Participatory NBCA Management in the Lao PDR

FINAL REPORT OF THE
LSFP/IUCN CONSERVATION FIELD ADVISOR

Iain A. Craig
2000

ACKNOWLEDGEMENTS

CPAWM DFRC
Savannakhet particularly Mr. Soukaseum, the Deputy Governor
My Lao and expatriate colleagues from other LSFP sub-programs who have provided excellent cooperation made integration among the sub-programs
Clive Marsh, the Senior Conservation Advisor
Mr. Phoukong ?? my conterpart
NBCA staff in the DAFO's
Dr. Poudalai ??, Head of Tassano Rice Research Station, Savannakhet.
IUCN staff who have provided excellent logistical support and back-up.

GLOSSARY OF ABBREVIATIONS

AEA Agro-Ecosystems Analysis
AIT Asian Institute of Technology
ANS Action Nord Sud
BCP Biodiversity Conservation Project
BIORAP Rapid Bio-diversity Survey
CPAWM Centre for Protected Areas and Watershed Management
CUZ Controlled Use Zone
DAFO District Agriculture and Forestry Office
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>DHS</td>
<td>Dong Hua Sao (NBCA)</td>
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<tr>
<td>DOF</td>
<td>Department of Forestry</td>
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<td>DPV</td>
<td>Dong Phu Viang (NBCA)</td>
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<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<tr>
<td>FOMACOP</td>
<td>Forest Management and Conservation Project [World Bank]</td>
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<td>GIS</td>
<td>Geographic Information System</td>
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<td>HNN</td>
<td>Hin Nam Nor</td>
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<td>HRD</td>
<td>Human Resource Development</td>
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<td>ICAD</td>
<td>Integrated Conservation and Development</td>
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<td>IUCN</td>
<td>World Conservation Union</td>
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<td>JFM</td>
<td>Joint Forest Management</td>
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<td>LFA</td>
<td>Logical Framework Approach</td>
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<td>LSFP</td>
<td>Lao Swedish Forestry Project</td>
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<td>LUP</td>
<td>Land Use Planning</td>
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<td>MIS</td>
<td>Management Information System</td>
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<td>NBCA</td>
<td>National Biodiversity Conservation Area</td>
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<td>NRM</td>
<td>Natural Resources Management</td>
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<td>NTFP</td>
<td>Non Timber Forest Products</td>
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<td>PA</td>
<td>Protected Area</td>
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<td>PAFO</td>
<td>Provincial Agriculture and Forestry Office</td>
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<td>PAR</td>
<td>Participatory Action Research</td>
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<td>PDR</td>
<td>Peoples Democratic Republic</td>
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<td>PFO</td>
<td>Provincial Forestry Office</td>
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<td>PKK</td>
<td>Phu Khao Khoay [NBCA]</td>
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<td>PRA</td>
<td>Participatory Rural Assessment</td>
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<td>PXH</td>
<td>Phu Xang He [NBCA]</td>
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<tr>
<td>RRA</td>
<td>Rapid Rural Assessment</td>
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<tr>
<td>SIDA</td>
<td>Swedish International Development Agency</td>
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<tr>
<td>TAG</td>
<td>Technical Advisory Group</td>
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<tr>
<td>TPZ</td>
<td>Total Protection Zone</td>
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<tr>
<td>UXO</td>
<td>Un-exploded Ordinance</td>
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<tr>
<td>VFF</td>
<td>Village Forestry Volunteer</td>
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<td>WCS</td>
<td>World Conservation Society</td>
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<td>WWF</td>
<td>World Wildlife Fund</td>
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<td>XBN</td>
<td>Xe Bang Nuan (NBCA)</td>
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EXECUTIVE SUMMARY

This primary objectives of this report are to (I) describe the progress made by LSFP in contributing to the development of a practical, participatory NBCA management system appropriate to the needs of the Lao PDR, (II) document the important lessons learned under the programme, and (III) identify the key development and support needs which still remain.

Conservation in the Lao PDR

This advisor still firmly believes that natural resources conservation in the Lao PDR presents a number of unique opportunities when compared to neighbouring countries. Foremost among these is the fact that government recognises the rights of local communities to sustainable resource use in protected areas and emphasises a local partnership approach with villagers in the development of conservation co-management systems. This inherent strength has been capitalised on in all NBCA management activities conducted under the programme.

INTRODUCTION

This end of assignment report describes the major achievements of LSFP in respect to the management of National Biodiversity Conservation Areas (NBCAs). The report has three major objectives:

1. To describe the progress made by LSFP in contributing to a participatory NBCA management system
appropriate to the needs and within the capability of the Lao PDR.

2. To document and disseminate the major lessons learned from the NBCA management initiatives conducted by LSFP.

3. To identify the major development needs still remaining and make recommendations on how these might be best addressed following the completion of LSFP.

**Status of conservation in the Lao PDR**

With the assistance of international donors, 20 NBCA’s, covering nine percent of the country, have been gazetted in the Lao PDR and these now form the core of national, biodiversity conservation. Despite some rhetoric to the contrary from the international community, these protected areas were selected mainly on the basis of their relatively pristine habitat condition. Recently produced national forest cover maps using remote sensed data clearly show the existence of pristine forest habitats in these areas. The intact habitat condition is undoubtedly due to their remoteness and/or the rugged terrain which has kept human settlement to a minimum. It is generally agreed that the greatest current threat to wildlife conservation in these areas is hunting. This, however, is likely to change to habitat destruction in the future as population growth, economic development, water demands for power and irrigation, road construction, etc. put increasing pressure on land and forest resources. It is the considered opinion of this advisor that national conservation strategies need to pay greater attention to these longer term issues in addition to addressing the current situation.

**Central, provincial, district bureaucracy**

As with conservation generally, NBCA management in the Lao PDR has many potential strengths which must be capitalised upon, but also a number of inherent weaknesses which need to be addressed.

