

OPPORTUNITIES FOR INDIGENOUS
COMMUNITY MANAGEMENT OF FOREST
RESOURCES IN THE CENTRAL *TRUONG*
SON UPLANDS, QUANG NAM

By
James Hardcastle



WWF Indochina Programme & Quang Nam Forest Protection Department

MOSAIC Project

September 2002



ACKNOWLEDGEMENTS

This report builds on ‘*Red Books and Village Armies*’, by Hardcastle J. 2002, MSc thesis, DICE, University of Kent at Canterbury. Thanks are due to Barney Long and the MOSAIC team, to Nguyen Quoc Dung at FIPI, to Quang Nam FPD, to Mike Baltzer and all at WWF Indochina Programme and the Ecoregion-based conservation unit, to WWF-US, especially Jenny Springer and Kristin Clay, to USAID, and to all the many local partners who participated in the study and the analysis. Finally, to Nguyen Thi Dao for her comments on the document and support throughout the study

ABBREVIATIONS

CEMMA	Committee for Ethnic Minorities and Mountainous Areas
CPC	Commune People’s Committee
DARD	Department of Agriculture and Rural Development at province level
DCI	Department for Culture and Information
DICE	Durrell Institute for Conservation and Ecology
DLA	Department of Land Administration at province level
DPC	District People’s Committee
FIPI	Forest Inventory and Planning Institute
FPD	Forest Protection Department
MARD	Ministry of Agriculture and Rural Development
MPI	Ministry of Planning and Investment
MoE	Ministry of Environment
MOSAIC	Management of Strategic Areas for Integrated Conservation
MSY	Maximum Sustainable Yield
PC	People’s Committee
PCA	Principal Component Analysis
PPC	Provincial People’s Committee
PRA	Participatory Rural Appraisal
SFE	State Forest Enterprise
UNDP	United Nations Development Programme
USAID	United States Aid for International Development
VBARD	Vietnam Bank for Agriculture and Rural Development
VBP	Vietnam Bank for the Poor
WWF	World Wide Fund for Nature
WWF-IP	World Wide Fund for Nature – Indochina Programme
WWF-US	World Wildlife Fund – United States



Financial support from USAID/WWF-US





SUMMARY

Vietnam is facing continued losses in forest cover and biodiversity. Environmental problems are mounting as the country develops the economy and rural infrastructure after decades of war, instability and social upheaval. There is a growing realisation that protected areas in Vietnam are not always compatible with the pressures of population growth and natural resource dependency characteristic of many rural communities. Towards this recognition, focus has been on ‘community-based conservation’, to provide answers.

In an area of the central *Truong Son* region identified as highest conservation priority by national and international experts, three commune-level units in Quang Nam province were studied. In particular, research focused on community institutions, resource use, and potential for collective action towards forest management. The mixed ethnic backgrounds of the three sites, Kinh, Mon Nong, Ka Tu and Ca Dang, allowed for observation on the resilience of ethnic minority communities in terms of collective action and property regimes within the Vietnamese State system. A simultaneous documentary study briefly examined the legal framework for community-based conservation approaches, both at national and regional level.

The research showed that the communes exhibit strong potential for resource governance through local institutions. One village even has its own ‘village army’. However, open-access resource regimes are rapidly depleting local forests, with the communities powerless despite provincial plans to accelerate the allocation of forest land to localities. ‘Red Book’ land use certificates can guarantee ‘five rights’ of tenure and, with external support, can lead to secure local common property regimes. Quang Nam province is currently re-allocating nearly 500,000 ha of forest to local level management regimes. Towards this end, the Quang Nam people’s committee are instigating a pilot forestland allocation programme to target household groups of ethnic minority villagers. This programme offers a positive opportunity to safeguard Quang Nam’s forest resources through the creation of effective community managed regimes. The findings of this report, however, show that more focus needs to be placed on the complexities of community management of forest areas following an allocation. Overall, this study highlights the potential for long-term community management of forest resources.

Key words: Vietnam; community; ethnic; land allocation; forest resource management; policy



INTRODUCTION

The term ‘community-based conservation’ is variously defined. Community-based conservation encompasses the role of community institutions in collective action towards forest resource management, with positive benefits to both community and natural resource sustainability (McKean 2001).

Poteete & Ostrom (2002) defined ‘institutions’ as commonly understood rules for which actions are required, permitted or forbidden in particular situations. Institutions may be unwritten, and thereby difficult for outsiders to observe. However, institutions governing the use of forest resources are fundamental for the sustainability of those resources. (Gibson *et al.* 2001). Most research focuses on human impacts as the primary threat to changing forest conditions. This has provided justification for the nationalisation of forest areas and the creation of protected areas (Agarwal 2001). However, exclusion strategies are unlikely to succeed in areas where high human influences cannot be eliminated from forest ecosystems, as is the case in Vietnam. The difficulty of monitoring forest access and use results in low levels of enforcement worldwide, including in Vietnam. However, there is also a need to expand the focus from socio-economic aspects of conservation to include institutional links to biological factors that determine the health of forest ecosystems.

Collective action for forest resource management is needed to limit resource use. Murphree (1993) outlines ‘community-based wildlife management’. This includes the need to provide identifiable value in return for management - a benefit linked in quality to the effort involved in management. Importantly, he argues that the unit of ownership in a community property regime should be the unit of production, management and benefit. This unit should be as small as practicable, within ecological and socio-political parameters, to maximise efficiency. However, Agarwal (2000) provides a clear case study in India where larger-membership forest councils had more success in organising collective resource management action than smaller, community-level bodies. He underlines the importance of examining external dynamics and power relations, as much as the internal dynamics of a community group or institution. The lesson is, therefore, that there cannot be a blanket method for community management, but that each particular site needs a particular solution.

Elsewhere, community-based approaches deal with protected areas, buffer zones and forms of outreach by forest management authorities to involve local communities in varying levels of responsibility (Ingles *et al.* 1999). Collaborative management and contractual agreement on resource and land-use benefits in return for conservation trade-offs has been applied in protected area management worldwide, for example the Makuleke case in South Africa (Reid 2001), and in approaches to conservation in Vietnam over the last few years (Gilmour *et al.* 1999). Indeed, in Quang Nam and Thua-Thien Hue provinces, studies are underway into collaborative links between nature reserve and community to manage protected areas (in Song Thanh and Phong Dien).

For Quang Nam, ‘common-property regimes’ (McKean, 2000, Poteete & Ostrom 2002) are relevant. A common property regime is a land ownership arrangement in which a community of resource-users share rights and duties towards a resource. This can encompass equitisation¹ of property rights to create an incentive for resource protection and sustainable management. The recent trend in Vietnam has been to decentralise control over public enterprises. However, lessons from Thailand, Indonesia and Philippines show that such equitisation of forest resources is often conducted without full consideration for whom and at what level, for what rights, and for what kinds of resources (Novellino 1999). To benefit from a common-property regime, the equitisation of the rights to harvest resources is necessary without dividing the resource-base into parcels. A common property regime controls the flow of harvest without interrupting the stock, or principal, of the resource system itself. The Quang Nam provincial people’s committee plan for ‘allocation of forestland to groups of ethnic minority households’ has great potential to achieve effective community property regimes through careful consideration of the levels, benefits and management structure of those receiving the allocations.

¹ ‘Equitisation’ is widely used in Vietnam as a synonym for ‘privatisation’



This report aims to examine the potential for ‘community-based conservation’ in three study sites in Quang Nam province, two of which will form the pilot for the PPC allocation programme. Table 1. outlines some key attributes for ‘community-based conservation’ that will be considered in this report.

Table 1. Ten key components of community-based conservation

Attribute	Detail
1. Clear boundaries	Clear boundaries of the land and resources used, clear criteria for community membership and eligible resource users
2. Focused benefit value	Benefit should be linked to the effort involved in management. A clear relationship is essential. If this is not equal, then the management effort will fail to ensure long-term results.
3. External support and involvement	Political support and official enforcement should be calculated in community-based strategies,
4. Use rules should be environmentally conservative	This allows for a margin of error in terms of over-reaching maximum sustainable harvest yield (MSY), which for many species is difficult to assess without detailed census information and reproductive rate calculations.
5. Use rules must be clear	Regulations should be enforceable, monitored and infractions punished. Rules should also be well publicised with input from within the community. A lack of consistency will lead to increased infractions and resentment.
6. Fair distribution of decision -making and resource use rights	The distribution of rights and resources should be perceived as ‘fair’ by all interest groups.
7. Methods for conflict resolution should be inexpensive and rapid	Collective action involves a wide range of interests and interest groups. The ability to resolve conflict rapidly and cost-effectively may determine the success of institutional arrangements for conservation.
8. Unit of ownership should be the unit of production, management and benefit	The ownership of an area greater or lesser than the unit of production, benefit and management will not resolve conservation or sustainability concerns. The difference will undermine interests and needs.
9. The management unit should be within ecological and socio -political parameters	The management unit should be a suitable size to avoid conflict and inefficiency, and maximise benefit to and from an appropriate sized ecological area.
10. Users should have a low discount rate	Future value should be high in relation to current/short-term benefits from the forest. This means the present protection will ensure future returns. If the present value is greater than the perceived value of future benefit, protection is not economic, and may not be achieved.

(Table 1 adapted from Mckean 2000)

The Vietnamese government, in its Biodiversity Action Plan of 1995, requires conservation to encompass wider approaches to solve the rapid decline in biodiversity. It is recognised that protected areas are not the sole answer, especially in a country with such a high proportion of rural-based population dependent on forest resources (Tran Ngoc Lan *et al.* 2000, Baker *et al.* 2000). Sustainable development and poverty alleviation are seen as priority, and as intrinsically linked to forest resource conservation and watershed protection (Nguyen Lam Thanh 2001).



OBJECTIVES & STUDY SITES

The key question is whether or not the three identified communes can effectively manage local forests in harmony with the local and regional administration and power structures. To achieve an answer, four study objectives were identified:

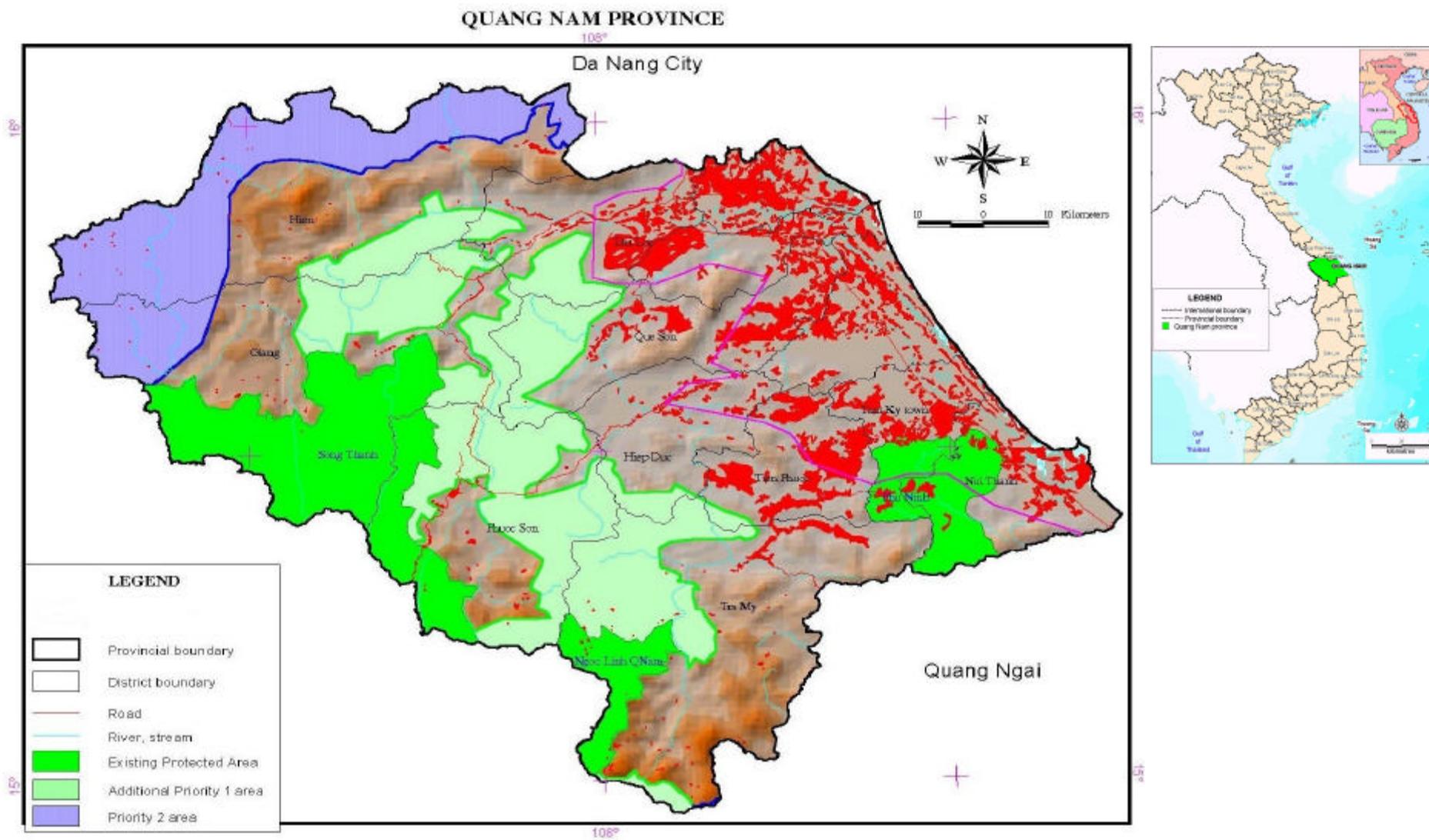
- 1. To assess the National and regional legislative framework that could potentially support community-based conservation, and to determine in turn the legal options available in Quang Nam province.**
- 2. To analyse briefly ‘community’ in terms of the ideal unit for management of forests and forest resources, and to determine in turn the ideal community unit in the study sites in Quang Nam province.**
- 3. To gain an overview of the relationship between community and forests, to determine in turn the current level of forest resource use and how this relates to the community unit.**
- 4. To document the community’s perceived needs and challenges in terms of forest land and resource use, and to determine in turn local perspectives on forest resource management.**

