Foreword

Vietnam's northern mountains are undergoing rapid changes. Research has begun to address the issues associated with these changes. Economists have examined changes in household incomes and the productivity of farming systems. Ethnological research has highlighted the diversity of cultures in the mountains. Ecologists have analyzed changes in ecosystems and resource use practices. Their findings attest to the radical and diverse nature of the transformations experienced by mountain people and resources.

The Upland Working Group of the Center for Natural Resources and Environmental Studies has conducted research on mountain people and resources for the past eight years. In its work, the Upland Working Group has developed an integrated approach to understanding economic, cultural, and ecological change in the mountains. It has documented concrete changes in mountain livelihoods and ecosystems in numerous case studies. The Group has also offered training on a human ecological approach to mountain development and research.

This study by Thomas Sikor and Dao Minh Truong provides a good example of research that combines attention to economic, cultural and ecological issues. The study presents an interdisciplinary collaboration by Thomas Sikor, an economist by training, and Dao Minh Truong, a specialist in the interpretation of remote imagery and Geographic Information Systems. It is highly complementary to the other studies conducted by the Upland Working Group, as it draws on long-term field research concentrated in a few villages. The emphasis on in-depth research allowed Mr. Sikor and Truong to provide rich empirical understanding of mountain people's responses to changes in their external environment.

The findings of this study bear important implications for our understanding of mountain people and resources. Most importantly, they demonstrate that concrete economic, cultural and ecological changes are very specific for each locality. The changes found by Mr. Sikor and Truong will be different from the changes experienced by people and ecosystems in other places. At the same time, their findings attest to the influence of more general forces affecting mountain livelihoods and resources. And they document the ways in which people have responded to the changes in their environment. Again, the concrete influence of these general forces and people's concrete responses to them differ from place to place, but one will find this dynamic of external factors and people's responses to them in every place.

I hope that the reader will find this study interesting.

Hanoi, June 2000
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Abbreviations

cap. capita
ha hectare
hh. household
VND Vietnamese Dong (1 US$ = VND 11,000 in 1997)

Glossary of Key Terms

Access: Access means the ability to use something. It is a general term and can be applied in many contexts. For example, access to health care is the ability to use health care services. In this monograph, access is used in the context of agricultural production. It describes the possibility to use land, labor, and capital for production. For example, access to land is the ability to use land. This ability may come in different forms. A villager may be able to clear a new field without asking anybody beforehand. He may also ask a neighbor or relative for part of their land. He may seek the village head's permission or ask the collective to receive land. Or he may rent land from somebody else. These are different forms, but they all provide access to land.

Assets: Assets are durable possessions that produce benefits. For example, education is considered an asset, as it is expected to produce returns over the long term. Somebody with higher education may have a better chance at a well-paying job. Or she may be in a better position to respond to changes in her environment and take advantage of new opportunities. In this monograph, the term is used in a more restricted sense. Assets refer to those household possessions that create wealth in Black Thai villages. The assets are called productive assets if they play a role in production, such as water buffaloes. Social assets do not assume a direct role in production, but enhance livelihoods in other ways. For example, a nice house earns the owners the respect of their fellow villagers.

Collective: A collective is a group that acts as a joint body. Members of the group are expected to subordinate their individual needs and interests to those of the whole group. Some decisions and actions taken by the collective may therefore run against the needs and interests of individual members. For example, a group can decide in the collective to build a foot bridge. As a result, each individual in the group is expected to follow the collective decision. Each individual is expected to obey the decision though she may not benefit from the foot bridge and may not want to help build it. Similarly, an action or a decision is collective (adjective) if it is taken by the group as a whole. In the above example, the decision to build a bridge is a collective decision. That does not imply that all decisions in the group are collective. The group may leave certain decisions to its individual members. In our above example, the decision
to use the bridge is that of individual members.

**Community:**
A community is a group of individual members who follow similar practices, share certain social norms, or make joint decisions. It is a term that is used in very different ways. For some, community does not mean more than a group of individuals. For example, some use the term 'world community' to refer to the world's population. For others, a community is a tight social group with strong norms and rules guiding its members' behavior, a group that also makes certain decisions in the collective (see above). Villages in developing countries are often referred to as communities, with the implication that the villages can act as a collective body. In this monograph, the term community is used in the strong sense. A community is a social group that shares certain ways of behavior and collective decision-making structures. Certain behavior is expected from community members, but not from outsiders. Similarly, insiders participate in certain collective decisions and are expected to adhere to these decisions. Outsiders do not have the right to participate, nor are they expected to follow the decisions.

**Control:**
Control is the ability to make decisions about something. Control is stronger than access (see above) as control includes the power to exclude others from use. In this monograph, control is used to describe the ability to make decisions in agricultural production. It is also used to specify who decides about the use of land, labor, and capital. The monograph gives particular attention to the questions how control is distributed between the state and villages and, within villages, between the collective (see above) and households. For example, who decides about the use of the uplands? Can the state enforce its legal restriction on upland farming? Or do villagers make the decisions about land use, in practice? And within the villages, does the collective or do individual households decide about the use of land?

**Agricultural producer cooperative:**
The cooperative is an organization of agricultural producers. The term cooperative itself does not say much about the internal structure of the organization. In some cooperatives, its members may make most of the decisions in production individually and only collaborate for very specific purposes, such as marketing. In others, members may make many decisions in the collective (see above). The term cooperative is therefore different from the term collective. Cooperative refers to an organization, collective to the decision-making structure in a group. The Vietnamese government promoted a type of cooperative that put many decisions in the hands of the collective (see above) and promoted the collective organization of work. Yet even Vietnamese cooperatives allowed for some individual production, for example on the five-per cent house plots.

**Differentiation:**
Differentiation describes a process during which differences arise or become greater. In this monograph, differentiation refers to the creation or deepening of wealth differences among households. Differentiation may lead to permanent divisions into poor and rich households. It may also take the form of more temporary differences. For example, households may be poor when they have many young children but may become better off when their children have grown up. This monograph uses two types of indicators to describe differentiation: patterns and mechanisms of differentiation. The patterns of differentiation are the distribution of wealth among households at a given point in time. They describe the division of households into poor and rich households, and they specify the magnitude of wealth differences between the poor and the rich. The mechanisms of differentiation refer to the processes that generate and modify wealth differences. The mechanisms explain why some households become rich and others get poor. For example, the ability to use land may be distributed very unequally, allowing some people to work large fields, while others cultivate tiny plots only.

**Family cycle:**
The family cycle refers to a series of changes that typically take place during the lifetime of a household, from its establishment to its termination or absorption into another household. Most importantly, the labor available in the household and food requirements tend to follow the changing demographic composition of the household. Households with young children typically have less labor in relation to food requirements than other households.

**Household reproduction:**
Household reproduction is the process through which households maintain themselves. Households work to cover physical needs, mainly food and shelter. And households aim at maintaining themselves in a social sense, through the
organization of rituals and social events expected within their community (weddings, for example).

**Institutions:**

The term ‘institutions’ has several different meanings. Many economists and political scientists use ‘institutions’ to refer to laws and organizations. For example, they call the banking system an institution. Sociologists and anthropologists attribute a different meaning to the term. For them, institutions are rules that express customary ways of production and social behavior. These ways are specific to a social group as they are based in shared understandings and norms within the group. For example, the rule that a household needs to slaughter a water buffalo on the occasion of a death is an institution in this sense. This rule is a customary way to respond to death in one's household. It may or may not be written down. This monograph will use the term institutions in this latter sense, as customary ways of production and social behavior.

**Land tenure:**

Land tenure refers to the rules that determine who can use what land and how. Like the term institution (see above), it takes on different meanings. Economists often understand land tenure as the formal laws and regulations governing the use of land. In this monograph, land tenure is used in a different sense. It describes actual practices, which may or may not be similar to the formal regulations on land. For example, a household may work a field on a piece of land though the land is formally designated as protected forest. The household has the ability to use the land, but it could not enforce its ability against claims by the state. As the example shows, land tenure refers to the rules that regulate the distribution of access to land and control over land (see above).

**Local state:**

The term 'local state' typically refers to the authorities at the commune, district, and - to some extent - provincial levels. Parts of the state are local in the sense that officials maintain a strong orientation towards local interests. Yet local is not necessarily tied to a certain administrative level within the state. Central government officials may be quite local in their orientation, more than district cadres who express a strong loyalty to the central state.

**Negotiation of policy:**

The negotiation of policy is a process through which national policy is modified during implementation. It happens because people react to the implementation of national policy. People who may react include villagers and cadres in the local state administration. Villagers and cadres need to interact for the implementation of most national policies. Yet their needs and wants often differ from the policy intent, as they do among each other. They are therefore likely to have different interests in the ways in which the policy is actually implemented. Villagers and local state cadres may express their different interests in open discussions, but they may also do that in very covert forms. For example, local people may simply ignore a policy or drag their feet implementing it. Or, they may openly resist the implementation of a policy, with implicit support by local state cadres. Or local state cadres may chose not to implement certain policy provisions. The negotiation of policy thus explains the typical discrepancy between policy texts and actual policy implementation. Yet the extent to which national policy is modified varies from time to time, policy to policy, and place to place.

**Productive resources:**

Productive resources are the main resources required for production; in this monograph, the term refers to labor, land and capital.

**Reproductive requirements:**

Reproductive requirements are the demands imposed by household reproduction (see above). They include physical needs, such as food and shelter, and social elements, such as weddings and rituals.

**Acknowledgments**

We would like to thank the people of Na Pan, Ban Nhôm and Ban Chum for their hospitality, patience, and good humor. The people have been careful to maintain a 'protective shield' toward the outside world. In this monograph, we lift the shield a little, in the expectation that our study may help improve policy for
development in the northern mountains of Vietnam. We hope that the people of the three villages will understand our motivation for not "looking away".

Special thanks go to the three households that generously shared their living space with us. The authorities of Yen Chau district and Son La province deserve respect and gratitude for their support of our field research, a first-time experience for everybody involved.

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About the Authors

Thomas Sikor is a Postdoctoral Fellow associated with CRES. His research examines the effects of agricultural reforms on livelihoods and resources in the mountains of northern Vietnam. Mr. Sikor holds a Ph.D from the University of California at Berkeley.

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I. Introduction

The Black Thai of Chieng Dong in Son La province increased agricultural output dramatically over the 1980s and 1990s. They expanded upland fields and constructed new wet-rice terraces to increase the area under cultivation. They adopted new varieties and began to use chemical fertilizer to boost yields. Within the two decades, rice production in the villages doubled. Corn bumper harvests brought unprecedented flows of cash income. Animal husbandry and house construction boomed, expressing the growing surplus. Agricultural growth in Chieng Dong contradicted dire prophecies of a development impasse in the mountains of northern Vietnam.

Sticky rice played a major role in agricultural growth. Villagers planted sticky rice varieties in the newly constructed wet rice fields, in rice swiddens, and in some of the wet rice fields on the valley bottom. They adopted new varieties of sticky rice to replace old ones. The importance of sticky rice demonstrates that economic growth did not follow the conventionally prescribed strategies for the mountains: high-value cash crops and commercial animal husbandry. The villagers of Chieng Dong had taken their own path of development.
Village collectives retained a significant role in agricultural production. The villages continued to adjust household shares in the “collective paddy” periodically. The collective fields included the wet-rice fields that villagers had worked for decades. Every few years, the village communities re-distributed the collective fields to match paddy land with household labor capacity. They continued the practice though the national policy that mandated long-term allocation. Not surprisingly, the collective fields were not included in the land use right certificates issued by the district authorities.

Sticky rice and collective fields stand as symbols for how the villagers of Chieng Dong responded to the changes in their environment in the 1980s and 1990s. Agricultural reforms, market liberalization, and new technologies provided new opportunities for agricultural production. Villagers readily embraced the new opportunities, but they utilized them in their own way. Their responses were shaped by village institutions, that is, rules that express customary ways of production and social behavior in the villages. The institutions expressed the underlying values and culture of the village communities, and they were specific to them. Agricultural development was community-based.

I.1 Purpose and Method of the Study

This monograph seeks to contribute to an improved understanding of the effects of agricultural reforms on livelihoods and land use in the mountains of northern Vietnam. Agricultural reforms intended to gradually shift control over agricultural production from collectives to households, providing households with new productive opportunities. Thus, agricultural reforms had the potential to significantly affect mountain livelihoods and land use. Yet their actual effects are unclear for two reasons. First, there were several other factors that had the potential to influence production. Second, the effects of the reforms depended upon how local state authorities implemented the centrally mandated policy changes.

Villagers readily embraced the new opportunities, but they utilized them in their own ways. Their responses were influenced by village institutions...

