Provincial Rural Development Committees (PRDC) and District Rural Development Committees (DRDC) under the chairmanship of the Provincial Department of Rural Development (PDRD) could be used for the coordination of PLUP efforts in each province (SEILA structures). Furthermore, Provincial Land Conflict Resolution Committees under the chairmanship of the provincial Governor have been recently created by a national circular and are operational in a number of provinces. These committees could also play a crucial role in supporting PLUP. Finally, special coordination committees on Natural Resources Management in the Tonle Sap Area exist in several provinces around the great lake and just recently management committees have been set up for a number of national parks and protected areas.

As most of these existing committees on provincial level already regroup most of the institutions concerned by PLUP and partly have overlapping tasks, their involvement in the coordination of PLUP on provincial and district level would be essential. This could make the creation of additional specific PLUP committees on these levels superfluous.

Roles of Government Institutions in Relation to PLUP

Institutions	Roles and Functions in Relation to PLUP in Cambodia
MAFF	Management of all agricultural, forestry and fishery land outside the protected areas or national parks; development and extension of sustainable and economical land use practices.
DoA	<ul style="list-style-type: none"><li>Land use and agricultural issues</li><li>Agricultural research</li><li>Agricultural extension work</li></ul>
DFW	<ul style="list-style-type: none"><li>Forest policy, planning and management</li><li>Encouraging people to participate in forest management</li><li>Monitoring and enforcement of Cambodia's forestry law+regulations</li><li>Administrative guidance on forestry issues</li><li>Conducting forestry research</li></ul>
DoF	<ul style="list-style-type: none"><li>Management of all fishery resources and control all open water resources in the fishery domain: flooded areas, wetlands, large rivers and fishing lots (outside the protected areas and national parks)</li></ul>
MoE	Natural resources management and land-use planning in protected areas and national parks.
DNCP	<ul style="list-style-type: none"><li>Natural resource management and protection in PLUP</li></ul>
DEDM	<ul style="list-style-type: none"><li>Educational materials on PLUP</li></ul>
Mol	Political and conceptual guidance of the decentralization and de-concentration process in Cambodia
MLMUPC	To lead and manage the affairs of land management, urban planning, construction, cadastre and geography in the Kingdom of Cambodia
GDCG	<ul style="list-style-type: none"><li>Researching and developing the provisional regulations related to administration and use of land</li><li>Carrying out cadastral surveying and mapping</li><li>Issuing of land titles</li><li>Carrying out the cadastral registration and inspection of conformity</li><li>Defining parcel boundaries</li><li>Registering state properties</li></ul>
GDMUP	<ul style="list-style-type: none"><li>Making proposals and implementing the strategic policy of land management and urban planning</li><li>Collecting information and data</li><li>Advising, monitoring and encouraging the coherent implementation of the policy of land management and urban planning</li></ul>
MRD	Community development and rural development committees (VDC, DRDC, PRDC) and their relationship with PLUP activities
MoF	Land tax issues
Armed Forces	Security issues, illegal occupation of state land and land distribution to demobilised soldiers
Police	Cases of illegal land and resources use, land grabbing, misuse of powers



### 3. Getting Started

The following chapters will try to answer a few fundamental questions at the start of a participatory land-use planning process in a rural area in Cambodia.

- Who will actually facilitate and promote the process on the local level?
- What kind of preparation would the facilitators need to fulfill their new tasks and where can they get appropriate training?
- Where can they get additional information, appropriate services and technical support ?
- What materials and basic equipment is needed ?
- Where to start and how to select a suitable working area ?



### 3.1 PLUP Facilitation Teams and their Tasks

As PLUP deals with all land categories found in one village or commune or sub-catchment it requires the actual implementing team to be of multi-disciplinary nature. The facilitation team for PLUP should therefore at least comprise staff from agriculture, forestry and fishery services as well as from the Department of Environment. This can be staff seconded from the provincial or the district level of these respective offices. The facilitation team should ideally consist of 3-5 people and can be regarded as a core group for performing all PLUP tasks. The team members would have the overall responsibility for facilitating PLUP in a particular working area e.g. a district or a sub-district (see chapter 3.5).

During the working steps dealing with boundary demarcation and especially any kind of administrative boundaries, this core team should be supplemented by staff of the Provincial office of Land Management, Urban Planning and Construction (cadastral office). Wherever available the team could also be joined by community development staff from the Provincial Department of Rural Development or technical staff working for NGO/IO projects.

In the case of donor-funded projects working in a rural area of Cambodia the exclusive use of direct-hire project staff to implement PLUP activities should be avoided for reasons of sustainability and replicability of the approach. Instead, the overall responsibility for PLUP work should always lie in the hands of the Government staff from the various institutions concerned. It is advisable for the PLUP facilitation team to elect a group leader or coordinator.

In some cases and specifically in the neighbouring country of Vietnam, the PLUP process is started by forming a district LUP (steering) committee for the supervision of the facilitation team. In other cases a similar committee is established directly on provincial level. Any of these committees would try to bring together representatives from the main institutions concerned by PLUP (see chapter 2.5). Practical experience has nevertheless shown that the creation of such committees can be a very time-consuming exercise and it is not always easy to clearly specify the tasks and responsibilities for such new committees before the actual PLUP implementation has started and gained a certain momentum. Very often the concerned services and organisations quickly lose interest in the work of such a steering committee or are ill-prepared to fulfil their new tasks, which can lead to the collapse of the committee altogether.

For Cambodia a possible alternative to creating new committees would be to start field work first and to try with time to get existing provincial committees, such as the Provincial Rural Development Committee (if available), the Provincial Land Conflict Resolution Committee or a Provincial NRM Committee (where available) involved in the PLUP process and to possibly widen their scope and responsibilities (see Annex 4). Sample terms of reference (TOR) for a facilitation team supporting PLUP on the local level are described in Annex 5.

### 3.2 Preparatory and On-the-Job Training for PLUP Teams

A prerequisite for the PLUP facilitation team members to initiate the PLUP process on the local level is to be well versed in participatory concepts and applications. For working on the PLUP team all members will apart from their technical knowledge require skills in facilitation and moderation techniques, and an understanding of communication and team building.

Most government staff working in the districts and provinces of Cambodia in the Department of Agriculture, Fishery and Forestry or with the DoE lack this knowledge or experience. Therefore any preparatory training courses for PLUP teams must include a general introduction to the PLUP methodology and training modules on facilitation techniques and participatory working methods. Furthermore they will obviously need to be familiarized with the legal framework for PLUP, general communication skills and teambuilding techniques.

Currently the training opportunities specifically on PLUP or related issues are very limited in Cambodia and even within the sub-region. This is one of the reasons why this manual should also serve as an introduction to the approach for practitioners. A list of currently available training facilities and opportunities in Cambodia and the sub-region is given in Annex 6a.

One good opportunity to familiarize field staff with the approach is to organize exposures and internships with existing projects working in the field of participatory NRM or CF in Cambodia. A list of such projects, their contact addresses and their specific fields of experience is presented in Annex 6b. Another option is to hire an experienced consultant and trainer working in the sub-region for a special preparatory course in PLUP.

Training in mapping techniques, the use of GPS equipment and the basics of GIS can be provided by specialized service providers listed in Annex 8.



Obviously the PLUP teams would not only require an introductory training in order to get started, but will also need regular on-the-job training and backstopping. Once again this could currently only be organized through the existing training facilities in Cambodia or the region or through additional consultant missions. Study tours and exposures can be a useful HRD measure if well prepared and if visited sites are carefully selected. At the current time, it is doubtful whether newly composed PLUP field teams would gain a lot from visiting land-use planning or land allocation activities in the neighboring countries of Vietnam, Laos or Thailand due to the completely different nature of the legal situation in those countries. Instead, best use should be made of existing opportunities within Cambodia.

### 3.3 Support Services and Data Resources on the National Level

#### 3.3.1 Libraries

All ministries, most departments and a few specialized institutions, such as NGOs, FAO and some projects maintain libraries with documents relevant to PLUP, CB-NRM or CF (list of these libraries and their specialization in Annex 7a). Public access to some of the libraries is limited, but protect staff and planners could receive permission from respective administrations to use the library facilities.

#### 3.3.2 Internet Sites

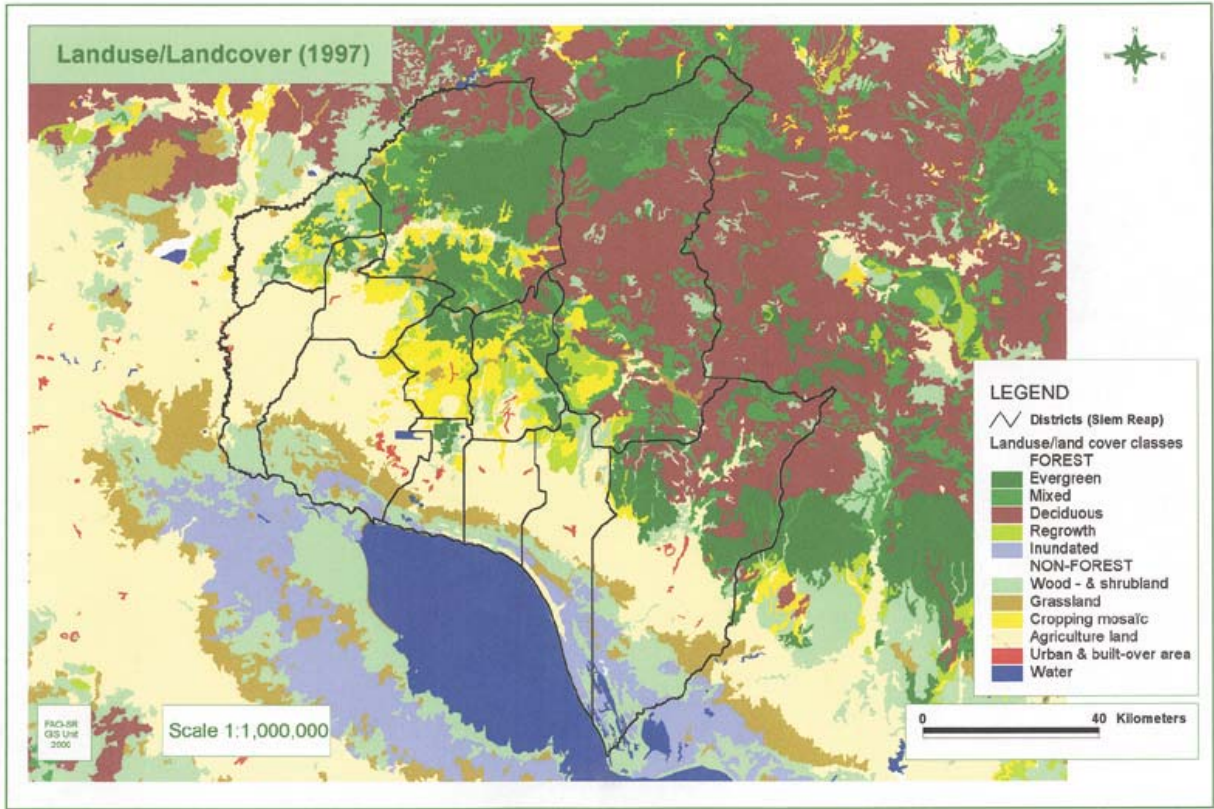
The Internet offers information on PLUP work in other countries. Unfortunately, the internet has at least two limitations that still prevent most Cambodian practitioners from accessing it:

- access to the internet remains limited and it can be expensive
- most materials would be in English and it is likely that most PLUP team members do not have a strong command of the English language.

The most comprehensive and easy to use website dealing with NRM, PLUP and CF in the region is the MekongInfo Site ([www.mekonginfo.org](http://www.mekonginfo.org)). MekongInfo also provides links to other websites presenting useful information on the subjects and experiences from other parts of the world. Annex 7b presents a short summary of the main functions and services available at the MekongInfo website.

#### 3.3.3 Mapping and GIS Units

Maps and GIS data are crucial elements in a PLUP process. In Cambodia several mapping and GIS services are offered by a number of organizations based in Phnom Penh and in a few provinces. All maps produced in Cambodia must be certified by the Department of Geography, in order to be considered an official map. The data sets and the official certification process of organizations that provide maps or GIS services to external clients are described in Annex 8.



#### 3.3.4 Other specialized Services

Detailed and up to date information on minefields and de-mining operations in Cambodia can be obtained from Handicap International (HI), the Mines Advisory Group (MAG) and CEMAC in Phnom Penh or through their offices in the affected provinces.

General statistics, such as population data can be obtained through the National Institute of Statistics in the Ministry of Planning in Phnom Penh.

### 3.4 Materials and Equipment used during PLUP

A limited number of materials and equipment is required for carrying out a participatory land-use planning exercise. As some of these tools have to be ordered and purchased well in advance of starting the actual fieldwork the basic requirements are listed here.

For the PRA exercises the PLUP teams will simply require large sheets of paper, markers of different colors and possibly some cardboard and scissors. Other than this, mostly local materials can be used for all the PRA tools.

It is the mapping part that requires far more inputs. For each working area the PLUP teams will need topographic maps at 1:50.000 and 1:100.000 scale, which are available in Phnom Penh at the Department of Geography and in private stores at the Russian market. For most areas of Cambodia the 1:50.000 maps are the largest scale currently available. Unfortunately all topographic maps of Cambodia are outdated with the base information established in the 1970s.

For more recent information on the state of local resources and as a base for mapping exercises during PLUP, there are basically three options (for further details see Annex 9):

The **first** and cheapest option is to purchase hardcopies or photocopies of the 1992/93 aerial photos or have these aerial photos scanned. In 1992/93 black and white aerial photos of the entire country were produced at approximately 1:20.000 scale. These photos are easily available, relatively cheap, but have the disadvantage of being already out of date for most areas with forest cover, as numerous land use changes have occurred in the past decade. There are more recent aerial photos available for specific parts of Cambodia, mainly for some concession areas, parts of the Tonle Sap area and a few large-scale infrastructure projects.

The **second** option is to have new aerial photos taken by a specialized aerial survey company. This is not a cheap solution, but if the resources are available, the use of recent aerial photos can be of tremendous help to the PLUP team during any of the mapping exercises. If sufficient funds can be provided for a new aerial survey, color photos should be ordered at a scale of approximately 1:20.000 scale. The use of color photos adds another 10-15% to the cost compared to black and white photos, but these additional costs are by far outweighed by the increased usefulness of such photos for land-use planning purposes. Enlarged color photos at 1:5.000 or 1:10.000 scale are still the best possible mapping tool, as villagers will easily identify their fields, their homesteads, their forest areas and their ponds on these photo prints. Contrary to some prejudices, aerial photos can be a very participatory tool for groups to discuss present land use issues, use conflicts and options for improved management.

The **third** and most sophisticated, but also still very expensive option is to purchase satellite imagery as a mapping tool. Satellite imagery will provide the PLUP team with very up to date information on the natural resources in a specific area and avoids the need for rectification of the images.

For a mapping exercise in the field, the use of GPS equipment can be very cost-effective and timesaving. There are several organizations working in Cambodia where hand-held GPS equipment could be hired for fieldwork, but the affordability of such equipment is also constantly improving (for details see Annex 9). Mapping in land-use planning can take the form of hand-drawn sketch maps, maps drawn on the basis of enlarged aerial photos or very detailed maps produced by GPS measurements and superimposed on aerial photos or satellite imagery. The decision on which technique to use will largely depend on the available funds for PLUP, staff expertise and the opportunities to link up the work with existing GIS services in the country. In the case of aerial photos or satellite images being used, it is best to fix transparencies on to the mapping base and to draw the land use map on the transparencies.