The field study sites selected for this investigation, Tabhing, Tra Bui and Ba communes, are in Nam Giang, Tra My and Hien districts of Quang Nam province. In Nam Giang district, which includes Tabhing commune, the population density is 10 people per km². Tra My district, which includes Tra Bui commune, has a density of 23 people per km², whilst Hien district, which includes Ba commune, has a population density of 47 people per km². This compares to a provincial total of 122 people per km². The national average is 134 people per km². The rural population densities in Quang Nam are some of the lowest level in Vietnam.

This factor, however, is not necessarily of benefit to forest protection because there is no definite link between population growth and loss of forest cover at the local level (Varughese 1999). According to WWF, the Central *Truong Son* (Annamites) ecoregion (incorporating western Quang Nam) is of global significance for biodiversity (Baltzer *et al.* 2001, Dinerstein *et al.* 1999). It is also critically threatened, and of highest priority for conservation assistance. Of special significance are the lowland forest areas of the province, which represent the last viable area of this habitat type in Vietnam, and which are represented in Ba and Tra Bui communes. Of equal significance are key areas for habitat connectivity between patches of forest, such as Song Thanh Nature Reserve, with Tabhing commune forming one such ‘corridor’ area. Ba commune also contains vital ‘corridor’ forest connecting Ba Na - Nui Chua Nature Reserve with the wider Hai Van forest sector.



Map 1. WWF's Central *Truong Son* priority areas and protected areas within Quang Nam Province





STUDY SITE DETAIL

Ethnic background in Study sites

The Truong Son Mountains are home to 21 ethnic minority groups from four distinct linguistic groups, Viet-Muong, Mon-Khmer, Malayo-polynesian and Tibeto-Burman. The groups featured in this study are from the Mon-Khmer group: the Ka Tu and Ca Dang number 51,922 and 101,752 in total population respectively. The Mo Nong are a local group of the Gie Trieng minority group, who number 28,000. Within Quang Nam, the population of Ka Tu and Ca Dang are similar, with 36,822 Ka Tu and 32,267 Ca Dang registered residents, whilst Mo Nong number approximately 3,000.

Tabhing commune

Tabhing is located at approximately 15°40'N 107°38'E. The exact population is not currently known, but the commune supports 379 households in nine villages. Of these households, 362 are of Ka Tu ethnicity, ten are Kinh Vietnamese and two are Gie Trieng. The nine villages are situated in a linear pattern from east to west. All except Za Ra village are connected by National Highway 14D. Seven villages are located in the Khe Tabhing river valley, with the two others, Pa Toi and Thon Vinh, across a ridge and in the Oc river valley. The terrain is steep, inaccessible and cut by many rivers and streams. Natural forest cover is high, apart from the inhabited valleys beyond the swidden agricultural plots and secondary forest growth. The nine villages are, from east to west:

1. Pa Ting (40 households)
2. Ca Dang (37 households)
3. Pa Ia (24 households)
4. Pa Xua (72 households)
5. Pa Rong (24 households)
6. Pa Va (31 households)
7. Za Ra (45 households)
8. Pa Toi (20 households)
9. Thon Vinh (84 households)

The official rankings used to assess income status are based on the national ranking system. These figures for Tabhing commune provide a figure of 32 'wealthy' households (8.5%), 127 'medium' households (33.5%) and 220 'poor' or 'hungry' households (58%).

Tra Bui Commune

Located between 15°20'N 108°00'E, Tra Bui is a mountainous commune bordering Hiep Duc and Phuoc Son districts. It is transected by the Tra Bui river, which runs in from Phuoc Son east-west through the commune. Along the river is road 375. The Trang River forms the boundary to the south-west. Tra Bui commune has 4,516 residents in 702 households. Of this population, 71% are Ca Dang, 15% are Mo Nong and 13% are Kinh. There are six villages in Tra Bui, yet only four were selected for research by the PRA team. These four were:

- Thon 1 (135 households)
- Thon 4 (102 households)
- Thon 5 (68 households)
- Thon 6 (112 households)

Thon 1 has a majority population of Ca Dang people, Thon 4 is mostly Mo Nong, Thon 5 is split between Ca Dang and Mo Nong, whereas Thon 6 has a majority Kinh population, yet with a number of Ca Dang households also. In Tra Bui, 328 (47%) of households are wealthy or middle income, and 374 (53%) are poor or hungry households.



Ba Commune

Located between 15°55'N 107°55'E, Ba commune, along with Tu commune, forms the eastern border of Hien district with Da Nang province. Specifically, it borders Ba Na - Nui Chua Nature Reserve, a forested mountain area in Da Nang. The commune has 13 villages and a total of 4270 people in 930 households. The majority of the population is Ka Tu, followed by Kinh. The PRA survey selected ten villages for the research:

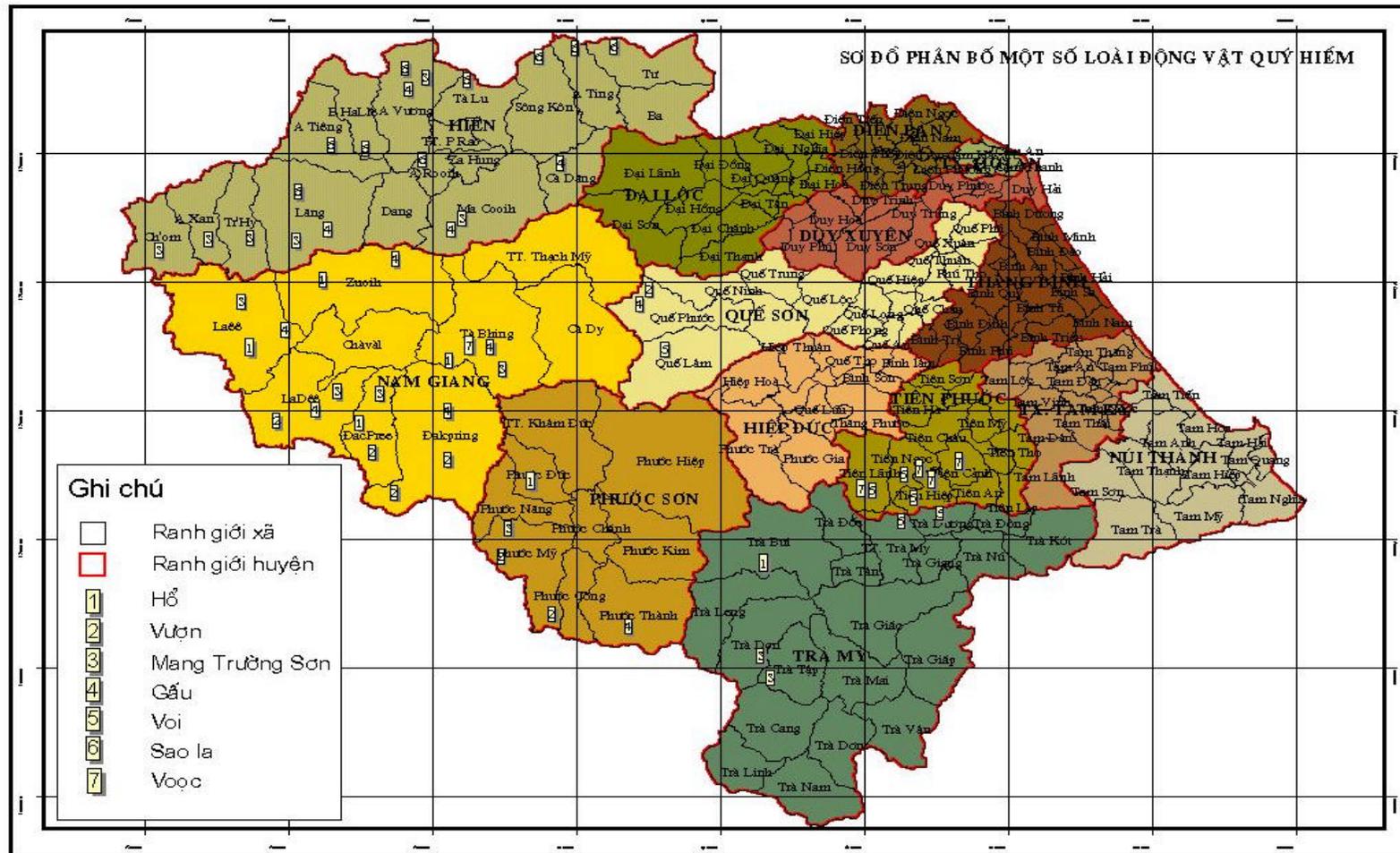
- Ta Lau (47 households)
- Phu Bao (48 households)
- Thon Eo (45 households)
- Thon 1 (22 households)
- Thon 2 (68 households)
- Thon 4 (42 households)
- Thon 5 (25 households)
- Doc Kien (64 households)
- Phu Son (80 households)
- Ta Coi (82 households)

Most villages are mixed Ka Tu and Kinh. Notably, Thon 1 is 100% Kinh and Thon 4 and Phu Bao are mostly Ka Tu. Of the 930 households, 62 are ranked as wealthy (7%), 716 as middle-income (77%) and 152 as poor or hungry (16%).



Map 2: Communes within Quang Nam Province

Note Tabhing commune (Nam Giang district, in yellow) Tra Bui commune (Tra My district, in dark green) and Ba commune (Hien district, in beige)





RESEARCH

Participatory Rural Appraisal (PRA)

The WWF and FPD MOSAIC project identified twenty one priority communes for forest resource, biodiversity and watershed protection. They were selected based on biological and social values, and consensus was reached during a provincial level workshop in June 2002. The communes were located in eight separate districts of western Quang Nam. Quang Nam FPD, along with WWF and FIPI devised a comprehensive and standardised methodology for a socio-economic appraisal (PRA). This standardised approach means that results can be compared and built upon, and monitoring of changes can be easily carried out.

The methodology was finalised in early July 2002, during a skills-share and practical exercise in Song Thanh Nature Reserve, where 25 participants from over 10 government departments took part in the development of the PRA method. These participants then became the leaders of PRA teams in each district, passing on the skills and method to their team members, before conducting the survey in 21 priority communes, covering over 125 villages. The questions encompassed a wide range of topics and tools, with the focus being on participation, correct research behaviour and documentation of community perceptions. Maps, charts and datasheets are currently being analysed by WWF and FPD and will be presented on a cd and distributed to all provincial departments for their benefit. The PRA in Quang Nam is the most comprehensive and participatory (especially in terms of collaborating departments and officials) in Vietnam to date. However, the limitations are also numerous, and the results can be taken as indicators only, and a baseline of knowledge for further investigation. The methodology will be improved each time it is implemented, however. PRA is more a process than a finite activity. The results of the PRA for Tabhing, Tra Bui and Ba communes has been complemented by additional interview and observation data to make up the analysis of this report.