This monograph reports the findings of a case study on the effects of reforms conducted in three Black Thai villages of Chieng Dong Commune. It seeks to present the findings in a way suitable for its intended audience: interested government officials, development practitioners, and applied researchers. It is hoped that the minimal use of notes and citations will facilitate a clear presentation. The monograph is complimentary to other presentations of the research findings, a brief summary published in early 1999 and Sikor's dissertation filed at the University of California at Berkeley in the fall of 1999.

The study included a year of field research in three villages of Chieng Dong and the spatial analysis of remote imagery. Image interpretation was done for SPOT satellite images from 1989, 1993 and 1996/97, Corona images from 1968, and aerial photographs from 1952. Land cover in each image was classified into five categories and entered into a GIS database. The field research focused on changes in land tenure and labor allocation over time. In each village, research included semi-structured interviews with a 20-percent random sample of households, direct observation of rules regulating access to land and agricultural practices, key informant interviews with current and retired cooperative officials and oral histories with village elders. Interviews with district and provincial government staff and review of the provincial newspaper Son La helped researchers to understand the implementation of agricultural reforms.

I.2 The Black Thai and Chieng Dong

In the first centuries AD, Tai people moved into the mountains of what is today northwestern Vietnam. They began to live in the valley of the Da river and numerous secondary and tertiary streams flowing into the Da. The valleys provide good conditions for wet-rice agriculture. In addition, the lower mountain ranges adjacent to the river valleys include gentle slopes suitable for cultivation. Today, there are approximately 400,000 Black Thai living in the northwestern region of Vietnam.

The Black Thai villages of Chieng Dong were established many generations ago. The villages are located at the upper end of Vat river valley. They have worked wet-rice fields at the valley bottom and upland fields on the surrounding slopes for a long time. For their location in the upper watershed they have enjoyed access to ample
Figure 1.1: Chieng Dong in northern Vietnam

Upland areas. The villages are also located in the proximity of National Road No. 6, which has existed since the early 1930s. Despite the road, Chieng Dong has never received any migrants from other places. Since the 1960s, Chieng Dong has been a commune of Yen Chau district in Son La province (see Figure 1.1). Black Thai account for more than half the population in both the district and the province.

I.3 Structure of the Monograph

The monograph includes six chapters.

Chapter 1 introduces the purpose, method, and background of the study.

Chapter 2 reviews trends in agricultural production and land use in the villages from the 1960s to the 1990s. Three periods are identified: a focus on wet-rice cultivation in the 1960s and first half of the 1970s, the expansion of cultivated land in the late 1970s and 1980s, and intensification in the 1990s.

Chapter 3 examines if and how agricultural reforms contributed to the changes in production described in Chapter 2. It contrasts the effects of reforms with the influence of other factors, including market expansion and the availability of new technology. Chapter 3 also analyzes the effects of the changes in production on livelihoods and land use in Chieng Dong.

Chapter 4 explores the relationship between village institutions and national policy through a study of land allocation and forest protection contracts in Chieng Dong. It pays explicit attention to the ways in which the state and villagers negotiate different visions of appropriate land use and land tenure.

Chapter 5 investigates the effects of agricultural reforms on wealth differences among households. It analyzes the patterns of rich and poor in 1997 and examines the ways in which households gained access to land and used the rising surplus from production.

Chapter 6 concludes the monograph with a summary of its findings and a discussion of its implications for mountain development. The conclusions emphasize the strength of village institutions and the need to turn the negotiation of national policy by villagers and local state authorities into an asset for development.

End Notes

1 The discussion of Black Thai villages before collectivization is based on a review of published and unpublished sources in French and Vietnamese. For example, see Cam Trong, Nguoi Thai O Tay Bac Viet Nam (Hanoi: Social Sciences Publishing House, 1978) and an anonymous monograph entitled La Commune Thai Dans La Province de Sonla (Paris, Maison d’Asie: European Manuscript Section no. 139, 1920).

2 For example, see M.A. Jaquet, Enquete No. 1B sur l'alimentation des indigenes, Province de Sonla (Aix-en-Provence, Centre de Archives de Outre-Mer, Archives ministerielles modernes, Commission Guernot Box 93, 1937).

3 Older villagers recalled production practices and living conditions back to the 1940s.

4 The remaining sections of this chapter are based on oral histories with older villagers, household interviews, various articles from the provincial newspaper Son La, secondary sources on policy and its implementation in Son La, and some cooperative records.

5 We use the term ‘forestry land’ (®Êt l®m nghi®p) to refer to land that is legally classified as land to be used for forestry. This legal classification does not describe actual land cover. Forestry land can be forested or bare.


7 This chapter is based on direct observation, interviews with villagers, records kept by the district’s Office of Land Administration and the office of the Social Forestry Development Project (SFDP) Song Da, interviews with commune and district cadres, policy texts at the district, provincial and national level, and various articles from the provincial newspaper Son La.
Land holdings are used as a measure of differentiation because of the flexible nature of land tenure in the villages (see Chapter IV). This is different from the use of land holdings as a given household asset, or household attribute, in other contexts where land holdings are fixed.

The following analysis will use an asset proxy as a quantitative measure of productive assets. For the calculation of the proxy, water buffaloes are given a weight of 3.5, cattle a weight of 2 and horses one of 1, corresponding to their relative values on the market.

Main laborers are adults with a full labor capacity, typically men between 18 and 55 years of age and women between 18 and 50 years of age. The number of healthy adult members determines a household's capacity to work upland fields, and is therefore used in the following for the analysis of upland farming. A household's capacity to work paddy fields and raise animals is different, because members beside main laborers can make a significant contribution. The following analysis therefore uses a modified measure of labor capacity for the analysis of wet-rice cultivation and animal husbandry, one that considers the labor contributions of children and the elderly.

The following analysis will use the age of the household head as a quantitative measure of a household's stage in the family cycle. The age of the head is highly correlated with the family cycle. The head of a very young household is typically between 23 and 27, the head of a young household between 28 and 34, the head of a middle-aged household between 35 and 50, and the head of an old household more than 50 years old.

The analysis uses 290 kg paddy/year/adult as the level of food sufficiency. This corresponds to a daily energy intake of 1,900 kcal from paddy. Total household food requirements are calculated applying the conversion coefficients used by the Institute of Nutrition, which consider the age and sex of household members.

This section uses correlation coefficients as a quantitative measure of the strength of association between two variables. Coefficients can range from +1 to -1. The closer a coefficient is to +1 or -1, the stronger the association between the two variables. For example, a coefficient of 1 means a perfect correlation between two variables, that is an increase in one variable implies an increase in the other without exception, and vice versa. The closer a coefficient is to 0, the weaker the relationship.

In addition to the coefficient, the analysis also calculates levels of significance. A correlation coefficient is highly significant (HS), if the likelihood is 99 per cent that the reported correlation is true. A coefficient is called significant (SI) if the likelihood is 95 per cent. A reported relationship (RE) between two variables corresponds to a likelihood of 80 per cent. No relationship (NR) stands for a likelihood below 80 per cent.
II. Changes in Agricultural Production and Land Use

This chapter reviews changes in agricultural production and land use over the last four decades. The review begins with the 1960s, two decades before the onset of agricultural reforms. It begins this early to establish a 'baseline' against which one can assess the effects of agricultural reforms. The purpose of the review is to identify trends in production, if there are any. It aims at mere description. Analysis of the causes underlying observed changes in production follows in the next chapter.

The chapter includes two parts. The first part uses statistical data on agricultural production for Chieng Dong to identify three distinct trends: a focus on wet rice cultivation in the 1960s and first half of the 1970s, an expansion of cultivation in the late 1970s and 1980s, and intensification in the 1990s. The second part discusses changes in production and land use for each period in more detail. It provides additional information, in particular the results of an interpretation of remote imagery.

II.1 Identifying Periods

The livelihood of villagers of Chieng Dong is based on the cultivation of wet rice fields and upland crops, primarily swidden rice, cassava, and corn (see I.1). In addition, they raise water buffaloes and cattle to supplement crop production. This section uses data on agricultural crop output and the number of large livestock to depict changes in production over the past four decades.

II.1.1 Rice production

Wet rice output shows significant improvement over the whole period (see Figure 2.1). Output in 1997 was around five times the output of 1959/60. However, output did not always increase, and when it did, it increased at different speeds. Output growth was relatively modest between 1959/60 and 1967/68. Thereafter, output rose rapidly until 1975. The harvest of wet rice in 1975 was three times as high in 1975 as in 1959/60. Following the rapid growth, however, wet rice production stagnated until the late 1980s. Output in 1997 was double the output in 1989.

Figure 2.1: Wet-rice output 1959-1996

Rice swidden output followed a different trajectory (see Figure 2.2). Seen throughout the whole period, rice swidden output declined sharply. Its share in total rice output dropped from one half to less than ten per cent. Rice swidden output was also more volatile than wet rice output, expressing its sensitivity to weather conditions. Harvest failures often followed bumper crops. A third feature was that rice swidden output usually increased when wet rice output declined, and vice versa. Beginning in 1961, rice swidden output declined until the late 1970s. It rose rapidly during the 1980s, exceeding the 1960/61 level in only a few years. Yet after 1991, rice swidden output collapsed.

Figure 2.2: Swidden rice output 1959-1996
II.1.2 Non-rice crops

Corn and cassava output was low in the 1960s (see Figures 2.3 and 2.4). The two non-rice crops became significant components of crop production in the 1970s only. Cassava output exploded between 1973 and 1975 and remained at a high level until 1986. After 1986, it dropped, recovered briefly, and fell again after 1992. In contrast, corn output remained relatively low throughout the 1970s and 1980s. Starting in 1991, corn output boomed, reaching seven times the level of 1990 in the year 1997.

**Figure 2.3: Cassava output 1959-1996**

**Figure 2.4: Corn output 1959-1996**
II.1.3 Animal husbandry

The number of water buffaloes and cattle followed different trends from the 1960s to the 1990s (see Figure 2.5). The number of water buffaloes dropped in the 1970s and never reached the level of the 1960s again. In contrast, farmers only began to raise cattle in significant numbers in the 1970s. Cattle husbandry boomed in the 1980s, reaching its peak in 1988, and stabilized at a high level thereafter.

Figure 2.5: Water buffaloes and cattle 1959 -1996

In sum, agricultural production in Chiang Dong was highly dynamic. Output rose and declined. The outputs of different crops and numbers of different livestock did not follow uniform changes. Yet the observed changes suggest the following periodization of changes in agricultural production:

- a focus on wet rice cultivation from the early 1960s to mid-1970s; wet rice output increased, while output on rice swiddens declined;
- an expansion of land under cultivation from the late-1970s to the late-1980s; output grew for all three major upland crops, and cattle husbandry boomed; and,
- agricultural intensification in the 1990s; output from the more intensive types of land use, wet rice and corn cultivation, grew; output from cassava and swidden rice, both land use types that are more
II.2 A Closer Look at the Trends

The three trends carried distinct changes in agricultural production with them. This section takes a closer look at each trend separately. It also explores the effects of changes in agricultural production on land use patterns, forest cover in particular.

II.2.1 The focus on wet rice production

In the 1950s, agricultural production was relatively extensive in its demand for land. Villagers only worked one annual crop on their wet rice fields. In addition, land suitable for wet rice cultivation was limited by the mountain topography. Rice swiddens, in both cultivation and fallow stages, covered large parts of the uplands. In addition, people raised a large number of water buffaloes to supplement crop production.

The landscape reflected the effects of extensive rice swiddening and animal husbandry (see Figure 2.8). There was not as much forest in Chien Dong as one may expect. Forest cover was forty per cent, most of it open-canopy forest. Forests existed on rocky outcrops, on land with steep slopes, and high mountaintops only. Closed-canopy forest was limited to a steep rocky ridge. Half of the land was scrubland. The predominance of scrubland and open-canopy forest were further proof of the extensive use of the uplands for rice swiddening and livestock grazing.

In the early 1960s, rice swiddening continued to play an important role in crop production. This changed in the second half of the 1960s, when rice production gradually shifted from the uplands to the valleys. Villagers expanded the area on which they could grow two annual rice crops. Output from the spring crop increased significantly (see Figure 2.6). Villagers also raised yields in the fall crop. The growth of wet rice output and decline of swidden rice output continued until the mid-1970s.

Figure 2.6: Wet-rice output by crop season 1959 - 1979

In 1968, the landscape still displayed the effects of extensive rice swiddening and livestock raising (see Figure 2.9). Just as in 1952, scrub land covered most of the uplands. Remote imagery taken in 1975, if it existed, would probably yield a different picture. The shift from rice swiddening toward wet rice cultivation and, after 1972, cassava, reduced the cultivation demand for land in the uplands. Images taken in 1975 would presumably show an increase in forest cover.