Experiences in PLUP and community forestry have shown that a land-use planning map which meets minimum quality standards will be more easily understood and accepted by the authorities when it comes to legalizing the plan than an inaccurate hand-drawn map without any scale. For example, the experience of the FAO PNRM Project in Siem Reap has shown that printed land use maps, digitized from hand-drawn village maps increase their usefulness, their acceptability in the process of official recognition and help villagers to visualize and explain their priorities in terms of future use and protection ( see also chapter 4.2.3. on mapping and modeling ).

### 3.5 Selection of the Planning Area

A crucial question is where to start with PLUP activities. There are a few options: Depending on the overall resources (budget, staff, logistics) available and the underlying concept behind PLUP the selection of a working area can vary. A donor-funded project addressing NRM issues on a pilot basis will select a different working area compared to a broad-scale Government program where large area coverage and replicability are crucial topics. The difference can be termed as "sporadic" compared to "systematic" PLUP work.

Therefore, an important first decision to take is whether the PLUP process should primarily be applied in critical areas, such as conflict zones over natural resources use and land tenure or areas of heavy degradation or whether it is rather the aim to start a PLUP process which would eventually cover e.g. an entire district or a whole province. In the first case criteria for selecting problem zones would be formulated and applied, possibly in a meeting on provincial or district level in order to identify such conflict or degradation areas. Another question is whether sufficient information on such problem zones is already available with the local administration or whether specific field surveys for their identification would still be required. These could be very costly and time consuming.

Very often the critical areas identified will in this case follow natural boundaries (e.g. one large forest area, one small watershed) rather than administrative boundaries (e.g. one village or one commune). This is not a problem as such and constitutes a valid approach if e.g. the main objective is community forestry or management of a forest or protected area. On the other hand working according to the critical zone approach will usually make full area coverage e.g. of a commune or district difficult to achieve, even in the long run.

#### List of criteria for area selection

Box 9

- conflicts over natural resource use (e.g. villages located in or near forest concession areas or fishing lots, use conflicts between neighbouring communities)
- high number of land conflicts, cases of land grabbing, illegal appropriation of land or natural resources
- high pressure on local resources and environmental degradation (e.g. villages with a large population and a small village area, villages with a high seasonal influx of external resource users)
- high number of recent transformations in land use or numerous changes of ownership of land (e.g. in areas with increased cash crop production, private estates or new upland farms)
- conflicts over administrative boundaries
- presence of large infrastructure and land development projects (e.g. near irrigation schemes, large plantations etc.)
- resettlement areas



Another option is to start working right from the very beginning according to administrative boundaries, in which case the selection criteria could either emphasize on the representativity of the village or commune area selected (e.g. one village of each ethnic group, one village in a lowland, another in an upland situation etc.). The selection could also be based on an urgent need for conflict resolution and resource rehabilitation, but always within administrative boundaries.

When starting a PLUP process somewhere in Cambodia it would be also important to consider the intended expansion concept. Usually the understanding would be that, after an initial selection based on formulated criteria, the further expansion of activities should be request driven. This would mean that neighboring villages or communes after having seen the positive impact of PLUP would approach e.g. the PLUP implementation team to ask for similar assistance. In this way PLUP will gradually expand in clusters.

In order to promote PLUP the supporting projects or provincial and district institutions can also initiate information campaigns and actively create awareness on PLUP in view of increasing the demand. This promotion is possible irrespective of whether a critical zone approach or a gradual expansion from village to village has been selected.

In case the Cambodian Government in future creates a national LUP program, it will be useful to designate priority areas or provinces for the application of PLUP according to an agreed policy. Within one province duplication of PLUP efforts by bilateral or NGO projects in overlapping project areas should be avoided for obvious reasons.

3.6 Stakeholder Analysis and Review of Existing Information

When preparing for PLUP activities in a rural area of Cambodia it is important to know what is already happening in the respective area in terms of activities with relevance to NRM and CF. It is therefore important to understand which institutions on the local level (government services, NGOs, private sector) are represented in the area, with what resources (e.g. staff, funds for NRM related activities) they operate and with what capacity (scope of work, experience etc.).

The stakeholder analysis on the provincial or district level can take the form of a formalized set of interviews and surveys or a sequence of informal meetings. It is nevertheless very helpful in the overall context of PLUP to document the results of the stakeholder analysis e.g. in the form of a table in order to summarize the role and capacities of the various relevant actors. This table would need periodic updating.

The stakeholder analysis helps to identify areas of co-operation with specific institutions and organizations. It also helps to avoid duplication of efforts and can increase the understanding for PLUP activities among all the actors. The stakeholders contacted during the identification phase could also be more supportive of the PLUP work at a later stage e.g. by making specialists available for temporary support or giving advice to the core PLUP teams.

Preferably, the stakeholder analysis should be conducted by people in charge of supervising the PLUP work of a particular project or program and not by the PLUP teams alone. On the other hand the PLUP team members need to participate at all stages of the information collection and analysis.

Once a specific working area has been identified, all existing information on the respective area should be consulted and reviewed. Various data sets concerning the selected community such as population size, household composition, basic infrastructures, administrative boundary etc., are usually available in the national census data or could be obtained from the National Institute of Statistics, Ministry of Planning in Phnom Penh. Additional data could be obtained from line departments on the provincial level (e.g. agriculture, fisheries, forestry, cadastre and statistics).

In addition, it is always useful to gather and review any other known information, reports or literature about the community or the working area selected. All this background information will help to familiarize the PLUP facilitation team with their new working area.

In the Cambodian context the stakeholder analysis will very often show that a local or an international NGO has been or is presently operating in the selected working area. Usually these NGOs have particularly rich and useful background information that would be useful in the planning process. It might in some cases also be considered to initially work through an NGO that has been operating in and has been trusted by the respective community. This could provide the best point of entry into the community for the PLUP team (refer to chapter 3.1).

Many of the local or international NGOs use participatory rural appraisal (PRA) techniques or rural rapid appraisal (RRA) for information collection. In case any such tools have been applied in the working area in the past, it will be extremely useful for the PLUP team to familiarize itself with these documents.

3.7 State Land and Concession Areas

As mentioned earlier, central government, as well as governors on provincial and district level have in the past allocated important proportions of land for management by private entities (e.g. fishing lots, forest concession areas, and agricultural estates). Other areas have been declared national or provincial protected area (e.g. national parks, wildlife sanctuaries or protected areas for culture and tourism). Although these allocations can hardly be described as following a national or provincial land-use planning strategy, they have a strong influence on the local level PLUP.



Before starting PLUP in selected villages or communes it is therefore important to gather the most accurate information available on the present boundaries of such concession or protected areas (see Annex 8 for the list of data sets available on the national level). This kind of information is not always freely available, especially on the provincial level and many boundaries e.g. of agricultural concessions are not available on any maps at all. Sometimes such areas are only described in terms of localities and landmarks along the outer boundary in provincial decrees or semi-secret documents. Other boundaries of protected areas are defined e.g. as a radius around a sacred mountain or in terms of large square areas demarcated on a topographical map. Usually the demarcated areas are excessively large and go far beyond what can be efficiently protected or managed as a concession. Many of these areas contain several villages, sometimes entire communes.

In several cases land areas have been allocated to several concessionaires or new "owners". In other incidences several differing boundaries exist for the same protected area due to the inaccuracy of boundary definition on small-scale topographic maps. Due to the lack of transparency in virtually all the allocation procedures, even provincial institutions often claim not to be informed about land allocation decisions made on the national level. District authorities in turn blame the provincial level for not always communicating their decisions on land allocation to the private sector.

Still, some basic information on the areas already allocated by government authorities is essential for avoiding additional conflicts once the local level PLUP process has started. The MLMUPC has recently renewed its efforts to establish a systematic inventory of all state land and to demarcate clear boundaries. It remains to be seen whether and when such information will become publicly available for future land-use planning exercises.

All areas previously allocated to the private sector (concession areas) have to be dealt with differently in the PLUP process. On the state land and in concession areas the objective of PLUP is to identify those areas currently used by villagers, analyse existing use conflicts and restrictions and to develop proposals for some form of joint management or benefit sharing e.g. joint forest management in concession areas.

In the longer term it will be a crucial challenge in Cambodia to combine and integrate the local level PLUP with co-ordinated regional land-use planning exercises on the higher planning levels (e.g. district and provincial development plans). It is too early and not subject of this manual to devise concepts on how this integration could be achieved. Yet it is important to notice that local level PLUP will not be successful in the long run without the corresponding planning mechanisms on the higher administrative levels (e.g. master planning), which will set the regional priorities and help to balance between national development needs and local interests.

Within the framework of the on-going decentralisation in Cambodia the newly elected commune councils (elections are planned for early 2002) will be given a 12 months period to prepare comprehensive commune development plans. The exact layout and contents of the commune development plans still have to be defined, but they will necessarily have to include some details on land-use planning and natural resources management within the commune area. In this context, any communes where CF, CB-NRM or PLUP activities have already started, will have substantial advantages.

## 4. Steps and Procedures of PLUP

The core element of a land-use planning process is a number of working steps and procedures. In this document the steps have been listed in a certain sequence. Neither the sequence, nor the number of steps and their elements should be regarded as a compulsory guideline. Once again the steps and procedures suggested here are based on the present experience in the country and the region. Nevertheless, the user of this manual will need to evaluate carefully which steps are necessary for his particular situation and which modifications he needs to make to what is suggested here.

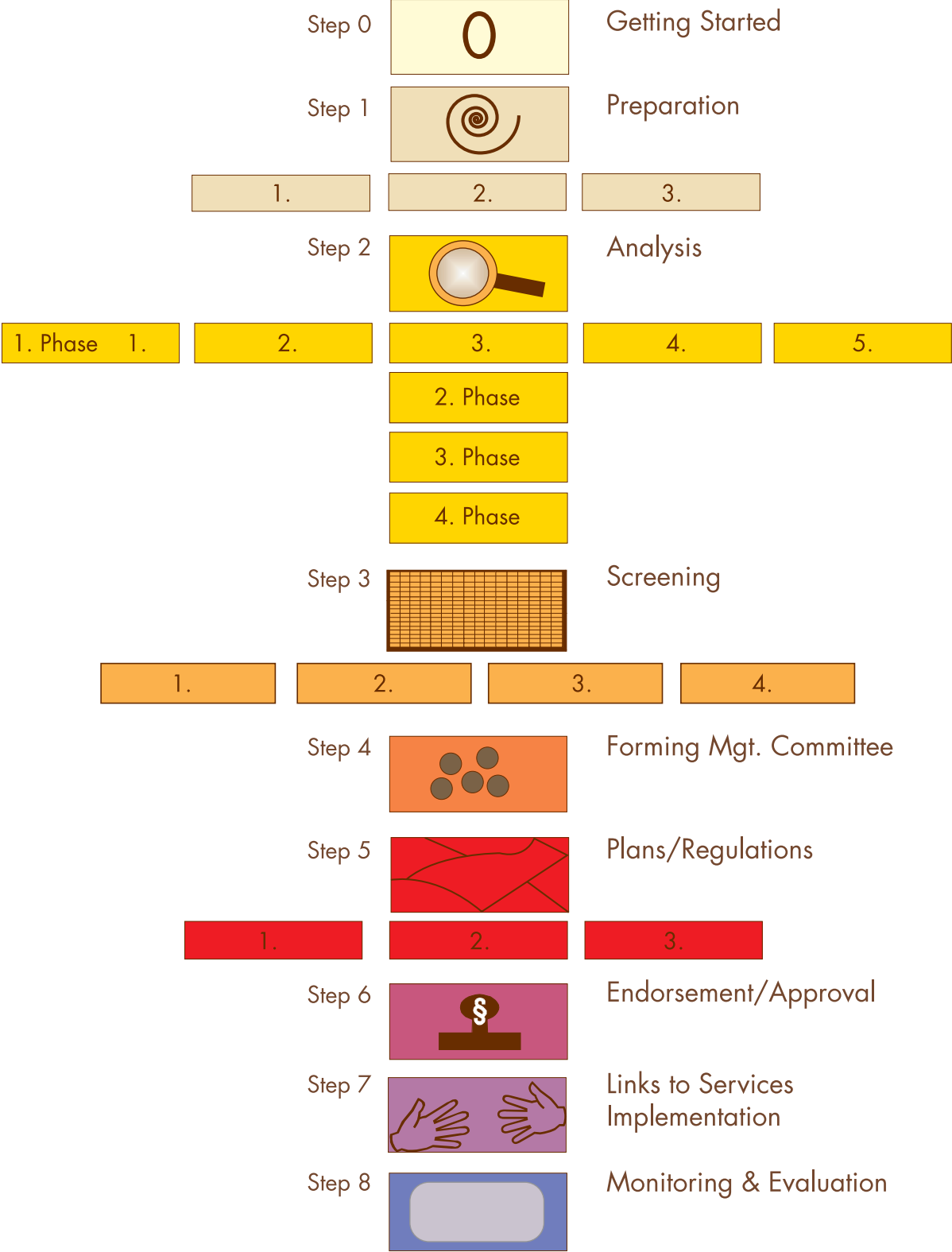
Wherever possible, the authors have tried to differentiate between absolutely essential steps and elements and those, which are optional or would help to improve the overall quality of the work.

The proposed steps and procedures of PLUP are also represented and summarized once more in a flowchart table in Annex 10.

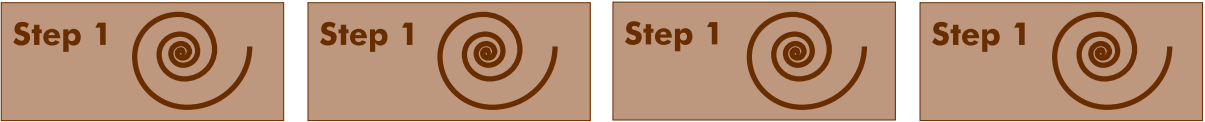


Process of PLUP

Graphic 2



4.1 Preparation of Field Work



4.1.1 Distribution of Tasks among the PLUP Facilitation Team Members

After the familiarization of the PLUP team with its new tasks by training courses, study tours, the review of existing data and information as well as the establishment of contacts with relevant service providers on the national level, the team members should be well prepared to start the field activities in the selected planning area. When conducting the field activities, which will be described in detail in the following chapters, it is of great importance that all team members are given equal opportunity to practice their theoretical knowledge. Therefore the colleagues must take turns in performing the various tasks required of them.

In meetings with villagers their main tasks consist of:

- facilitating or moderating the process
- observing the reactions of community members and the PLUP team and providing feedback to all team members
- documenting the results or at least supervising the documentation by the villagers themselves

Therefore, as a standard rule the PLUP team members should shift their specific role and task from one visit in the working area to the next and take turns in moderation, observation and documentation. Needless to say, that the team members should also take turns in working with villagers e.g. during the mapping exercises, the drafting of regulations or management plans etc..

Ideally, in the PLUP team each member should be in a position to perform every working step. The specific technical knowledge of each individual will be of secondary importance during most parts of the PLUP process. Technical expertise will be mainly required during the assessment the present agricultural, fishery or forestry resources use by the local population, specific resource inventories and while advising villagers in the drafting of regulations or detailed management plans e.g. for community forest areas or specific fish-ponds.

Irrespective of the "generalist" approach described above, a PLUP team should elect a coordinator or group leader to be responsible for work plans, report writing and representing the team in meetings on the district or provincial level.





4.1.2 Inform Local Population and Neighbouring Villages in the Working Area

When the PLUP implementation team is ready to start the actual field work, they need to inform the villagers that their area has been selected for PLUP work or that the PLUP team is now ready to respond to a request from that particular area.