- NBCA management plans are generally developed jointly with local communities in a bottom-up manner.
- Participatory approaches are used in the development of NBCA management plans and in the planning of community development activities.
- NBCA management attempts to incorporate and cater for the needs of local communities.
- An integrated approach to NBCA management is being adopted in most cases and the development of management plans is process-oriented, involving land use planning, land allocation, extension and conservation activities.
- A wealth of effective management models have been or are being developed by many different conservation projects working in the various NBCA’s.

**WEAKNESSES:**

- There is a somewhat static focus in regard to Protected Area designation, planning and management, with undue emphasis being placed on the present situation and insufficient attention being paid to evolving trends in population, economic development needs and policy formulation.
- Conservation is currently ineffectively coordinated with other NRM sectors and rural development generally, particularly at the regional and provincial levels.
- Many individual models are being developed separately by a variety of foreign assistance projects working independently in different NBCA’s, with little or no exchange or coordination.
- NBCA management methods and tools being used are based mainly on experience from other countries. There appears to be a pressing need for their further adaptation to the unique characteristics of the situation in Laos.
- Although effective participatory techniques for land use planning and livelihood development have been developed and are being used, there is a distinct lack of such participatory methods and tools designed and adapted to the specific needs of conservation management.

The term ‘National Biodiversity Conservation Area’ is rather grandiose and probably overstates the perceived importance of such protected areas. The Lao term under the relevant legal statutes and in general usage is ‘Pa Sanguan’ which can best be translated as ‘Reserve Forest,’ a term denoting somewhat lower status than that generally used by the international conservation community here in Laos. There is certainly a need for a greater pragmatism in international conservation circles here, and an associated broadening of horizons to more fully integrate people’s needs and national development imperatives into the conservation paradigm.

The undue emphasis placed on habitat and wildlife protection relative to the needs of people in guardian communities by the expatriate conservation fraternity and reflected in the type of donor funding to the sector. Another constraint almost diametrically opposed to this is the Lao Government’s over-emphasis on general development activities in guardian communities rather than directly linking development to conservation. In
combination, these two constraints have polarised the two conservation communities...

Conservation cannot be tackled in isolation to national economic development issues including...

Laos’s single-most important opportunity for achieving sustainable natural resource management revolves around the strong and proven government commitment to conservation, the acceptance at all levels of the rights of communities to reside in protected areas and the recognition of the rights of local communities to sustainable resource use in these areas.

The lack of a commonly understood and clearly stated national goal or vision for the function, role and importance of protected areas and their role in achieving sustainable economic development at the national level.

The lack of interest in and support for promising initiatives developed at the field level by senior officials in DoF

The low standing of NBCA Heads in the bureaucratic pecking order.

Classification of protected areas based on their unique characteristics in terms of their biodiversity, watershed, recreational and cultural values. Breakdown possibly following ICUN Protected Area categories or something simpler and more locally appropriate to the Lao PDR, such as Wildlife Sanctuaries, National Parks, Nonhunting Areas, Watershed Protection, Multiple Use Protected Areas, etc. which benefit from much more stringent legal protection than reserve forests, both wildlife and their habitats are being seriously threatened.

The LSFP Conservation Sub-programme

Perhaps the biggest constraint facing LSFP generally has been the lack of a rational Project design framework, undoubtedly due to the evolution of a long-term project spanning 20 years and 4 phases - nevertheless, a major constraint.

Rapid staff turnaround at all levels in the protected area system.

The lack of a framework for integrating economic development imperatives and conservation needs towards the common objective of sustainable development at both the national and provincial levels.

Role of the Field Conservation Advisor

The Conservation Field Advisor position was created in October 1998 in response to the felt need for more intensive support for NBCA management at the field level. The advisor’s TOR listed the following responsibilities:

1. Build NBCA conservation management capacity, with priority on Phu Xang He (PXH) and a secondary focus on Xe Bang Nuan (XBN).
2. Contribute to methods development at provincial and district levels through an integrated approach to forest and agricultural resources management.
3. Support capacity development at the field level, by developing a range of training and monitoring materials.
4. Develop coordination and collaboration with other rural development projects, so as to better integrate conservation and development objectives.

Although the early insights of this advisor, as presented in his inception report, have in retrospect proved to be largely correct, significant progress has been achieved in only some of the issues identified. Overall, the advisor remains optimistic about protected area conservation in the Lao PDR if a limited number of remaining constraints can be overcome.

Given the scope and demands of the task in hand and the limited resources and time available, emphasis was placed virtually entirely on PXH with very little time spent working with XBN, etc..... thus......

Written output


Craig, I.A. (1999). Protected area profile: Phu Xang He NBCA. DFRC, Department of Forestry, Lao PDR.


**PROGRESS ACHIEVED UNDER LSFP**

**Participatory Methods Development**

Firstly, the Integrated Conservation and Development (ICAD) approach assumes a relationship between natural resource exploitation and the lack of development opportunities and targets impoverished communities and the poorest families for livelihood support activities in order to reduce their dependency on natural resources.

A tool is needed to test this relationship and to identify those community members who are most reliant on natural resource exploitation. In this regard, **Wealth Ranking Techniques** are being tested and adapted in pilot guardian communities with the aim of developing **Protected Area Dependency Ranking** procedures for identifying target households for ICAD activities.

A simple **Environmental Impact Assessment** methodology (EIA) is being designed and tested for use in conjunction with guardian villages when considering and planning proposed development activities. It is intended to refine and further develop the methodology to ensure that extension and development activities are also compatible with conservation objectives. The purposes of the tool are fourfold: (I) to identify potential impacts (both positive and negative) on natural resources in the NBCA, (II) to provide a means of rejecting potentially damaging activities, (III) to allow positive impacts to be fully capitalised on, and (IV) to increase community awareness on the way their livelihood activities impact on the NBCA.