II.2.2 The expansion of land under cultivation

Around 1980, output began to rise for swidden rice, corn, cassava, and cattle. Wet rice output followed suit in
1983 and 1984. For the first time, output of all major crops and the number of large animals increased at the same time. Yet wet rice output stagnated soon thereafter.

In the second half of the 1980s, output growth came from production in the uplands. All major upland crops and cattle husbandry boomed. The growth stemmed from a rapid expansion of area under cultivation, as yields remained stable. The number of cattle dipped in 1988, when a disease decimated cattle and buffalo herds.

By the end of the decade, the landscape reflected the rapid expansion of upland cultivation (see Figure 2.10). The total area of upland fields had increased significantly from 1968. Scrub land covered almost three quarters of the land. Forests had receded to limestone formations, which were unsuitable for production. However, the area of closed-canopy forest remained unchanged.

II.2.3 Agricultural intensification and forest regeneration

Around 1990, wet rice output began to pick up again. Output growth stemmed from two sources: villagers improved yields on existing fields, and they opened up new rice terraces (see Figure 2.7). The construction of new terraces allowed the villagers of Na Pan, Ban Nhom and Ban Chum to expand the cultivated area of wet rice by around forty per cent. In contrast, rice swidden output fell precipitously after 1991.

Cassava and corn output rose together until 1992, but starting in 1993, their paths separated. Cassava output declined, and corn output boomed. Upland cultivation thus shifted from swidden rice and cassava to corn. As for animal husbandry, the number of water buffaloes increased steadily. The number of cattle remained at a high level.

Analysis of satellite images from 1993 and 1996/97 shows that the upland area under cultivation in a given year continued to expand in the 1990s (see Figures 2.11 and 2.12). At the same time, upland farming shifted increasingly away from rotational rice swiddens and cassava fields toward permanent corn fields. Comparison of the 1993 and 1996/97 images shows that villagers worked one fifth of upland fields on the same land (see Table 2.1).

Despite the expansion of land under cultivation in a given year, total cultivation demand for land declined. Land under cultivation expanded because villagers cleared more scrub land for new fields than what they let revert back to scrub land (see Table 2.1). At the same time, the development of open-canopy forest on a significant portion of scrub land indicates the reduction in overall demand for land. Total forest cover increased, mostly because of forest regeneration on previous scrub land. Closed-canopy forest remained relatively unchanged.

Table 2.1: Changes in land use, 1993-1996/97 (in hectares)
II.3 Summary and Conclusions

Agricultural production underwent drastic changes in Chieng Dong over the last four decades. From the 1960s to the mid-1970s, villagers concentrated on wet rice cultivation, reducing the number of rice swiddens. Beginning in the late 1970s, they increasingly focused on production in the uplands, mainly rice swiddening and cattle husbandry. Villagers expanded their fields up the slopes and let their cattle roam freely. Around 1990, villagers' attention reverted back to wet rice cultivation. They intensified production on existing fields and built new rice terraces. And corn replaced cassava as the major cash crop.

The forest of Chieng Dong reflected the changes in agricultural production. Over the course of the four decades, forest cover declined. Yet the overall decline hides surprising findings. Most importantly, forest cover increased in recent years! Agricultural intensification produced a rare combination: an expansion of land under cultivation together with forest regeneration. Second, closed-canopy forest remained relatively unchanged throughout the four decades. The amount of closed-canopy forest in 1952 did not exceed that of 1997. Finally, there was less forest in 1952 than one may expect given the general perception of rapid deforestation in the northern mountains.

The dynamic natures of agricultural production and forest cover defy any simple explanation of the causes underlying observed trends, such as population growth. Population growth in Chieng Dong was gradual, as there was no significant migration into or out of the commune. Population growth was too steady to account for the often abrupt changes in production. And it cannot explain the increase in forest cover in the 1990s. Agricultural policy, the focus of the next chapter, offers another explanation for the observed changes.

**Figure 2.8: Land use in 1952**

<table>
<thead>
<tr>
<th>From to</th>
<th>closed-canopy forest</th>
<th>open-canopy forest</th>
<th>scrub land</th>
<th>upland fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>closed-c. forest</td>
<td>380</td>
<td>37</td>
<td>118</td>
<td>7</td>
</tr>
<tr>
<td>open-c. forest</td>
<td>62</td>
<td>434</td>
<td>285</td>
<td>81</td>
</tr>
<tr>
<td>scrub land</td>
<td>38</td>
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<td>3,191</td>
<td>465</td>
</tr>
<tr>
<td>upland fields</td>
<td>54</td>
<td>57</td>
<td>766</td>
<td>216</td>
</tr>
</tbody>
</table>

Source: Interpretation of SPOT images
Figure 2.9: Land use in 1968
Figure 2.10: Land use in 1989
Figure 2.11: Land use in 1993
Figure 2.12: Land use in 1997
III. The Effects of Agricultural Reforms

Agricultural policy mandated radical changes in the relations of production over the past four decades. In the 1960s and 1970s, the government wanted rural people to work the land in collectives. Since 1980, agricultural reforms called for a gradual shift in control over production back to individual households. The reforms took three steps. In 1981, Decree 100 called upon cooperatives to conclude contracts for the management of specific plots with its members. In 1988, Resolution 10 ordered cooperatives to transfer control over capital assets and land to households. Finally, in 1993, the Land Law granted households long-term use rights for agricultural land.

This chapter examines the effects of agricultural reforms on livelihood and land use in Chien Dong. In particular, it seeks to understand how the reforms contributed to the changes in production and land use described in the previous chapter. The first section describes the collectivization of agriculture and its effects on production. The second section investigates the effects of Decree 100 on production. The effects of Resolution 10 are the subject of the third section. The chapter concludes with an analysis of the effects of changes in production on livelihood and land use in Chien Dong. Land allocation is excluded from the analysis in this chapter; it is the focus of an in-depth inquiry in the following chapter.

III.1 Livelihood and Land Use Before the Reforms

Agricultural reforms followed a period of twenty years during which national policy mandated rural people work the land in collectives. As in the case with agricultural reforms, one can expect the collectivization policy to have affected rural livelihood and land use. In order to assess the effects of the reforms it is first important to understand the effects of collectivization (the purpose of this section). The section explores how collectivization changed agricultural production, livelihood and land use in Chien Dong.

III.1.1 The villages before collectivization

Black Thai villages in the region that is today northwestern Vietnam historically enjoyed relative autonomy. They formed small principalities (mêng), each under the rule of a local lord (ph×a) and a variety of notables. The ph×a held symbolic rights over the land of a mêng, but his actual control over land was limited to a historically defined set of fields. The remaining land was under the communal control of villages. The ph×a and notables primarily exercised their power through control over labor, as Thai commoners had to provide labor services to them. In all other regards, the power of the Thai nobility did not penetrate the villages.

The situation did not change much after 1888, the year the Thai villages became part of Tonkin, the French overseas territory in northern Vietnam. Though the French built up an administrative structure and oversaw the construction of a road network, their presence was minimal in the northwest. The power of the colonial state remained confined to the request for labor (corvee services) and products (taxes). The rugged topography and lack of infrastructure thus continued to afford Black Thai villages significant autonomy.

Not only were the villages relatively autonomous, but they were also quite autarkic in an economic sense. Long distance trade in agricultural products and consumer goods was limited. French attempts to encourage trade through annual fairs failed.

Land tenure remained under the communal control of villages. The paddy fields that villagers had developed historically were considered to belong to the whole village. Households gained use rights only for specific fields and had to pay state taxes and perform corvee duties in return. Labor capacity was the main determinant of the area of village paddy received by a household. Village collectives retained the right to re-distributed paddy fields periodically, though many did not exercise the right for many generations.

Upland fields radiated into the surrounding upland areas and were often interspersed with fields of households from other villages. Households enjoyed extensive rights over swiddens. They were free to open up new swiddens and retained use rights for the land even during extended fallow periods. Also, upland fields were exempt from tax and corvee obligations, providing an ‘exit option’ to households that wanted to avoid such obligations. Land tenure thus combined collective control over land with individual household entitlements. Also, household control over land largely followed labor capacity. The more labor a household had the higher its share in the village paddy and the larger its upland fields.

In the 1930s and 1940s, when first studies of Black Thai agriculture were published, villagers worked paddy fields and upland swiddens and raised water buffaloes. Households primarily used their own labor for food production, combining an annual crop of rice in the paddy fields with rice swiddening, which yielded similar
productivities. They raised water buffaloes to provide draft power for wet rice cultivation and as a form of savings, and sold buffaloes to buy food in years with bad harvests. Living conditions were hard, however. In the case of harvest failures, which occurred periodically in swiddening, households faced serious food shortages.

Agricultural production was embedded in village culture, as it was shaped by the larger goals of physical and social reproduction. Physical reproduction involved the production of food and shelter. Most food came from rice production, supplemented by corn cultivation. Households built their own houses. Social reproduction included the organization of social events, which structured social life in Black Thai villages, such as weddings and funerals. Households kept pigs and water buffaloes to prepare for such events.

Living conditions varied among households. Well-being largely depended upon the family cycle, because the cycle determined labor capacity and reproductive requirements. Young couples suffered from a low labor capacity and high reproductive requirements, including the support of young children and house construction. They typically lived in temporary huts and possessed few buffaloes, if they had any at all. Over the years, households expanded their labor capacity, but they also had to cover the expenses of their sons’ weddings. Older households were usually best off, as they owned up to several dozens of water buffaloes and lived in large, solid houses.

Around 1950, our knowledge of agricultural production and livelihood in Chieng Dong improves dramatically. Production practices, livelihood and land use appeared typical of Black Thai villages. Villagers worked wet rice fields and rice swiddens, and they raised water buffaloes. Extensive rice swiddening and animal husbandry had put pressure on upland forests, as indicated by the dominance of scrub land and secondary forest (see Figure 2.6). Agricultural output did not suffice to meet subsistence requirements. Many people felt compelled to seek work outside the village, some went as far as Laos to purchase food. Living conditions were especially hard in Ban Nhom, which had little paddy land and had to perform labor services for the local ph×a.

The Viet Minh encouraged land reform as soon as they had gained control over the villages at the end of 1952. Not only did the villages redistribute the land abandoned by the ph×a who had fled to Laos, but all village paddy land. All households received a share of the paddy, based on their labor capacity. In the following years, paddy output doubled in Chieng Dong. Rice swiddening rapidly increased and some villagers constructed rice terraces in the uplands surrounding the villages. Livelihoods improved, but forest area decreased.

III.1.2 Collective agriculture

In April 1959, the government decided to expand the collectivization drive to the uplands. Local state authorities rapidly implemented the campaign. By June 1961, almost all households in the valleys of the Northwest had joined agricultural producer cooperatives. Control over agricultural production shifted toward collectives. A Management Committee, Inspection Committee, and production brigades oversaw the organization of collective production and distribution of total output. All adult villagers were required to work around 200-250 days per year for the collective.

Collectivization in Chieng Dong, now a commune, largely followed the process described above. Following a decision by the district authorities, Na Pan and Na Noi villages merged to form Na Pan cooperative, and Huoi Lau and Khum Kheo joined to become Ban Chum cooperative in 1960/61. Corresponding to the historically strong collective control over land (see III.1.1), the villages collectivized land tenure right away, much earlier than most lowland cooperatives. Yet collectivization remained limited to rice production, buffalo husbandry, and since the 1970s, cassava. Households continued to grow corn and cassava and raised pigs and poultry on their own.

Collectivization initiated a massive state effort to integrate Black Thai villages into the Vietnamese nation. The newly independent state built an administrative structure similar to the one in the delta, composed of authorities at the commune, district, and provincial levels. Government cadres from the lowlands went into the Northwest to support local cadres in building up local state authorities and party cells.

The newly established local state authorities embarked on an ambitious program of upland development. They constructed irrigation projects, distributed new seed varieties and chemical fertilizer, and provided technical advice to promote the intensification of wet rice production. Around 1970, they began to support cassava cultivation through new seed varieties and technical advice. The state also demarcated forestry land and put State Forest Enterprises, district-level agricultural offices, and Forest Protection Units in charge of managing the land. The villages had to seek the approval of district authorities for the area and location of
swidden fields annually.

Agricultural production showed significant changes after 1960 (see II.2.1). In the initial years, wet rice production stagnated, and rice swiddening contracted, making per capita paddy output decline (see Figure 3.1). The trend in agricultural production changed in the late 1960s, however. Wet rice cultivation showed strong improvements until the mid-1970s, mostly because of improved yields. Cassava production rapidly increased in the first half of the 1970s. Per capita paddy output increased, though rice swiddening continued to decline (see Figure 3.1). Paddy production became more stable as wet rice production was more protected from climatic vagaries than rice swiddening.