RESULTS

OBJECTIVE 1

To assess the National and regional legislative framework that could potentially support community-based conservation, and determine in turn the legal options available in Quang Nam province.

Since the beginning of the ‘Doi Moi’ directive in 1986, Vietnam’s legal framework has undergone major revisions, essentially reorganising the way land and natural resources are managed. Government policy has gradually shifted away from a centrally planned economy with collective land property, towards a more market-oriented system. Recent government decisions have steadily aimed at reducing the role of government agencies and state enterprises accordingly. The driving force behind these efforts has been the need to increase land productivity and to ensure better land management. In the context of this change, this report looked at national policy relating to five categories:

- land management;
- land classification and protected area policy;
- forest and resource use;
- policy aimed towards ethnic minority groups, and finally;
- resource management and sector agencies.

The report then looked simultaneously at the provincial interpretation and implementation of these, and any adaptations or relevant provincial level decrees. Secondly, national programmes were treated in the same way, with four key programmes identified as potentially matching the study aims:

- The 661 programme, or “Five Million Hectare programme” on reforestation;
- The Settlement programme;
- The 135 Programme; and,
- The Quang Nam Province people’s committee programme on allocating forest land to household groups of ethnic minority communities.

Finally, to achieve this objective the report looked at current implementation of laws and programmes at district and commune level. The key results were charted and compared against the criteria and attributes of community-based conservation from Table 1. Questionnaires were administered to district, commune and village level officials and gave a picture of what is currently known, understood and actively implemented in the study site, and what is currently considered as beneficial to community-based conservation.

Certain information for this section was sourced from Villemain (2001).

Land Management

The first land law was passed in January 1988 after a long development process. Prior to this, land management had no clearly defined legal basis. The first land law defined land as the property of the entire people, controlled by the State, and entitled legal land users the direct results of their labour and investments in the land. Therefore, the land users, including state institutions, groups and individuals, were given the right to use, but not to own, the land. Land users were obliged to follow government regulations and specific instructions defined when the land was entrusted.

‘Five Rights’ of red book land certificates

1. Exchange
2. Transfer
3. Lease
4. Inherit
5. Mortgage

In 1993, a new land law was promulgated which recognized for the first time customary land use rights, granting the right to receive land use certificates (‘red books’) to all who use land on a stable



basis. Another important change was the introduction of "five rights" to exchange, transfer, lease, inherit and mortgage the land use right. The new land law gave land users the right to receive guidance and assistance from the State in the improvement of the land, to receive benefits from public projects of land protection and importantly, to receive legal protection against violations of their land use rights. In return, the land user was contractually responsible for the protection, improvement and management of the land, to fulfill cadastral procedures, pay tax and administrative fees and to fulfill other obligations in accordance with legal regulations. Land was valued in monetary terms for tax purposes and to determine property values.

The 1993 Land Law, and the subsequent 1998 amendment, gave land a focused value, and land could now be traded as a commodity within the legal provisions. The land law also introduced a number of important land management requirements, namely the need to carry out cadastral surveys and to prepare land use plans and land registers. The People's Committees at district level and commune level, assisted by the land management offices, were charged to set up land registers, to keep records of transactions and to issue land use certificates. Land could be allocated based on approved land use plans indicating appropriate land use and management responsibilities. According to the land law, the land belongs to the people. Since the people's committees are the representatives of the people, they are in charge of land allocation.

These adapted land management practices were introduced less than a decade ago and many of the new rights and land management requirements have barely reached the lower levels of the state administration and the remote areas of the country. The provisions of the 1993 land law required the state administration to allocate all land to specific owners and, with the granting of the red book certificates, to transfer responsibility for land management to individual households, groups, organisations and institutions. This policy implied a substantial disengagement of the State from the task of managing the country's land and forest resources. In practice, this process has been implemented rather slowly, often meeting resistance at local level. In the meantime, land allocation of permanent agricultural areas has made considerable progress (Tran Ngoc Lan *et al.* 2000, Villemain 2002), but forest land allocation is still far from complete.

Land Management in Quang Nam

Quang Nam province was established in 1997 from the previous Quang Nam – Da Nang unit. So far, land allocation has mostly occurred in the lowland rural areas and for wet-rice agricultural land and plantation forest. Where allocation has occurred in the four most forested districts (Hien, Nam Giang, Phuoc Son, Tra My) forest land allocation has been negligible. Wet-rice farmland has been the only significant allocation to households in these districts. To date in Nam Giang district, 370 households have received 1,122 ha of barren land and 924 households received a total of 307 ha of agricultural land, out of a district total of 19,000 households and 183,000 ha. Hence 0.008% of the land area has been allocated to 0.07% of the district's population.

State Forest Enterprise reform (SFE)

The low rate of red book land allocation in Nam Giang and other mountain districts becomes significant when the provincial plans for reclassification of State Forest Enterprises (SFE's) are implemented. SFEs in Vietnam currently hold and use rights over about 6.8 million hectares of forest, a little over a third of Viet Nam's total forest land. In Quang Nam, the nine SFE's are to be sized down in line with the Government Decision 187/1999/QD-TTg "on renewal of the organisation and managerial mechanism at the state forestry enterprises". The decision requests ineffective SFE land to be transferred to local authorities for allocation to local people on a long-term basis, with benefits shared from the forest land shared between red book holder and SFE management board. In other cases, existing SFE's are to be restructured into viable business enterprises, or as protected areas. Other SFE's are to be liquidated. In Quang Nam, two SFEs have been transformed into companies and one SFE has already been liquidated and classified as 'protection forest'. The six remaining



SFE's will be sized down from a total of 115,014 ha, or 11% of the province land area, to 72,489 ha, or 7% of the province land area. The remaining 42,525 ha, or 4% of the province land area, is to be transferred to the localities as red book land certificates.

However, In Quang Nam, Decision 187 is delayed in implementation due to a lack of funding, capacity and efficiency at district level. They also need locality participation in the process, and so have undertaken the pilot programme on forest allocation to ethnic minority household groups.

Land Classification and Protected Area System

According to the land law, land is classified into five categories, namely:

- Agricultural land
- Forestry land
- Land for residential areas
- Specialised land
- Unused land.

The definition of the land classes is based on both its actual and intended use, implying that intended land use would ultimately corresponded to actual use. 'Unused land' is any land for which the use had not been determined not yet allocated accordingly. Forestry land includes land with forest, and land without forest, but which should be afforested through planting, assisted natural regeneration, or protection. Forestry land is divided into three categories with these classifications defined by the "Regulation on Management of Special-use, Protection and Production Forest" (Decision 08/2001/QD-TTg; January 11, 2001), hereafter referred to as Decision 08, as follows:

- **Protection Forests** are intended to protect watersheds and soils, control soil erosion, limit the effects of natural disasters, regulate climate, and contribute to environmental protection.
- **Production forest** is mainly planned for forest development aiming at production and forest product development in combination with environment protection.
- **Special Use Forests** are intended to preserve nature and typical national forest ecosystems, protecting plant and animal gene resources, providing sites for scientific research and preserving historical and cultural heritage sites and famous landscapes.

For any of these forest classifications, an area of 5,000 ha or more requires a management board. An area under 5,000 ha does not require a specific body to manage, but it will be regulated by the relevant district people's committee or district department, such as the forest protection department. The protected area network is constantly developing, with several proposals awaiting decree for extending existing protected areas and decreeing new ones, including in Quang Nam. The Ministry of Agriculture and Rural Development (MARD), which is designated management responsibility for the national Special-use Forests system, plans to expand the system of Special-use Forests by some 700,000 ha to reach 2 million ha by the year 2010.

Policy on forest and forest use

Decision 08 also outlines clear regulations for the use and protection of each category of land, especially forest. It is very prescriptive, allowing little room for interpretation. It bans all extraction activities within all zones of special-use forests. There is no room for community rights to resources. It also attempts to limit use-rights in buffer zones and areas adjacent to protected areas. In reality, this leaves authorities with very little room to negotiate with local communities over collaborative management arrangements, whilst actual exploitation continues in many of Vietnam's protected areas (Gilmour 1999, Baltzer *et al.* 2001, Wege 1999). Under Decision 187, passed in 1999, legal logging in Vietnam's natural forests is being progressively restricted to 300,000 m³ per year in an effort to maintain and improve the forests. According to Decision 187 up to 20% of the wood can be removed in natural forests classified as very essential and essential protection forests. Where bamboo covers 80% or more of area, up to 20% of the volume may be exploited, and in essential and very essential watershed protection forests planted with State funds, up to 10% of the planted area may be exploited. Furthermore, Decision 178/2001/QD-TTg "on the benefits for households and individuals assigned,



leased or contracted forests and forestry land” provides benefit-sharing guidelines for local communities allocated forestry land by SFE’s, outlining clear resource use rights, of which 85% of the benefit is for the contract holder, and 15% for the SFE.

Government Decision 178 provides extensive user rights to contracted households receiving any form of protection contract, for example through the 661 programme or the Quang Nam pilot programme on forest allocation. In general, ‘mobile’ resources (such as wild animals) are available for exploitation by anyone, unless the particular species is listed under Decree 18 on endangered species. In Quang Nam there are no significant policies affecting resource use by local communities that differ from the national framework. However, there is currently a logging ban imposed by the provincial PC whilst the SFE are revised following the national guidelines in Decision 187.

Policy towards ethnic minority communities

Policy towards ethnic minority groups in Vietnam supports ‘equal development’ with a number of programmes and projects aimed at socio-economic development specifically for ethnic communities (Le Trong Cuc 1992). CEMMA has a broad responsibility to implement and monitor government development programmes targeting ethnic communities. They also have a series of ranking systems to prioritise ‘hardship’ communes and ‘poor’ income households. Specific programmes that target ethnic communities include the Settlement programme and the programme on new economic zones, the latter aiming to adjust population densities, develop rural economies and ‘stabilize’ society (Nguyen Van Dang, 1999). This programme has focused on commercial crops and industrial zones in the south-central provinces of Vietnam. In Quang Nam, the programme has yet to make significant impact.

The 661 programme

The origin of the 661 programme, or ‘five million hectare programme’ lies with the Decree 327 on infrastructure, forestry and land settlement of 1993-95. The 327 programme was modified by Decision 556 (1996-98) and was, as a result, orientated towards forest protection. The current 661 programme goal is for (a) forests covering 43% of the country (an estimated 5 million ha) and (b) poverty alleviation and resilient livelihoods. To achieve these goals, the 661 programme focuses on (a) the more effective protection of special use forests and watershed protection forests; (b) the economic regeneration of forests to meet domestic consumption and export needs of the wood-product industry; and (c) effective afforestation of communes with bare lands/hills to create more employment, increase income and reduce pressure on forests. The 661 programme is organised through provincial DARD’s. Contracts and land use certificates are issued to management boards (SFE, Nature Reserve, Watershed, etc.), and households.

The 133 programme (Settlement programme)

The 133 programme for hunger eradication and poverty reduction uses a top down approach. Activities are typically prescribed by central ministries, but the targets are often unclear and little budget support is provided for their implementation. Some 30% of the programme’s budget is used for the provision of credit through the Vietnam Bank of Agricultural and Rural Development (VBARD) and VBP (Vietnam Bank for the Poor). The components of most importance for conservation include:

- sedentarization, resettlement and new economic zones development (MARD);
- infrastructure development in poor communes and resettlement (CEMMA);
- promotion of agriculture and off-farm production (MARD);
- extension services for agriculture, forestry and fisheries (MARD);
- income generation (MOLISA); and
- assistance to ethnic minorities facing extreme difficulties (CEMMA)



The 135 programme

This programme aims to generate income and employment, improve infrastructure and build local administrative capacity in communes faced with extreme difficulties in mountainous and remote areas. At the national level, CEMMA has responsibility for the programme. It complements the Decree of Grassroots Democracy (Decree 29) which aims to foster participation of people in planning and decision making at the local level. The Programme originally identified 1,715 underprivileged communes as its target, but has revised the target upward to 1,878, or about 20% of communes in Vietnam.