The basis for **Participatory Habitat and Wildlife Surveys** is being pioneered through WWF’s involvement with FOMACOP in conducting ‘BIORAP’ habitat and wildlife surveys. This approach defines, characterises and maps more detailed habitats under each of the broad forest types, based on community definitions and local understanding. Such an approach could be adopted and further developed by LSFP in order to:

- Provide a practical and meaningful habitat zonation system for NBCA’s, based on and compatible with indigenous knowledge systems.
- Provide a framework for monitoring, recording and analysing NTFP use, wildlife sightings and migration from patrols and villager observations.
- Facilitate communication with villagers and better integrate and manage the habitat and wildlife information obtained from them.
- Contribute to the emerging FOMACOP initiative in respect to model development for participatory
conservation in NBCA’s.

It is intended to test and refine various Community Networking Techniques as a means of linking and empowering guardian villages, firstly, to provide them with sufficient authority to exert effective control over natural resource conservation and secondly, to enable them to assist each other in community development initiatives.

Gender perceptions regarding NTFP use, hunting and wildlife conservation are particularly pronounced and can be extremely illuminating for NBCA management. Cooperation with the gender sub-program will continue with the ongoing refinement of Gender Analysis Tools in order to capitalise on the distinct gender perceptions and roles in natural resource management and conservation.

**Capacity Development**

Advisor experience so far tends to indicate that LSFP may actually conduct too much training. In a number of cases, essential day-to-day tasks of NBCA staff have been interrupted by the training course attendance demands placed upon them. Although it is recognised that training is important, other forms of capacity development are also available. The advisor intends to emphasise *hands-on* or *learning by doing* training which will be supported by the production of user-oriented training manuals for specific tasks where a need has been identified. Priority needs for the development of manuals or other training materials will be identified while implementing day-to-day NBCA management activities with key counterpart staff. By this means, opportunities for *on the job* training will be provided on an ongoing basis.

A modular approach to the production of an NBCA management manual is currently being developed by LSFP’s Senior Conservation Advisor. Under the approach, each step in NBCA management is described with simple and practical instructions and supported by associated data recording forms, etc. This is considered a good model for the advisor to follow and contribute to through the field testing of existing modules and the production of new ones, as additional user needs are identified.

The advisor’s TOR calls for him, in cooperation with other advisors, consultants to LSFP and the staff of Xepon Forestry Extension Training Centre to develop and implement a training course on protected area management, to be held annually at Xepon and scheduled to begin this fiscal year. Rather than rushing into the hasty design and implementation of such a course, it is proposed that the advisor’s first year be spent contributing to the development and testing of the above-mentioned NBCA management manual, the lessons learned from which, can then be used as the basis for course development and implementation in the following year.

A variety of conservation-related training materials have already been produced by LSFP and other projects in both Laos and elsewhere. Access to these appears rather limited with the situation that staff of districts and provinces with conservation projects mainly have access only to their own project’s materials and district and provincial staff with no external project support have virtually no access to any of the materials. All existing training materials should certainly be sourced and reviewed, and where appropriate, utilised by LSFP. More importantly, however, all current and future training materials produced by LSFP and others need to somehow be institutionalised within government channels so that they become more widely available to everyone working in conservation. This is an obvious role for CPAWM but significant external assistance will likely be needed if they are to take on this task.

**Developing Collaboration**

The problem census activity conducted in 3 villages as part of the afore-mentioned LUP process, generated a diverse range of community development priorities, including education, health, family planning, domestic water and infrastructure needs.

These are not only beyond LSFP’s capacity to respond, but are also outside the project’s mandate. However, initial discussions with other projects active in the province have revealed a plethora of potential opportunities for attracting alternative resources towards well planned development initiatives in these sectors. A number of projects and programs with technical and material resources that could be valuable in supporting an integrated conservation and development approach have already been identified. They include the following provincial programs:

**Provincial Development Resources**
Provincial Natural Resources Management Planning

Multiple demands for agriculture, forestry, fisheries, hydro-power, irrigation and biodiversity conservation, are being placed on the natural resource base in Lao PDR. Currently no planning framework exists for objectively analysing and integrating the diverse needs and trade-offs among these various natural resource sectors. Given the key role of provincial authorities in planning and implementing rural development initiatives, the problem of competing demands on the resource base is particularly acute at the provincial level. A number of provinces, have expressed a strong desire for assistance in the development of a methodology for planning sustainable natural resources management (NRM) which meets both conservation needs and provincial development imperatives.

This concept paper describes a proposal for the development of an integrated, multisectoral NRM planning model for use at the provincial level. The proposal will build on LSFP’s experience developed through its past and on-going initiatives in forestry management and conservation in both Savannakhet and Salavane.

**Objectives**

The project will have 4 major and inter-related objectives:

1. Developing a comprehensive natural resources inventory for selected provinces, including the extent, utilisation and current status of agricultural, forestry, wildlife and aquatic resources.
2. Identifying major threats to the sustainable use of the provinces’ natural resources along with potential opportunities for their improved management in line with provincial development goals.
3. Defining and prioritising natural resource management and development needs from a provincial perspective, as the basis for developing pertinent programmes and identifying appropriate areas for future donor support.
4. Upgrading provincial capacity in natural resource management and development planning in key staff from relevant government departments at the provincial level.

**Project Description**

The proposed project is intended to respond directly to provincial planning needs and should be under the direction of Provincial-Government and involve the active participation of all relevant government agencies at that level, with technical support and assistance from other projects and programs, as appropriate. The approach will be holistic, multi-agency and interdisciplinary in nature and involve the collaboration of all relevant NRM sectors, government agencies and development projects at the provincial level.