During the very first visit to the village or the planning area, the team will introduce itself to the local leaders, briefly explain about PLUP and request a first village meeting. It is very important to select the right period and the right time to start a PLUP process. Peak working seasons for farmers (e.g. field preparation or harvesting times) should be avoided. Times of particular village preoccupations with other issues can also be detrimental (e.g. serious conflicts, insecurity, feast and wedding seasons). The village authorities should in any case be consulted on the right timing for the PLUP work and possibly the team needs to react with flexibility to a particular request by villagers, such as evening meetings.

In addition, the PLUP team will have to decide whether the presence of representatives of the local authorities (e.g. District and Provincial) in the first village meeting is considered beneficial. This needs to be evaluated from case to case. The presence of higher-ranking officials in this meeting will increase its importance and justification, but could also intimidate villagers, prevent them from participating voluntarily or speaking out freely during the village meeting.

4.1.3 Introductory Meeting in the Working Area

Once the date of the village meeting has been agreed, the village leaders should invite at least one adult member of each household, representatives of all village organizations, representatives from neighbouring villages and the commune leaders for an initial meeting on PLUP. In this meeting the PLUP team members will introduce themselves, give a brief outline of the future PLUP activities, but thoroughly describe the main objectives of the whole exercise. At least one team member will moderate, others will observe and a third group or person will take first notes.



After the introduction, a good way to start is to ask villagers for the history of the village and then for a description of the currently prevailing land and resources use in their area, the agricultural land use, fishing, hunting or NTFP collection activities and finally the use of forestry resources. Once the current situation has been sufficiently clarified, the next question would deal with changes in the use of these resources over the past 10-15 years. Usually at this stage by the latest, villagers will come up with several use conflicts which have developed over the past years and a description of the general degradation of their environment.

Once the land and resource related problems have been mentioned, the team could start explaining the details of the PLUP process and describe the main objectives. In essence, this should contain the promise of the team to try and assist villagers in identifying ways and means to overcome their problems by:

- acquiring a general understanding of their situation with regard to social aspects, natural resources use and institutional aspects (situation analysis, Step 2)

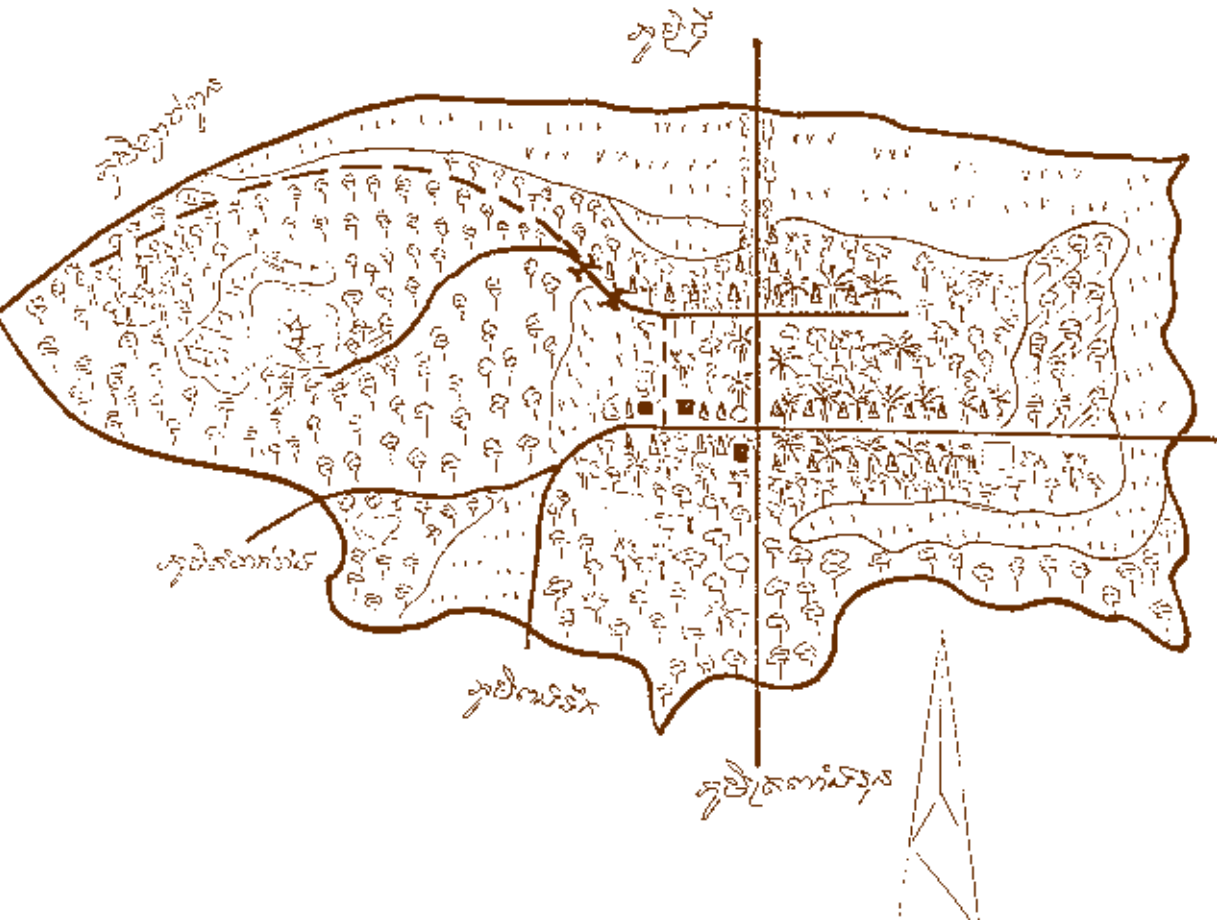


- jointly assessing and mapping the different land use areas + their boundaries
- helping them to identify options and best solutions for future use (Step 3)





- assisting them to form a committee in order to supervise the work process and to improve the management of the village resources (Step 4)
- helping them to draft future land-use plans, regulations + management plans (Step 5)



- applying together with them for official endorsement of the plans and regulations and possibly supporting them to request formal land allocation for specific areas within their community (Step 6)
- supporting them in the implementation and enforcement of their plans and regulations (Step 7 and 8).

As mentioned before, the presence of higher authorities in the first meeting is optional, but at least representatives from the commune level and especially from neighbouring villages need to be present. In case the working area has been selected on a higher level and villagers (see chapter 3.5) have formulated no request it could be possible that the local population rejects PLUP for whatever reasons. In such a case the PLUP team should not insist, but select another, possibly a neighbouring area. Voluntary participation and contribution by the villagers to the work process is essential.

#### 4.2 Situation Analysis (collection of data and information - interpretation and analysis)



In order to support villagers to identify ways of improving the management of their local environment, the PLUP teams need to gain a good understanding of the present situation in the respective community. To this end, the team will start their fieldwork by conducting an in-depth situation analysis; covering socio-economic, institutional and natural resources related aspects. The current use of land within the working area and the prevailing use conflicts will be identified and analysed together with the local population. As the team will undertake certain parts of the situation analysis with smaller groups of villagers, it is absolutely crucial to provide regular feedback to the entire community. This will permit all households of the community to stay informed and to contribute accordingly to the overall PLUP process. Wherever possible, the gained information should be cross-checked and analysed in the presence of a larger group of villagers.

##### 4.2.1 First Phase - Participatory Appraisal and Information Collection

Information and data requirements in PLUP have to be carefully defined to avoid "data graveyards". Very often Cambodian institutions and foreign organizations indulge in data collection (not only those involved in research work) without critically assessing their real or minimum information requirements.

Robert Chambers, the "father" of PRA has created the expression of "optimal ignorance" to describe what external facilitators should strive for during the situation analysis phase. They will never be able to collect and understand the totality of issues and facts in a given working area, so they will basically remain "ignorant". Yet, they should try to single out the most important facts and information, concentrate on those aspects and aim for reaching the best possible level of understanding ("optimal ignorance").





Another important issue is the question of "ownership" to the data and information collected during this first phase. The concept of a participatory approach requires the outsiders to support the local population in the analysis of their own situation, their own needs and priorities.

This is the first step towards the broader aim of formulating their need for change themselves. Therefore, the data and information should basically remain the "property" of the villagers and stay in the village. This would on the other hand prevent the PLUP team from playing their role of active supporters, advocates and sometimes lobbyists. A reasonable compromise is to work according to the principle that all original documents and PRA tools should remain in or be returned to the village after being copied manually by the PLUP team. PLUP team members can then make use of all the data and information in order to advance the PLUP working process. In case anybody wants to use the data and information for research or publication purposes, a special permission should be obtained from the villagers.

#### 4.2.1.1 Analyzing Socio-economic Aspects in the Working Area

The PLUP team will have to gain a basic understanding of the socio-economic situation of the village or the working area. One of the main objectives is to get an optimal understanding of the current and possibly future demand situation on land and natural resources:

**Essential elements:** The overall population and the number of families of a community, the ethnic composition and some indications on the population growth (natural and by immigration). Some information on any long term or seasonal migration of villagers to areas outside their usual boundaries is also required.

Furthermore, information on the main occupations of villagers and their sources of income needs to be collected. In this context it can be useful to jointly compile a long list of all subsistence and income generating activities as practiced by villagers and to ask for each activity how many families are involved in it.

Finally some indications on poverty levels in the respective area or village are an important aspect. The PLUP team should try to identify how many families in the planning area are considered poor, average or better off by their fellow villagers. Also the incidence of landlessness or insufficient land availability should be assessed.

**Optional information:** Sometimes it is useful to gain some deeper understanding on the history and origin of the community. In case the PLUP team is not very familiar with the local society and their practices or traditions, additional information on e.g. main household activities by gender, annual and daily time use by men and women, detailed household analysis of better-off, medium and poor families and live-stock numbers per family can be collected. Other details could be the number of women-headed households, age structures, birth and death rates. It could also be attempted to identify and analyse social or tribal conflicts within the village.

**Methods, tools:** Information on the population, their main occupations and income generating activities can be gathered in direct or semi-structured interviews in a village meeting. The incidence of poverty is best assessed by the use of wealth ranking exercises (see Annex 11).





#### 4.2.1.2 Analyzing Institutional Aspects in the Working Area

The local leadership and existence of community-based organizations needs to be analysed to understand the degree of self-reliance and cohesion within the community:

**Essential elements:** All existing local institutions and community-based organizations, including formal and informal leadership within the village need to be identified. Determine their roles and functions and their relationship to the entire community. How did these organizations or committees get created? Identify the key individuals in the community who influence village life and find out how they came into this position. Do these local institutions and organizations address issues relating to land and natural resources use? Which other project or donor-funded activities have in the past been implemented in the community?

**Optional information:** The internal functioning of the existing committees and village-based organizations can be further analysed. Their outputs and activities as well as those implemented with or by other projects/donors can possibly be visited and assessed. The representation of women in all the groups can be identified.

**Methods, tools:** Direct or semi-structured interviews. The relative importance of all the identified institutions and community-based organizations can be further assessed by the use of Venn diagramming (see Annex 11).

#### 4.2.1.3 Analyzing Current Land and Natural Resource Use Patterns

Villagers should be encouraged by the PLUP team to openly present and discuss their current land and NR use. The objective is for the PLUP team to understand what the main prevailing issues are at the time being. For example: Is there basically sufficient availability of land and NR in the area? And, what could be a solution if this is not the case. Do villagers make use of many resources outside the community or planning area? Are there important conflicts with outsiders or neighbouring villagers? Are there vast open access areas around the community without any control or management principles? Are there any traditional use restrictions or protection mechanisms in specific areas? Etc.

**Essential elements:** The main land use areas need to be identified. Also it needs to be determined how local people actually manage and use the land and natural resources in their community. Then the status of land ownership in the community is assessed e.g. by checking for receipts, applications for possession, land certificates and land titles (formal/informal). Assess customary access rights e.g. to forests or fishing areas (who uses the resources?, for what purpose?, with what exploitation levels and frequency?, where are important boundaries?). In many areas of Cambodia, the villagers seasonally or permanently make use of fishing or forest resources far away from their home community.

Such resource use outside the village or commune boundaries also needs to be considered. Vice versa, there are usually many other users exploiting NR within the planning area and these should also be identified (who comes from outside and when?, what do they use?, in what quantities and in which seasons?, what traditional or formal rights do they have?). Are there customary or traditional management rules for specific areas? If yes, are these existing rules and regulations known to everybody?, respected?, available in written form? Does the local population use a traditional land classification system? If yes, what are the main elements and how does it work? Finally, it would be important to know if allocation of land resources by the Government to outsiders has had serious effects on the local population and their customary practices?

**Methods, tools:** Villagers should be asked to draw a simple "community resources sketch map" (also called: village base map) on a large sheet of paper with coloured markers. The hand-drawn map should distinguish the settlement area, the main roads and paths, main landmarks, roughly the outer village boundary and all agricultural areas including swidden fields, upland farms and orchards, all forest areas, possibly distinguishing their current condition (e.g. very dense, good, slightly degraded, degraded, very poor, shrub land), all grasslands and all fishing areas (e.g. lakes, ponds, rivers, small streams, canals). See details on resource mapping in Annex 11.

Remember that it is not important to have a true to scale map at the end of this first mapping exercise. The village base map is a tool to roughly assess the overall situation of present land use. Detailed mapping will follow at a later stage (see chapter 4.2.3). It should not be forgotten that one PLUP team member has to moderate the drawing of the village base map and that another team member documents any other comments by people not directly involved in drawing the map. All PLUP team members should continue asking questions by pointing on the map to fill any empty spaces and to get the complete picture. Finally, a simple legend should be added to the map. An example of a village resource map is given in Annex 11.

#### 4.2.1.4 Analyzing Current Land and Natural Resource Use Conflicts and Past Changes in Resource Use

Most probably any conflicts over NR use within the community or with outsiders will have already emerged during any of the previous steps. Nevertheless the PLUP team will have to take this up once again, as PLUP can also contribute to conflict management. The team therefore needs to determine what and who are the causes of the conflicts and what previous efforts have been made to resolve them. The PLUP team also has to get a clear understanding of the changes in NR use that have taken place in recent years.

**Essential aspects:** What are the main conflicts over resources use with outsiders? How does the community deal with conflict situations on land use? Are there cases of land grabbing or land sales to any businessmen or powerful persons? Is the resources use by outsiders dominated by subsistence needs or for income generation purposes? Who are these outsiders? How has the overall situation on land and NR use evolved over the past 10-15 years?

**Optional information:** Possibly, the PLUP team could proceed immediately to an investigation of the views of others involved in any serious land use conflicts within the planning area. By looking at "the other side of the coin" they will be able to gain a better understanding of the overall situation and the causes of the conflict. This cross-checking of use and tenure conflicts is relatively easy in case of other villages being involved. In case of business people, concession companies, demobilised soldiers etc. this is more difficult and should be postponed to a later stage in the PLUP process (see chapter 4.3.2).

**Methods, tools:** In a second hand-drawn map (often referred to as "conflict map"), villagers should copy the main land use areas from the "village base map" and then mark in which area there is currently use of resources by outsiders, e.g. the name of the village or area they come from and the main products they use as well as the season and the number of outsiders making use of the NR. Zones where this leads to conflicts should be particularly highlighted with bright colours or flash signs.

In the same way all areas where outsiders have illegally appropriated land against the will of the villagers, should also be marked. Finally, arrows should be drawn across the village boundaries towards areas used by the local population which fall outside the planning zones. For example, if villagers seasonally migrate to the Tonle Sap area for fishing or exploit distant forest resources for certain times of the year, arrows should be marked on the map towards these areas. Along the arrows it would be useful to mark the season they travel, the products utilized, the number of families concerned and the approximate distance travelled (in days or km).