Quang Nam programme on forestland allocation to ethnic minority household groups

Significantly, a draft provincial policy outlines a programme of forest land allocation to 'household groups' to be piloted in two locations, before being replicated province-wide by 2010, covering nearly 500,000ha. It offers a justification for working with household groups as a way to bridge the legal gap in allocation to village units. It quotes the 1993 Land Law Clause 3, Article 36, which states that in the case of a plot having more than one user, certificates of land-use rights will be granted to each organisation, household or individual user. This provincial programme has potential to be a positive vehicle for community-based conservation in the remote forested districts of Quang Nam. In the justification section, the draft document points to three key advantages of 'household groups' over individual household allocation:

- allocation of a large parcel of forest land as one unit, to a group of households, will guarantee impartiality because it includes different types of forest and land within the parcel
- decrease the individual's concern over loss of land through lack of heir for inheritance
- counter the problem of each household receiving a parcel that may be far or unsuitable for their needs or labour

The amount of land under the land law is limited to 30 ha per member of the group (i.e. per household) of forest, yet Quang Nam people's committee Decision 29/2001/QD-UB dated 25th June allows for 50 ha of 'forest land without forest', allowing for a larger area if some of the forest is, for example, to be used for swidden agriculture or plantation.

Results of questionnaires

To district officials

Question 1.1 Which national or provincial programmes or projects currently active in your district are most relevant to assisting the community in the conservation of natural resources and forest values?

This aimed to understand the district-level knowledge of policy and programmes related to communities, and any awareness of which are appropriate for conservation of natural resources..District representatives from the eight forested districts of Quang Nam province answered the questionnaire. Twenty responses were completed. A summary of active government programmes in each district is presented in Table 2.



Table 2: District implementation of Government programmes and provincial development projects.

Question 1.1a: Which national or provincial programmes or projects currently active in your district are most relevant to assisting the community in the conservation of natural resources and forest values?		
Nam Giang (5 reps)	Tra My (2 reps)	Hien (4 reps)
661 programme 327 programme Settlement programme Irrigation development project 135 programme 120 programme Clean water development project Agricultural extension activities	327 programme Settlement programme Tra My SFE Agricultural extension Red book land allocation to rural areas	661 programme 327 programme Settlement programme 135 programme 120 programme Irrigation development project Agricultural extension Clean water development project State Forest Enterprise reform Public administration reform project

Generally, district officials do not consider the red book land allocation to be a valid instrument for community-based conservation of natural resources. The lack of up-to-date knowledge of the different programmes is highlighted by the presence of the 327 afforestation programme, which finished in 1998, and was replaced by the 661 programme. Furthermore, the reassessment of SFE's and the provincial programme on forest land allocation to household groups, are not mentioned.

Commune leader Interview

Question 1.2 Which provincial programmes or projects are currently active in your commune?

The leaders of Tabhing, Tra Bui and Ba communes viewed the red book allocation as a priority issue. In contrast, the 661 programme is seen as an FPD project with little community involvement and of limited value so far.

Household interviews

Three questions were asked of households in each village in Tabhing, Tra Bui and Ba communes about red book certificates and forest protection contracts. In each village, the three households interviewed were of 'wealthy', 'average' and 'poor' income status. The questions were:

Question 1.3a Do you possess a red book certificate of land ownership? If so, for what type of land is it for?

Question 1.3bi Has your household been allocated a forest protection contract?

Question 1.3bii If not, would you be interested in a forest protection contract?

The results from households interviewed noted the following:

- In Tra Bui, no households have red books yet. All households expressed that they 'own' land, mostly inherited from their deceased relatives, or simply cleared from forest areas.
- In Ba, 269 households have received red-books according to the commune authorities. However, none of the interviewed households (30) had red books yet.
- In Tabhing, 8 out of 27 (30%) of households interviewed possess red books
- In Tabhing, all red books issued to date are for wet-rice fields.
- In Tra Bui, no households have received protection contracts for forests through the 661 programme. All households are interested in participating in forest management.
- In Ba, only 3 of the 30 households interviewed currently had forest protection contracts. Two were from the 661 programme, and one from Song Kon SFE. All contracts were for a mix of existing and plantation forest. The plantation forest for the SFE contract was of value (que trees) to the contractee.
- In Tabhing, one household has a forest protection contract, from the 661 programme. All households would like forest protection contracts.



OBJECTIVE 2

To analyse briefly ‘community’ in terms of the ideal unit for management of forests and forest resources, and to determine in turn the ideal community unit in the study sites in Quang Nam province.

Focus Group questions

Based on the assumption that the village is the community unit, focus groups were questioned in each village. This was to determine whether or not the village is an ‘artificial’ community unit; whether or not village boundaries conflict, and if so, to certify who the villages rely on to resolve such conflict, either the official or traditional authority.

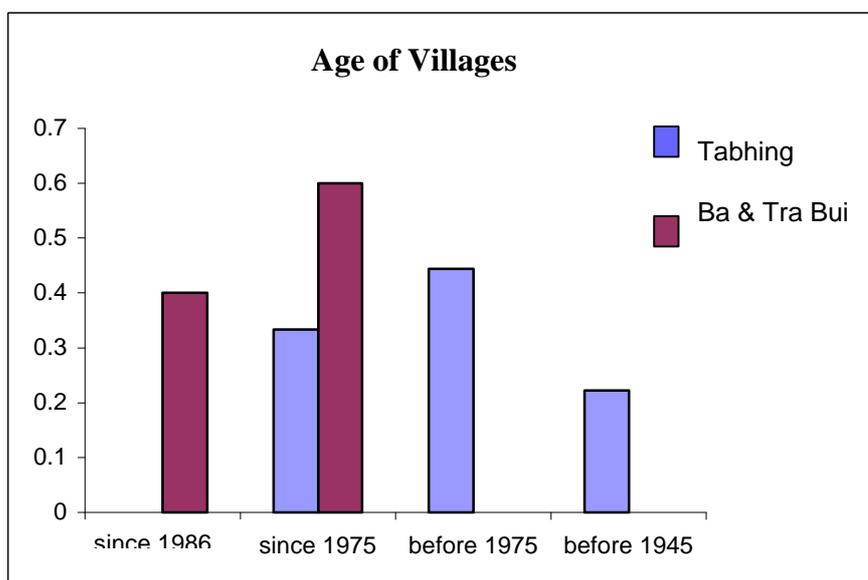
Age of Villages

Question 2.1.a How long has the village been using this location?

Four criteria were offered for the response – since 1986 (in the last 15 years); since 1975 (the date of reunification); before 1975; before 1945 (during the French colonial period). The responses were compared between communes. The aim was to measure the period over which the present village settlements have existed, given that the Ka Tu and Ca Dang and Mo Nong are traditionally nomadic (Nguyen Lam Thanh 2001) and due to the social upheaval caused by the French and American war periods.

Villages in Tra Bui and Ba are more recent settlements than Tabhing. In Tabhing, two villages, Pa Rong and Thon Vinh date back to the French colonial period, whilst all but Zara and Pa Xua were using their present site during the American war (pre-1975). In contrast, all the settlements in Tra Bui and Ba were officially created after the liberation in 1975.

Figure 1 Proportion of responses to length of village use of present site





Delineation of village boundaries

Question 2.1.b Are the village boundaries traditional or administrative units?

All Village boundaries in Tra Bui and Ba are 100% administrative, whereas three out of six villages in Tabhing have traditional boundaries. Hence, most villages in the communes are demarcated along administrative lines. When comparing the three communes, future study should determine whether the administrative boundaries actually follow traditional village borders.

Conflict between villages

Question 2.1.c Is there any conflict with neighbours over village boundaries?

This aimed to determine the extent of the community unit, based on the assumption that the community unit is within village boundaries. The village results were compared. In Tra Bui commune, focus groups did not mention any conflict with neighbouring villages. In Ba commune, however, conflict over land area was mentioned by Thon Eo and Thon 5. In Tabhing conflict between Zara and Pa Va was apparent, and between Ca Dang and Pa Ia.

Settlement of disputes with other villages

Question 2.1.d Who is approached to settle land disputes with other villages?

To test whether villages rely on the state administrative structures, or use their own internal conflict resolution bodies, response options were a) individuals b) village group c) village leader d) commune leaders e) other.

Seven out of nine villages in Tabhing rely on the commune to settle inter-village conflicts. Similarly, in Ba, all villages rely on the commune to resolve conflict. The State structure is therefore relied upon to resolve conflict between villages in these communes. However, in Tra Bui, the commune was not identified as the best authority - all villages said that the village leaders can resolve any conflict between villages.

Clearance of land by neighbouring villagers

Question 2.1e Under village regulations, are members of another village permitted to clear forest or agricultural land within the village boundary?

Six out of nine villages in Tabhing commune did not allow access to forest and agricultural land within their boundaries for clearance by members of other villages. In contrast, all villages in both Tra Bui and Ba refuse access to land with regards their neighbouring villages.

Access to forest resources by neighbouring villages

Question 2.1.f Are members of another village permitted to access local forest resources?

Four categories of response were offered, comprising: a) None b) fugitive resources only c) all resources except timber d) Full access. This measured the extent of access to forest resources permitted to members of another village, and the degree to which forest resources are seen as part of village community property. Responses were compared between communes.

In Tabhing commune, seven out of nine of villages permit access to all resources except timber, while two out of nine permit the collection of fugitive resources only. In Tra Bui and Ba, however, all villages allowed harvest of all resources except timber by their neighbours.



Access to forest resources by outsiders

Question 2.1.g Are other outsiders permitted to access local forest resources?

Four categories were offered, comprising: a) None b) fugitive resources only c) all except timber d) Full access. The access permitted to outsiders gave an indication of the perception of forest resources as part of the local villages' property. Responses were compared between communes.

In Tabhing commune, seven out of the nine villages did not allow outsiders to access forest resources, whilst two villages allowed fugitive resources only. In Tra Bui, all five villages deny access to outsiders for any forest resources. In Ba commune, the villagers are more permissive, especially the Kinh villages, where six out of ten villages permit outsider access to forest resources.

Individual interviews to household members providing income, gender and age gradients.

These three questions built on the focus group responses, but aimed to assess responses along different gradients. Questions concerned internal village issues, rather than village-to-village or village-to-commune level. The responses required were individual, without the influence of other members of the village or household to prompt or pressure, as may happen within a focus group.

Conflict within villages over land

Question 2.2a Is there any conflict within the village over land use or property?

The incidence of conflict within each village is negligible in Tabhing and Tra Bui. However, in Ba, there is a higher number of mixed-ethnic villages, where conflict within the village is apparent in three out of ten villages.

Conflict within villages over forest resources

Question 2.2b Is there any conflict within the village over forest resources?

The incidence of conflict within each village is negligible in all three communes. All villages 'share' forest resources, they are not seen as 'owned' by any particular group. However, in Tra Bui, there is a tradition to reserve trees, which does suggest 'ownership' of certain resources (see 'tree tenure' below).

Settlement of disputes within villages

Question 2.2c Who do you approach for resolving disputes within the village?

The Ka Tu, Mo Nong and Ca Dang traditionally rely on village elders for minor conflict resolution (Nguyen Lam Thanh, 2001). This question tested this assumption to gain an understanding of power and responsibility within the village between traditional and administrative units.

Ca Dang village in Tabhing has its own 'village army', a group of household representatives who hold council on village issues. Other villages in Tabhing prefer the village leader to resolve disputes. Similarly Ba and Tra Bui communes preferred to village leaders. Furthermore, no responses in either commune were recorded favouring the commune level to resolve conflict within villages.



OBJECTIVE 3

To gain an overview of the relationship between community and forests, to determine in turn the current level of forest resource use and how this relates to the community unit.

Questions for village focus groups

Special areas of village forest

Question 3.1ai *Are there any special areas of forest in the village? i.e. sacred, cemetery?*

If villages have areas of forest under local regulation or traditional use rules it may shed light on the relationship between the community and local forests.

Question 3.1aii *Which laws or traditions are appropriate for this forest? who do they apply to?*

For any village with a positive response to question 3.1ai, specific details were collected.

There is only one village in Tabhing, (Thon Vinh), and none in Ba, with any special area of forest. Thon Vinh has a sacred area of forest called *Krung Bhru*, meaning ‘Sky forest’, dedicated to the spiritual essence of the village. Trespass is forbidden, as is all extraction, clearance for agriculture or any form of direct disturbance. It is about 50ha in size, but has lost a section to recent road construction by the district. The taboo states that any violators will fall ill, and bad luck will fall on their household and their village.