Planning methodologies will be developed according to the specific needs of the Lao PDR, but will likely build on Agro-Ecosystems Analysis (AEA) procedures and other methods developed for the Khamouane Inventory conducted by IUCN. The expected duration of an initial iteration may take up to one year to complete.

Savannakhet is potentially an ideal province for developing the methodology due to (i) the importance of its natural resources sectors, (ii) its productive agricultural base, comprising the major national farming system types which are all highly reliant on forest, soil and water conservation, (iii) the presence of nationally important biodiversity resources and key national, provincial and district conservation areas, (iv) its international borders with Thailand and Vietnam, (v) the presence of on-going natural resource management projects, including the major NRM players (FORMACOP, LSFP, IUCN, RDC, etc.), and finally (v) a strong Provincial Government interest in such a project.
**Expected Outputs and Potential Benefits**

The proposed project will provide a number of benefits to Savannakhet province which will allow it to better respond to national policy directives in a sustainable manner:

1. Provide a contextual framework for provincial government to better learn from, integrate and utilise the results and findings of their various NRM-related projects and programs.
2. Provide a framework for better integrating and coordinating the province’s diverse NRM and development programs.
3. Assist provincial government with planning for the future and in attracting appropriate donor support for priority natural resource management issues.
4. Provide a proven model for replication by GoL to other provinces throughout the Country.
5. Support the Lao Government’s policy initiatives in regard to devolution of planning and management authority to the provincial level.

**IMPORTANT LESSONS LEARNED**

**NBCA Management**

**Organisation and Administration**

NBCA provincial headquarters should be linked to Conservation Section of PAFO

For example difficult to cooperate with FOMACOP and the lessons learned from both projects have been institutionalised within organisational structures which will cease to exist when each project finishes.

**Institutional Development Needs**

Unfortunately, many of the above-mentioned NBCA management initiatives are not being adequately institutionalised within government at the local (provincial) level.

This certainly appears to be the case within LSFP, where the creation of a Provincial Coordination Office has effectively by-passed the PFO conservation unit. The advisor intends to forge linkages with provincial conservation units, with the ultimate aim of developing local NBCA management capacity within DOF’s Provincial Conservation Section. This is considered necessary in order to:

- Institutionalise experiences in the development of NBCA management models from a number of different protected areas at the provincial level.
- Coordinate the activities of all provincial NBCA conservation projects (LSFP, FOMACOP, etc.) within the GOL institutional framework.
- Provide an institutional focal point in the provinces to promote two-way communication with CPAWM. This will not only facilitate provincial access to technical support, but will also help to ensure that lessons learned at the field level are used in national policy development.

Coordination office a waste of time and has merely added another bureaucratic layer to an administrative system already overburdened with red tape.

**District based implementation rather than a centralised system:**

Longer travel distances cost of building, furnishing and equipping a dedicated office problems of coordination with other DAFO officials, in particular LUP and extension problems of coordinating with other district officials such as police, district chief, etc. which is particularly important in the case of violations reinforces a top-down approach rather than the participatory approach being promoted.

**Coordination and communication problems:**

Quarterly NBCA staff meetings follow-up and support visits radio system
There is currently an intensive effort occurring in most of the country’s NBCA’s to develop models and methods for effective PA management. Through meetings and study visits with key counterparts, the advisor intends to conduct a thorough review of existing management models to identify those appropriate for adoption and further refinement under LSFP. By this means, it is hoped that the Project will not only avoid duplication but also positively contribute to ongoing NBCA management initiatives rather than attempting to ‘re-invent the wheel’.

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<thead>
<tr>
<th>Project</th>
<th>NBCA</th>
<th>Particular strengths</th>
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<tbody>
<tr>
<td>FOMACOP</td>
<td>Xe Pian, Xe Sap, Khamouan, DPV</td>
<td>BIORAP surveys</td>
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<tr>
<td>BCP</td>
<td>DHS</td>
<td>NBCA management, MIS</td>
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<td>WWF</td>
<td>HNN</td>
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<tr>
<td>PDI</td>
<td>PXT</td>
<td>Integrated Conservation and Development (ICAD)</td>
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<td>WCS</td>
<td>Nam Ha</td>
<td>NBCA management plans</td>
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<tr>
<td>LSFP</td>
<td>PXH, XBN, PPK, Nam Pui</td>
<td>Land use planning, Integrated Conservation and Development (ICAD), Eco-tourism</td>
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Management Information System

Although considerable conservation related information has been generated by previous short term consultancies and by ongoing LSFP/IUCN program activities, it has not been adequately organised or collated and as a consequence is not being systematically used for NBCA management, activity planning or monitoring purposes. Early efforts of the conservation advisor, in conjunction with counterpart staff, will focus on (I) developing a simple management information system framework for protected area planning and monitoring, (II) collating and organising existing information within the system, and (III) utilising the information for the planning and monitoring of ongoing LSFP activities. MIS development will be an on-going process over the remainder of the project and will be based on actual user needs identified during the day-to-day implementation of the NBCA annual workplans.

The use of spatial information for participatory land-use planning, habitat zonation, wildlife migration patterns, patrolling and mapping is central to effective NBCA's management. Recent advances in GIS software now make it sufficiently simple and user-friendly to become a potentially valuable MIS tool for planning, recording, monitoring and evaluating NBCA management activities at the field level. The planned acquisition of GIS software (ARCView) by the LSFP coordination office in Savannakhet provides an opportunity for developing simple GIS applications tailored to the specific needs of NBCA management. It is the advisor’s intention to develop and test simple GIS application models for NBCA management. Initial discussions with the Head of CPAWM’s GIS Unit, indicate a keen interest to cooperate in such an initiative and their active participation will be sought in this regard.

PXH is considered highly appropriate for piloting such GIS applications for a number of reasons, including:

- The availability of compatible GIS software in a number of line agencies and projects in the province.
- The availability (in CPAWM) of previously digitized spatial-data for PXH.
- Its overlap with LSFP target districts where all sub-programs are active, thus allowing GIS to assist in improved project integration.
- Southern advisor experience in GIS applications for natural resources management.