The PLUP team should always remember that their role is to ask questions and not to give the answers. In the case of the first resource maps drawn in the village, it is absolutely crucial that these are drawn by villagers and not by technical staff. At a later stage, these maps can be copied by the team. One important aspect of the entire situation analysis is to create trust and understanding between the PLUP team and the local population. This confidence and trust cannot develop if team members take a dominating attitude and order people what to do or what not. At the end of each exercise, the final question by the moderators should be: Have we overlooked or forgotten any issues relating to land and natural resource use that we should address? Do you want to add something?



**4.2.2 Second Phase - Preliminary Analysis of Information and Feedback to the Entire Community**

Under normal circumstances the participatory appraisal and information collection phase will take approximately 2 days of fieldwork. After this stage, the PLUP team will need time to review, analyse and copy the information collected. This means some office work. The team will compile and compare all their notes and the PRA tools to obtain a general picture of the community. This will also give them a chance to check and discuss whether they consider their information as complete and detailed enough.

In some cases, standard "village profiles" are compiled in order to standardize the information, to make it easier to check the information for completeness and to make the data more comparable between the various working areas.

Once the team feels it has sufficiently analyzed the information received, it should prepare for another village meeting to present how they have understood the villagers, cross-check the information and provide the chance to the local population to correct them. These feedback sessions with the whole community are extremely important during the entire process in order to avoid misunderstandings, keep all villagers informed and maintain an atmosphere of mutual understanding.





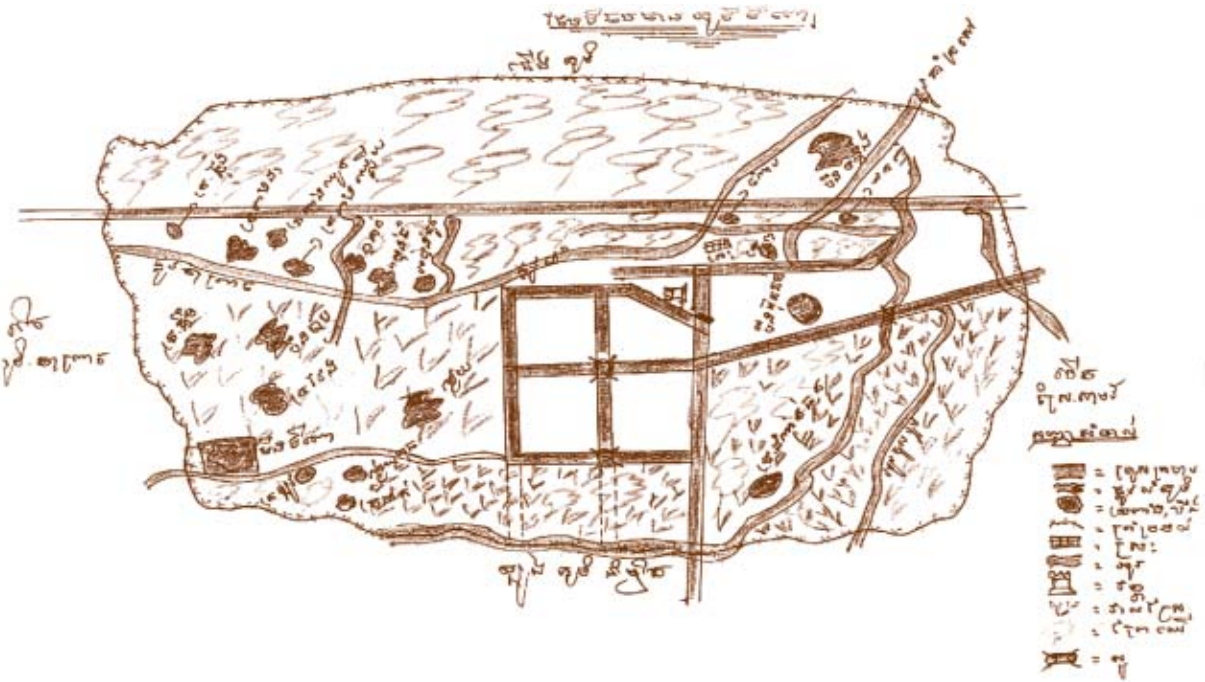
4.2.3 Third Phase - Transect Walks, Mapping and Modeling

4.2.3.1 Assess and Map Present Land Use and/or Prepare Models

Once the PLUP team has conducted the cross-checking and feedback session in the working area it is time to explore the land-use planning area in more detail. One suitable technique to start the field exploration steps is to carry out transect walks (see Annex 11). During the transect walks the PLUP team will split up in several sub-groups. A number of villagers will guide each sub-group in their walk across the village area. This can take the form of the groups walking in straight lines, e.g. from one end of the village boundary to the other in East-West and North-South directions or the team members can request villagers to show them areas or spots they consider as particularly important. Once again, the transect walks and all observations made during these walks need to be properly documented. Topographic maps or even better, aerial photos can help tremendously in the orientation during these walks.

After the PLUP team has also physically experienced the character of the planning area, the PLUP team in cooperation with the villagers has to take a decision on:

- which part of the area needs to be mapped for present land use?
- what degree of detail should the mapping exercise achieve?
- should a traditional or a "modern" land use classification system be used for the mapping exercise?



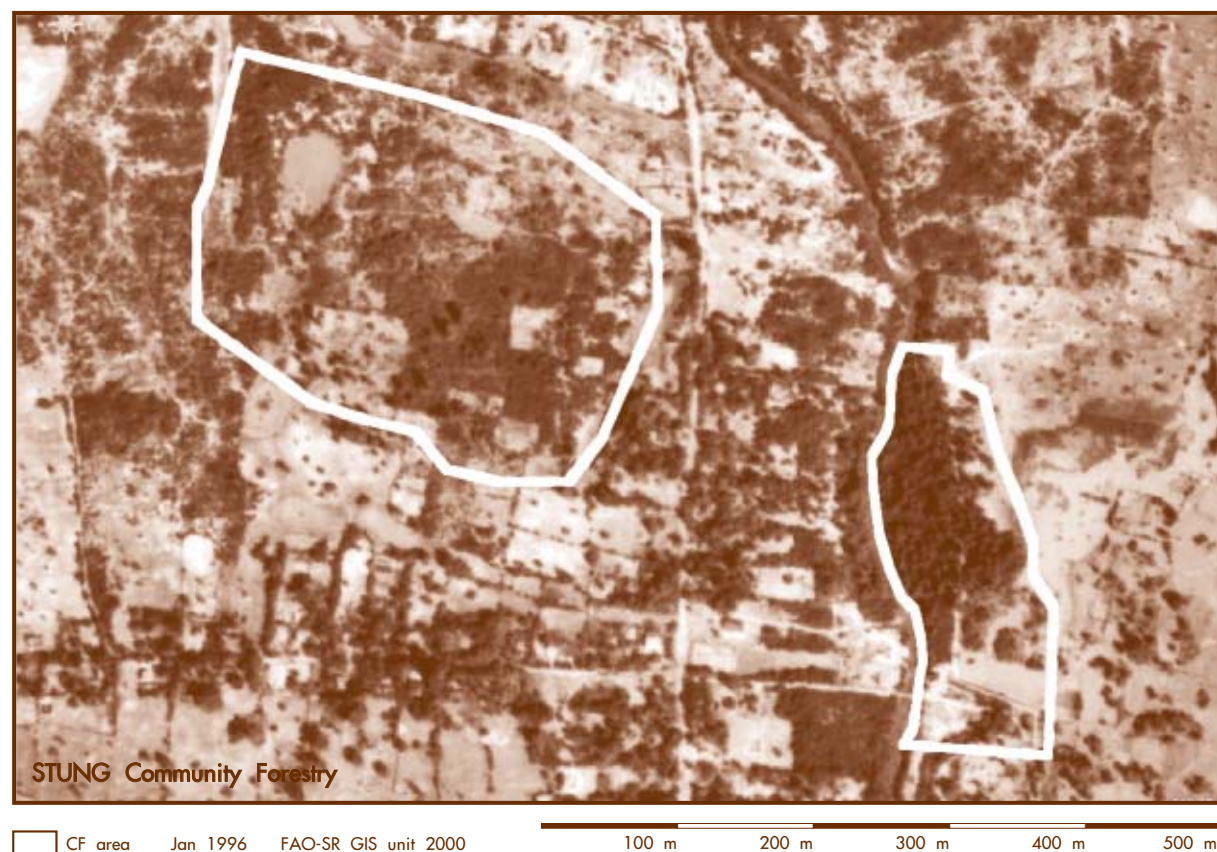
Let us take a few examples to clarify the decisions, which have to be taken here: in a village area in the Tonle Sap region most families will have access to their own rice fields, home-gardens a number of ponds, lakes etc. for fishing and sometimes upland farms e.g. with cashew plantations.

In such a case, the question is whether the villagers and the PLUP team will have to map every single rice field, every lake or pond or every upland farm including data on the present use and the ownership issue. In the North-Eastern part of Cambodia the situation would be totally different. There, the question would be whether every single swidden field and all fallow areas claimed by one family or by the entire clan needs to be mapped. Remember that it is extremely difficult to distinguish between secondary forest areas and old fallow areas of shifting cultivation.

There are no standard rules on what should be covered at the present land use mapping stage and in what detail. This is an issue the PLUP team will have to decide on a case by case level. Nevertheless, certain minimum requirements can be formulated:

Essential information and requirements:

- The present land use map of the planning area should have a scale between 1:5.000 and 1:20.000. Ideally, it should be prepared on a transparent laid over enlarged aerial photos or satellite imagery. Enlarged topographic maps are usually insufficient as a mapping base (see Annex 9).
- In some projects with easy access to GIS facilities the present land use mapping is done by using the hand-drawn village resource map (see 4.2.1.3) and digitising that sketch map with the help of GPS measurements. Thereby, the map originally drawn by villagers is gradually transformed to a true to scale village map reflecting present land use.
- On the present land use map at least a relatively accurate village boundary or boundary of the planning area should be marked. Staff from the Provincial Cadastre Office should assist in the demarcation of any administrative boundaries.
- Furthermore, the present land use map should reflect all units of common property resources or open access areas with some indication on their **function** (e.g. production forest used for communal firewood supply, spiritual forest), **current condition** (e.g. severely degraded) and describe the prevailing access rights (e.g. used by villagers from x,y,z). This means that at least a complete inventory of all forest areas and all fishing areas should be aimed for during the mapping exercise. The details on each mapping unit should be compiled in a small table or data sheet. The use of codes (see example of classification system in Annex 3) for each mapping unit saves time and will improve the utility of the map.
- The present land use map should under Cambodian conditions always contain information on any minefields within the planning area, possibly with additional remarks on past and planned de-mining activities, mine density etc.
- As a rule of thumb, any areas showing rapid transformation in the type of land use and particularly in the tenure system should also be mapped in detail, unless this would mean more than 10-15 days of fieldwork for the team. Such areas could be recent upland farm areas established in former secondary forests or shrub lands, new plantations claimed by outsiders or expansions of the rice fields.
- On the other hand, old rice production areas (e.g. rain fed rice fields, floating rice areas) should normally not be mapped as individual fields or family properties, but as rice fields in general. Also, swidden fields and the corresponding fallow areas should not be mapped by family, but marked on the map as e.g. shifting cultivation area within a secondary production forest. The surveying and detailed mapping of the rice fields, all upland farms and swidden fields will be carried out by MLMUPC staff once a land registration and distribution program with the attribution of land certificates is conducted in the specific area after the PLUP mapping work.



The exact procedure of the present land use mapping will largely depend on the quality and the accuracy of the mapping base. For example, in case the PLUP team has enlarged aerial photos of recent date or high quality satellite images at their disposal, the necessity of conducting the demarcation work in the field will be greatly reduced. If the team only has copies of relatively old aerial photos, this would mean more ground truthing work in order to demarcate the new boundaries between land use units on the transparent. If the team works with the hand-drawn village resources sketch map, enlarged topographic maps and GPS equipment, the marking of boundaries on the map and the surveying work will most probably take even longer.

If the project or organization supporting PLUP has access to GIS services of their own or by service providers (see Annex 8), the final version of the present land use map should be digitised so that coloured printed maps can be produced. For digitisation the draft present land use map should contain between 6 and 20 GPS measurements at landmarks (e.g. old buildings, stream bends or mountain peaks) or clearly visible crossroads. This is also the case if the mapping base was an un-rectified aerial photo or even a satellite image.

In mountainous areas another technique of assessing present and discussing future land use can be used. This technique is called modelling and simply means that a three-dimensional model of the village or planning area is built. The villagers should preferably do this themselves. Models can be of temporary (e.g. sand or clay models in the village), semi-permanent (clay models fixed with glue cover) or permanent nature (e.g. cardboard or Styrofoam models). As this technique only makes sense in an undulating landscape, this method would not be applicable in the major part of Cambodia with essentially flat relief structure this method would not be applicable, but could be an interesting alternative in the more mountainous North-eastern parts of the country.

Modelling has the advantage of being a very participatory approach in case of temporary or semi-permanent terrain models being built by villagers. On the other hand, modelling is time consuming and does in most cases not fully replace the need for mapping exercises, as official endorsement procedures for land use plans usually require maps on paper.

Once again: a certain standardization of land and resource types is required for efficient mapping purposes. Official recognition, comparability and usability of a map will greatly increase by the use of a standardized classification system for land use units (see Annex 3) and the use of GIS for clean prints.

One sensitive issue when mapping present land use is the recording of the village or commune boundary. Officially, the administrative boundaries have only been determined down to the commune level. Even in the case of the commune boundaries there are still many uncertainties remaining over commune boundaries and re-surveying of some of these boundaries is currently under way in several provinces by staff of MLMUPC.

According to present experience, villagers in many parts of Cambodia have differing views on village boundaries. In relatively densely populated areas, village boundaries seem to be fairly well defined and known to everyone. Yet, some cases where village boundaries cross commune boundaries have also been recorded.

In cases where villages border large open access areas, such as vast forest areas or the Tonle Sap flooding zone, villagers tend to define village boundaries as the area within the direct vicinity of their village. Large common property resources are not considered part of the village area. Yet, any given point in Cambodia should fall within the boundaries of a village, a commune, a district etc.. Therefore each village should eventually have clear and definite boundaries with all its neighbouring villages and could never border with "no man's land".

During mapping exercises it is extremely useful to cross-check village to village boundaries marked on the map in the presence of the neighbouring communities, although this is not always easy to organize. In some cases the boundary conflicts between neighbouring villages can only be solved by decisions on a higher administrative level (commune or district), which will seriously delay the PLUP work. Nevertheless, a clear demarcation of the planning area and its administrative boundaries is essential in order to clarify the management responsibilities of the local population.

While during the initial stages of the situation analysis, villagers should always take the leading role in analysing their current situation, the PLUP team members need to take a more active role in the mapping procedures on present land use. Villagers should be encouraged as much as possible to contribute to the mapping work, but generally speaking and due to the technical demands, they will mostly play the role of informants during the field work and GPS measurements. In case the team has enlarged colour aerial photos at their disposal, this will increase the opportunities for villagers' participation, as they will usually be capable of reading and interpreting these photos.

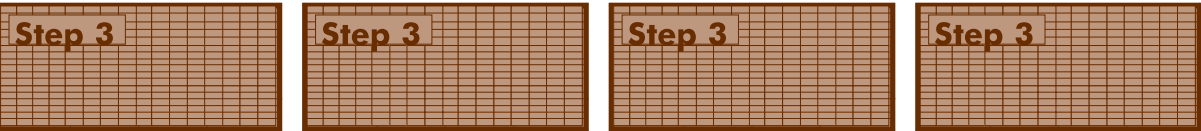
#### 4.2.4 Fourth Phase - Feedback to Entire Community (Village Workshop)

Once the mapping exercise on present land use has been concluded, a second general village feedback session should be organized. Some projects in Cambodia (e.g. FAO-PMNR in Siem Reap) refer to this type of meeting as village workshop in which also representatives of local authorities (commune, district, DAFF, armed forces etc.) can be invited.