Figure 3.1: Paddy output in Chieng Dong 1960-1980

What factors caused these changes in agricultural production? The absence of hard data, for example on weather, prohibits conclusive explanations. Yet collectivization and state intervention are likely to have contributed to them, as they modified the returns to labor. In the initial years, forest protection efforts raised the costs of rice swiddening, as the villages risked fines if expanding swiddens beyond the assigned areas. Also, collective rice swiddening did not prove more productive than individual fields, as there were no returns to scale. In the late 1960s, state support for wet rice and cassava cultivation began to pay off, by increasing labor productivity. Also, the collective organization of production facilitated the cooperation among villagers required for collective investments in water control and new fields and for changes in paddy management practices. Collectivization and state intervention thus provided incentives for cooperatives to shift labor from rice swiddening to wet rice and cassava cultivation.

III.1.3 Pressures on collective agriculture

Collective agriculture remained an unstable project in Chieng Dong. The actual control over production remained with brigades, not Management Committees. Brigades were easier to manage, the smaller the better. The number of brigades therefore increased gradually, for example from one village-wide brigade in 1960-61 to eight in the late 1970s in Na Pan. Also, the cooperatives continued to measure members’ work in labor days. In contrast, national policy had switched to a more sophisticated system, which included attention to the quality and difficulty of the performed work.

The state responded to the problems with collective agriculture in three ways. First, the state invoked the struggle for national reunification in numerous campaigns. The campaigns had the goal to motivate villagers to contribute to collective production and justify taxes and mandatory sales, which reduced the returns from collective production. Second, cooperatives were required to support those households which had a member in the military. These motivations for collective production became obsolete after the end of the war in 1975.

Finally, the state initiated repeated campaigns for cooperative reform. The campaigns followed the common goal to improve cooperative efficiency through the centralization of decision-making, an increase in cooperative size, and a more specialized division of labor. The campaigns had little effect on cooperatives in Son La province. Not before 1978 did village cooperatives in Son La merge into inter-village and commune-level cooperatives on a large scale. The reform also included various organizational measures to improve collective production.
In 1980, Na Pan, Ban Nhom and Ban Chum merged with two neighboring villages to form Chieng Dong II cooperative as part of the provincial campaign. The reform also reduced the number of brigades by one half and introduced specialized production teams for animal husbandry, irrigation, public works, tile making and house construction. The distribution of collective output shifted toward a more sophisticated system based on work quotas, which considered the type of work performed. Correspondingly, agricultural management became more difficult. And the transparency of collective organization decreased.

The reform could not prevent the erosion of collective control that had set in after 1975. The victory in the south had terminated the war as a source of motivation for collective production. Increasing taxes and mandatory sales absorbed a growing portion of collective output. It became increasingly difficult to motivate members to do collective work. They shifted their labor to work fields and raise animals outside the collective.

Paddy production stagnated in Chieng Dong in the second half of the 1970s (see II.2.2). Total collective paddy output fell to 171 kg/person in 1979/80 (see Figure 3.1). In contrast, individual corn and cassava fields rapidly expanded. Households raised increasing numbers of cattle and pigs on their own, while the collective water buffalo herd stagnated. When the state allowed households to receive additional land on a temporary basis, cassava and corn output sky-rocketed in 1981.

In sum, the benefits of collective agriculture were mixed in Chieng Dong. Output from wet rice cultivation increased substantially, providing a stable source of subsistence. Pressure on the forest declined, allowing the forest to regenerate. Yet overall, per capita paddy output declined. By the late 1970s, collective work yielded decreasing returns and became less and less popular. The collective organization of work had contributed to the changes in production, livelihood and land use. The state also influenced production in other ways, by investing in water control, providing new technology, and restricting upland farming.

III.2 Decree 100

In January 1981, the Secretariat of the Central Committee issued Decree 100 CT/TW. The decree legalized the "end-product contract" (kho n sfn phEm cuÈt cïng), a particular form of the many contractual arrangements applied by northern cooperatives in 1980. The state mandated cooperative leaders to conclude annual contracts with their members about the management of collective fields. The members were to assume all basic production tasks and be allowed to keep output in excess of a predetermined quota. The "end-product contract" thus allowed individual members to assume some control over labor and output, but it retained collective control over all other aspects of the production process.

III.2.1 The implementation of Decree 100

Chieng Dong II Cooperative introduced the "end-product contract" with the spring paddy crop of 1982. The cooperative assigned paddy and upland plots to its members, specified output quotas for the plots, and entrusted cooperative members with the tasks of (trans)planting, crop husbandry, and harvesting on these plots. The members were responsible for all production tasks with the exception of land preparation, water management and pest control. Land preparation was undertaken by the production brigades. Water management and pest control remained the responsibility of the specialized production teams established in 1980.

In a typical contract, the cooperative requested a household to work specific wet rice fields and a certain area of rice swidden. The paddy land to be cultivated by the household depended on the number of main laborers in the household. For each plot, the household received labor points, depending on its area and specific labor requirements. These labor points were added up and subtracted from the number of days that the household was expected to work for the collective. The household was then assigned additional areas of upland rice, cassava, and corn fields to fulfill its labor quota.

Each household had to fulfill an output and a labor quota. If a household had harvested more than the predetermined quota by the end of the year it was allowed to keep the surplus. If it had harvested less it had to make up the deficit from production activities outside the collective. If it over-fulfilled the labor quota it was compensated by the cooperative in cash.

Already at the beginning of each year the cooperative summed up output and labor quotas. It deducted agricultural taxes, production expenditures and contributions to various cooperative funds. The remaining product was divided by the total number of labor days to arrive at the value of a labor day (calculated in paddy
equivalents). After harvest, households would deliver only the share of output in excess of their remuneration for their labor contributions. For wet rice cultivation, this usually allowed households to retain around 70% of the contracted output. The share kept by them was higher for rice swiddens because the cooperative allocated a relatively large portion of the overall tax load and cooperative contributions to wet rice cultivation.

Changes in national forestry policy had little effect on village control over forestry land. In the first half of the 1980s, Yen Chau district authorities allocated virtually all forestry land to communes, cooperatives, and households. Yet households and cooperatives with forestry land still had to seek the approval of the district's Forest Protection Unit for the use of forest resources. They were not allowed to use the allocated land for cultivation. And the district authorities kept the right of timber exploitation.

III.2.2 The erosion of collective control

Collective control over production, as envisioned in Decree 100, was short-lived. Households rapidly gained full control over labor allocation. In 1984, the collective gave up control over land preparation. In wet rice cultivation, individual households with water buffaloes were put in charge of land preparation on their own fields as well as those of one or two other households. In the uplands, the collectives abandoned collective clearing. In addition, the collective reduced labor quotas. By 1988, main laborers in Na Pan worked an average of a mere 130 days for the collective.

Households also increased their control over capital assets. Chieng Dong II cooperative sold a large part of the collective water buffaloes to households. The cooperative asked individual households to take care of the remaining collective buffaloes. Many households began to raise buffaloes and cattle on their own or expanded the herd held in 1982. By 1985, less than ten per cent of all water buffaloes and cattle were owned by the collective. Only the distribution of chemical fertilizer was still managed by the collective, but application rates were low.

Similarly, collective control over output weakened in the 1980s. Already in 1982, the collective re-distributed only thirty per cent of contracted output, a much lower share than in lowland cooperatives. Households considered the seventy per cent retained by them as a fixed share in contracted output, and not as a remuneration for their labor contributions. In the uplands, the abundance of land suitable for cultivation opened up the possibility for households to work larger upland fields than the assigned areas. The collective did not monitor the areas that were actually worked, but only collected contracted output. The uplands thus provided a special opportunity to households for production outside the collective.

Collective control over output remained stronger in wet rice cultivation. The collective determined the allocation of paddy fields to households and the distribution of total paddy output among them. Collective distribution guaranteed a minimum level of subsistence for all households. It also provided a special reward to households with outstanding merits. Households with consistent above-quota labor contributions, war heroes, and long-standing officials received priority for the construction of a new house by the collective construction team. Wet rice production and house construction, two key elements in the physical reproduction of households, thus remained under collective control.

III.2.3 The expansion of land under cultivation

The "end-product contract" initially provided powerful incentives for households to work the assigned field intensively. It also gave them the flexibility to use their labor more efficiently. In response, paddy production increased rapidly in the first three years (see II.2.2). Output from wet rice cultivation rose by almost one half in Chieng Dong. Rice swidden output doubled in comparison with the level reported in 1979 and 1980.

Starting in 1985, households moved their labor away from the wet rice fields assigned by the collective. Rice swiddening yielded higher returns than wet rice cultivation, for several reasons (see Figure 3.2). First, rice swiddening was highly productive because the reduction of rice swiddening under collective agriculture had preserved plenty of suitable forest. Second, households were able to capture a higher share of output because the cooperative did not supervise swiddening as close as wet rice cultivation. Third, taxes and collective fees levied on rice swiddens were lower than those in wet rice production. Finally, rice swiddening allowed the cultivation of the preferred sticky varieties.

Figure 3.2: Returns to labor in paddy production, 1984
Output from wet rice cultivation declined after 1984 (see II.2.2). It remained below the level of 1983 and 1984 for the following seven years. In contrast, rice swidden output continued to rise. Rice swiddening in the second half of the 1980s significantly exceeded the historical record of 1960/61, in particular if one considers that the cooperative statistics did not include many fields worked by households outside the collective plan. Rice swiddening became a substantial source of food again, a reversal of the shift toward wet rice cultivation under collective agriculture.

Household production outside the collective also drove increases in the production of corn, pigs and cattle husbandry. Pigs and cattle were popular because they grew and multiplied rapidly and required a small start-up investment. They could be used for social events and were easy to sell to generate cash. The number of cattle increased by six times between 1982 and 1988. The increase indicated the increasing surplus accumulated by households.

In sum, the shift in control over production from the collective to households initiated a rapid growth of agricultural output in the 1980s. Living standards improved significantly. Per capita paddy output increased (see Figure 3.3), particularly if one considers that a significant part of rice swiddening outside the collective was not reported. The rapidly rising number of cattle indicated the growing surplus, as did the growing number of timber houses. By 1988, around a third of all households had hired construction crews to build new houses. A few had even sold water buffaloes or cattle to purchase tiles to roof their houses.

**Figure 3.3: Paddy output in Chieng Dong, 1979-1997**

The changes in production carried major ecological implications. The expansion of rice swiddening implied the clearing of large areas of upland forest. Extensive animal husbandry damaged existing forest and prevented
forest regeneration. By 1989, forest had largely disappeared in the vicinity of the villages (see Figure 2.10). Scrub land covered most of the slopes. Forest only remained where the land was unsuitable for cultivation or where villagers had developed their own rules of protection. For example, people collectively protected spirit and cemetery forests, enacted rules on the collection of bamboo shoots, and planted fruit trees and bamboo around their houses.

Changes in the relations of production were a key factor underlying the changes in production. The influence of other factors appeared minor in comparison. Population growth is likely to have contributed to the general expansion of agricultural production, but it cannot explain the initial growth and subsequent decline in wet rice production. Markets for agricultural products, inputs and consumer foods remained tightly controlled by the state. And climate and technology remained constant throughout the 1980s.

III.2.4 Changes in land tenure

The rapid erosion of collective control over labor, capital and output affected land tenure. Land tenure changed in two ways. First, control over land shifted from the collective to households. Second, the balance of village and state control over land changed.

Households could clear forest for upland fields wherever they found suitable land. Once a household cleared a field it customarily retained the use rights to the land. If another household was interested in working the land, it had to seek the permission of the household that originally cleared the land. The area claimed by a household or village in the uplands thus depended on its labor capacity, that is, how much land its laborers could clear. The emerging land tenure thus resembled the rules that had historically applied in the uplands (see III.1.1).

The district’s Forest Protection Unit reacted with repeated attempts to limit the expansion of upland fields up the slopes. Each year, the Unit fined households for clearing forest outside the areas assigned to the cooperatives. The Unit’s efforts were not successful, however. The fines were low and could often not be collected. Many forest protection officers were sympathetic to villagers’ need for food production. Also, the district’s own timber enterprise participated in the exploitation of the remaining timber. It extracted a large number of logs from the extensive pine forest above Na Pan in 1987 and 1988. State control thus could not prevent the rapid expansion of agriculture into the uplands. Villagers cultivated fields in many areas which should have been protected as forestry land according to national regulations (see Figure 3.4).