If it is to be useful for effective NBCA management, MIS development must also meet monitoring and evaluation needs. Towards this end an NBCA Monitoring and Action Prioritisation methodology is currently being developed by the advisor to monitor protected area guardian villages in regard to their participation in conservation efforts and to identify problem villages where priority attention is required by the NBCA management team. The methodology is essentially a simple monitoring tool which relies on both quantitative and objectively-weighted qualitative data that can be easily collected, analysed and updated by NBCA staff. Advisor effort will initially focus on refining and operationalising the system which is described in more detail in Appendix 4 of this report.

The management of the PXH National Biodiversity Conservation Area (and to a lesser extent XBN) is complicated for a number of reasons:
- There is no NBCA management office in PXH itself and coordination is therefore managed through the LSFP provincial coordination office.
- PXH covers parts of 5 different districts, each of which are responsible for certain aspects of management in their respective areas.
- A total of 11 provincial and district staff with very different backgrounds and experience are responsible for NBCA management.
- Three of the districts are LSFP Target Districts and thus have their own budgets and planning process. Budgets for the other two districts are administered through the LSFP provincial coordination office by the NBCA head.
- Communications and travel among the 5 districts and between them and the LSFP coordination office are virtually non-existent, making coordination extremely difficult.

To ease communication and facilitate coordination it is proposed to conduct quarterly NBCA coordination meetings, starting initially in PXH, with later replication in XBN. Participants will include the Provincial LSFP Coordinator, the Conservation Advisor, the NBCA Head, a CPAWM representative (whenever possible), all provincial and district staff with responsibility for NBCA management, and others as appropriate. The meetings will be hosted by each district on a rotational basis and chaired by the Governor of the host district. The objectives of these meetings are intended to:

1. Provide an opportunity for NBCA staff to meet regularly to exchange ideas, experiences and important lessons learned.
2. Facilitate the coordination of the quarterly workplans of the 5 districts and to ensure that they are in line with overall NBCA management objectives.
3. Allow the NBCA head to regularly monitor progress made by each district.
4. Enable the NBCA Head and the Conservation Advisor to assist with solving any problems encountered by district staff.
5. Allow all NBCA staff to learn of new developments and policy directives in respect to conservation management.
6. Provide an opportunity for district governors to learn about and contribute ideas in regard to NBCA management activities occurring in their district.

**NBCA Management Plans**

A more systematic and logical approach to PA management planning is considered necessary in PXH and XBN. Current management plans are based largely on locally specific land use planning, extension and patrolling activities conducted in individual villages on a somewhat *ad hoc* basis. As a result, plans tend to be location specific rather than addressing overall NBCA needs in a systematic manner. To a large extent, this is due to the lack of pertinent information relevant to the management of the NBCA’s as functioning systems in their own right. Hopefully, this will be largely overcome by the proposed development of a user-oriented MIS as described earlier, but advisor effort is also considered necessary to help define precise NBCA management goals and objectives as the basis for planning appropriate interventions.

A Logical Framework Approach (LFA) using ZOPP techniques (Objective Oriented Project Planning) is considered the best means of achieving a more systematic approach to NBCA management planning. In support of this goal, the advisor will work with key counterpart staff to produce problem and solution trees as the basis for developing NBCA goal, purpose and activity statements within an LFA approach to protected area management planning.

All 20 NBCA’s in the Lao PDR differ significantly from one another in their ecology, important flora and fauna and in regard to the key threats they face and the unique opportunities they present. It is the advisor’s opinion that there is a need for increased emphasis on the unique characteristics of each NBCA when formulating management plans and development strategies. This certainly holds true for PXH and XBN where quite different management strategies are called for.

**NBCA Staff Capacity**

Short term training in patrolling and wildlife survey has largely failed to meet its intended objectives

- Much of the content was too advanced
- Staff turnaround
Land Use Planning in NBCA’s

Community land use planning should be considered both the starting point and the central core to the development of participatory NBCA management. Current government policy places a high priority on land use planning and land allocation for all community-used land nationwide. With the assistance of LSFP’s LUP subprogram, methods specifically tailored to the needs of communities living in and around NBCA’s are being developed.

Land use planning has already been conducted in both PXH and XBN in a number of villages which can be conveniently grouped into four classes as follows:

<table>
<thead>
<tr>
<th>Basic Village Types in NBCA Management</th>
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<tr>
<td><strong>Enclave villages</strong> where the settlement and village-use land fall entirely within the NBCA boundary.</td>
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<tr>
<td><strong>Straddle villages</strong> where the settlement area is usually outside the NBCA but some village-use land falls within it.</td>
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<tr>
<td><strong>Adjacent villages</strong> where the settlement area and village-use land border the NBCA but do not encroach into it.</td>
</tr>
<tr>
<td><strong>External villages</strong> where villages and land-use are somewhat distant from the NBCA boundary, but their activities still impact on it.</td>
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Unfortunately, selection of target villages has been somewhat *ad hoc*, based on local government priorities or on specific conservation problems. This has resulted in land use planning being conducted in single villages scattered in and around the NBCA.

Little or no follow-up was provided after LUP and in most cases no support was given for extension, development and conservation activities. It is the intention of the advisor that future LUP’s will be conducted on a more systematic basis, starting in villages adjacent to those where the process has already begun and slowly expanding through adjacent villages. The process will include support for extension and conservation activities, and be systematically monitored on an on-going basis. By this means it is planned, over time, to develop community networks of such ‘Guardian Villages’ who cooperate and assist each other in both resource conservation and livelihood development initiatives, supported by district government agencies.