The objective of such a meeting or workshop is to reflect once more on the present land use, check the map for completeness of information and to start discussions on options for land use changes, future land use and possibly land distribution.



4.3 Preliminary Identification and Screening of Options



4.3.1 Identification of Land Use Areas Requiring Changes

After the detailed analysis of the present situation in a specific planning area, it is important for the PLUP team to assist villagers in the development of a common vision of the future land use and to prioritize their needs for change. On the basis of the collected village data and information, the village base map, the conflict map and the more detailed present land use map as well as any other source of information, the PLUP team can now proceed to moderate the discussion on required changes in the planning area. These changes can be of several types:

- Change of land use in one land unit without changing the tenure rights (e.g. transforming a swidden agriculture plot into a permanent upland farm or fruit tree plantation).
- Change or at least clear definition of tenure rights to specific land units (e.g. allocation of specific forest areas as "community forests" and requesting official endorsement for this or allocation of former common property resources to individual families with insufficient or no land resources for productive measures).
- Re-allocation of land already claimed by certain people, but presently without formal title (e.g. distribution of illegally appropriated land areas to landless people in the village).
- Re-definition of village boundaries, protected areas or concession areas, as well as proposals for joint management models in large forest areas, in case the area available for use by villagers is highly insufficient.
- Resettlement of the entire village as the last option, which would only be considered under specific circumstances.

It must always be kept in mind, that any changes proposed by the villagers together with the PLUP team have to be considered as provisional and will need endorsement from the higher administrative levels. At this stage, the PLUP team will sometimes have to fulfil the difficult task of having to play two roles at the same time. On one hand they should be the advocates or lobbyists for the village interests. Yet, as staff members of Government institutions they also have to be loyal to their superiors and represent the state’s interests.

Once the PLUP team comes to the stage of discussing the need for changes in current land and natural resources management practices as well as the related tenure issues, it is important to have a notion of any additional land requirements or improved access rights for poor families within the planning area. This means, that from the original data and information collected during the situation analysis, the PLUP team should be in a position to say how many families in the village currently have access to sufficient land and natural resources and how many do not. Basically, they will have to review all present land claims in the planning area.

In some countries standard rules are defined e.g. on the minimum land requirements for agricultural production (e.g. in sq.m per capita or ha/family), for forest use (e.g. in cub.m per capita or ha/family) etc.. Most of these standards are highly controversial and very difficult to adhere to in practice. Equally, the standards become quickly obsolete and irrelevant in view of rapid population growth on one hand and dwindling resources on the other. Nevertheless, the PLUP team needs to jointly evaluate with the villagers during the PLUP process the relationship between peoples’ needs and the overall availability of resources. It is an obligation for the PLUP team to identify practical solutions for the landless or destitute people in the village in cooperation with village authorities. In case a solution can be found, this should be noted for later inclusion in the future land use map and the village regulations.

Nevertheless, when the land claims of the local population are reviewed some kind of regulating body or a set of rules is required to avoid unjustified and exaggerated resource appropriation by the villagers. This aspect would have to be clarified further in the implementation guidelines on land distribution following the new land law.

PLUP can also play an important role in stabilizing shifting cultivation practices by e.g.:

- encouraging the local population to limit swidden agriculture to designated and clearly demarcated production areas, which will usually be in fairly degraded secondary forests.
- allocating these specific areas of secondary forest to the entire community for management according to a set of rules and regulations (see chapter 4.5) or clearly allocating (with a land certificate) specific fields and fallow areas to families for use under a rotational swidden system.
- assisting shifting cultivators to gradually transform at least some of their traditional swidden fields to permanent upland farms or fruit tree plantations (e.g. with mixed cropping systems, agro-forestry etc.).

In Ratanakiri Province the provincial authorities have proposed the demarcation of individual swidden agriculture plots per family within a communal land area. The land resources available for this type of cultivation will then be limited to 5 ha per household (depending on labor availability or number of family members). Traditionally in this area any person who develops a piece of land for swidden or permanent agriculture is recognized as having exclusive rights to harvest the produce and may pass on these rights in inheritance. The new 5 ha rule also means that a ceiling of 5 ha per nuclear family is placed on the conversion of swidden land to permanent use. This on the one hand protects weaker members of the community (widows and families with limited labor resources) from being marginalized by more aggressive or innovative community members. Still, in the less fertile parts of Ratanakiri an area of 5 ha is considered insufficient for the survival of an average family. To a certain degree, the 5 ha provision will encourage families to engage in perennial cash crop production and thereby support a land use conversion.

In rare cases, the need to re-discuss village boundaries can be identified during the PLUP fieldwork. This could be the case when large parts of the village population have insufficient resources at their disposal within the village area, while large common property resources are located in the neighbourhood, which are already widely used and claimed by the villagers. In such cases, the PLUP team also needs to assure the equitable distribution of land resources between neighbouring communities and this will imperatively require the cooperation with provincial cadastre staff.

In mountainous areas, the relocation of the entire settlement area can sometimes enhance sustainable use of the resources and improve control over a specific village area. Under Cambodian conditions, this would mainly concern minority people who traditionally move settlements for spiritual reasons within certain boundaries. This moving of the settlements within the traditional area should not be confused with a resettlement of the villagers outside their customary boundaries. This approach, although widely practiced in minority areas throughout Cambodia, Laos and Vietnam, has no connection to PLUP procedures and has in most cases had detrimental or counter-productive consequences.

#### 4.3.2 Evaluation of Options

In most cases the changes required are not clear-cut, simple solutions. In most PLUP exercises there will be a multitude of options for changes in land use, NR use and tenure. The challenge is to identify socially acceptable, environmentally favorable and practically feasible solutions for the main land use related problems. The leading principles for the evaluation of options would be:

- at least subsistence needs of all villagers should be satisfied,
- any decision must be socially just and equitable,
- sustainable use and protection of resources should be promoted,
- and in some cases additional income generating opportunities could be identified.

This requires a thorough analysis of the available options for all major land use units. The role of the PLUP team is to introduce and clarify the various options and to moderate the village discussions on the various choices. The discussion on necessary changes in land and resources use within the community can be aided by the use of PRA tools, such as dream mapping, ranking and matrix scoring exercises (see Annex 11).

Once the community has decided on which option to choose, these should be written down by a village representative in view of using them again in the preparation of the future land use map and the village regulations.

Changes in agricultural land use will mostly concern upland areas (e.g. swidden areas or upland farms) and will require the formulation of certain restrictions and possibly some incentives to promote the wanted transformations. Usually, the present rice field areas require fewer changes.

Changes in the use of common property resources could be envisaged for forest areas, grassland areas and water bodies. The management changes could take the form of specific use restrictions (by season, by technique, by selection of permitted users etc.) or lead to total protection of the area.

Any envisaged management changes will also require a review of the land and resource tenure system. State land (concession areas or protected zones) is a priori excluded from any changes in tenure. In some cases the local community will request improved access rights and a co-management responsibility in state concession or protected areas. As mentioned earlier,

there would be numerous options for joint or collaborative management models in such areas, depending on the level of devolution and the institutional arrangements. Sometimes this could also necessitate the re-definition and adaptation of boundaries.

For designated community forest areas there are a few tenure options. These could be maintained in one block under communal management according to a set of rules or be subdivided in individual family forest plots under household management.

One important issue, which is often overlooked, concerns the definition of land and resources needs for future generations. Ideally, the PLUP team should during the evaluation of options also discuss the setting aside of sufficient land areas for use by young families in future. This concerns agricultural land, but possibly also forest land and fishing areas. In those areas where the current exploitation levels are close to or beyond the limit of the natural production potential, this issue will be particularly difficult to solve.

The re-allocation of individual property for agricultural production (e.g. farmland acquired by outsiders or fields of large landowners in the village) will be one of the most sensitive issues during the PLUP process. In case villagers request this option, conflicts with higher administrative levels are very likely. The village authorities and the PLUP team will have to decide whether such cases should be brought up to the "Land Conflict Resolution Committee".

#### 4.3.3 Technical Suitability Assessments

In those areas where the need for a change in land or resources use has been identified, more detailed land capability assessments or resource assessment (e.g. agricultural potential, water availability etc.) could be envisaged. In practice, such assessments are extremely time consuming, costly and require good technical expertise. Therefore, the implementation of suitability assessments is only optional during the PLUP process. In view of establishing simple management plans by communities a participatory resource inventory and some specific measurements should be conducted (see chapter 4.5.3). Yet, these inventories are very different from comprehensive land capability and resource assessments.

Usually, villagers know best about their direct environment and can judge quite well on the suitability of land areas to fulfil their own needs. It is this local expertise that is mainly used for PLUP and it will be complemented by the technical knowledge of the PLUP team members. This is different in the case of PLUP in resettlement or de-mined areas, where generally a more thorough assessment of the potentials of land use units is required.

#### 4.3.4 Decision on best Options for Future Land Use

Once, the community has exhausted the discussion and evaluation of the different options, decisions need to be taken and documented. These decisions will later be incorporated in the future land use map, the village regulations and eventually the management plans.



## 4.4 Creation of a Management Committee



At one stage of the PLUP process it will be necessary to create a committee for the management of land and natural resources in the planning area. This could be a village committee, elected by the villagers of one community or it could be a committee with representatives from several villages

in the case of a small watershed or a larger forest area. Equally, there could be a management committee on the commune level with participants from all villages in that particular commune. The creation of such a committee could also come earlier than step 4, e.g. already during the situation analysis phase or before the evaluation of options for land use changes. Practical experience has shown, that the election of such a committee at the very beginning of the process will rather confuse villagers, because the PLUP work has not yet advanced and the tasks of the committee members still remain difficult to understand.

All projects and organizations working in CF or CB-NRM in Cambodia have encouraged villagers to form such management committees at one stage of their work. According to their main responsibilities, the committees carry different names in the various project areas. Some are Village or Community Forest Management Committees (FAO Siem Reap), Community Consultation Committees (NTFP), Village NRM Committees (PDP-Kampong Thom, CB-NRM Ratanakiri), Resource User Committees or simply PLUP committees. Obviously, the tasks will vary slightly between CF, consultation and NRM committees.

Yet, the basic functions of any of these committees will include elements of the following:

- Represent villagers or improve coordination among villagers in the PLUP, CF or CB-NRM process.
- Accompany and assist the team of facilitators (e.g. PLUP team or core team).
- Support the team of facilitators in the moderation of village discussions, create awareness on the PLUP work and NRM issues in the area.
- Help in the resolution of conflicts within the village or with outsiders (e.g. boundary demarcation).
- Guide the elaboration process of village regulations on land and NRM use by a sequence of village meetings.
- Develop an action plan for the community in terms of land and NRM related activities and organize the implementation of these activities.

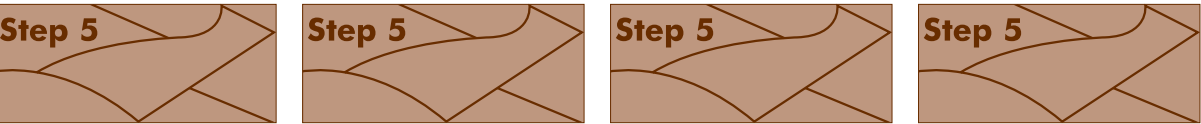
- Monitor the application and enforcement of the village regulations, including the punishment of illegal activities, collection of fines, but also the granting of incentives.
- Administrate the money collected in fines or fees, decide on and account for the use of the funds for NRM activities.
- Maintain contacts with neighbouring villages, the commune level, the district level and the provincial level as necessary.
- Report to the concerned institutions (commune level, fishery and forestry staff on district level etc.) any illegal activities and conflict situations over NR use in the area, which cannot be resolved by the committee itself.
- As a general rule, there should not be more than one committee per village or commune dealing with NRM issues or aspects of these. This means that if PLUP work is started in areas, which already have a Community Forest Management Committee, the tasks of this committee should simply be revised and complemented. Any kind of NRM committee should be considered as a sub-committee of the VDC, if such an organization exists in the village. Possibly, the relationship of the NRM committee with other village committees (e.g. pagoda committees, parents or elders associations) needs to be clarified in advance.

Ideally, the NRM committee should be elected from all and by all adult members of the community. Some projects prefer to further specify the composition of the committee, by requesting villagers to elect or nominate a minimum number of women, elders, young men or the head of village. Especially the representation of a sufficient number of women on the committee should be taken seriously for gender reasons. In some cases it will be a major challenge to include all relevant stakeholders, even those living far from the protected or jointly managed resource area and to achieve an equitable representation of all groups and social classes in the committee. A domination by the most powerful and wealthier people in the area must be avoided by all means.

Due to the documentation work (e.g. drafting of village regulations) and accounting responsibilities, all members of the committee should normally be literate. The number of members in the village committee should be limited to between 5 and 8 (for very large villages). In some cases villagers opt for also electing some special advisors to the committee, such as monks or abbots from the area, old knowledgeable people etc. For NRM committees on the commune level the number of members will depend on the number of villages concerned.

As a general rule the village or commune NRM committees should be re-elected every 3 to 5 years. Experience has shown that a facilitation and supervision of the election procedures by the team of outsiders (PLUP team) is generally appreciated by villagers and improves transparency and fairness of the process. Some projects even demand the presence of commune and district level representatives during the election process (FAO Siem Reap). Elected members of the committee should ideally perform their new tasks on a voluntary basis, but the community could also envisage internal compensation mechanisms, such as the exemption from fees and other communal work obligations or neighbourhood assistance for operations on their fields etc..

4.5 Preparation of Future Land Use Plan, Village Regulations, and Detailed Management Plans



4.5.1 Future Land Use Plan

The future land use plan is a map, preferably in the same scale as the present land use map of the planning area (see chapter 4.2.3.1). On the basis of the present land use map and a transparent laid over the mapping base (e.g. aerial or satellite photos), the new map is first drawn by hand, but could later be digitised for GIS treatment and printing. All areas, which require any type of change and all decisions taken during the discussion on the options should be copied to the future land use plan. The various land units should be given the new codes according to the classification system (see Annex 3) and all remarks on the required changes within a particular unit could be added in a small database sheet.

Together with the document on the village regulations and eventually some detailed management plans for specific areas under communal control, the future land use map is one of the core outputs of the entire PLUP process. The future land use map and the regulations are the main documents submitted to the authorities for endorsement and official approval of the PLUP work.

In terms of timing, the elaboration of the future land use map in many cases will directly follow the decision making process described in chapter 4.3.3 and 4.3.4.

4.5.2 Village Regulations

Village regulations (VR) are another core element of land-use planning exercises, as they reflect the decisions taken by the community on the future management of all local resources. The agreed upon management rules and regulations will vary from one village to the other. Therefore, the drafting of the VRs should be kept flexible and adapted to local conditions. It is highly problematic if projects or village facilitators promote "standard" regulations or impose good examples of such documents from other areas to the villagers. Instead, every community should be encouraged to evaluate their own situation, discuss openly and come to their own conclusions. Unless this is done, villagers will always consider the village regulations as those of outsiders and not as their own. This would mean, that the rules and regulations would be less respected and adhered to.