Figure 3.4: The conflict between village land use and state regulation in 1989

In contrast to upland fields, equity concerns motivated continuing collective control over paddy fields. The
collectives allocated fields to households on the basis of the number of main laborers in a household. They adjusted household paddy fields in 1985, to accommodate changes in household labor and the general increase in village labor due to population growth. Similarly, the commune People’s Committee re-distributed paddy land among the villages to reduce differences in land availability. Ban Nhom gained some land, as its paddy fields had been small.

III.3 Resolution 10

In April 1988, the Party Central Committee passed Resolution 10. The resolution called for a radical shift in control over agricultural production from collectives to households. Problems with the “end-product contract” had become widespread all over the country, just as in Chien Dong. The Communist Review reported in 1987 that four out of five cooperatives had fully given up collective control over production and distribution. In many places, cooperatives had allocated agricultural fields to households and put them in charge of production. Households were entitled to the total output harvested on the allocated fields. The new contractual arrangement became known as the “package contract” (khoánhăng).

III.3.1 The making of Resolution 10

Like in many other places, cooperatives in Yen Chau had explored new production relations that increased household control. In 1986, two communes transferred control over production to households with the approval of the district authorities. In January 1988, the Son La party Cell and Agricultural Department endorsed experiments with the “package contract” in 37 cooperatives. Two cooperatives in particular received much attention by provincial decision-makers. Evaluations of their re-organization were highly positive as their members expressed a high motivation to work, expanded the area under cultivation, and increased their income. Similarly, villagers in most of the other cooperatives were satisfied with the new production relations.

Following Resolution 10 in April, the authorities of Son La province pushed for a rapid re-organization of production relations. The People’s Committee announced in June that it wanted to expand the “package contract” to 200 cooperatives during the following rainy-season crop. By September, 83 cooperatives applied the “package contract”, and the provincial authorities announced the goal to extend the new contract to all cooperatives for the 1989 spring crop. In November, the Agriculture and Forestry Department published a booklet with guidelines for cooperative reform.

Throughout 1988, the central government remained in the background, leaving the initiative with villages and local state authorities. The discussion about the re-organization of production relations was very lively in Son La. For example, the question of what to do with the collective water buffaloes provoked a heated debate in the provincial newspaper. Only in November did the central government reassert its authority to guide the transition from collective to household agriculture. The government issued a decree in which it provided concrete regulations for the new relations of production in agriculture.

III.3.2 The limited impact of Resolution 10

The cooperatives in Chien Dong formally implemented the “package contract” at the end of 1988. The cooperatives dissolved the specialized production teams, with exception of the irrigation groups. They sold the remaining collective water buffaloes to member households and they reduced the number of cadres. And they split up into village-level cooperatives. There were, however, no further changes in control over production. The implementation of the “package contract” left production relations in the cooperatives virtually unchanged.

Changes in the control over production relations were minor for three reasons. Most importantly, households had already gained extensive control over production during the 1980s (see III.2.2 and III.2.4). The change in national policy only confirmed the changes in production relations which had already happened before. Second, the cooperatives did not implement a key provision of the new policy. They did not allocate the collective paddy to households for the long term. Instead, they continued to reallocate collective paddy fields in 1989 and again in the mid-1990s. Finally, changes in control over output had little effect in practice. Households did not see the change in the underlying accounting system, as they continued to transfer a fixed share of total output to the cooperative for taxes, cooperative funds, and the purchase of chemical fertilizer. Taxes and cooperative contributions remained constant until 1994.

III.3.3 The intensification of paddy production
Agricultural production underwent fundamental changes in the first half of the 1990s (see II.2.3). Paddy production shifted from rice swiddening to wet rice cultivation. Villagers intensified the production on the collective paddy. Fertilizer application rates reached 170 kg of nitrogenous fertilizer per hectare, more than three times the amount used in 1988. The average yield increased to 5.1 tons/hectare/crop in 1997. Yields rose even further when villagers tried a new hybrid variety in the spring of 1997. Output from paddy production thus dramatically increased in the 1990s. In contrast, rice swidden output drastically declined.

Paddy production shifted from rice swiddens to wet rice fields because several factors increased the relative returns to labor in wet rice cultivation (see Figure 3.5). First, the productivity of rice swiddening decreased because villagers had cleared most suitable land in the surrounding uplands. By 1990, villagers had to either open up new fields in very remote locations or face low yields and high weeding requirements on the land near their village. Second, technological improvements increased the attractiveness of wet rice production as a source of staple food. New seed varieties and chemical fertilizer facilitated significant yield increases. Third, cuts in state taxes and cooperative fees between 1993 and 1995 raised the share of output retained by households from 70 to 85 per cent. Finally, increasing supplies and more favorable prices facilitated an increase in fertilizer application. The urea price fell from an equivalent of three kg of paddy in the 1980s to two kg in the mid-1990s.

Villagers not only intensified production on the collective paddy, but they also constructed new rice terraces (see Figure 2.7). Terracing required an initial investment of household labor. Yet once terraces were built, labor requirements on the terraces were similar to those in the collective paddy. Households did not need to apply any fertilizer or manure, and weeding requirements were minimal. Only land preparation and harvesting required more labor because of the small size and remote location of terraces.

Rice terracing was particularly attractive because households enjoyed strong individual control over their terraces. Neither the collective nor the state attempted to limit household control. Households were free to dispose of the entire output and could even sell terraces, which was not possible for any other type of land. Rice terracing accelerated after land allocation, because it provided a security of household claims over land unequaled by any other type of land use. The Forest Protection Unit allowed households to build and maintain rice terraces on land officially demarcated as forestry land. Households could also retain terraces on land allocated to another village.

Rice from newly constructed terraces played an increasingly important role. By 1997, output from terraces accounted for more than one quarter of total output in wet rice cultivation in the commune. Villagers grew most of the highly valued sticky rice on them. They preferred the traditional sticky varieties though modern varieties produced much higher yields.

III.3.4 The intensification of upland cultivation

Upland cultivation shifted from rice swiddening and cassava cultivation to corn production (see II.2.3). Though output of both corn and cassava increased initially, only corn took off after 1993. Corn output tripled within the
following three years. Cassava output dropped by more than half after 1992. Its significance as a cash crop declined, but villagers still grew it as a source of food and income in emergency situations and for its supply of animal feed. In addition, villagers believed cassava protects soil fertility, if intercropped with corn. Output from rice swiddening dropped in 1997 to less than one third the level of 1989.

The factors affecting villagers' choice among the three crops radically changed around 1990. First, as discussed above, declining soil fertility and increasing output in wet rice cultivation reduced villagers' motivation to engage in rice swiddening as a source of food. Second, changes in technology benefited corn more than the other two upland crops. New varieties increased the average corn yield from one ton/hectare in the late 1980s to three tons/hectare by 1993.

Third, just as technological innovation, the rapidly expanding markets for agricultural output favored corn more than the other two crops. Starting in 1989, lowland traders began to pass through Chieng Dong in larger numbers. Cassava and corn was in high demand to satisfy the need for animal feed in the Red River Delta. After 1993, the corn price rose against cassava. Market expansion also motivated growing sales because villagers wanted to purchase increasingly available consumer goods. Numerous small stores offered a rapidly expanding choice of consumer goods in Chieng Dong and Yen Chau.

Changes in soil fertility, wet rice production, technology, and markets thus made corn more attractive than cassava and rice as the major upland crop. Corn yielded higher returns to labor than the other two crops (see Figure 3.6). Corn was also more attractive than cassava because it was less exposed to damage by grazing animals. Cassava was often damaged by roaming animals in the agricultural off-season, as cassava was usually left to grow for two or three years.

**Figure 3.6: Returns to labor in uplands cultivation, 1993**

![Figure 3.6](image)

High returns to labor in corn cultivation did not, however, motivate villagers to move labor out of wet rice production. By 1993, corn yielded almost double the returns to labor possible in wet rice production, in terms of cash income (see Figure 3.7). Villagers continued to intensify wet rice production, on the collective paddy and through rice terracing. This demonstrates that villagers separated the production of staple food from cash cropping, maintaining a similar level of per capita paddy output between 1988/89 and 1997 (see Figure 3.3). Beyond this food security floor, they chose upland crops by their relative cash returns.

**Figure 3.7: Return to labor in wet-rice and corn cultivation, 1993**
III.3.5 Improvements in livelihood and forest cover

The growth of wet rice and corn cultivation led to improved living standards in Chieng Dong. Per capita paddy output continued to rise, to 210 kg in 1997 (see Figure 3.3). In comparison with 1988/89, paddy output also became more stable because of the increasing share of wet rice production. In 1997, wet rice cultivation accounted for 95% of total paddy output. And a large share of rice output came from the preferred sticky varieties.

The villages enjoyed unprecedented flows of income during the 1990s. Corn cultivation was the major source of income, the average household was making about VND 1.6 million from corn sales in 1997. Cattle and buffalo husbandry continued to boom. The villages visibly displayed their newly acquired wealth. Most households lived in tile-roofed timber houses. The construction of such a house required cash expenditures of between seven and eight million VND. Some households even owned durable consumer goods, such as motorbikes, rice mills, TV sets, and furniture. The rising wealth also expressed itself through big weddings and funerals, on which villagers spent more than the income earned in one year.

Agricultural intensification changed the patterns of land use. Villagers concentrated corn fields in areas on limestone rock, which they considered more suitable for corn cultivation. They also preferred locations which allowed a relatively easy transport of the harvested corn to the village or a near-by road. Upland fields therefore became increasingly concentrated in certain areas, increasing the intensity of land use in those areas. Though new corn varieties hid the effects of permanent cultivation on soil fertility, households reported a tendency of declining yields.

Agricultural intensification reduced the area under cultivation in remote areas. In response, forest cover slightly increased during the 1990s (see II.2.3). Forest growth mostly stemmed from an increase in open-canopy forest, as scrub land regenerated to young forest. Part of the land, which had in the past been used on a rotational basis, reverted back to forest.

III.4 Summary and Conclusions

Agricultural production, livelihoods and land use underwent drastic changes in the 1980s and 1990s. Living standards showed significant improvement, as paddy output and cash income rose. Land use changed from a trend of extensification in the 1980s, implying a rapid loss of forest cover, to intensification in the 1990s, allowing the forest to grow back but increasing pressure on soil fertility.

The agricultural reforms affected production in Chieng Dong to some extent, more so in the early 1980s than thereafter. Decree 100 significantly changed relations of production in Chieng Dong, which in turn shaped agricultural production. In contrast, the influence of Resolution 10 on livelihood and land use in Chieng Dong was minor in comparison with changes in soil conditions, technology and markets.

The findings highlight the fact that changes in national policy are mediated by village institutions and local state authorities. The relations of production in Chieng Dong often displayed a significant discrepancy from
national policy. Collective control over production eroded in the 1980s to a much larger degree than mandated by national policy. The changes in production relations in Chieng Dong thus preceded the change in national policy. In the 1990s, village collectives maintained control over the collective paddy despite the national mandate to allocate paddy fields to households.

The relationship between national policy and local changes in the relations of production was a dynamic one. National policy shifts affected changes in local production relations, such as Decree 100 in the early 1980s. In other instances, national policy reforms followed changes in production relations. Also, policy and local production relations at times differed significantly from each other. They differed because local state authorities modified national policy in the process of implementation and because village institutions mediated the influence of policy. The following chapter discusses these issues in more detail, using land allocation as an example for such negotiations between the central government, local state authorities, and villagers.
IV. Land Allocation

In July 1993, the National Assembly passed a new Land Law. The Law mandated the state to allocate land to households under long-term lease arrangements. This chapter examines the effects of land allocation on land tenure in Chieng Dong. It pays particular attention to village-state relations and the question of how they affected the implementation of national policy. The more recent timing and extensive documentation of land allocation allow for a more in-depth examination than it was possible in the previous chapter.

IV.1 Distant Points of Departure

In Chieng Dong, land tenure relations had evolved in response to expanded household control over production in the 1980s and early 1990s (see III.2.4 and III.3.2). Thus, when national legislation initiated the land allocation program, villagers in Chieng Dong had already developed commonly recognized rules governing the use of land.

IV.1.1 Village land tenure

In the early 1990s, village rules on land tenure differed among land types. As for the collective paddy, villagers received shares from the village collectives. Their shares depended on household membership, following a formula agreed upon by villagers. The collectives adjusted household shares periodically to accommodate changes in household membership and village population. Na Pan, Ban Nhom and Ban Chum re-allocated fields in 1989, Na Pan again in 1992. The distribution of paddy fields among villages remained constant, however.