Inter-village boundary conflicts often emerge during land use planning. These are not usually identified when LUP is conducted in single isolated villages but are clearly evident when it is conducted in a number of villages simultaneously. It is considered essential that such issues must be resolved early in the LUP process so as to lay a sound foundation for village network development at a later stage.

Further attention also needs to be given to delineation of the protected area boundary and to jointly review with villagers their understanding of it and its perceived appropriateness. Any proposals for its revision will be mapped and recorded with the eventual aim of re-defining the entire NBCA boundary once LUP has been completed in all guardian villages.

During the LUP process, areas of customary use by villages within the NBCA are normally defined as a single block. Within this area, Totally Protected Zones (TPZ) and Controlled Use Zones (CUZ) need to be agreed to and their boundaries delineated. This will require the advisor to assist in developing appropriate definitions and use criteria for these zones (and possibly others as necessary) and developing agreements for their protection with villagers. Not practical.

If conservation issues are to be adequately incorporated into land use planning agreements, locally specific wildlife and habitat information must be available during the LUP process. During the LUP in the corridor zone of PXH, attempts to maintain a forest corridor between the Phu Xang He and Phu Hinho mountains were frustrated by the lack of information on the important species involved and the extent and type of corridor habitat they would require. The advisor intends to use the short-term inputs of wildlife conservation specialists, available to the Project under IUCN’s contract with DOF, to specifically address these issues as and when they arise.
It is too much to expect fully workable land use and conservation agreements from the first step in the process. The aim should be more to raise and discuss the key issues with villagers and obtain initial draft agreements for trial implementation, and later review and modification in step 7. Previous LUP agreements have tended to be rather one-sided, with villagers stating what they will or will not do, but with no parallel commitment from government. Effort in the future will focus on developing more balanced, two-way commitments which clearly lay out both community and government responsibilities and which also link future government support to the community fulfilling their land use and conservation responsibilities.

Experience to date shows that individual communities have insufficient authority to effectively control land-use and conservation agreement infringements, particularly when these involve people from other villages. The development of strong intercommunity networks are seen as a valuable mechanism for the empowerment of guardian communities to give them sufficient collective authority to be able to effectively protect natural resources.

Such community networks must rely on good relations among member villages. It is thus essential that any existing inter-village boundary conflicts are entirely resolved during step 1 and that any other conflicts over such issues as water, forest, NTFP use, etc. are also dealt with at that stage. Network formation is essentially an exercise in community organisation and must begin with strengthening and empowering individual member communities. The advisor intends to provide support in this area in a coordinated effort with the Southern Extension Advisor. If community networks are to become effective mechanisms for promoting natural resource conservation, they must be recognised by and have strong links with local government departments. It is planned to conduct all network development activities jointly with district staff with the eventual aim of the network becoming the natural entry point for each district in the NBCA’s.

**Step 7: Review of effectiveness of land use and conservation agreements**

Experience to date has shown that land use and conservation agreements finalised during the first land use planning step are not fully implementable. A period of trial implementation of up to a year is considered necessary, during which time monitoring and follow-up support should be provided by NBCA staff. It is proposed that at the end of this trial period, a joint review be held with villagers in order to assess the effectiveness and practical workability of the agreements and to make appropriate modifications. Following this review a decision needs to be made as to whether the modified agreements are likely to prove workable or whether they require a further trial implementation period. If considered workable, they should be legally formalised with the district authorities, with copies of all agreements and land use maps provided to the village chief, the district authorities and the NBCA head.

Following the development of workable land use and conservation agreements, formal land allocation should take place to demonstrate government commitment to the agreements. Land allocation normally results in a user rights certificate for each household’s agricultural land. These documents will be able to be upgraded at a future date into some form of more permanent tenure, the exact nature of which still remains to be decided. In the case of enclave villages, or other farmland within NBCA’s, the issue of land use documents is less clear. Questions remain as to what form of user rights document is most appropriate and should such rights be given to individual households or issued to the community as a whole. Such questions will obviously have to be resolved at the national level, but it is intended that LSFP’s lessons learned from land use planning in NBCA’s will be recorded and made available to the relevant authorities to assist them in reaching a decision in this regard.

The LUP process does not end with land allocation and it is considered essential that M&E and follow up support is provided to communities on an on-going basis. One task of the advisor will be to assist with the development of an M&E system and establish monitoring schedules and reporting formats for district conservation staff.

The development and implementation of participatory methods for both livelihood oriented extension and conservation management will also receive priority attention.

**Integrated Conservation and Development**

Early extension activities in PXH and XBN have so far focused on the provision of wildlife posters and public awareness materials rather than on farming and livelihood development activities. Although the former are important, the annual shortfall in subsistence rice and lack of alternative income sources are the main reasons
for villager dependence on PA’s. Both of these problems are exacerbated by uncontrolled population increases. Until these problems are solved, the majority of villagers will continue to be reliant on hunting and forest product extraction, in many cases, using non-sustainable methods. In conjunction with the Southern Extension Advisor, a program of community-based family planning, agriculture and livelihood development trials and demonstrations will be introduced as an integral part of the process. As promising activities are identified these will be replicated through the community networks.

Probably the most important management opportunity for the corridor zone is the recognition by enclave communities that their current forest-reliance strategies are becoming increasingly difficult and will not be sustainable in the long term. Solutions to this dilemma will require land use planning coupled with some form of land-use rights to provide incentives for stabilising current forest clearance practices. The LUP process will also have to include the development of forest and land use agreements which maintain continuous forest habitat as wildlife migration corridors between the two mountains. Conservation agreements on protected-area-use also need to be developed with enclave villages who, in return, should be provided with support for agriculture and livelihood development activities on the agreed village-use land areas in order to reduce their current dependence on the protected area.