In Tra Bui, however, three of the four villages have a ‘cemetery forest’, in which trespass is forbidden. All the villagers are aware of this restriction, and extreme bad luck will come to anyone who violates the areas.

Freshwater and forest resource availability

Question 3.1b *Are there more, less or the same amounts of freshwater resources available than 5 years ago?, and;*

Question 3.1c *Are there more, less or the same amounts of forest resources available than 5 years ago?*

In Vietnam, fish are an important part of diet. The assumption is that a lack of freshwater resources increases dependence on forests for nutrition. Present forest resource availability compared to previous abundance is also important to consider.

Compared to five years ago, less freshwater resources and forest resources are available in all villages in all three communes. Of interesting note, respondents in Tabhing were anxious to point out the damage caused to local streams by spill from recent road construction. Furthermore, in Tabhing, illicit, small-scale gold-mining upstream was blamed for the recent decline in fish species. No information on causes for the reduction of forest resources were freely given.

Preferred animal species for local use

Question 3.1di *Rank the preferred animal species for local use from the forest?*

Data were collected on forest animal preference for use by each village in the two communes to measure the variety and type of animals used. Villager focus groups ranked their selected species according to their preference. The value obtained was divided to obtain a proportion of preference among exploited species.

The 23 villages across the three communes use a wide range of quarry species, ranging from bamboo rats, squirrels and other small game, to sambar, muntjac and wild pig. Also on the list are primates and civets. Nevertheless, there were differences between villages in the preferred prey. In Tabhing, the variety of species hunted was highest, with Tra Bui showing a similar range. In contrast, Ba commune villages rely on a limited variety of species, mostly rats, squirrels, birds, wild pig and muntjac.



Preferred animal species for trade

Question 3.Idii Rank the preferred animal species for sale from the forest?

Data were collected on forest animal preferences for sale by each village in the two communes to measure the variety and type of animals traded. Villager focus groups ranked their selected species, as above. A statistical analysis using Principal Component Analysis (PCA) allowed for further interpretation. PCA numbers were calculated for a group of species according to the frequency of selection by each village. Villages could then be plotted along three PCA axes of a graph, according to their animal preference. The further a village from the PCA number for each species, the less likely the villagers are to trade that species. Conversely, the closer the village position on the graph to the PCA value for a species, the higher the probability of sale. This allows for an instant evaluation of villages in each commune, and comparison between communes.

Ba commune did not admit to sale of any animal species. Whether this is true, or a limitation in the survey, is unclear. Certainly they use less forest animals than the other two communes. Two villages from Tra Bui, and one from Tabhing did not select any species for sale either.

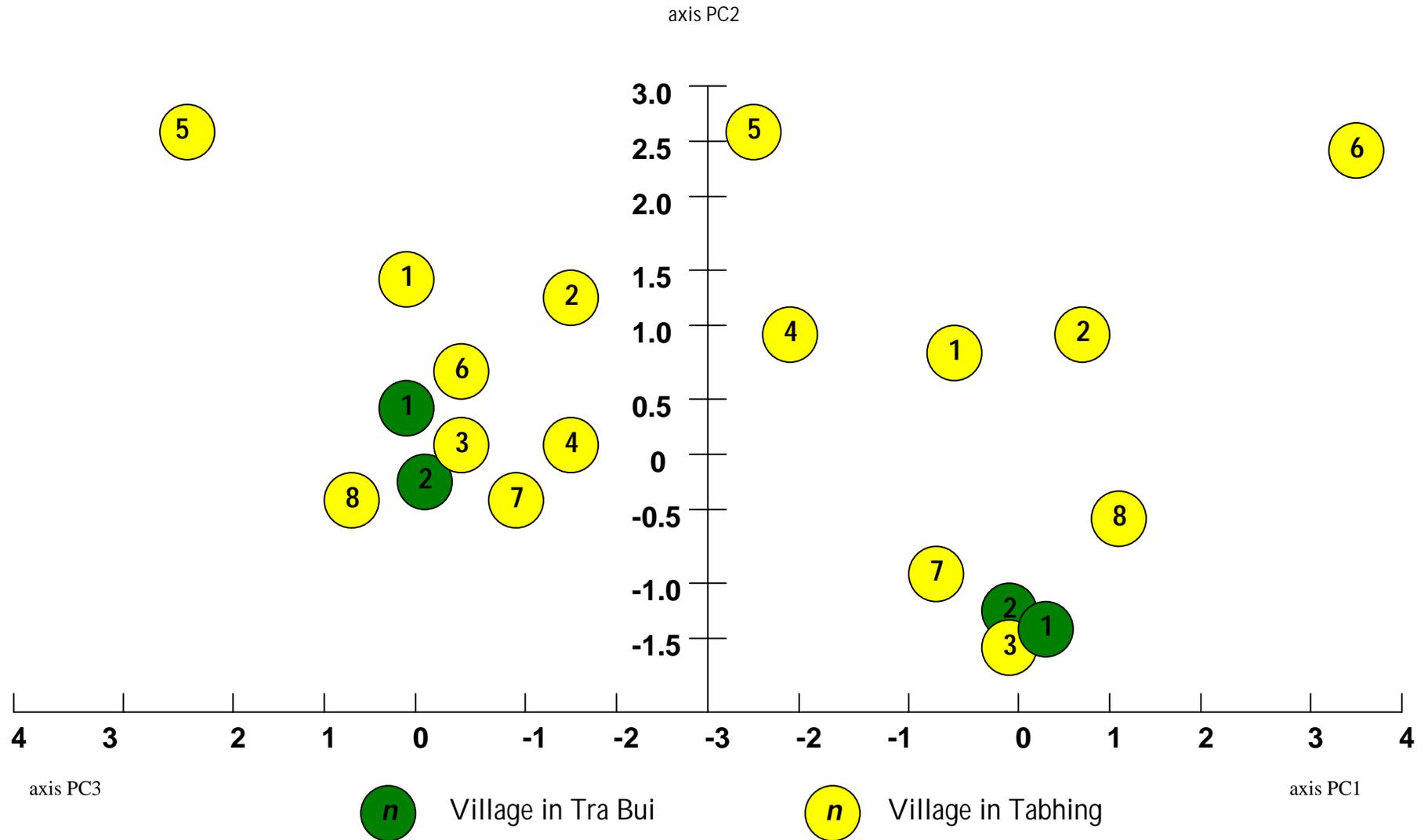
The remaining eight villages from Tabhing and two from Tra Bui were compared using the PCA, shown in table 3. Three 'components' measure and compare preference for sub-sets of species. The closer the value from each village to the value for a species, the more likely the village sell that animal. The villages in Tabhing had a wider range of species for sale, ranging from wild pig to bear, pangolin, civets, primates and turtles. In contrast, in Tra Bui there is a heavy preference for wild pig, as can be seen by the position in figure three with regards the low score of wild pig on the PC2 axis. The three axes of the PCA showed a variety of preferences within Tabhing commune. Of note, Pa Rong village (number 5) has a marked preference for selling bears. (Figure 2)

Axis / species	PC1	PC2	PC3
Pangolin	-0.45	0.34	
Civet	0.48	0.36	
Primates	0.46	0.31	
Sambar	0.35		
Wild pig		-0.54	
Bear		0.41	0.40
Cobra			-0.43
Turtles			-0.55
Birds			0.43

Table 3: Principal Component Analysis (PCA) of villages in the Tabhing and Tra Bui for sale of preferred species. If the result for each commune is close to the PC figure, this shows a preference for sale of that species. Compare the figures with the village positions on figure 2.



Figure 2: PCA of 10 villages on preferred animals for sale.





Hunters

Question 3.1e *What proportion of the village go hunting?*

In Tabhing, hunting is a more common activity amongst village households than Tra Bui or Ba.. Tabhing commune has a mean proportion of hunters of 16% compared to only 7% in Tra Bui and 2% in Ba.

Tree tenure

Question 3.1f *Can you reserve a tree near maturity in the local forest for your own use or production?*

If villagers reserve trees, the assumption is that local forest is subject to regulation and *de facto* community proprietorship of land and / or timber resources.

There are significant differences in tree tenure between the communes. Tra Bui has a higher incidence of tree reservation than Tabhing, yet Ba does not register any. However, wealthy and medium income households are more likely to reserve trees in both Tra Bui and Tabhing communes than poor households.

Important forest products for local use

Interviews to individual household members

Question 3.2a *What are important forest products for use, in the following use categories: medicine, food, sale, construction, tools, tradition/ornamental, other.*

An assessment was made of the extent, type and frequency of non-animal forest products used by individuals in each commune. Village leaders and up to four individuals from each household were questioned. Products were placed into groups, such as ‘fruit’, ‘timber’ and ‘vegetables’.

A comparison of variety of species used for each commune shows that Tabhing has a higher level of use of a wider range of products. The ‘construction’ category has noticeably higher values for all communes. Generally, Ba shows a lower variety and use of non-animal forest products. See Appendix 2 for the full list of products used. Of note, all communes sell *uoi* fruit (*Scaphium lynchophorum*), which belongs to the *Steruliaceae* family. The seeds of this tree are eaten and used to make juice and alcohol. Villagers in Tabhing were observed to sell *uoi* for 10,000 Vietnam Dong per kilo, between July and August when in season. In Tra Bui, the price was 15,000 – 20,000 per kilo. This compares to a price of 50,000 – 60,000 per kilo in A luoi district, 100km north in Thua-Thien Hue province (Le Trong Trai, 2002).



OBJECTIVE 4

To document the community's perceived needs and challenges in terms of forest land and resource use, and determine in turn local perspectives on forest resource management.

Question for village focus groups

Survival of Traditions

Question 4.1a Will traditional skills and customs in the village survive the next generation?

Traditional skills and institutions provide a foundation for community-based conservation. This question aimed to discover the perceived loss or resilience of local traditions. All villages in Ba claimed that traditions are already weak and many will not survive the next generation. In contrast, in Tabhing, seven out of nine villages claim that their Ka Tu traditions will survive. In Tra Bui, all villages were confident in their traditions' persistence.

Interviews with individual household members providing income, gender and age gradients.

Local forest resource management

Question 4.2a Who should be responsible for managing local forests?

Six categories of response were offered, comprising: a) households, b) village committee c) village leader d) commune PC d) FPD e) other.

41% of Tabhing responses preferred village groups as the best unit for forest management, compared to only 15% in Ba and none in Tra Bui. Conversely, 40% of Ba gave positive responses for FPD management, compared to 15% from Tabhing, and none in Tra Bui. Approximately 20% of respondents in all communes preferred the village leader. Interestingly, Tabhing commune did not particularly favour the household as a forest management unit, whereas Ba showed a 40% preference for household management. However, Tra Bui showed a high (75%) preference for households as management units, individually or in groups, as the ideal forest management unit. This strongly favours the PPC pilot programme on forestland allocation to household groups in both Tra Bui and Ba, but not necessarily in Tabhing.

Important Village Issues

Question 4.2b What are the most important village issues according to your household?

A list possible village issues, identified during the testing of the methodology, were presented to each household (three in each village). For each of the problems, a ranking of 0 to 5 was given by the household, where:

- 0 = no issue to this household
- 1 = a minor issue affecting the household
- 2 = an occasional or unworrying issue affecting the household
- 3 = a moderate issue affecting the household
- 4 = a pressing or regular issue for the household
- 5 = a serious issue

Respondents were invited to add any additional problems if not already listed. In order to compare communes, the household rankings for each issue were totaled, and then divided by the maximum ranking value possible. This gave a value between 0 and 1.0 for each issue, noted as the problem-ranking score.



'Outsiders' accessing local resources ranked as the most pressing problem to Tabhing commune, but as a mild problem to Tra Bui, and a minor issue in Ba. Both Ba and Tra Bui agree that the most serious issue in their villages is the lack of education opportunities for people in both communes. In Tabhing, this issue was hardly mentioned. Irrigation, lack of capital and crop raiding by animals are all high priority issues for the three communes. Other problems in Tra Bui include a lack of market outlets for goods, a low sale price and a comparatively high price for essential goods. Furthermore, electricity is needed and the commune suffers from a lack of entertainment! In Ba commune, agricultural issues were highly ranked - a lack of fertilizer, animal and crop diseases, and a shortage of seeds. Both Ba and Tabhing ranked hunger as a problem in certain months of the year. Other issues in Tabhing included lack of health care, and agricultural issues such as a lack of land, and the general poor condition of the land. Interestingly, one problem receiving very few responses at all, was the lack of community cohesion. Indeed, in all three communes, the community is seen as very much as an alive and vibrant institution. It should be noted that Tabhing and Ta Bui were more homogenous in responses between villages, as the low scores for certain problems can be seen. In Ba, the differences between villages were more pronounced, hence the more even ranking scores.