Households enjoyed strong rights to upland fields, without intervention by the collective. In the 1980s, households gained new upland fields by clearing them. Even after households had claimed most land by the end of the 1980s, upland holdings remained flexible. Households expanded their fields onto to their neighbors' land in years with high labor availability and let their neighbors expand their fields onto their own in years with a lack of labor. Households also exchanged fields with each other and obtained new fields on a temporary or even permanent basis. Households upland holdings thus remained very flexible, as villagers renegotiated their boundaries every year. Fields occupied a large part of the uplands, independent of formal village boundaries and forest protection efforts by the district (see Figure 3.4).

Land rights were strongest for rice terraces constructed by households. Households could construct new terraces wherever suitable, independent of village boundaries or the demarcation of land as forestry land. In contrast to the village paddy, households which constructed new terraces gained the right to work them independently of the collective. Also, households were exempted from paying taxes or cooperative fees on the terraces. In contrast to upland fields, the boundaries between rice terraces were generally recognized and not subject to negotiation.

IV.1.2 National policy

The 1993 Land Law mandated the state to allocate land under long-term lease arrangements. In the case of annual crops, households were entitled to receive use rights for a period of twenty years. Allocation allowed them to transfer their use rights to other households, take mortgages on the land, and pass the land use rights on to their heirs. The Land Law thus expanded the legal rights of land users, both in terms of the duration of the rights and the extent to which the rights became transferable. The stated objective was to increase tenure security as a measure to facilitate more intensive land use.

The Law and subsequent implementing decrees promulgated regulations on the process of land allocation. The legislation required land allocation to comprise a cadastral survey, mapping, title registration, and the issuance of Land Use Right Certificates, or Red Books, as they are commonly called. Land allocation and future land administration was to be implemented by a newly established General Department of Land Administration, which had sub-branches at the provincial and district levels. The guidelines also stated that land should be allocated on the basis of existing land use patterns. It allowed households to receive use rights for land in another village. In addition, the Law limited the maximum amount of annual crop land that could be allocated to a household to two hectares in northern Vietnam.

In Decree 2/1994, the government decided that land with existing forest or forestry land located in critical watersheds could not be allocated to households. Instead, the state allocated the land to state organizations, which would conclude contracts with households for forest protection. The contracts were renewed annually and included payments to households for their protection activity. They reserved the exploitation of all main
trees and one third of all secondary trees on the protected land to the state and allowed households to use the remainder.

**IV.1.3 Provincial priorities**

The People's Committee of Son La province integrated land allocation into a campaign of forest protection implemented in 1994. Besides land allocation, the campaign included various other measures, such as tree planting, the demarcation of upland areas with important watershed functions, the strengthening of village forest protection and fire prevention groups, and the mandate to restrict rice swiddening. Reflecting the emphasis on forest protection, the People's Committee assigned district-level Forest Protection Units a primary role in executing the campaign.

The provincial authorities instituted strict rules to enforce forest protection. First, they limited household upland holdings to 2,000 m² per person in a household and a hectare and a half per household. Second, they promulgated criteria for the demarcation of forestry land (see Figure 4.1). Forestry land included all existing forest as well as rocky karst formations unsuitable for cultivation. In addition, the People's Committee mandated that the top third of hills and mountains be demarcated as forestry land, as well as 80 meter wide protection belts on each side of national and provincial roads.

![Figure 4.1: Son La's "model of integrated agriculture and forestry"

In sum, village land tenure in Chieng Dong and state policy differed from each other in three crucial ways:

- The village collectives adjusted household shares in the collective paddy periodically. National policy excluded collective control, as it did not recognize any levels of control between households and the state.
- Villagers worked agricultural fields all over the uplands. The provincial guidelines mandated the demarcation of large upland areas as forestry land.
- Upland holdings were very flexible in the villages, as they depended on annual negotiations among villagers. National legislation, however, assumed that agricultural plots were relatively fixed.

**IV.2 Land Allocation in Chieng Dong**

The administration of Yen Chau district conducted land allocation in Chieng Dong in two rounds. In 1994, it implemented the provincial campaign on forest protection. In 1995, it assigned plots of forestry land to individual households.

**IV.2.1 The provincial campaign of 1994**
The Yen Chau People's Committee kicked off the forest protection campaign on May 19. Within the next two weeks, people in the district planted 30,000 trees. The district administration established an Office of Land Administration and assigned four cadres to run the office. It organized commune-level task forces and training courses for their members, which comprised district and commune cadres as well as village heads. And the People's Committee issued guidelines for land allocation and forest demarcation, guidelines which slightly modified the provincial directions. The district authorities ruled out the allocation of village land to people who did not reside in the village. And they expanded the allowable quota of upland fields to two hectares per household.

In Chieng Dong, the task force began forest demarcation and land allocation in late June. The task force organized meetings with villagers to explain the upcoming activities and requested households report their land holdings to village officials. It went out into the field to demarcate forestry land, including sizable areas on which villagers had previously worked agricultural fields. The task force required households with fields on the forestry land to abandon them after the cropping season. The households had to sign written declarations, countersigned by representatives of the village, the commune's People's Committee, the task force, and the Forest Protection Unit.

As a next step, it sent the newly appointed cadastral officer of the commune and village officials into the field to inspect reported fields and estimate their sizes. The task force and households formalized the preliminary allocation in a "land application" and a "preliminary allocation form", which included information on the shape, size, and general location of each allocated field. The total allocated area was significantly below the total area of upland fields worked in 1993 (see Figure 4.2). By the end of July, the task force had completed land allocation in Chieng Dong.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure42.png}
\caption{Land allocated in 1994 (as share of land under cultivation in 1993)}
\end{figure}

Just as in the three villages, the task forces had largely completed their work by the end of July. On August 10, the district's Steering Committee issued its final report. The campaign had zoned 15,000 hectares as forestry land, had detected more than 2,000 cases of violations against forest protection, had planted more than 100,000 trees, signed up people to protect forest or plant trees on more than 2,000 hectares, and allocated agricultural land to more than 6,000 households in 60 villages - all this within two months. The final report read as an impressive record of local state capacity.

\textbf{IV.2.2 Forest protection contracts in 1995}

In 1995, the district's People's Committee intensified the efforts at forest protection. Yen Chau had been selected by the Ministry of Forestry and provincial authorities as a pilot district for the implementation of the Social Forestry Development Project (SFDP) in Song Da. With support from the SFDP, forest protection officers returned to the villages to assign the protection of specific parcels of forestry land to households. As in 1994, the cadres held an initial meeting with villagers to announce the upcoming assignment. They requested village officials draw up a list of households interested in receiving forestry land for protection. And they assigned specific parcels to households in the field, documenting the assignment in forestry land applications and forestry land certificates.
Unlike in 1994, the district cadres spent much effort documenting the boundary between agriculture and forestry land and between individual plots. Forestry land certificates included relatively detailed drawings of the assigned land. And the cadres prepared three sets of maps, depicting current land use, planned future land use, and land tenure. A concurrent database matched each agricultural field and forestry parcel with the name of the household that had received the land.

For forestry land parcels with existing forest, more than one thousand hectares in the three villages, the district authorities concluded protection contracts with individual households and groups of households. In the contracts, the households had to commit to protect the assigned forest in return for an annual cash payment (VND 30,000/ha) and the right to collect firewood and other secondary forest products on the land.

Despite the promised cash payment, villagers were very reluctant to take up forestry land. Around ninety households had just been fined, because they had continued to work agricultural fields on land zoned for forest protection. Another 50 households had been prosecuted for illegal timber exploitation. Villagers were therefore concerned about the obligation to guarantee forest protection and doubted the commitment of the Forest Protection Unit to deliver the promised payment.

The protection contracts became more popular in 1997. They became attractive for two reasons. First, the Forest Protection Unit disbursed the promised payments, which provided significant sources of cash income for some households. Second, the Unit only fined two households for violations against forest protection in 1996 and 1997. As a result, most households without contracts requested to receive some land for protection. The Forest Protection Unit was, however, not willing to sign new contracts and suggested that households originally without contracts join households with existing contracts. Thus, by the middle of 1997, most households participated in the protection activities, though their participation had not been documented in a forest protection contract.

In addition to the contracts, the Forest Protection Unit enacted three more measures to enforce forest protection. First, it drew up village forest protection codes, had the village officials commit to them in writing, and posted them in the village center. Second, it requested households that wanted to build new terraces on protected land to seek the written permission of the Unit. And third, it provided seedlings and cash payments for villagers who signed up for tree planting.

In sum, the district administration undertook a massive land allocation movement in the villages in 1994 and 1995. It reported a successful completion of the activities undertaken in the two-year period. Households had gotten their land holdings certified in Red Books. Vast upland areas had been set aside as forestry land. And the protection contracts had become popular. Had the campaign been successful? Had the state transformed land tenure in the villages?

IV.3 Local Cadres: Mediators between the State and Villages

Local cadres implemented land allocation and forest protection. It is therefore interesting to take a close look at the background of local cadres, comprising village officials, lower-level cadres in the commune and district administrations, and the leadership of Yen Chau district.

Village officials included the village head (trręng thị), party secretary (bÝ th), and a few cooperative officials. The village head and secretary were formally appointed by the commune's People's Committee and Party Cell, respectively. In practice, they were chosen by villagers and had previously served as cooperative officials. Village officials differed little from other villagers. They continued to work in agriculture full time, and their exposure to the world beyond the village was limited. Very few of them had ever left Son La province. Yet they had gained a reputation as hard workers and successful farmers. And they had gained a good understanding of state policy relevant to their village, about which they learned in meetings at the commune and district levels and through the mass media.

As with village officials, commune cadres maintained close ties with villagers. The commune leadership, comprising the chairman of the People's Committee, the party secretary, and People's Council were chosen and elected by people in the commune. The remaining cadres, among them the cadastral officer, had been recruited locally, had often served as village officials before, and were paid by the People's Committee. They continued to live in their village and engage in agricultural production. The only exception was the chairman, who had temporarily withdrawn from agricultural production.

Cadres in lower-level positions of the district administration originated from two backgrounds. A large number were Black Thai and came from agricultural households in nearby villages. They had usually left their villages and agricultural production, living in the district town. They had become exposed to outside influences through
short-term training courses at the provincial and possibly even national levels and through extensive exposure to mass media. At the same time, most maintained a house in their village, frequently visited home, and returned to their village after retirement.

The other group of low-level district cadres were ethnic Vietnamese (kinh). Kinh families had begun to settle in Yen Chau district in the 1960s, under state-sponsored resettlement programs. Most Kinh cadres could not converse in Thai, and they kept an orientation toward the Red River Delta and Hanoi through periodic visits and the media. Yet they also spent their entire professional lives in the district and often stayed on after retirement.

The leadership of Yen Chau was predominantly Black Thai and maintained close ties with their home villages. The chairwoman of the People's Committee and the Party Secretary were Black Thai from Yen Chau, had received extensive training at the provincial and national level, but had spent their entire professional careers in Yen Chau district. Other leadership positions were occupied by cadres from the two backgrounds discussed above.

In sum, local cadres were located at the intersection of the state and villages. A large majority of them came from local villages and maintained close ties with their kin and fellow villagers. The close ties between local cadres and villagers influenced the activities of the local state. Local cadre attempted to accommodate villagers’ interests, sometimes even when they contradicted national policy. A Participatory Rural Appraisal (PRA) illustrated the mutual accommodation between cadres and villagers (see Box 4.1).

**Box 4.1: The Participatory Rural Appraisal (PRA) in Ban Nhom**

District cadres initiated a PRA workshop in Ban Nhom in 1995 to identify the specific needs of the village and prepare land use planning and the allocation of forestry land parcels to households. A large number of the cadres came from the Forest Protection Unit and forestry extension.

The district cadres worked with village officials and other villagers over two days. They met with village officials at the beginning to explain their purpose and organize the work program. They conducted interviews with village officials and other knowledgeable villagers on the history of the village, the history of forest use, land resources and social differentiation. They interviewed selected households on their farming systems, sources of income and perceptions on production constraints. At the end of the workshop, they met with the whole village to present their findings.

The workshop produced the results expected by the district cadres. The report summarizing the workshop concluded that people in Ban Nhom needed to conduct land use planning, that forestry land should be allocated in parcels to households, and that people wanted to plant trees. The conclusions were preceded by an assessment of resource use problems in Ban Nhom that replicated the narrative of rapid and continuing deforestation driving the cadres' work. Local cadres and villagers had found that villagers were degrading local forests and that forest degradation was the primary cause of poverty.

Closer examination of two PRA components highlights how district cadres and villagers reproduced the narrative. First, district cadres and a 30-year old village official constructed a history of land use in Ban Nhom that mirrored the conventional story of rapid deforestation, its causation by a lack of clear ownership rules, and negative effects on production. They presented a story of continuous forest loss that started from dense forest in the 1950s and gradually radiated out from the village, accompanied by a shift from two to one annual rice crop because of an increasing water shortage. The story is in stark contradiction with the findings of this dissertation (see II.2.1).