Still, the villagers and the PLUP team need certain guidelines for the elaboration of the VR. The PLUP team needs to introduce the concept of VRs, describe the main topics to be covered in the VRs and give a short introduction on the respective responsibilities of the villagers and the PLUP team during the drafting process. The best option for the PLUP team is to use simple guiding questions in order to make sure that villagers and the village NRM committee have thought of all the main aspects and possible issues. An example for such questions and a rough guideline is presented in Annex 12.

Approaches used by various projects in the development of regulations

CONCERN (Kampong Chhnang/Pursat)	FAO - PMNR (Siem Reap)	CARERE (Battambang) Upland areas	CB-NRM(CARERE) (Ratanakiri)
1. CONCERN staff drafts regulations for the village committee (the structure of the committee is mentioned in the VR).	1. With facilitation by project staff, the community develops draft regulations based on the ideas of each village within the project area.	1. Villagers receive existing regulations from the facilitator to get some ideas.	1. A village meeting is organised to initiate the development of regulations.
2. The draft VR are reviewed by group leaders, the village committee and the project committee members.	2. The draft VR are sent to all concerned institutions, particularly DAFF, in order to give their comments and evaluate whether the proposed document is in line with the laws and Government policies.	2. Facilitators and village committee sit together to develop draft VR.	2. Facilitators gather all the ideas from each village and draft the regulations (for several villages together).
3. CONCERN staff reads each article/ clause of the draft VR in front of the villagers and answers all questions raised by villagers until they agree and get a consensus; each point in the VR needs to be accepted by voting (raising the hands).	3. The draft VR are cross-checked in a village meeting and all comments made by the line agencies need to be discussed and possibly accepted.	3. A general village assembly is organised to discuss and review the draft VR.	3. Facilitators present the draft regulations to the individual village committees, discuss them and incorporate any changes or new ideas; the regulations are then reviewed again by the facilitators.
4. CONCERN staff edits a second draft of the VR and takes it back for presentation in another village meeting.	4. Once the VR have been generally accepted + agreed upon in the village, they will be signed first by the chairperson of the VC, then by the commune leader, the district authority and DAFF. After the final signature by the Provincial Governor, the VR become officially valid.	4. The facilitator re-edits the VR, integrating the comments made in the village assembly.	4. The second draft is presented and reviewed in a commune workshop. The regulations are distributed to all villages.



CONCERN (Kampong Chhnang/Pursat)	FAO - PMNR (Siem Reap)	CARERE (Battambang) Upland areas	CB-NRM(CARERE) (Ratanakiri)
5. CONCERN staff requests the approval and organizes the signing of the final document by the village committee, the head of commune, the district governor and line agencies (DAFF).		5. Suggestions by the line agencies are discussed with the committee and groups representing villagers.	5. Each village is informed on the final version of the regulations.
		6. A final version of the VR is prepared, signed by the village committee, the commune leader, district governor, line agencies, the Provincial Governm.	6. The Regulations are submitted to line agencies at the provincial level for comments.
			7. A seminar is organised on the provincial level to agree on the Regulations.
			8. R. are signed by local authorities, line agencies and the Governor's office.
			9. The R. are submitted to PRDC for the handing over.

Village regulations are a very useful tool to make traditional (usually unwritten) use rules and regulations known, transparent and get official recognition for them. In case these traditional regulations exist, they are usually the starting point in the drafting process. One example: spiritual (sacred) or ghost forests of minority people are among the best protected forests in Cambodia, same as in other neighbouring countries. The interdictions with regard to the specific forest area are well known to all villagers and possibly to the neighbouring communities. On the other hand, government officials and other outsiders will not be aware of the existing taboos. By including them into the VR, these rules become more transparent and publicized and chances will increase to have them respected even by outsiders. In case no traditional regulations exist, these simple rules have to be developed in steps and cover all land units. The document on regulations should be particularly exhaustive where maps are not very detailed or of good quality. As a general rule the document should include a general description of the village location, an enumeration of the main common property resources in the area, any restrictions on individual land use areas (farms, home-gardens, rice fields), management guidelines for all CPR, indications on conflict resolution mechanisms and how to deal with land owned or managed by emigrants or new immigrants to the village. The annexes to the VR should contain information on the current village

NRM committee and the fining catalogue, as these might have to be reviewed more frequently than the entire VR document (see Annex 12). Village regulations need to be drafted by the villagers themselves. This could be either done by the NRM committee in a small group and then cross-checked and approved by the entire community, or by a sequence of (evening) village meetings to discuss and decide all the articles of the document in a larger group. Ideally, representatives of the commune level should be present in the discussion stage of VR. The PLUP team will come back regularly to the village to listen to the drafts, ask questions of understanding or remind villagers of issues not yet sufficiently covered in the document. They should in no case change the VR themselves or force upon villagers certain reformulations, unless any article in the document is clearly in contradiction to Cambodian laws. Practical experience has shown that the PLUP team will have to listen and advise on the VRs at least 2-3 times over a period of several weeks.

Once the hand-written document on the VR is sufficiently comprehensive and approved by all adult villagers in a general village meeting, the draft version should be typed in Khmer language. Usually a VR document will contain a number of articles and paragraphs and comprise between 15 and 30 pages, including the annexes. At the end of the document, space is left for the signatures of all parties having to approve the regulations (see chapter 4.6).

At the same time as village regulation are elaborated, it is very useful to note down future implementation activities in NRM into a simple action plan (see example in Annex 12). This work-plan could be used as a basis for extension and support activities by projects and programs or simply reflect the jointly agreed upon self-help activities of a community once all PLUP documents have been officially endorsed (see chapter 4.7).

Once, the regulations of several villages in one commune have been approved by the local administration, a summary of these regulations needs to be prepared to form the commune statutes in which the main guidelines for the management of resources in the entire commune will be described. Especially, the key common property resources for each commune need to be listed by name and their use or protection rules need to be described. Elements of these commune statutes would be included in the commune development plans, which have to be drafted by the elected commune councils from the year 2002 onwards. Examples of village regulations from Cambodia are represented in chapter 9 of this document.

#### 4.5.3 Management Plans for Communal Areas (Community Forests or Community Fishing Areas)

Once the village regulations are officially recognized and approved, the village NRM committees should be encouraged to draft more specific management plans for all areas under communal management. These could be fishing areas, such as ponds, lakes, parts of rivers and streams or forest areas such as community production forests or protected forests.

The management plans define specific management activities and timeframes. These plans are essentially more "technical" than the village regulations. The community prepares the management plans after analyzing their user needs, the condition of the forests or water bodies and discussing issues like prohibitions, protection and management responsibilities and benefit sharing mechanisms.

The plans need to be based on a participatory resource inventory exercise, which for example will include assessing the number of trees standing in community forest areas, describing the species composition, assessing approximate volumes and sustainable yield rates (for an example of a participatory forest inventory see Annex 13). Correspondingly, in the case of fishery resources the predominant fish and aquatic animal species, the approximate productivity rates and specific protection requirements (spawning seasons, migration periods etc.) need to be identified. These inventories are conducted jointly between the NRM committee, other knowledgeable villagers and the PLUP team members. In this exceptional case, the PLUP team members split up according to their technical specialization, with the fishery staff assisting villagers in the fishery resources inventory and the foresters supporting the participatory forest inventory. The results of these inventories will help in the elaboration of the management plans.



The final document of a communal management plan should include the following details: objectives, forest type and condition, forest product harvesting, natural regeneration, forest rehabilitation needs, land use and land allocation, distribution of benefits, management activities, bio-diversity considerations, roles and responsibilities (see Annex 14).

In the FAO Participatory NRM Project in Siem Reap the specific steps of the preparation of management plans are:

- participatory mapping of management areas
- block division and sub-block division based on forest productivity and the objective of the users
- allocation of management responsibilities based on indigenous forest management system and village location
- participatory forest inventory
- data analysis and discussion with community members
- drafting of management plan
- review and finalization of management plan with community
- submission of management plan to provincial forestry office (or fishery office for fishery domain land) for approval

In many cases of community forestry in Cambodia, the local authorities and forestry representatives only agree to the allocation of fairly degraded or at least less productive forest areas for communal management schemes. Therefore, the resource inventories in the forest areas will frequently come to the conclusion that the area or the amount of resources allocated to the community is not sufficient to meet all peoples' needs. Government services then expect villagers to carry out rehabilitation measures.

In case the community decides temporary protection and regeneration measures in the degraded forests, this will mean that pressure on the resources of other areas in the vicinity will grow. In case this continues for some time, it can lead to increased degradation of the resources located outside the working area. Examples in Siem Reap (FAO) or Kampong Chhnang (CONCERN) have shown that forest regeneration and recovery in community controlled areas can be impressive, but the effect on surrounding areas has never been measured. Still, there is an obvious need for regenerating and temporarily protecting such community forests. At present, it still remains very difficult to make predictions on future productivity levels of such regenerated forests and therefore on sustainable yields.

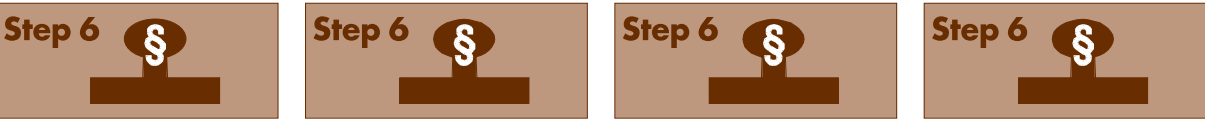
Same as the VR, the management plans for communal areas need to be typed and submitted for official approval and endorsement procedures (see chapter 4.6).

Once, the approval is granted to the community, such areas need to be physically demarcated on the ground, either by the use of signboards, painted poles or other boundary marks. The village NRM committee then has the overall responsibility of supervising the implementation of the management plans, enforcing the prohibitions and making sure that eventual benefits are shared equally, as planned in the document.

A selection of communal management plans from Cambodia is included in chapter 9 of this document.



4.6 Submit Land Use Plan, Regulations, and Management Plans for Official Endorsement and Approval



The village regulations are a tool towards getting recognized collective rights on cracking down on illegal activities and introducing sustainable management practices in village/commune areas and this requires official recognition from the district, provincial and sometimes the national level. The future land use plan reflects all state land areas, all areas which should fall under community management in future and areas which are considered part of the private domain. The management plans present the detailed management guidelines for all areas under community control. On the last page or at the bottom of all these documents space is left for the official signatures of approval. All these proposals, which have essentially been prepared by villagers and present their views and priorities, need to be counter-checked and approved by Government officials from technical services and local authorities.

In the case of the FAO project in Siem Reap the final regulations are submitted to the Provincial Governor for official endorsement and approval after being checked and signed by the village committee, the commune chief, the district governor, the forestry and/or fishery office and the head of the provincial agriculture department (DAFF). In case of the planning area being located in the flooding zone of Tonle Sap (fishery domain), the regulations and management plans have to be finally submitted to the head of the Department of Fisheries at the national level where the final signature is usually delayed for several months.

In the Province of Kampong Thom the NRM section of the GTZ supported PDP-KT has started presenting the first village regulations to the members of the Provincial Committee on NRM in the Tonle Sap area under the chairmanship of the Provincial Governor. Before reaching this committee the VR are checked and signed by the village NRM committee, the commune chief and the district governor. During the meeting of the Provincial NRM Committee, copies of VRs are distributed to all heads of provincial departments and security officials represented in the committee for critical evaluation. In the next session, the committee members can then make remarks or request amendments. In case of substantial changes proposed to the documents, they have to go back to the village level for discussion and through the commune and district level once again if a new compromise has been found. In the CB-NRM Project in Ratanakiri, the procedures of submitting the regulations is similar, except for the fact that the project organizes a sequence of workshops to involve the district level, the line departments and the provincial authorities. Finally, the regulations are signed, and endorsed by the PRDC and an official handing over ceremony is organised in the community.

In general, the role of the PLUP team is to submit the regulations and possibly present them to a committee, follow up the endorsement procedures of the documents and eventually mediate between the wish for changes by district or provincial officials and villagers. Very often, the final product of the plan, the regulations and the management plans will constitute a compromise between the various views and opinions. PLUP team members play a mediating, but sometimes also a lobbying role during this stage. A discussion on institutional settings for the official approval of land-use planning activities and the present situation in all provinces of Cambodia is presented in Annex 4.

4.7 Implementation of Action Plans and Land Allocation Programs, Link to Extension Services and Conflict Resolution



Once all the land-use planning documents have been agreed and officially endorsed, the implementation phase will start. Ideally, the implementation of activities should follow the village NRM activity plan (also called NRM action plan or village work plan by other organizations). This plan is usually set up and modified during the process of elaborating the future land use plan, the village regulations and the management plans. Typically, the activity plan will include village tree nursery establishment, tree planting, fish breeding, environmental education, energy saving stoves, fruit tree promotion, improved agricultural production or rural credit activities.

For the planned land use changes to succeed, villagers require outside support during the transformation process. This support has to come through qualified agricultural, forestry and fishery staff providing extension and training. If well documented, the village plans can serve as a basis for extension work, development support and a program of demonstrations (e.g. on improved land management techniques) by NGOs and Government services (see Annex 12).

The Provincial Offices of Land Management, Urban Planning, Construction and Cadastre should always receive a copy of all future land use plans elaborated for any area within the province. This map will clearly specify the areas in need of land demarcation and allocation procedures outside the private domain (rice fields, home-gardens, homesteads), see next page. In addition, the PLUP team should specifically inform the cadastral staff on the land registration and allocation needs of each planning area or village. Once clear implementation guidelines for land allocation are available, the cadastral services could then start demarcation and registration work in the respective PLUP areas according to the future land use plans.

PLUP on village or commune level can lead to the need to renegotiate the boundaries of protected or concession areas (e.g. fishing lots). This re-evaluation of boundaries can only be done under the supervision of the respective land conflict resolution committees in the various provinces or special committees on boundary demarcation e.g. for the Tonle Sap fishing lots.

Despite the fact that PLUP can in itself be regarded as a conflict resolution mechanism for land conflicts by searching for equitable and transparent solutions in land management, some land use problems will usually even persist after PLUP. Most of these conflicts will involve the villagers on the one hand and outsiders on the other. The outsiders could be neighbouring villagers. Even more frequently under the Cambodian conditions, these outsiders are demobilized or active soldiers, private businessmen or Government officials. Therefore, conflict resolution remains a crucial issue even after the PLUP documents have been officially endorsed.

A description of the main conflict resolution mechanisms applicable in PLUP is presented in Annex 15.





In the case of PLUP there are various forms of monitoring and evaluation activities involved. In a village where the PLUP process has been successfully implemented this could be:

- Self-monitoring of the entire PLUP process, e.g. by counter-checking the activities of the PLUP team against the recommendations made in this PLUP manual.
- Monitoring of extension and demonstration activities carried out by NGO or Government services in support of the planned land use changes.
- Monitoring of the activities included in the village NRM activity plan.
- Monitoring of the village regulations and management plans: their enforcement, rates of compliance, collection of fines, incidences of conflicts with outsiders etc., which could possibly lead to periodic revisions of the documents.
- Monitoring of changes in land use practices and tenure systems as well as their direct effects.
- Monitoring of the overall impact of the PLUP work on natural resources and socio-economic situation (wanted/unwanted effects).

The village NRM activity plan and all the extension activities promoted in the area should be reviewed periodically by the villagers and the extension staff (possibly every 6 months). This will help both sides to critically evaluate which activities were successful, what has not been implemented at all or only with delays and will help to improve the accurateness of future work-plans. Particularly successful extension or demonstration activities can be further promoted in other areas.