TABLE 4: Ten most serious, and five least serious, issues affecting villages in three communes

Ranking	Tabhing	Tra Bui	Ba
1	<i>Outsiders take forest resources (0.82)</i>	<i>No education opportunities (0.93)</i>	<i>No education opportunities (0.91)</i>
2	<i>Lack of capital (0.81)</i>	<i>No market outlet (0.91)</i>	<i>Lack of capital (0.77)</i>
3	<i>Animals eat crops (0.78)</i>	<i>Lack of irrigation (0.89)</i>	<i>Animals eat crops (0.73)</i>
4	<i>Lack of agricultural land (0.75)</i>	<i>No entertainment (0.85)</i>	<i>Hunger (0.73)</i>
5	<i>No electricity (0.73)</i>	<i>Animals eat crops (0.83)</i>	<i>Shortage of seeds (0.71)</i>
6	<i>Lack of adequate health care (0.74)</i>	<i>Lack of capital (0.83)</i>	<i>No fertilizer (0.70)</i>
7	<i>Poor condition of agricultural land (0.72)</i>	<i>No electricity (0.82)</i>	<i>Crop diseases (0.70)</i>
8	<i>Human diseases (malaria etc) (0.70)</i>	<i>Animal diseases (0.79)</i>	<i>Lack of irrigation (0.70)</i>
9	<i>Lack of irrigation (0.69)</i>	<i>Low price for selling goods (0.77)</i>	<i>Lack of clean water (0.69)</i>
10	<i>Hunger (0.68)</i>	<i>Essential goods are expensive to buy (0.77)</i>	<i>Need more classrooms (0.68)</i>
-1	<i>Lack of community cohesion (0.25)</i>	<i>Traditional skills are being lost (0.27)</i>	<i>Lack of transport/roads (0.44)</i>
-2	<i>Forest resources are hard to access (0.17)</i>	<i>Traditional institutions not needed (0.25)</i>	<i>No market outlet (0.42)</i>
-3	<i>Traditional skills are being lost (0.13)</i>	<i>Teachers absent from schools (0.08)</i>	<i>Essential goods are expensive to buy (0.39)</i>
-4	<i>Teachers absent from schools (0.08)</i>	<i>Poor condition of the land (0.04)</i>	<i>Lack of community cohesion (0.38)</i>
-5	<i>Too much work to do (0.06)</i>	<i>Lack of community cohesion (0.00)</i>	<i>Teachers absent from schools (0.35)</i>



DISCUSSION

This section will discuss the research results in terms of the aims and each objective.

1. Legal options to support community-based conservation

Land Management and Red Books

The Land Law of 1993 is less than a decade old, yet has many directives still revising and guiding its implementation. While red book land allocation has been widespread for lowland agricultural areas, red books are scarce for the remote, mountainous areas such as Tabhing, Tra Bui and Ba. Red books give the household owner the 'five rights' of exchange, lease, transfer, inheritance and mortgage. They also give security for the owner to access credit. However, the procedure to obtain a red book land-use certificate is complicated and involves a substantial amount of registration, demarcation and documentation. For many remoter communities, the process is poorly understood, and district officials do not have the capacity and motivation to carry out allocations in such areas. For red books for forest land, the allocation procedure requires much departmental co-operation, which further complicates the procedure and distances communities. Red book allocation has marked relevance to community-based conservation in Quang Nam. The 'five rights' back up the legal proprietorship of land units. With these rights established, the next step in terms of community-based conservation is to identify the ideal recipient of the red books and the level of that unit whether individual, household, group, management board, village or commune. The provincial pilot programme offers a great opportunity because the 'household groups' allows for flexibility in membership, which can be tailored to match each community unit. This is essential, as each community unit may be different size and dynamics from their neighbours.

State Forest Enterprise Reform and Decision 187

The SFE reform following Decision 187 presents an opportunity for 45,525 ha of forestry land in Quang Nam to be allocated to local ownership. There is a clear chance for community-based conservation strategies to be adopted in this allocation process. However, the suitable management unit again needs to be designated, based on the most appropriate unit for each site. The current delay in re-allocation underlines the lack of capacity and financial resources to take on this sizeable re-allocation. Another key point for discussion is the creation of the new ministry for environment and natural resources. The responsibilities for sector agencies for forest protection, protected area management and forest production previously under MARD are certain to be revised.

Resource Management and Decision 08/2001

The legal implications of Decision 08/2001 are two-fold. On the one-hand, the guidelines for protected area and special-use forest are clear, and there is a current desire in Quang Nam to expand the protected area network. In particular, the new category of 'species and habitat conservation area' has given rise to interest in species-specific protected areas for douc langur, saola and elephant, following examples elsewhere in Vietnam (Mai Dang Khoa *et al.* 2002). However, Decision 08 also has implications for resource use. Little consideration is given to local situations and there are no exclusion clauses. The decree negates community rights to extract resources from any area of special-use forests. Furthermore, limitations on buffer zones reduce the possibilities for collaborative arrangements. The prescriptive measures leave little room for adaptive management at site level. This effectively reduces opportunities for contractual arrangements and collaborative management concerning any new or established protected areas in Quang Nam.

Resource use is very problematic, as the results of question 3.1di and ii show. Villagers surveyed use species such as wild pig and muntjac regularly for both consumption and sale. Decree 18 on protected



species contains most forest animals exploited by the surveyed communities. As such, the legal avenues for sustainable harvest of these species may remain closed. Whilst hunting of many of Quang Nam's rarer species is threatening local extinction of species such as the saola and douc langur, other species such as wild pig can support limited hunting. The hunting restrictions reduce the legal benefit opportunities available to community-based conservation agreements, whilst *actual* extraction continues unchecked. Furthermore, a problem identified by all three communes was crop raiding, which from track observations² during the research, show wild pigs to be the key culprits.

Government Programmes

The Settlement and 135 programmes are mostly beneficial to ethnic minority communities in terms of food security and local development. However, in all three surveyed communes, but especially in Tabhing, development support was seen as lacking. These programmes could support community-based conservation activities in terms of capacity and technical support for collective activities. On the other hand, the continued policy of settlement, resettlement and 'new economic zones' could worsen conflict over forest resources. The 661 programme offers potential for community-based conservation due to the statements concerning forestry as a 'contribution to socio-economic development', including job opportunities, food security and income generation. However, at present the forest protection contracts are offering a short-term, and unattractive sum as an alternative incentive to actual use rights and benefit. Furthermore, the contracts are only available to households. As the contracts are also short-term, so is the protection benefit. Even so, implementation of the 661 programme has the potential to support collective action and community-based forest management through financial, technical and enforcement support, assisting in developing the capacity of community management units.

Of important local significance is the Quang Nam provincial programme on forest land allocation to ethnic minority household groups. This programme, under the plan for the re-allocation of SFE forests, offers a good opportunity for community management of forests. Specifically, the pilot programme aims at differential levels of ownership. 'Household groups' can include an appropriate unit of members for the management of a forest unit, also sharing decision-making powers and benefits from that unit. It also side-steps the lack of legal framework for allocation to villages. However, the document needs to give more scope for the type and responsibilities of the management required by the group. As a pilot scheme, there is room for development of the procedure. It potentially gives an opportunity for allocation of forest land to a collective unit matched to the scale of proprietorship and within sound ecological parameters.

² Track identification based on Pham Nhat & Nguyen Xuan Dang (2001)



Table 4: Policy and programmes to support or challenge key attributes of community-based conservation

Attribute of CBC	Law / programme	Opportunity?	challenge?
1. Clear boundaries	Quang Nam allocation pilot	Household groups can decide who is or is not included, and tailor boundaries of land as required	
2. Focused benefit value	Decree 18		Most quarry species for both sale and use are banned under decree 18
	661 programme	Guiding principle of the 661 programme is households as beneficiaries of forest protection.	
	'five rights'	Red books give clear rights of proprietorship of land	
3. External support and involvement	661 programme	Comprehensive goals of capacity building for household-level management and economic incentives for protection contracts	
	Settlement programme	Focused interventions on income generation and production skills, capacity building.	Threat of resettlement and segregation of communities from forest resources
4. Environmentally conservative use rules	Decree 18		Whilst most quarry species are banned, the impracticalities of enforcement result in uncontrolled exploitation levels
	Decision 187	Limits on wood and timber collected from protection forests	
5. Clear use rules	Decision 245		Complicated use rules for forest land, especially in terms of extraction and monitoring
6. Fair distribution of decision-making and resource use rights	Quang Nam allocation pilot	Household groups allocated max. 50ha per member, benefit rights equal	
	Decision 178	Decision supports benefit-sharing agreements between households and SFE's	
7. Inexpensive and rapid methods for conflict resolution	State executive framework		Commune the lowest executive unit for conflict resolution
	Decision 245, Decision 08, Decision 187		Complex and conflicting rules on forest management and use makes conflicts difficult to resolve. Confused sector responsibility for conflict resolution, especially with new MoE
8. Unit of proprietorship as the unit of production, management and benefit, and	Quang Nam allocation pilot	Flexible and adaptive scale for proprietorship to household groups	
9. The management unit within ecological and socio-political parameters	Decision 08		Benefit from many quarry species officially illegal, which creates a gap for legal unit of management and benefit.
10. Users have a low discount rate	661 programme	Programme could support a variety of capacity building to improve production skills, environmental awareness, and combine with other factors to keep high incentives for users	



2. The ideal community unit for forest management

For Tabhing and Tra Bui, the ideal community unit for forest management appears to be based more on ethnic and familial lines than on land, village or administrative ties. This is backed up by the short history of land use and settlement by villages in both communes. Tabhing and Tra Bui have an open-access regime for forest resources, for members of the same commune – in both cases, for those of the same ethnicity. However, this becomes ‘closed access’ to outsiders, in both communes. Results also showed no significant conflict within villages for either land or forest. In Tabhing, the small incidence of conflict between villages may be accounted for the staggered length of settlement between villages within the commune, whereas in Ba, this is due to the mixed ethnic populations within villages. In Tra Bui, there was no such conflict between villages. The one clear community unit for forest management is the ‘village army’ of Ca Dang village in Tabhing. This village group has an identity within the village, and was the chosen conflict mediator by all households interviewed in that village. However, for other villages, the ideal unit may or may not be contained within the village, but may be a group within or between villages – The ‘household groups’ offers a flexible solution to this for land and resource devolution.

3. Resource use and the community unit

The analysis did not show any marked differences between Tabhing and Tra Bui communes in terms of their use of forest resources, whereas Ba rely comparatively less on the forest for subsistence or economy. However, Tabhing villagers appear to use the forest more often, for a wider range of activities, and have a higher proportion of users – especially for hunting. The Ka Tu, Mo Nong and the Ca Dang use a variety of animal and other forest products, even if only 7% of Tra Bui claim to be hunters. Whilst Thon Vinh village, Tabhing, described their traditional sacred forest, and the taboos associated, it is interesting to note that in Tra Bui, a high proportion of interviewees had previously reserved trees in the forest, suggesting a functioning institution governing tree tenure, perhaps extending to other resources too. Of further note was the incidence of wildlife trade in Tabhing, with species such as pangolin, bear and primates being traded – all of which are generally for the medicine trade rather than for meat (TRAFFIC 1993).

4. Local perspectives on forest resource management

Village traditions in Ba were not expected to outlast the next generation, whereas Tabhing and Tra Bui were more optimistic. However, there were few traditions mentioned that related to forest management, other than the Thon Vinh sacred grove. Indeed, in terms of forest management, Ba commune respondents were divided in their opinion of the best unit for forest management, with a number of respondents favouring the FPD as the best management unit. Similarly, there was no clear consensus within Tabhing, but a sizeable proportion – not only from Ca Dang ‘village army’ – were in favour of a village collective group managing forests. Households, as favoured by the 661 programme, were not considered as suitable management units by Tabhing villages, whereas Tra Bui support the household strongly. Except for Tra Bui, most villagers similarly lacked confidence in the village leader. This may be due to a number of reasons – communities may prefer a committee above investing management responsibility in an individual, hence the rejection also of individual household management of forests (Tran Ngoc Lan *et al.* 2000). However, it is also significant that Tabhing and Tra Bui rank outsiders taking local resources as a very serious problem facing each commune. In this light, a village committee, or ‘village army’, may have more power to exclude outsiders from access to local forest.