Second, the district cadres had gradually narrowed down the issues under examination to those they were ready to address. In the original household interviews, villagers emphasized problems in agricultural production, in particular wet-rice cultivation. The solutions to villagers' problems listed at the end of the interviews, however, already narrowed the proposed activities down to those envisioned by the district. Consequently, the activities proposed in the final meeting prioritized the activities favored by the district administration: forestry land allocation, land use planning and tree planting. The final PRA report then translated the proposed activities back into problems to be solved.

The workshop had met the cadres' expectations. Yet the village officials did not only cede to the cadres' demands but also pursued their own interests. They successfully deflected the
The PRA workshop demonstrated how local cadres and villagers may ignore apparent discrepancies between state action and village practice. Village officials were responsive to the cadres' objectives and needs. They helped the cadres tell a story of land use and define priority activities in a way that fit the state's agenda. In return, they received the cadres' implicit commitment to look away from discrepancies between state policy and village practice and acknowledge their claims on the state's resources. Accommodation thus allowed both cadres and villagers to pursue their interests.

The tendency towards accommodation sheds a different light on the state's claims of successfully completing land allocation and achieving effective forest protection. Were the state's activities as successful as reported? The following three sections provide a thorough analysis of how land allocation affected land tenure in the villages.

IV.4 Wet rice fields: no allocation

When the People's Committee issued the Red Books no reference was made to wet-rice fields. Thus, allocation documents excluded collective paddy fields and rice terraces, the two primary sources of food in the villages.

IV.4.1 Collective paddy: the district administration abstains

The Red Books did not include collective paddy because the district's People's Committee decided to drop them from allocation. The People's Committee wanted to avoid open confrontation with the villages. Village officials had protested the allocation because it conflicted with their practice of periodic re-allocation. In fact, all three villages re-allocated collective paddy fields in the following years. Beyond the three villages, periodic re-allocations of collective paddy remained a common phenomenon in Yen Chau district and Son La province. This was in stark contrast with reports from many villages in other provinces of northern Vietnam, where paddy fields had been allocated to households under long-term lease arrangements mandated by the policy.

While the People Committee ceded to village demands, it was still able to report the successful completion of the forest protection campaign to the provincial authorities. The final report noted only that agricultural land had been allocated to thousands of households, but it did not mention that allocation had excluded paddy fields.

In 1997, local cadres justified the exclusion in three ways. First, they pointed out that the campaign had focused on forest protection, hence measures to limit upland cultivation. Second, the cadres highlighted the equity aspect of continuing re-allocation, the main argument in favor of re-allocation used by villagers. Third, they claimed that they did not carry the responsibility for the exclusion from formal allocation, that it was the decision of each village.

IV.4.2 Rice terraces: a vehicle of Black Thai land expansion

As in the case of collective paddy, rice terraces did not appear in the Red Books. In addition, the People's Committee allowed households to continue working terraces on land allocated to another village. This was a special privilege accorded to rice terraces, as upland fields located on the land of another village had to be abandoned.

The privilege given to rice terraces favored Black Thai households, as they had constructed terraces on land formally allocated to neighboring H'mong villages. In contrast, H'mong households accorded more priority to upland fields than wet-rice cultivation and had begun rice terracing much later than the Thai. H'mong villagers did not cultivate any rice terraces on land allocated to Thai villages.

The privilege accorded to rice terraces strengthened Black Thai claims on land formally allocated to neighboring H'mong villages. This led to a situation in which Black Thai villagers worked rice terraces right in the center of Phung Khoai, a neighboring H'mong village. In the following years, several H'mong households left the village in search of better land.
The H'mong of another village, Huoi Sieu, were more successful in containing Black Thai land expansion. In 1992, the commune's People's Committee had given the H'mong village legal rights to land that included large areas of terraces and upland fields worked by Thai households. In the following years, the H'mong put increasing pressure on the Thai to abandon their fields. They let their buffaloes and cattle roam freely and destroy Thai crops. They called upon the district administration to fine Thai households that worked upland fields on their land. And they even purchased rice terraces from Thai. Though the H'mong of Huoi Sieu could not totally prevent Thai land expansion, they found ways to protect their legal land rights.

In sum, land allocation did not modify existing village tenure regarding wet-rice fields. It did not affect village land tenure because local cadres found ways to accommodate both village demands and the state agenda, though they were in conflict. They excluded collective paddy from allocation, yet they were still able to report the allocation of agricultural land, because the Red Books included upland fields. In addition, local cadres paid particular attention to the interests of Black Thai villagers, favoring their rice terraces over the upland fields worked by H'mong.

IV.5 The Shifting Boundary Between Agricultural and Forestry Land

Provincial and district authorities expected land allocation and forest protection contracts to limit agriculture in the uplands, thus protecting forests. District cadres zoned significant upland areas as forestry land and allocated a smaller area to households than had been available to them in 1993 (see Figure 4.2). They also made people sign forest protection contracts in which villagers promised to protect existing forest.

Despite these measures, however, the state could not stop the expansion of cultivation (see Figure 4.3). In 1996/97, the three villages together cultivated a larger upland area than in 1993. The area under cultivation also exceeded the area allocated in 1994 by more than 70 percent (see Figures 4.2 and 4.3). The state had been unable to confine upland cultivation to the allocated fields.

Figure 4.3: The expansion of land under cultivation

![Figure 4.3: The expansion of land under cultivation](image)

Villagers continued to cultivate fields on forestry land. In particular, the rule that the top third of hills be protected as forestry land was easy to circumvent as they increasingly extended their fields up the slopes. Some villagers also opened up small new fields on protected land, mostly in remote areas. The upland area under cultivation thus significantly exceeded the area declared during land allocation in 1994.

The forest protection contracts did not affect the ways villagers gained control over forestry land and forest resources. Households with contracts did not prevent other villagers from using the assigned land to graze their livestock, extract wood, collect other forest products, or expand adjacent upland fields. They could not even stop fellow villagers from opening up small rice swiddens or cassava fields on remote forestry land if they claimed to need the fields for their own subsistence. The village collectives, however, enforced restrictions on selected forest products. The collective of Na Pan outlawed the sale of bamboo shoots and limited the period during which collection was allowed. Na Pan thus hoped to ensure the regeneration of sufficient bamboo shoots to meet village demands.
Villagers also found ways to utilize the state's tree planting program for their own purposes. Most villagers planted trees for the associated payments but had little interest in caring for the trees once they had received the payment. For example, the Forest Protection Unit estimated that only 10-15 per cent of the trees planted in 1995 survived the first year. Several households in Ban Chum planted trees on what had previously been upland fields along National Road No. 6, which had been zoned as forestry land. They planted the trees to maintain control over the land. The tree planting allowed them to continue cultivating their fields until tree canopy had fully developed. It does not come as a surprise then that the trees did not grow well. A closed canopy would have indicated the loss of highly attractive upland fields.

The Forest Protection Unit tolerated villagers’ responses to forest protection efforts. It virtually stopped enforcing forest protection regulations. The Unit only fined two households in 1996 and 1997. It approved all applications for the construction of new terraces on forestry land. The Unit also paid out the full amount of protection payments, though many parcels of forestry land clearly showed evidence of their use for cultivation, grazing or the extraction of wood or other products. The provincial Forest Protection Department decided to abandon the restriction on cultivation along National Road No. 6.

In sum, upland cultivation continued to expand throughout the 1990s, despite land allocation and forest protection. The district authorities extended the land ceiling already mandated by the provincial guidelines during land allocation. The provincial authorities followed suit at the end of 1994, recognizing the limit set by the district administration. Thereafter, the state was unable to stop villagers from expanding the area under cultivation even further. The conflict between state policy and village practice did not lead to a confrontation because local state cadres looked away. They issued permits and approved protection payments without serious investigations of their justification. And local cadres allowed villagers to negotiate down the reported area under cultivation, an important number for its use to assess tax loads (see Box 4.2).

**Box 4.2: Land statistics - the number game**

Within only one year, the villagers of Ban Nhom managed to reduce the reported area of upland fields by one quarter (see Figure 4.4). While they reported upland fields totaling 86 hectares in June 1994, a cadastral survey conducted in 1995 found only 63 hectares. Both numbers fell drastically short of the estimated area under cultivation in 1997 derived from remote image interpretation and household interviews.

What happened? The differences between the numbers were not coincidental. They revealed the underlying politics between the state and villagers. The state wanted to protect a significant part of the uplands as forest and levy taxes on the area under cultivation. Villagers wanted to minimize the protected area and their tax obligations. The politics shaped the numbers in the following way:

- **Land overview, 1994:** At the onset of land allocation, villagers claimed the largest area to which they were entitled under the provincial guidelines: 2,000 m² per capita. 430 people reported 86 hectares.
- **Sum of allocated fields, 1994:** A few days later, the task force allocated individual upland fields to households. The reported area contracted to 75 hectares because households asked village officials and the commune’s cadastral cadre to come up with low estimates for the size of their fields, thus lowering tax obligations. At the same time, they claimed as many plots as possible to secure their control over the land.
- **Tax assessment, 1994:** At the end of the year, the district's tax office assessed the village's taxable upland area as 71 hectares. In consequence, the tax load of Ban Nhom did not change.
- **Cadastral survey, 1995:** The survey yielded yet a lower area under cultivation, 63 hectares. The reported area declined because households reported fewer fields than in the previous year to reduce their tax obligations. They omitted fields in remote areas and those left fallow in 1995.

**Figure 4.4: The shrinking uplands fields of Ban Nhom**
IV.6 Fluid Upland Boundaries

Land allocation and forest protection did not have much effect on the distribution of control over upland areas between villagers and the state. Yet land allocation may have affected the distribution of upland fields among villages and households. Its effects may have come from two sources. First, the demarcation of forestry land and village boundaries may have affected household and village upland holdings, an issue examined in the first two parts of this section. Second, it may have affected the rules governing access to new land, which is the focus of the third part of this section.

IV.6.1 The effects on household plots

Land allocation affected the majority of the 65 interviewed households in the three villages. Forty households experienced a change in upland holdings.

- Twenty-seven households lost fields, mostly because they had worked land now zoned as forestry land and land of another village. Only four households were forced to release some land because their upland holdings exceeded the limit.
- Twenty-eight households gained new fields. Thirteen households received land directly from households in other villages which had to abandon land. Twelve households requested the village officials to assign them new fields in compensation for lost land, usually land abandoned by households from other villages. Three households exchanged fields with other households.

As for the net effect of land allocation, most households only experienced minor changes only (see Figure 4.5). They gained or lost small fields or fields in less attractive locations. Around twenty per cent lost a significant area of upland fields; another twenty per cent reported a significant gain in upland fields. Four households were able to gain a large area of land in a convenient location and/or of high soil fertility. Two of the four big winners were households with village officials, who had taken advantage of their direct involvement in land allocation and extensive network of relations with villagers in and outside their own villages to improve their upland holdings.

Figure 4.5: Winners and losers in land allocation
IV.6.2 The effects on village land

The land allocation task force defined village upland holdings following the boundaries drawn in 1992. At that time, village officials and the commune administration had split up the slopes surrounding the villages. Each village had generally received the area adjacent to it, typically the area where its inhabitants worked upland fields. Some villagers had, however, continued to work fields outside the land assigned to their own village. Land allocation thus had the potential to modify the upland areas under the effective control of the villages.

The villages responded to the enforcement of village boundaries in different ways. They accepted the enforcement of village boundaries in most locations as the boundaries reflected the actual location of village upland fields. The villages also recognized the boundaries in other cases, if affected villagers expected to receive land of similar quality and size in compensation or did not experience a significant loss. For example, villagers of Ban Chum agreed to abandon their productive fields above Ban Nhom because they were given highly attractive fields along National Road No. 6 in exchange. Village officials in Na Pan did not protest the loss of land in another case because only a few households and land of poor quality were affected.

Villages resisted the enforcement of village boundaries in other cases, often motivating the district administration to re-draw village boundaries. For example, protests by Na Pan motivated the district to give some additional land to the village in 1995. Na Pan had contested the boundary at a particular location because mostly it was households from Na Pan who had worked upland fields in an area given to another village. In addition, the households had not been not able to find comparable fields on the land given to Na Pan.

Intervention by the district authorities could not resolve land conflicts in two other areas, which were highly contested between Na Pan and two neighboring villages. The land conflicts continued to smolder years after land allocation because the contested land was considered highly valuable. In one case, Na Pan had a conflict with a neighboring H'mong village over land that was highly suitable for rice terracing (see IV.4.2).