Community strengthening and empowerment is also seen as a priority objective of extension programs in NBCA’s. To achieve this objective, the advisor intends to support community-based planning and implementation of activities, whereby villagers will be actively involved in (I) problem identification and analysis, (II) planning of solutions to these, (III) providing material or in-kind contributions (ideally linked to the development of community savings groups), (IV) evaluating the performance of activities, and (V) assisting with the replication of successful activities to other villages through the community network. By promoting active participation, it is anticipated that community decision-making and organisational skills will be significantly upgraded.

Evaluation of extension activities will be conducted jointly with participating communities to determine their subsistence, economic and livelihood benefits. During the process, the ideas of villagers will be sought in regard to improving the performance of the development activities and to expanding the benefits to other households and villages. A triage approach to activity evaluation is proposed under which activities will be classified into three groups: (I) those that are viable and ready for replication, (II) those that require further modification, and (III) those which prove infeasible and need scrapping or require a major re-thinking.

During the evaluation process an attempt will also be made to assess the impact of activities in two key areas. Firstly, the socio-economic impact on women, the poor and other disadvantaged groups will be assessed and ameliorative action taken where necessary. Secondly, the agro-ecological impact on land use patterns, forest habitat quality and wildlife populations will be assessed and acted upon, where appropriate.

It is intended that as community networks develop they will play an increasing role in both conservation management and in the replication of development activities throughout all member communities. By this means, government support for development can be tied to conservation responsibilities and an incentive provided for communities to develop and strengthen the network which serves both conservation needs and development imperatives.

**Participatory Habitat and Wildlife Surveys**

**Community Roles in Conservation Management**

The development of successful systems of participatory NBCA management will require the identification of appropriate community roles in the overall conservation process. In this respect, it is considered essential that guardian communities themselves, rather than local government agencies, play the major role in policing the various agreements developed in steps 1 to 9 above. If local government is to be perceived by villagers as an equal partner in the process, they should not have responsibility for enforcing the agreements nor for imposing the penalties for their infringement.

For participatory NBCA management to work, guardian communities must be provided with adequate incentives and given a commensurate stake in the benefits from natural resources conservation. Some potential ideas for providing villagers with such a vested interest in conservation management from an economic and livelihood sense include the following:
Community Conservation Management Incentives

- The design and implementation of appropriate and equitable systems of land allocation within NBCA's.
- JFM type activities in and around NBCA's to give villagers a stake in the protected area's timber, its most valuable resource from an economic perspective.
- The development of nature or eco-tourism activities based on villager involvement in their design and implementation, including an equitable share in the economic benefits.
- Appropriate land or other tax concessions and the provision of subsidies for livelihood development activities for guardian villages in return for their participation in conservation management.
- Some form of remuneration or other tangible incentives for Village Forestry Volunteers.
- The use of fines or other penalties derived from infringements of village conservation agreements for community development initiatives or for the above-mentioned remuneration for VFV's.

The advisor intends to further explore the above and additional opportunities, forge linkages with potential collaborators and support NBCA staff in a coordination role with them. By this means, it is hoped to attract appropriate resources for a range of community development activities in NBCA guardian villages.

ANNEXES

1. Protected Area Field Advisor’s Terms of Reference

Objectives:

1. To build basic, sustainable conservation management capacity in LSFP NBCA’s, with priority on Phu Xang He (PXH) and a secondary focus on Xe Bang Nuan (XBN).
2. To contribute to methods development within the context of the broader aims of LSFP at provincial and district levels by developing an integrated approach to forest and agricultural resources management through membership of a small team of LSFP Advisors based in Savannakhet and Saravane.
3. To develop coordination and collaboration with other projects more directly oriented to rural development, so as to create a web of activities integrating conservation and development objectives.
4. To support capacity development at field level, through assistance in producing a range of training and monitoring materials, including a management manual, management plans for all LSFP NBCA’s and a formal annual course in protected area management.

Tasks and Responsibilities:

1. Support for Basic NBCA Management:

Provide training and leadership through participation in basic management techniques for Heads and staff of PXH and XBN NBCA’s so that effective operational systems are (re)established in both NBCA’s. Necessary steps include:

- review of previous work in PXH and XBN;
- review of staff workplans, activity reports and accounts on a monthly basis (or as needed);
- assistance in establishing operational systems of filing, mapping, work planning, reporting, budgeting and purchasing;
- provision of in-service training in map reading, GPS use, field survey techniques, note taking and analysis;
- training in techniques of RRA and PRA as applied to protected area management.

2. Participatory Management Methods Development

- Assist in the development, testing and implementation of methods for effective participatory management of LSFP NBCA’s, with particular reference to PXH and XBN. This may include, but need not be limited to, negotiated boundary agreements for the NBCA and between villages, negotiation of local rules for resource use and conservation, land allocation, systems of conservation volunteers and "guardian villages", joint patrolling and enforcement, village planning workshops, trial use of grants and revolving funds.
- Assist NBCA staff to produce Management Plans for Phu Xang He and Xe Bang Nuan.
3. Co-ordination with Other Projects and LSFP Component Activities

- Participate as a member of an LSFP advisory team for the southern provinces. This may involve assistance and participation in activities lead by Joint Forest Management, Extension, Land-use or other LSFP components and the provincial coordination offices.
- Participate in Evaluation and Support exercises in the other two LSFP NBCA’s (PKK and Nam Phui) so as to help standardize procedures (where appropriate) and exchange ideas between them. Also provide training in evaluation techniques to CPAWM or other central staff seconded to PXH or XBN.
- Assist in the integration of NBCA participatory management methods with other initiatives and projects more directly concerned with rural development. In the case of PXH, this will involve close cooperation with other subprogrammes of LSFP, but also cooperation with other projects operating in adjacent districts, for example, FOMACOP’s work in Dong Phu Vieng NBCA. In XBN this will involve cooperation with the FOMACOP Village Forestry Subprogram, IUCN NTFP Project and PDI/GAA, all of which are undertaking complementary activities in or around XBN.
- Assist in the development of proposals, as appropriate, for future donor support for these areas.