Table 5: Opportunities for community-based conservation in Tabhing, Tra Bui and Ba communes

Attribute of CBC	Tabhing	Tra Bui	Ba
1. Clear boundaries	Locals from all villages have a clear identity with forest resources, so to define boundaries of managed areas would be feasible. Membership of a unit is less easy, but given the example from Ca Dang's village army, and the preference of a collective unit to manage forest resources, it should be possible.	As there are no conflicts between villages in Tra Bui, and a clear identity with forest and resources (such as tree tenure), clear boundaries can be designed. Also, the village prefer a collective unit, such as a household group, to manage the forest. This means the management unit can be simply identified	The low level of dependence upon forest resources, the mixed ethnic villages, and incidence of conflict between villages makes boundaries more difficult to define. Furthermore, forest resources are seen as open access. However, there is a good chance to define membership of management units along household group lines.
2. Focused benefit value	Current benefits from the forest are valued for many forms of use, including economic gain through sale, particularly of wildlife. This may be a hindrance to legal management and benefit sharing. However, it gives a good opportunity for benefit sharing from products such as uoi and honey.	Current benefits are mostly from non-animal forest products. There exists a good opportunity to focus benefit to members of management units, especially for certain medicinal products (san nhan) and products such as uoi and rattan	Benefits from the forest are currently low and focused on timber, much of it illegal. Alternatives would have to be devised, most likely through plantation of products such as cinnamon and tea, as well as limited NTFP harvesting
3. External support and involvement	The commune leadership and FPD would have to collaborate to effectively establish any community-based property regime. Similarly, the relevant district departments of the PC would need to provide support. The problem of outsider access will need official enforcement support.	Again, local authorities at district level would have to collaborate with villages and commune to effectively establish any community-based property regime. The problem of outsider access will need official enforcement support.	District authorities can easily support Ba, as access and infrastructure, and a strong commune leadership allows for effective support. Conflict between villages and ethnicity over perceived benefits is an issue that will require external support
4. Use rules should be environmentally conservative	All resources, both forest and freshwater, are in decline. There is also a high level of hunting and forest resource use. Imposing conservative rules on harvest will require coercion.	All resources, both forest and freshwater, are reported as in decline. There is also a high level of hunting and forest resource use by local communities. However, conservative rules on harvest can be achieved due to the low population.	Forest resources are already depleted, and fish stocks reported as less. Most products are already being over-harvested. Therefore, to impose conservative rules may be difficult without offering alternatives, such as plantation crops, whilst NTFP stocks recover.



5. Use rules must be clear	There already exist traditions and institutions with clear rules in the commune (i.e. Thon Vinh sacred forest). One issue is the current open access policy to other Ka Tu people in the area. Furthermore, outsiders are a key issue	Use institutions already exist concerning tree tenure, so a framework may exist already for developing clear use rules. The question of enforcement, especially with outsiders, would require official backup (FPD).	Use rules can be effectively developed through local participation - the mixed ethnicity needs to be overcome and suitable rules established for each management unit. Enforcement needs external support.
6. Fair distribution of decision-making and resource use rights	Depending on the group and area in question. Further study would be necessary.	Depending on the group and area in question. Further analysis would be necessary.	Clearly, the mixed ethnicity of certain villages will make any benefits difficult to be seen as 'fair'. Further study would be necessary
7. Inexpensive and rapid methods to solve conflict	Currently, there is a division as to the preferred unit to approach for conflicts within and between villages.	Although the village leaders were the preferred unit for conflict resolution, an appropriate framework would need to be devised within the community, probably with the CPC or DPC.	Strong commune leadership, but the incidence of conflict within and between villages in the commune may cause problems. An appropriate framework would need to be devised including external authorities.
8. Unit of proprietorship should be of production, management and benefit	The Quang Nam PPC allocation programme gives more flexibility for different scales of management unit with household groups. If the pilot is successful in Ba and Tra Bui, Tabhing could benefit from the replication.		
9. The management unit should be within ecological & socio-political parameters	Both ecological and socio-political parameters need to be assessed. Local perceptions and awareness need more research, and full participation of communities is essential in developing the forestland allocation programme		
10. Users have a low discount rate	Current discount rates may be fairly high. Long-term economic and ecological benefits need to be assessed and advertised to raise the awareness of communities about protection strategies to gain future benefits above present gains.		



CONCLUSION AND RECOMMENDATIONS

Conclusion

Possession of a red book land certificate, and the five rights it carries, provides the user or user group with secure rights of management and benefit from the land. Certificates for forest land are therefore a firm opportunity for sustainable conservation of local forest resources. However, in most rural areas of Quang Nam, including the study sites, red books have only been given for paddy fields. This is due to the ease of identifying and measuring paddy areas, and also due to the policy of settlement for ethnic communities in the *Truong Son*. Shifting agriculture and hill rice are seen as unproductive and environmentally unsound, and the rotation necessary is misunderstood by authorities who see it as contrary to policies of fixed settlement and development.

Red book allocation will therefore continue at a slow pace, unless there is a concerted mobilisation in the remoter districts, and a simplified and easily understood process for achieving the red book. This is especially pertinent for forest allocation. The procedure for drawing up the certificate is further complicated by the need for forest density and species inventories, as well as difficult terrain and unclear boundaries for forest land. The provincial pilot programme on forest allocation to household groups has great potential, especially if it considers some issues of official capacity and allocation procedure, and if it places attention on the management mechanics of the area once it has been allocated. Household groups need support to develop suitable management and benefit sharing arrangements. The large forest area to be reallocated following the Decision 187 SFE reform is an opportunity for wide-scale local governance of forest land across the province, and the authorities need to focus on these management issues at the local level as a priority to avoid unmanaged open-access to these vital areas of forest.

Overall, there are good opportunities in Quang Nam for policy support to community property regimes through the 661 programme, Decision 187 and in general, the CEMMA programmes for ethnic and rural communities. However, the provincial plans for increased protected area coverage to include key charismatic species and habitat coverage, should proceed with caution due to the restrictive resource access rights prescribed under Decision 08, especially concerning buffer zones. Tabhing, Ba and Tra Bui, who display a marked use of a variety of forest products, could lose their resource rights entirely if either area falls under a new protected area.

In terms of community, there is no prescription for the unit of proprietorship or management that covers the complex institutional dynamics within the studied communities in Quang Nam. In Tabhing, Tra Bui and Ba, local forests are open-access to a wider usership, including a group of communities or clan, yet are mostly closed to outsiders. However, The *actual* situation is that outsiders are viewed as the most serious village issue in Tabhing and Tra Bui study sites. In order to redress this, power of exclusion and enforcement must be devolved to communities, with external support from FPD and other authorities in preventing outsider access.

One example of a potential community-managed resource is the harvest and sale of *uoi* fruit by communities as a focused benefit of managed forest units. There is generally a great potential and need for sustainable management of forest resources amongst communities in Quang Nam. Certainly, the local and political will exists in Quang Nam for indigenous community management of forest land and resources. However, for the wider central *Truong Son*, the question of political will depends on each provincial authority.

The pilot programme on forestland allocation is a positive initiative with strong potential for protecting Quang Nam's vital forest resources, and thereby maintaining a sustainable platform for socio-economic development. The programme needs to focus on defining clear, adaptive and complementary strategies for building the management capacity of household group units once the allocation has been achieved. This is the main challenge to the success of the programme. Without efficient management, the sustainability of the programme will fail.



RECOMMENDATIONS

Recommendations To MARD, the MoE and the national FPD, with regards national policy:

- Review Decision 08 to include adaptive management options for communities to participate in collaborative management and resource use in and around protected areas;
- Re-direct the focus of the 661 programme to match the reforestation component with support for management capacity for local communities;
- Revise the procedure for red book land allocation for forest areas and define the legal status of villages as management units, to bridge the gap between ‘household’ and ‘commune’ for land tenure; and,
- Clarify the new MoE responsibilities and line management.

Recommendations to the Quang Nam PPC:

- Allow for full community participation in the development of new protected areas;
- Raise the capacity of district officials in the procedures of red book land allocation;
- Mobilise district officials and communities to accelerate the red book allocation in rural areas;
- Ensure the pilot forest allocation programme includes management support for recipient household groups;

Recommendations for PPCs and WWF MOSAIC project, with regards local communities in the central *Truong Son* region, including Quang Nam:

- Conduct participatory research into community institutions, forest resource use and potential for community-based conservation approaches; and ,
- Develop strategies based on solid participation of all stakeholder interests

Recommendations for the Quang Nam PPC, DPCs, CPCs and FPD, as well as the WWF MOSAIC project, with regards Tabhing, Tra Bui and Ba:

- Recognise ‘village protection teams’ as legal entities within districts, linked to forest management responsibilities. Hold dialogue with villages to establish similar groups within or between other villages in each commune;
- Invest in capacity building for local village and commune leaders, and other village representatives in terms of forest management and red book allocation procedure;
- Allocate forest land to suitable village units, such as the village protection team or household groups, and establish management plans and benefit-sharing strategies;
- FPD can work more closely with communities in outreach and enforcement activities, especially in dealing with ‘outsiders’;
- Develop pilot 661 programme activities involving outreach, agroforestry, management training and sustainable harvest of forest products. Use 661 programme funding for initial support for community-level management of red book forest allocations; and,
- Make relevant links to other provincial departments and provincial programmes

General recommendations for further research.

Many of the results could be followed-up in more depth. In particular, three areas for further study are recommended:

- A comparative study of forest resource use and trade This could include an in-depth economic evaluation of forest use, models of sustainable harvest, and comparisons between alternative forms of land and resource use;
- More in-depth research into local community dynamics, especially in terms of cultural and institutional robustness; and,
- Invest in, and research the results of the PPC pilot forest land allocation programme, exploring the procedure, the management strategies best employed and developing plans for wider improvement and replication.



REFERENCES

- Agarwal A.** (2000) Small is Beautiful, but is Larger better? Forest-Management Institutions in the Kumaon Himalaya, India. *In* People and Forests : Communities, Institutions, and Governance. eds Gibson C.C., McKean M.A., & Ostrom E. Massachusetts Institute of Technology, Boston.
- Baltzer, M.C., Nguyen Thi Dao, and R.G. Shore.** Eds (2001) Towards a Vision for Biodiversity Conservation in the Forests of the Lower Mekong Ecoregion Complex. WWF Indochina/WWF US, Hanoi and Washington D.C.
- Baker, J., McKenney B., & Hurd J.** (2000) Initial Assessment of Social and Economic Factors Affecting Biodiversity Conservation Efforts. Ecoregion-based Conservation in the Lower Mekong Sub-region. WWF Indochina/IUCN Laos. Hanoi.
- Brandon, K. E. & M. Wells** (1992). "Planning for people and parks: Design dilemmas." *World Development* **20**(4): 557 -570
- CEMMA** (2001) Socio-economic and development status report on the ethnic minority settlements in the mountainous area of Quang Nam. Quang Nam People's Committee, Tam Ky.
- Clarke K.R., & Warwick R.M.,** (2001) Change in Marine Communities: An approach to statistical analysis and interpretation. Plymouth Marine Laboratory, UK.
- Dinerstein, E., Powell, G., Olson, G., Wikramanayake E., Abell R, Loucks C., Underwood E., Allnutt T., Wettengel W., Ricketts T., Strand H., O'Connor S., Burgess N., & Mobley M.** (1999) A workbook for conducting biological assessments and developing biodiversity visions for ecoregion-based conservation. Part I: Terrestrial Ecoregions. Conservation Science Programme, WWF- US, Washington D.C., USA.
- Do Tuoc, Vu Van Dung, Dawson, S., Arctander, P. & MacKinnon, J.** (1994) Introduction of a new large mammal species in Vietnam. Hanoi: Ministry of Forestry. In Vietnamese.
- Duckworth, J.W. & S. Hedges.** 1998. Tracking Tigers: A review of the status of Tiger, Asian Elephant, Gaur and Banteng in Vietnam, Laos, Cambodia and Yunnan (China), with recommendations for future conservation action. WWF Indochina Programme, Hanoi.
- Duckworth, J.W., Timmins R.J., Rundel P.W., Sterling E., and Baltzer M.C..** Eds (In press) Terrestrial and Freshwater Biodiversity Conservation Priorities In Indochina.
- Eames, J.C., Le Trong Trai, & Nguyen Cu** (1999). A new species of Laughingthrush (Passeriformes: Garrulacinae) from the Western Highlands of Vietnam. *Bull. B.O.C.* 119:4-15.
- Fowler J., Cohen L., & Jarvis P.** (1998) Practical Statistics for Field Biology. John Wiley & Sons, Chichester
- Ingles, A.W., Musch A., & Qwist-Hoffman, H.** (1999) The Participatory Process for supporting Collaborative Management of Natural Resources. FAO, Rome.
- Geiger, M.** (2002). State Forest Enterprise Reform in Quang Nam province, Vietnam. World Bank report.
- Gilmour D.A., Nguyen Van San,** 1999, Buffer zone management in Vietnam. IUCN, Vietnam Forest Protection Department, Hanoi.
- Ghimire K.B., & Pimbert M.P.,** (1997) Social change and conservation. *In* Social Change Conservation: Environmental Politics and Impact of National Parks and Protected Areas eds Ghimire K.B., & Pimbert M.P. Earthscan, London.
- Hardcastle J.E,** (2002) Red Books and Village Armies. MSc thesis, DICE, University of Kent at Canterbury, UK.