The village NRM committee will monitor the compliance with the village regulations and management plans. Periodically the village NRM committee should meet with the PLUP team to jointly discuss and assess the enforcement of the regulations and management plans. These meetings should also include joint field visits to critical sites. Typical indicators to evaluate whether the enforcement of the regulations has been carried out successfully, are the number of violations observed, the amount of funds collected in fines, the cases of conflicts with outsiders and their resolution. The PLUP team has to make sure, that the village NRM committee gets regular support through such supervision and joint evaluation visits the village. In the beginning, these visits should be more frequent (e.g. every 2 weeks) and intervals could then gradually decrease, as the NRM committee becomes more self-confident and independent.



Once a year the direct effects of the entire PLUP work on the natural resources in the area, on land use practices and on tenure issues should be critically reviewed in a village workshop. Commune representatives, district officials and provincial staff should also be invited on such occasions. The workshop should also include field visits to specific sites. In case photos have been taken during the earlier stages of PLUP work, e.g. the mapping of land use, these photos can be compared to the actual situation e.g. one or two years later.

After a period of approximately 5 years the overall impact and the wanted and unwanted effects of the work can be assessed. University students, consultants or research staff could be given the task to do this. They would then compare the original data and information collected during the situation analysis in the planning area, look at all the PRA tools, maps and documents and compare these to the present situation. Preferably, this type of work should be done by outsiders of the PLUP process in order to give a critical feedback on the impact of PLUP to the PLUP team members, all involved Government institutions and projects.

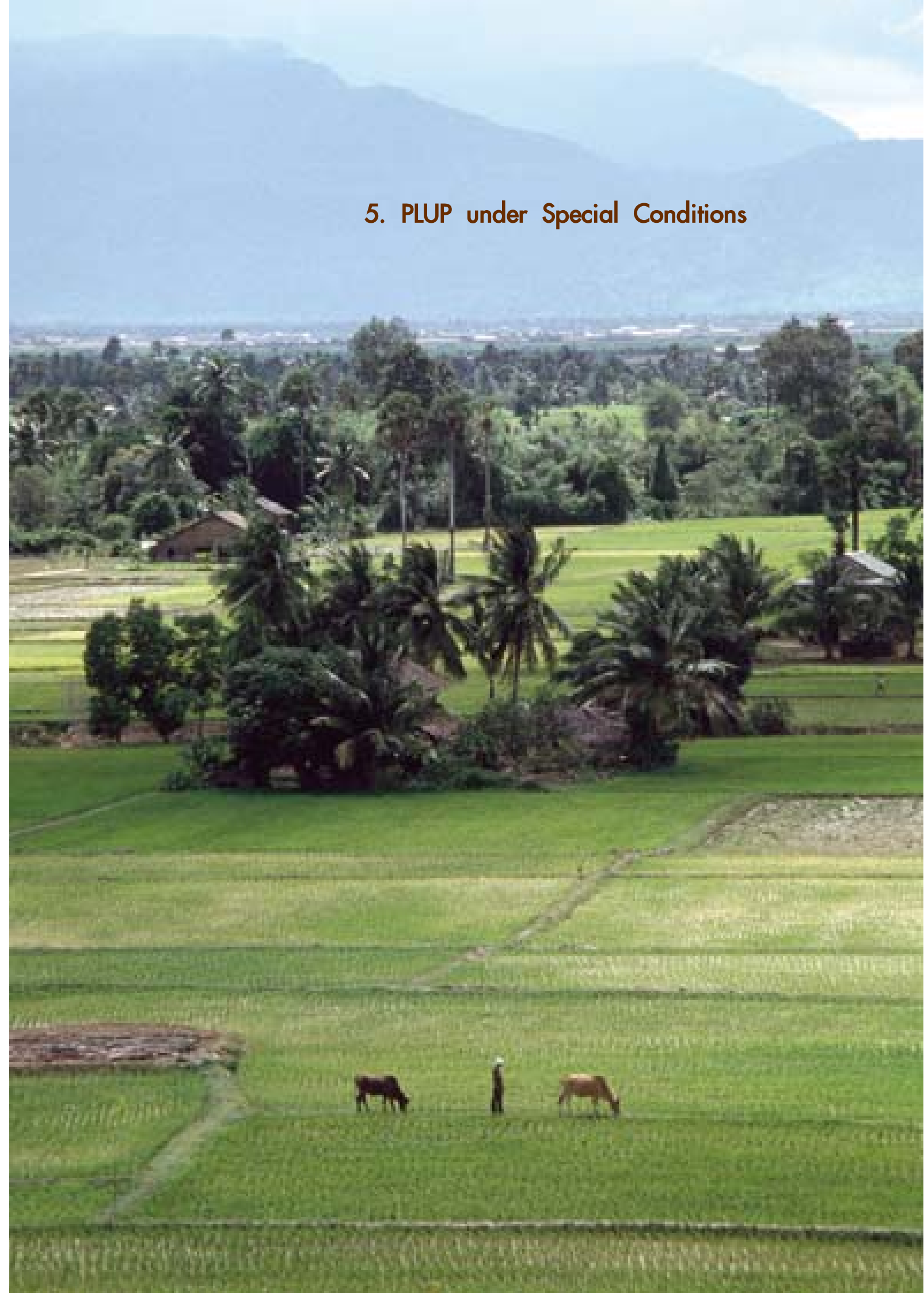
The overall impact assessment studies could also clarify which are essential enabling environments for PLUP in Cambodia, what are the conditions for successful implementation and which are the main hindrances.

#### 4.9 Expansion and Time Requirements of PLUP

As described in this manual, the PLUP team will have to provide intensive facilitation support during the PLUP steps 1- 6. In a normal situation in Cambodia, these steps will require a total of approximately 20 to 30 working days for the PLUP team members per village over a time span of 6 to 10 months. With steps 7 + 8, the extension and support work will slowly diminish, as described above. This in turn permits the PLUP team to start new activities in other villages and thereby slowly expand the work. It is estimated that one PLUP team of 3-5 staff members could be responsible for up to 20-30 villages at a time, depending on transport means and distances. After 3-5 years of cooperation with one village NRM committee, the PLUP team should be able to reduce their monitoring visits to approximately once a year. Obviously, the rate at which the outside support to the respective village NRM committees is reduced over time depends on their capacities and degree of confidence.

It is extremely important for the PLUP team to achieve a certain area coverage and expansion rate in their PLUP activities to justify their personnel and training costs. Equally, the PLUP work needs to be expanded to other areas in order to achieve equal benefits for a wider range of villages, their inhabitants and the natural resources in their areas.

## 5. PLUP under Special Conditions



5.1 PLUP in Protected Areas/National Parks

Land-use planning in Cambodia’s 23 designated protected areas (PA) falls under the jurisdiction of the Ministry of Environment.

Although not yet passed, a protected areas sub-decree was drafted in late 1999 for the use, wise management and protection of natural resources falling within protected areas. Within Cambodia there is little experience working in PA’s with local communities, and typically there is conflict in terms of land use practices. Legally, villagers living in the protected area prior to 1993 have user rights in the community zone of the PA; that is, they are not able to buy or sell land within PA’s.

According to the sub-decree, PA’s are to be divided into three areas: core zone, buffer zone, and community development zone. Any land-use planning process needs to consider this, especially as Cambodia will begin to undertake a land-titling process (this land-titling process will not take place in PA’s). Therefore, land titling issues need to be addressed and further examined for PA’s.

In the Participatory Management of Mangrove Resources Project in Koh Kong experience working in a coastal PA, PLUP can work if there is neutral facilitation in a village between villagers and various government agencies. For example, the Ministry of Environment has supported community involvement in resource management and planning activities (specifically pertaining to fisheries and forestry issues) in Peam Krasoap Wildlife Sanctuary. Resource management initiatives work when the village chief supports such initiatives and for villages that are interested in resource management.

Like elsewhere in Cambodia, land ownership issues also occur within the PA. For example, some richer villagers claim land title rights for prime farmland (which is limited in coastal villages) even though land title was never supposed to be given out in PA’s and other families claim ownership to shrimp farm areas (meaning that others cannot access these areas). Even though legally villagers only have user rights within the PA, those that have the most support or backing are those that can access the best fishing grounds or shrimp farm areas.

5.2 PLUP in Ethnic Minority Areas

The main ethnic minority areas in Cambodia are located in the provinces of Ratanakiri, Mondulkiri, Stung Treng, parts of Kratie and Preah Vihear. In this region the conditions for PLUP are different from other parts of Cambodia, as the land management practices, customary land tenure and social organisation differ from the main areas inhabited by Khmer people.



Some characteristics are:

- Slash and burn (swidden) cultivation is the most important economic activity of indigenous people
- Clearly defined boundaries, which have been set by elders in the past separate the user areas of adjacent communities
- Membership in the community is the primary pre-requisite for rights to cultivate land within the communal boundary
- Sacred or spirit forests are protected areas as they are believed to be inhabited by powerful spirits, as are the burial grounds
- Large areas of old growth forest (in some communes up to 50% of the total land area) are maintained for collection of forest products, outside the village cultivation boundaries
- There is a strong tradition of communal tenure of land and resources, joint decision making and leadership by village elders

The NTFP Project has started supporting land-use planning activities in various ethnic minority communities of Ratanakiri Province. The following is an account of the PLUP process in one ethnic minority village:

In view of the difficulties being face by other villages due to loss of land to forest concession areas, private agribusiness etc., leaders from Kro Lah village (Kreung minority) decided to request assistance from NTFP Project in late 1997. After considering a number of options for land tenure (including individual titles and a collective of individual titles) the villagers chose the option of mapping user areas with participation from local authorities in preference of legal title options. Their rationale was the recognition from the local authorities would provide better protection than legal title. The land-use planning process would enable them to continue to use some areas (e.g. for swidden farming) communally and allocate other areas for individual use (such as paddy and fruit tree orchards). Staff from the Central Land Titles Department in conjunction with the Land Management Project (MLMUPC/GTZ) provided technical expertise in producing a participatory land use map of the village user areas. 12 micro-zones were identified and mapped. These include:

- Old forest for collection of NTFPs
- Spirit (sacred) forest
- Bamboo forest (for collection of building materials)
- Watershed protection forest
- Burial forest
- Buffer forest (around the village)
- Village (residential) area
- Paddy
- Swidden and fallows
- Perennial (fruit) orchard
- Investment zone for cash crop production

The total area covered by the land use map is approximately 1200 hectares. Of this, about 35% is agricultural land (swidden, fallow, paddy, orchards). This approximates the 5 ha per family (79 families) which is consistent with the circular on land use in Ratanakiri Province.

For each of the 12 micro-zones, internal regulations on use and management were developed. These were produced by a village land use working group, with technical assistance provided, where needed from NTFP and technical counterparts from the Central Land Titles Department. The process of formulating regulations included regular review at a meeting of all village members.



All communities with user areas adjacent to Kro Lah village sent representatives to join the process at all crucial steps. Kro Lah representatives attended meetings in all of the neighbouring villages in order to ensure understanding of the process and to resolve any outstanding disagreements about the extent of user areas between the neighbouring communities. After all negotiations were completed, elders and leaders from the neighbouring villages placed their thumbprints on the land use map to signify their support.

Since support/recognition by the authorities is a crucial factor in ensuring land/resource security, relevant authorities and line departments were involved in the process at all steps. The process of mapping and developing user regulations took approximately 4 months. At this stage, a "Land and Natural Resources Committee" was elected. The land management regulations include provisions for re-election of the committee and principles of its operation.

#### Examples of the regulations:

- Sale of land must be endorsed by consensus of at least 80% of the voting members of the village. (This will help protect the food production potential of the village for future generations)
- Access and rights of use are allocated by the community to individuals or families who are members of the village. Productive activities are primarily carried out by individual families.
- Swidden land (chamkar) may be converted to permanent land uses, such as perennial fruit orchard or cash crops. Any family who develops a parcel of land is recognized as having exclusive rights to harvest the produce (and may pass these rights on in inheritance). A ceiling of 5 hectares per nuclear family is placed on the conversion of swidden land to permanent uses. This helps to protect widows and other families with limited labour resources from being marginalized by more aggressive community members. The 5 hectare provision encourages families to engage in perennial cash crop production, according to the provincial development policy. Villagers can expand their area of perennial crops year by year, according to their own pace and capacities. As these crops come into production, one may expect a corresponding decrease in dependence on shifting cultivation.
- As the village population increases (and the number of nuclear families), the situation may arise where all swidden land has been allocated to individuals. At this stage, parcels may begin to be divided to children by inheritance. This situation would be little different from having private land titles, with the exception that sale of the land would not be permitted.
- Old growth forest areas and spirit forests are protected from further encroachment.
- Significant areas have been set aside for joint investment in cash crop production. The community welcomes any investors who are interested in developing this land for cash crops. An agreement would be required, defining the period of cooperation and provisions for sharing of responsibilities and benefits between investment company and the local community. Such an approach allows for the Government priorities of encouraging investment to be realized, at the same time as protecting the community's interests. It effectively recognizes that the state, local communities and the investor are all legitimate stakeholders in the land. This approach introduces a new tier of decision making in development and investment on customary land - that of consultation, participation and negotiation with the local community.

Based on their traditions, the ethnic minority community of Kro Lah gives clear preference to communal tenure of land (with the exception of paddy land and orchards) and today requests the distribution of communal land titles for the different micro-zones distinguished during the PLUP process (for more details see case study 8.10 on PLUP in minority areas of NE Cambodia and Kro Lah village).

### 5.3 PLUP in Forest Concession Areas

Presently, there is hardly any experience available on CF or PLUP in forest concession areas of Cambodia. The PNRM FAO Project in Siem Reap has recently started supporting one community forestry site within a concession area following the same procedure as in other forest areas. The main difference is the involvement of the concessionaire during all working steps and the signing of a formal agreement with the concessionaire at the end of the process (which has not yet been achieved in the case of Siem Reap).

A PLUP exercise would be ideally suited for villages located entirely within the boundaries of a forest concession area, a case in which there are usually numerous land and resources use conflicts reported. In this type of situation, PLUP would support the consultation and negotiation process between villagers and the concessionaire. Conflict resolution mechanisms would certainly play an important role (see Annex 15).



### 5.4 PLUP in the Fishery Domain

For CF or PLUP in the fishery domain (any periodically flooded area around Tonle Sap, the Mekong river area and all coastal zones) the same procedures and working steps are applied as in other areas. The main difference is that the future land use map, the regulations and any documents on the management of forestry or fishery areas have to be also signed by the Department of Fisheries on the national level to become effective.



A Sub-decree on Community Fisheries currently exists in draft form and has been reviewed in a public consultation process (see Annex 2). The draft Sub-decree on Establishment of Community Fisheries contains the following important points:

- Community fisheries is defined as a group of people who volunteer to agree and co-operate in order to establish a local organization with the objective to manage, conserve, develop and sustainably use fisheries resources in order to protect the rights and benefits of the people.
- Community fisheries projects may be started throughout the fisheries domain. This includes marine areas, rivers, lakes, wetlands or any fishing areas which are open to the public. This excludes areas closed to the public such as fishing lots, fish sanctuaries and private property.
- Participation in a community fisheries project is voluntary and open to all citizens of Cambodia. Participants can come from any number of villages.
- Community fisheries are a partnership between the people and the relevant authorities such as the DoF, local authorities etc. The participants are able to develop their own by-laws to manage the community fisheries organization and regulations to manage the fisheries resource provided that they are consistent with existing laws.
- Authorities such as the DoF and local authorities must co-operate and assist people wishing to start and implement a community fisheries project.
- The participants in a community fisheries project are represented by a committee, which must be elected by the participants. The committee members cannot be government employees.
- Community fisheries is restricted to family scale fishing gears in inland areas and family and middle-scale fishing gears in marine areas.
- Recognition of a Community Fisheries organization/project requires the drafting of a document containing the names and organizational structure of the elected fisheries committee, the community by-laws and regulations, a management plan and a map of the area to be managed. This document must be signed by the Head of the Provincial Office of Fisheries.
- After signing by the Head of the Provincial Office of Fisheries, the Community Fisheries project is able to implement the by-laws and regulations with the full co-operation and support of the relevant authorities.