4. Development of Training Materials

- In cooperation with other Advisors, consultants to LSFP and the staff of Xepone Forestry Extension Training Centre to develop and test a syllabus and fieldwork for a course in Lao language on protected area management, that is proposed to be held annually at Xepone.
- Assist in the development and testing of a protected area management manual, intended to complement other LSFP manuals, for example on land-use planning and allocation.
- Undertake other tasks relating to field management of NBCA’s as may be requested by CPAWM or by the Senior Conservation Advisor.

Reporting:

The Field Advisor will report to the Senior Conservation and Protected Areas Planning Advisor, including submission of all written reports for transmission to DoF, SIDA and Swedforest.

2. Monitoring and Activity Prioritisation Methodology (MAP)

A simple NBCA monitoring and prioritisation methodology is being developed to monitor protected area guardian villages in regard to their participation in conservation efforts and to identify problem villages where priority attention is required by the NBCA management team. It is essentially a simple monitoring tool which relies on both quantitative and objectively defined qualitative data that can be easily collected, analysed and updated by NBCA staff.

Eight factors considered important in determining a village’s impact on the NBCA are utilised in the methodology which proceeds according to the following steps:

1. Each factor is weighted according to its comparative importance (as assessed by NBCA staff).
2. Information on each factor is collected or objectively arrived at for all guardian villages.
3. The information from ‘2’ above is used to score the villages for each factor.
4. Individual factor scores are multiplied by their weighting value.
5. The weighted factor scores obtained from ‘4’ above are summed for each village.
6. The total weighted scores for each village indicate its relative level of priority for attention by the NBCA management team (the lower the score, the greater the priority for attention).

Explanation of the scoring system

Ethnic Type:

Traditional livelihood practices of the various ethnic groups found in Laos have different impacts on the natural resource base. Some activities of any ethnic group are environmentally damaging while others may be positive. Although the situation is complex and it is difficult to generalise, it is possible to be reasonably objective in ranking the various ethnic groups according to their impact on conservation in a particular situation such as a specific NBCA. To arrive at a rating system the livelihood practices of each ethnic group are analysed as to their impact on the natural resource base and the groups are then rated as follows:
1. High negative impact on the natural resource base.
2. Medium level of impact on natural resources.
3. Low level of impact on the natural resource base.
4. Marginal impact on the natural resource base.

**Village Type**

Communities living in and around NBCA’s tend to have varying impacts on the area according to the proximity of their settlements and land-use areas. Communities have been grouped into four classes and their impacts rated as follows:

1. Enclave villages where the settlement and village-use land fall entirely within the NBCA boundary.
2. Straddle villages where the settlement area is usually outside the NBCA but some village-use land falls within its boundary.
3. Adjacent villages where the settlement area and village-use land border the NBCA but do not encroach into it.
4. External villages where settlements and village-use land are some distance from the NBCA boundary, but villager activities still impact on it.

**Population**

Obviously, the higher the population pressure dependent on any natural resource, the more likely negative impacts will occur. Three population pressure ratings are used:

1. 75 families in the village.
2. 50 - 75 families in the village.
3. 25 - 50 families in the village.
4. < 25 families in the village.

**Area**

The size of village customary use areas in the NBCA varies from community to community. Customary use areas are rated as follows:

1. Large customary use area in the NBCA.
2. Medium size customary use area in the NBCA.
3. Small customary use area in the NBCA.
4. No customary use area but villagers still enter and use the NBCA.

**LUP Status:**

The LUP status of a village describes the stage in the land use planning and land allocation process reached. The more advanced the process, the higher the likelihood that effective controls have been placed on highly damaging activities. The rating system used for LUP is as follows:

1. No land use planning has taken place.
2. The village has completed boundary delineation with at least one other contiguous village.
3. The village has conducted the first iteration of land use planning and forest and land use zones have been agreed to and mapped.
4. Village land use plans have been adhered to, formalised with the district and land allocation has taken place.

**Agreements**

Village land use and conservation agreements represent the first step in formal accords between villagers and government for natural resources conservation in NBCA’s. Obviously, if agreements are being adhered to, the less likely damage will occur in the NBCA. The rating system used for village agreements is as follows:

1. No village land use or conservation agreements are in place.
2. Village land use and conservation agreements have been drafted.
3. All agreements have been reviewed, ratified and formalised with the district.
4. Formal agreements are monitored and are being adhered to.

VFV

Village Forestry Volunteers (VFV) are elected members of the community who are given responsibility for monitoring and policing village boundary, land use and conservation agreements. Ratings used for their level of capacity development are as follows:

1. No village forestry volunteer has been appointed or is recognised by the village.
2. A Village Forestry Volunteer has been elected by the community and their appointment has been ratified by the district.
3. The Village Forestry Volunteer has undergone at least basic conservation management training.
4. The Village Forestry Volunteer has submitted reports that have been successfully acted upon by the district and/or NBCA authorities.

Impact Rating

This is essentially a subjective rating of village impact on the NBCA based on the experience of individual staff members. Its objectivity is improved by using interactive ranking techniques involving all NBCA staff with experience in the area under consideration. Ratings used for level of impact are as follows:

1. Extreme level of direct negative impact on habitats and wildlife in the NBCA.
2. High negative impact on habitat and wildlife conservation in the NBCA.
3. Significant negative impacts on habitat and wildlife conservation in the NBCA.
4. Low or neutral impacts on habitat and wildlife conservation in the NBCA.

An example of the monitoring format used is presented in the following Table for Vilabouri district.

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<th>Village</th>
<th>Ethnic</th>
<th>Type</th>
<th>Pop.</th>
<th>Area (km²)</th>
<th>LUP status</th>
<th>Agreements</th>
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