- Karnow, S.** (1994) Vietnam: A History. Heinemann, Portsmouth N.H.
- Le Trong Cuc** (1992) Some Documents on ethnic minority and upland policy of our Communist Party and State. Truth Publishing House, Hanoi. (in Vietnamese)
- Le Trong Trai** (2002) An economic study of hunting in Phong Dien Nature Reserve, Thua-Thien Hue. Report to WWF Indochina ERBC programme, Hanoi.
- Mai Dang Khoa, Hardcastle J.E., Momberg F.** (2002) "Community consensus on conserving Vietnam's last surviving Western black crested gibbons (*Nomascus concolor*)" Paper to International Primatological Society Annual Conference, August 5th – 9th, 2002, Beijing, China
- McKean M. A.** (2000) Common Property: What is it? What is it good for? What makes it work? *In* People and Forests : Communities, Institutions, and Governance. eds Gibson C.C., McKean M.A., & Ostrom E. Massachusetts Institute of Technology, Boston.
- Murphee M.W.,** (1993) Communities as Resource Management Institutions. IIED Gatekeeper series.
- Nguyen Ba Thu** (2001) Management and Protection in Protected Areas in Vietnam. Conservation Education Network. Internal Newsletter No. 3, 4/2001. Hanoi
- Nguyen Lam Thanh** (2001) The Socio-economic issues of provinces in the Central Truong Son Region. Report to WWF Indochina Programme, Hanoi Vietnam.
- Nguyen Van Dang** (1999) Renewing the forestry policy contributing to industrialisation and modernisation of agriculture and rural development'. Communist Journal, Vol 6. Hanoi(in Vietnamese)
- Novellino, D.** (1999) The ominous switch: From indigenous forest management to conservation – the case of the Batak on Palawan island, Philippines. *In* Indigenous peoples and protected areas in South and Southeast Asia. Eds Colchester & Erni (1999) IWGIA, Copenhagen
- Ostrom E.** (1990) Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge University Press, New York.
- Pham Nhat & Nguyen Xuan Dang** (2000) A field guide to the mammals of Phong Nha – Ke Bang. Fauna & Flora International and Vietnam Forestry University, Hanoi.
- Pham Ngoc Dang** (1998) Environmental problems of sustainable development in Vietnam cities. Asian Institute of Technology, Hanoi.
- Poteete, A. & Ostrom E.** (2002) An institutional approach to the study of forest resources. *In* Human impacts on tropical forest biodiversity and genetic resources ed John Poulsen. Center for International Forestry Research (CIFOR). CABI Publishing, New York.
- Quang Nam Provincial People's Committee** (2000) Report on implementation status of the 1996-2000 plan and direction, target and plan for the 2001 to 2005 in Agriculture and Rural development sector. PPC report, Tam Ky (in Vietnamese).
- Quang Nam Provincial People's Committee** (2002a) Programme on the pilot allocation of forestry land to ethnic minority communities in mountainous areas of Quang Nam Province. PPC document, Tam Ky. (in Vietnamese).
- Reid H.** (2001) Contractual National Parks and the Makuleke Community. *Human Ecology*, Vol.29, No.2: 135-155
- Robinson J.G, & Bennett E.L.** eds (2000) Hunting for sustainability in Tropical Forests. Columbia University Press.
- Shiel D., Puri R.K., Basuki I., Van Heist M., Syaefuddin, Rukmiyati, Sardjono M.A., Samsedin I., Sidiyasa K., Chrisandini, Permana E., Angi E. M., Gatzweiler F., Johnson B., Wijaya A.** (2002) Exploring biological diversity, environment and local people's perspectives in forest landscapes: Methods for a multi-disciplinary landscape assessment. Center for International Forestry Research (CIFOR), Jakarta.



- Sikor T.** (1998) *Sticky Rice and Collective fields: Community-based development among the Black Thai*. Center for Natural Resources and Environment Studies (CRES), Vietnam National University, Hanoi.
- Tordoff, A. W., Tran Hieu Minh & Tran Quang Ngoc** (2000) *A feasibility study for the establishment of Ngoc Linh Nature Reserve, Quang Nam province, Vietnam*. BirdLife International Vietnam Programme & Forest Inventory and Planning Institute. Hanoi
- TRAFFIC** (1993) *Guidance on the accession of the Socialist Republic of Viet Nam to CITES*. TRAFFIC Southeast Asia special report November 1993
- Tran Ngoc Lan, Hoang Van Son and Dinh Ngoc Lan** (2000) *Community forest resource management and Indigenous culture in sustainable resource use in the highlands of Vietnam: A case study from Nghe An province*. Uplands Working Group, Vinh University, Vietnam.
- UNDP** (1999) *Development Co-operation Vietnam 1999 Report*. UNDP, Hanoi.
- Varughese, G.** (1999) *Population and Forest Dynamics in the hills of Nepal: Institutional Remedies by Rural Communities*. *in* *People and Forests: Communities, Institutions, and Governance*. eds Gibson C.C., McKean M.A., & Ostrom E. Massachusetts Institute of Technology, Boston.
- Villemain, A.** (2002) *A Development Impact Study in the CTS priority landscape, Vietnam*. Unpublished consultant report to WWF Indochina ERBC programme, Hanoi.
- Vo Quy** (1999) *Make the life and environment of mountainous people sustainable*. Paper presented to the National Workshop on Research on Sustainable Development in Vietnam's Mountainous Areas, Hanoi, 3-5 August 1999.
- Wege, D.C., Long A.J., Mai Ky Vinh, Vu Van Dung, & Eames J.C.** (1999) *Expanding the protected areas network in Vietnam for the 21st century: an analysis of the current system for recommendations for equitable expansion*. Birdlife International Vietnam Programme, Hanoi.



Appendix 1: List of laws related to land and forest resource management

List of laws related to land and forest resource management

DATE	DOCUMENT	TITLE / CONTENT
1962		First Nature Reserve (Cuc Phuong)
06/09/1972		Laws on Forest Protection
20/04/1981	Resolution 37/NQ-TW	
30/12/1986	Decision 1171-QD	Regulations on management of special-use forests
29/12/1987		Law on Land (Repealed)
12/08/1991	Decree 58 LCT/HDNN8	Forestry Protection & Development Act
17/01/1992	Decree 17 HDBT	Implementing the Law on Forest Protection & Development
15/09/1992	Decision 327 CT	Policies for the use of bare land, denuded hills, forests, alluvial flats and water bodies
15/09/1992	Decree 556 TTg	Revising and supplementing Decision No. 327 CT
30/09/1992		Law on Organization of the Government
29/04/1993	Circular 03 UB/NLN	Appraisal and approval of projects and compilation of programme 327
08/05/1993	Circular 300 CV/RD	Guidelines for the allocation of land in accordance with Decision 327 CT
07/07/1993		Law on Land (Replaces Land Law of 1987)
06/09/1993	Decree 64	Agricultural Land Allocation
1994		Environment Protection Law
15/01/1994	Decree 02 CP	Allocation of forest land to organizations, households and individuals for long-term forestry purposes
15/01/1994	Circular 06	Implementation of Forestry Land Allocation
02/05/1994	Decision 202	On contracts for forest protection, maintenance, natural regeneration and planting
18/05/1994	Decree No 39 CP	Organizational system, duty and authority of Forest Protection
22/12/1995	Decision 845/TTg	Biodiversity Conservation Action Plan
1996	Decree 18	Updated regulation listing protected rare and endangered species
28/5/1996?	Decision No 347 TTg	Decision on duty, right of Forest Protection Department
16/03/1998	No. 346 TT-TCDC	Guidance on the procedures for land registration, formulation of cadastral documents and issuance of certificate of land use rights
1998	Decree 29	Grassroots democracy in social development and organisation
29/07/1998	Decision 661 QD/TTg	On the target, task, policy and organization for the implementation of the project of planting five million new hectares of forest
29/07/1998	Circular No. 28 TTLB	Guiding the implementation of the Decision No. 661
02/12/1998	Law No. 10 QH10	Law Amending and Supplementing a Number of Articles of the Land Law
21/12/1998	Decision 245 QD/TTg	Implementation of the State's management at different levels on forest and forest land
05/01/1999	Decision 02 QD-BNN-PTLN	Regulations on wood and forest products exploitation
12/03/1999	Decision 47 QD-BNN-KT	Regulate check-up of production, transportation and business of wood and forest products
16/07/1999	Directive 19 CT-TTg	Implementing measures to accelerate consumption of wood from planted forests
16/09/1999	Decision 187 QD-TTg	Reform of Organization and management mechanism of State Forest Enterprises
12/12/1999	Decision 34 QD/BNN/TCCB	Working regulations between Forest Protection Department and National Parks
20/10/2000	Circular No. 109/TTLT/BNN-BTC	Guidance on the implementation of Decision 187
11/01/2001	Decision 08 QD-TTg	Regulation on management of special-use forest, protection forest and production forest
21/11/2001	Decision 178 QD-TTg	Benefit sharing arrangements between communities and SFE



Appendix 2: Forest products for different use categories identified by interviewees

Use Category	Tabhing Commune (107 respondents) No. responses	Tra Bui Commune (56 respondents) No. responses	Ba Commune (112 respondents) No. responses
Medicine			
Honey	67	40	47
Herbs	44	24	10
Cu Lam	5	0	0
Chilli	2	0	0
Palm wine	30	0	0
Rice wine	17	14	8
Bark	12	7	2
San Nhan	0	18	0
Tobacco	7	1	2
Food			
Fruit ³	102	49	42
Banana palm	71	22	27
Palm heart	46	12	5
Bamboo shoot	74	16	10
Banana flower	21	27	0
Mushrooms	18	41	0
Honey	10	10	2
Rau ⁴	81	45	42
Yam	12	0	0
Oc, crabs	0	7	23
Fish	24	13	24
Chilli	7	0	0
Sale			
Uoi	74	29	5
Rattan	63	33	10
Dot	41	0	17
Honey	69	31	25
Wine	13	0	0
Trau oil	8	0	0
Cinnamon	30	7	3
Ginger	7	3	0
Anise	3	0	0
Litsea bark	5	0	0
Metal		1	0
Construction			
Timber ⁵	92	52	98
Palm leaf	44	34	27
Rattan	79	13	31
Bamboo	81	29	42

³ uoi, mango, rambuttan, fig, longbon, lychee, banana and jackfruit and other local fruits

⁴ Leaves and vegetables

⁵ A variety of timber species for which local names only were recorded including Lim, Cho, Huynh, Kien kien, and Sen



Tools			
Banana leaf	0	0	2
Rattan	41	4	18
Dot (broom)	31	2	7
Gum	12		2
Palm leaf	71	29	12
Bamboo	81	36	37
Traditional			
Bamboo	69	10	21
Amber	18		0
Dye	5	8	5
Hemp	4		0
Tavac (palm alcohol)	7		0
Rattan	0	3	7
Other			
Dye	0	0	3
Firewood	78	47	87
Metal	6	0	0
Gum	2	0	2
Banana leaf	34	1	2