The general process of establishing community fisheries follows the same principals as the PLUP procedures and should be combined in all areas where PLUP is applied within the fishery domain.

5.5 PLUP in De-mined Areas

The Land-use Planning Unit (LUPU) in Battambang which is supported by CARERE/UNDP and the Land Use Management Unit in Banthey Meanchey supported by Handicap INTERNATIONAL have acquired particular experiences on land-use planning in de-mined areas. The following paragraphs summarize the main institutional aspects and describe the approach:

Institutional Aspects

In Battambang province the Provincial Sub-Committee (PSC) and the Land-use Planning Unit (LUPU) for de-mined land were established in May 1999. The task of these units is to coordinate mine clearance planning, subsequent land-use planning and strengthening of the management structures, particularly at the district level, as they relate to mined land. LUPU develops the de-mining and land use plan, relying on discussion and cooperation from local authorities, provincial government, development agencies and de-mining agencies. The plans are authorized by the PSC and the PSC also works to solve land conflicts.

The PSC consists of managerial staff from government departments including the Governors office, Military Region 5, Provincial Department of Rural Development (PDRD), CMAC, Provincial Rural Development Committee (PRDC), Department of Agriculture, Department of Land Management, Urban Planning, Construction and Cadastre (DLUCC), Department of Planning (DoP), Department of Environment (DoE), district chiefs and development agency representatives. It aims to alleviate some of the land use problems resulting in poor living standards; accordingly the mission of the PSC is:

- to ensure effective, suitable and fair land use, land management and allocation of land in de-mined areas;
- to ensure the de-mining process is clearly planned and transparent; and
- to reduce land conflicts through effective land management and well planned de-mining agendas.

LUPU reports directly to the PSC. The members of LUPU are also derived from government departments including PDRD, PRDC, DLUCC, DoP, Governors Office and Military Region 5. The tasks of LUPU include:

- encouraging discussion and coordination between local authorities, development agencies, de-mining agencies and the PSC to clearly and transparently identify existing minefields. Prioritise minefields for clearance and develop de-mining and land use plans;
- the preparation of documents regarding beneficiaries of land;
- organising land allocation after de-mining in a documented and transparent manner;
- identifying and addressing problems of land use and land disputes on mined land following clearance and only on minefields cleared in or after the year 2000.



- Land conflicts,
- Land grabbing, inappropriate land allocation and land use by powerful or rich people, including large tracts of mined land under military control,
- Lacking priority in minefield clearance,
- Lack of coordination between de-mining units and development agencies, so that de-mined land did not benefit from development support and there was no monitoring of de-mined land,
- The high rate of mine incidents in Battambang and Banthey Meanchey Provinces

Soon after it was established LUPU set up District Working Groups (DWG) and District LUPUs in 9 districts. The District LUPU reports to the DWG and Provincial LUPU. The DWGs and DLUPU aid in the selection of beneficiaries, the allocation of land and identifying land disputes.

The Approach to Land-use Planning

According to the LUPU process land-use planning begins with a workshop in each of the relevant districts. The workshop is attended by the DWG, LUPU, local authorities, development agencies and de-mining agencies. During this workshop the priority of minefields is discussed and a tentative schedule for clearance for the following year is developed.

1. After clearance the land must be used by villagers for resettlement, rice production and/or public infrastructure.
2. Beneficiaries must be poor and landless.
3. The project area must be governed by the local authorities at all levels (i.e. not private land) and the development agency able to work in the area.
4. There must be land allocation plans and acknowledgement of the use of the land by the beneficiaries.
5. It must be in an area with a high rate of mine accidents (mine incidence data is collected by Handicap International and the Cambodian Red Cross).
6. Operational concerns of the de-mining agency will be considered when choosing the minefield i.e., is there secure access to the minefield?

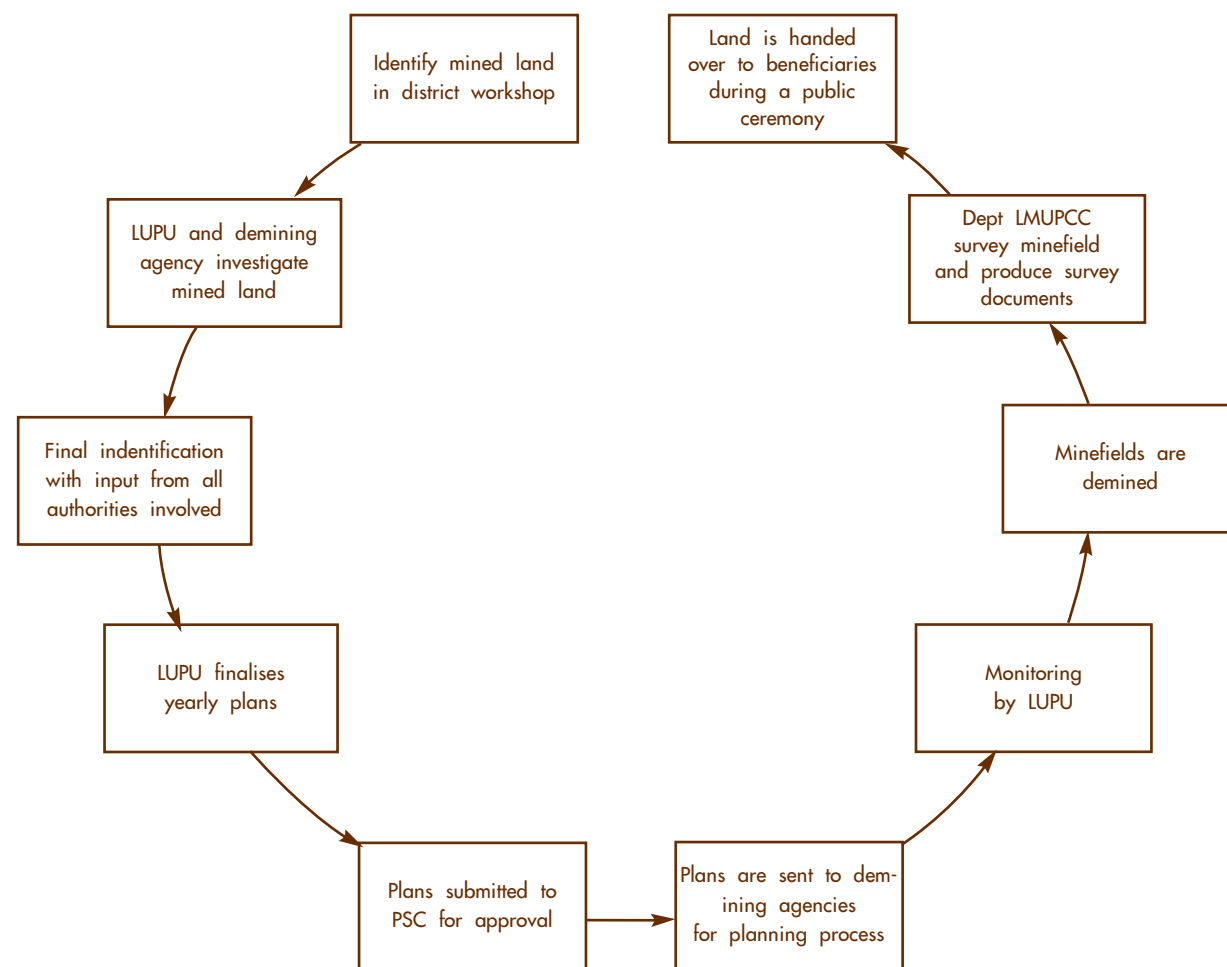
De-mining agencies and LUPU research the minefields addressing each of the points above. During this time the de-mining agency may also estimate the area of the minefield and assess the number of de-miners required and operational aspects of dry and wet season. A proposed list of minefields is presented to the village chief for approval.

A provincial workshop is held and attended by PSC, LUPU, DWG, development agencies and de-mining agencies to finalise the yearly plan for de-mining. This workshop allows opportunity for DWGs and development agencies to request changes to the plan if required.

Following approval of the de-mining applications by the PSC, another round of fieldwork takes place. The de-mining agencies and LUPU visit the chosen minefields. The de-mining agency gets a more accurate boundary of the minefield using topographic maps and GPS's. LUPU coordinates with the district office of LUCC, village chief and NGOs to develop the land use plan. The boundary of the minefield and land use following clearance is put into the GIS.



### Cycle for De-mining and Land-use Planning



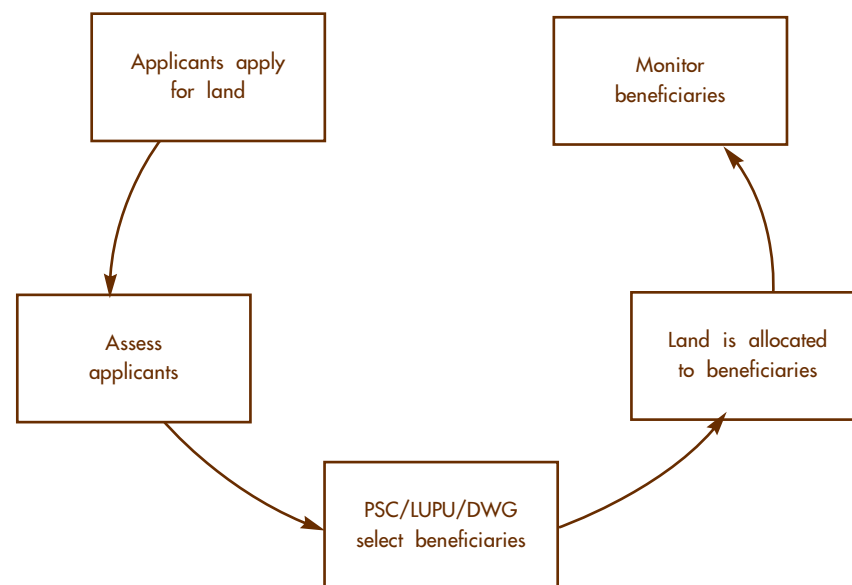
The beneficiaries are given an application form to apply for a land plot. The form also describes the conditions associated with staying on the land. This application is approved by the local authorities.

Following de-mining LUCC, LUPU, the de-mining agency and the development agency attend the minefield. These representatives discuss the proposed land use with the beneficiaries and local authorities, if some changes are required these are also discussed. When a final land use plan has been agreed on, LUCC staff survey and divide the minefield. Following this, LUCC produces a survey certificate showing the dimensions of each plot and this certificate, as well as the approved application form, are given to the beneficiary.

There are conditions that the beneficiary must abide by when residing on the land. In addition to these the PSC must conform to the following when allocating land:

- 1. People are permitted to build and grow plants on the land that is designated:**
  - Resettlement land
  - Farmland
  - Concession land
- 2. The resettlement area for one family is limited to not more than 2000 m<sup>2</sup> and must be approved by the Provincial Governor.**
- 3. Farmland for rice production and other growths does not exceed 5 hectares of land per family and it must be approved by the District Governor.**
- 4. The concession land exceeds 5 hectares of land per family and must be approved by the Minister of Agriculture.**

### Cycle for Beneficiary Selection



Within the first 3 months of allocation, LUPU and the local authorities conduct monitoring to ensure that beneficiaries adhere to the PSC's terms and conditions. If they do not, the local authorities will confiscate the allocated land and it will be re-allocated to another family.

If, at any time in the LUPU process, a land dispute arises it is submitted to the PSC for discussion and solution.

The LUPU process in Battambang is proving very effective and successful for mine clearance planning and allocation of land to beneficiaries. The project has received valuable support from de-mining agencies, development agencies and government authorities. There is a need to endorse the procedures and land-use planning system on the national level to provide recognition for the work already done. Also, there is hope for the standardization and legal recognition of the procedures.

Mine incidence data for Cambodia can be supplied by Handicap International, MAG, CMAC.



6. References

Biddulph, R., Interim Report on Findings of Landlessness and Development, OXFAM et al. (June 2000)

Bottomley, R. Structural Analysis of Deforestation in Cambodia, Non-Timber Forest Products Project, for Mekong Watch and Institute for Global Environmental Strategies (March/April 2000)

Butterfield, R.: Land Use Allocations in Cambodia and Mechanisms for National and Provincial Level Coordination, Forest Policy Reform Project, Technical Paper No.1 (March 1998)

Degen, P. et al: Taken for granted: Conflicts over Cambodia’s freshwater fish resources (2000)

FAO: Guidelines for Land-Use Planning, FAO Development Series 1, (1993)

FAO/UNEP/GTZ: The Future of Our Land - Facing the Challenge (1999)

FARM Program: Participatory Assessment and Planning (PAP) Process for Community Planning and Natural Resource Management - A Training Manual, FAO/UNDP (1998)

Greve, S.: Land Tenure and Property Rights in Cambodia (1996)

GTZ: Experiences of Land-use Planning in Asian Projects - Selected Insights (1996)

GTZ: Land-Use Planning: Methods, Strategies and Tools (1999)

Gum, W.: Inland Aquatic Resources and Livelihoods in Cambodia - A Guide to the Literature, Legislation, Institutional Framework and Recommendations, OXFAM (Nov. 2000)

Hobley, M.: Participatory Forestry: The Process of Change in India and Nepal, ODI (1996)

IGCEDP: Participatory Rural Appraisal for Village Integrated Resource Management Planning, Himachal Pradesh (1995)

Ingles, A., et al.: The Participatory Process for Supporting Collaborative Management of Natural Resources, FAO (1999)

Kirk, M.: Land Policy, Land Legislation and Land Management in Cambodia, Land Management Project, GTZ-MLMUPC (March/June 2000)

Meijers, H.: Land Tenure and Agriculture in Cambodia (1994)

MLMUPC, SMRP/LMP: Participatory Land-use Planning in Cambodia, Proceedings of the National Workshop on PLUP (15-16 March 2001), Phnom Penh

Nhem,Sovanna: Community-Based Natural Resource Management Project, UNDP/UNOPS, CARERE/IDRC (Dec. 1999)

OXFAM: Land Ownership Disputes in Cambodia: A study of the capacity of five provinces to resolve conflicts over land (Feb. 2000)

OXFAM: Interim Report on Findings of Landlessness and Development Information Tool (LADIT) Research, Cambodia Land Study Project (June 2000)

Paterson, G.: Resource Management by Indigenous People in North-East Cambodia, NTFP (2000)

Pretty, J.N.et al.: A Trainer’s Guide for Participatory Learning and Action, IIED, London (1995)

RGC: Initial Document on Land Policy Framework, Unofficial Translation (Feb. 2001)

Schoenhuth, M.; Kievelitz, U.: Participatory Learning Approaches - An introductory guide, GTZ, Rossdorf (1994)

Sik, Boreak: Land Ownership, Sales and Concentration in Cambodia, CDRI (2000)

SMRP (MRC/GTZ) Christ, H. Participatory Land-use Planning in Cambodia - Proceedings of the Introductory Workshop (14-15 September 1999), Phnom Penh Main Report and Annexes

SMRP (MRC/GTZ) Rock, F. Participatory Land-use Planning in Cambodia - Proceedings of the Second Workshop (03-04 April 2000), Phnom Penh Report and Appendices

SMRP (MRC/GTZ) Rock, F. Participatory Land-use Planning in Cambodia - Proceedings of the Third Workshop (29-30 June 2000), Phnom Penh Report and Appendices

Williams, S.: Where has all the land gone? A Review of Published and Unpublished Materials Relating to Land Rights and Access in Cambodia (OXFAM) (1998)