In the other case, Na Pan could not agree on a boundary with a neighboring Thai village. The contested land was very conveniently located in close proximity of both villages and had been worked by households from both villages for a long time. The re-definition of the village boundary by the district could not resolve the conflict, as households plainly refused to abandon their fields. The land conflicts could not be resolved because they involved a significant number of households, and those households did not see claiming comparable land at another location as a possibility.

IV.6.3 Access to new land after allocation

In the past, households with a need for more land had directly negotiated with their neighbors and relatives (see IV.1.1). Boundaries of upland fields had remained highly flexible. In contrast, allocation forms and maps depicted the boundaries of household and village upland fields, assuming that they would be fixed in place. If a household needed more land, it would have to ask the village collective for a share of the reserve land or request some land from their relatives. Such a transaction would have to be certified in land tenure certificates.
Land allocation and certification did not constrain access to new land after 1994. In 1997, fifty of the 65 sample households controlled a larger area than the one registered in their Red Books. They had gained access to new land in the following ways:

- All fifty households had expanded existing fields into forestry land or a neighbor's field.
- Six households had acquired new fields through exchanges with other households. They had typically exchanged fields to consolidate their upland holdings in one location.
- Ten households had temporarily borrowed fields from other households, typically a close relative.
- One household had inherited fields from the husband's parents.
- Eleven households had borrowed fields from the agricultural reserve land on a temporary basis.

None of the land transactions had been registered in Red Books. Less than one fifth involved the agricultural reserve land. Villagers had been reluctant to take up the land as they generally considered it to be of low fertility. The more fertile land had all been claimed by households during land allocation.

In contrast, village officials played a crucial role in Ban Chum as they supervised a re-distribution of upland fields among households in 1995. The village collective became active in an attempt to avoid the development of major inequalities in upland holdings. As a result of land allocation, several households of Ban Chum had lost fertile fields on land assigned to Ban Nhom, while others had traditionally worked relatively large fields in the area assigned to the village. The village officials asked households with large fields to transfer a part of them to those with small fields.

Households with small allocated areas had also been able to significantly expand their upland holdings in all three villages. In 1997, all eighteen sample households that had received less than 1,000 m² per household member in 1994 had expanded their upland fields. In total, they had more than doubled their upland holdings.

In sum, the notion of fixed boundaries remained fictitious, even for land certified in the land allocation documents. The actual boundaries between household upland plots depended on direct negotiations among villagers, not the boundaries certified by the state. Actual upland holdings therefore displayed an increasing discrepancy from the Red Books. At the same time, village boundaries became more important because of land allocation. Villagers could no longer work fields on land allocated to a different village. Yet just as household upland holdings, village land holdings reflected the actual patterns of control over the uplands. The state had to adjust the formal village boundaries accordingly.

**IV.7 Summary and Conclusions**

Villagers and the state set out to conduct land allocation in Chieng Dong from distant points of departure. Despite the discrepancy between national policy and village practice, land allocation had only very limited effects on land tenure in Chieng Dong. The villages continued to re-allocate collective wet-rice fields, expand agricultural fields up the slopes, and adjust upland fields in a flexible manner. The only significant effect of land allocation was to enforce village boundaries. Actual land holdings therefore demonstrated an increasing gap with land allocation documents and forest protection contracts. Did the state fail to achieve its goals?

While land allocation failed to meet its immediate objectives, the resulting land tenure met the larger goals of national land policy. First, village institutions provided secure land tenure. Land tenure did not require state certification to be secure. Second, economic and ecological conditions improved in the 1990s, a rare combination (see II.2.3). Agricultural output grew and forest cover expanded on the basis of village land tenure. These improvements had been driven by other forces, and they did not depend on land allocation. New technological and market opportunities had achieved what land policy could not.

Livelihood and forest cover continued to improve after 1994, not because of land allocation, but despite land allocation. The villages had negotiated the impact of land tenure, avoiding the disruption of the pre-existing rules. The limited effect of land allocation reflected the strength of village institutions, the strong community spirit in Black Thai villages and their historical autonomy. In addition, local cadres mediated the effects of the national policy. Local cadres played a very important role by accommodating discrepancies between national policy and village practice.

Land allocation in the villages demonstrated the benefits of negotiation between villagers and the state. The district authorities demarcated village boundaries in consultation with the villages, thus strengthening the security of village rights to land and improving the conditions for better management of the uplands. At the same time, they interfered little with land tenure within villages. Villagers could continue to negotiate land rights among themselves. Land allocation thus produced the desired outcome - tenure security, improved living standards and expanded forest - through a negotiation process in which the state and villagers responded to
each other's interests.
V. The Rich and the Poor

The preceding chapters have examined the effects of agricultural reforms on production and land tenure in the three villages. This chapter focuses on the effects of reforms on the distribution of well-being among households. One may expect that the reforms lead to increasing differences in living conditions, because households have different capacities to take advantage of new opportunities. Some households may get rich, while others become or stay poor. Furthermore, initial gains may lead to permanent differences among households. Households may accumulate more durable advantages, such as in capital assets or political power.

Alternatively, advantages gained under agricultural reforms may be of temporary nature only. For example, households with a high labor capacity may benefit from new opportunities more than households with a lack of labor. Yet they may lose their advantage once their labor capacity declines. Similarly, livelihood may express the influence of the family cycle, that is the combined effects of the systematic changes in labor capacity and reproductive needs in the course of a household's lifetime. Recently established households tend to have less labor in relation to their reproductive needs than households with grown-up children.

This chapter examines differentiation among households in two ways. The first section analyzes the patterns of differentiation, that is the distribution of well-being among households in 1997. The second section explores the mechanisms of differentiation, that is the concrete processes that generated the distribution of well-being observed in 1997. The chapter answers the question whether the observed differences among households were becoming permanent (due to differences in assets or political power) or remained temporary (due to differences in labor capacity or stage in the family cycle).

V.1 The Patterns of Differentiation in 1997

This section provides a quantitative analysis of the distribution of well-being among 65 sample households in 1997. The households, twenty per cent of the total population, were chosen randomly in Na Pan, Ban Nhöm and Ban Chum. The analysis relates the four household attributes discussed above to the following quantifiable measures of differences in well-being: land holdings, paddy production, upland cash cropping, and investment in productive and social assets (see Figure 5.1). Systematic associations between attributes and measures are expected to highlight the factor(s) that differentiated households under agricultural reforms.

Figure 5.1: A framework for the analysis of differentiation

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>permanent:</td>
<td></td>
</tr>
<tr>
<td>▪ assets</td>
<td>land holdings</td>
</tr>
<tr>
<td>▪ political power</td>
<td>paddy production</td>
</tr>
<tr>
<td>temporary:</td>
<td></td>
</tr>
<tr>
<td>▪ labor</td>
<td>cash cropping</td>
</tr>
<tr>
<td>▪ family cycle</td>
<td>investment</td>
</tr>
</tbody>
</table>

V.1.1 Household attributes

In 1997, households were in different positions to take advantage of available opportunities. They displayed significant differences in the following respects:

Productive and social assets: A few households had up to four water buffaloes and seven cattle. To the other extreme, there were twelve households that did not own any large animal, and twenty households were without a water buffalo. As for social assets, six households displayed considerable wealth through the purchase of furniture and motor bikes. To the other extreme, ten households lived in simple bamboo huts and did not own any durable consumer goods.

Political power: Six of the 65 households included a village official.
Labor capacity: Some households included up to seven main laborers, while many others had two main laborers only.

Stage in the family cycle: The sample included households at all stages in the family cycle (see Table 5.1). The households could be classified in the following way:

- seven very young households, including those which had been established for less than five years;
- 17 young households, which had existed for five years or more but did not have children approaching marriage age yet;
- 26 middle-aged households, which included children approaching or in the marriage age;
- 13 old households that included an elderly couple of parents and the family of a son; and,
- two old households without a son.

The reproductive requirements of the households varied systematically with their stage in the family cycle, both in terms of food needs (see Table 5.1) and social events (see III.1.1).

The differences in household attributes were related to each other. The family cycle was associated with systematic differences in labor capacity and assets (see Table 5.1). In other words, old households tended to have a high labor capacity, live in a tile-roofed timber house, and raise several animals. Young households had little labor, few animals, and lived in small bamboo huts. In addition, differences in assets were connected with differences in political power. Households including a village official tended to have more animals and durable consumer goods than households without one.

Table 5.1: Food needs, labor capacity and asset ownership by stage in the family cycle

<table>
<thead>
<tr>
<th>Household type</th>
<th>Food units</th>
<th>Main laborers</th>
<th>Asset proxy</th>
<th>Timber house (%)</th>
<th>Motorbikes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very young</td>
<td>3.1</td>
<td>2.0</td>
<td>1.4</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Young</td>
<td>4.1</td>
<td>2.1</td>
<td>5.2</td>
<td>100</td>
<td>6</td>
</tr>
<tr>
<td>Middle-aged</td>
<td>7.3</td>
<td>3.8</td>
<td>7.1</td>
<td>88</td>
<td>31</td>
</tr>
<tr>
<td>Old, son</td>
<td>7.5</td>
<td>3.5</td>
<td>14.9</td>
<td>92</td>
<td>31</td>
</tr>
<tr>
<td>Old, no son</td>
<td>3.5</td>
<td>1.0</td>
<td>3.8</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>5.9</strong></td>
<td><strong>3.0</strong></td>
<td><strong>7.4</strong></td>
<td><strong>82</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Source: Field research.
Note: See notes 2, 3 and 5 for a definition of food units, main laborers, and asset proxy.

V.1.2 Land holdings

In 1997, households worked relatively equal amounts of collective wet-rice fields (see Figure 5.2). Forty-six households cultivated an area of between 200 and 400 m² per capita. Six households had more than 500 m² per capita, and only three did not have any collective wet-rice fields.

Figure 5.2: Distribution of collective paddy
Collective wet-rice fields were strongly correlated with labor capacity (see Table 5.2). The more labor potential a household had, the larger the area of paddy fields it tended to work. The asset proxy and the age of the household head produced highly significant coefficients because of their close association with labor capacity, but they did not have any independent effect. Similarly, access to political power was not associated with any differences in paddy fields. Households without a village official worked the same area per labor unit as those including an official.

Table 5.2: Factors associated with differences in land holdings

<table>
<thead>
<tr>
<th></th>
<th>collective paddy</th>
<th>upland plots</th>
<th>rice terraces</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(coef.)</td>
<td>(sign.)</td>
<td>(coef.)</td>
</tr>
<tr>
<td>labor capacity</td>
<td>0.72</td>
<td>HS</td>
<td>0.50</td>
</tr>
<tr>
<td>asset proxy</td>
<td>0.35</td>
<td>HS</td>
<td>0.16</td>
</tr>
<tr>
<td>age of hh. head</td>
<td>0.36</td>
<td>HS</td>
<td>-0.02</td>
</tr>
</tbody>
</table>

Source: Field research.
Note: See note 6 for an explanation of the used indicators and symbols.

The distribution of household upland plots was more spread out (see Figure 5.3). Most households worked between 500 and 2,000 m² per capita. Only two households had less than 500 m² and nine claimed upland plots larger than 2,000 m².

Figure 5.3: Distribution of upland plots
As in the case of collective paddy, upland plots were strongly correlated with labor capacity (see Table 5.2). The more labor a household had, the larger the upland plots it reported. The other three attributes did not display any strong association with upland plots. In addition, further analysis shows that households with much labor claimed a smaller area of upland plots in proportion to their labor capacity than those with little labor.

The distribution of rice terraces among households was different from the collective paddy and upland plots (see Figure 5.4). Seventeen households did not own any terraces, or only very small areas. More than half of all households reported terraces between 51 m² and 200 m² per capita. Only nine households owned terraces larger than 200 m² per capita.

Figure 5.4: Distribution of rice terraces

Rice terrace holdings were more strongly associated with the asset proxy than the age of the household head and labor capacity (see Table 5.2). Households that owned more large animals also worked larger terraces. Households in later stages of the family cycle also worked larger terraces on a per capita basis, because they owned more animals (see V.1.1). Furthermore, households including a village official reported larger terraces than those without an official. Yet if one considers the close association between asset ownership and access to political power (see V.1.1), political power did not have any independent effect on terrace holdings.

In sum, labor capacity was strongly correlated with differences in collective paddy fields and upland holdings. The strong correlation led to relatively egalitarian distributions of paddy fields and upland plots among
households. The situation was different for rice terraces. Ownership of rice terraces was distributed more unequally, as asset ownership differentiated rice terraces.

**V.1.3 Paddy production**

In 1997, virtually all households produced enough rice and cassava to cover their own needs. Differences in food production among households did not express themselves in the total amount of food produced, but in different rice sufficiency levels, i.e., the share of total food needs that could be met through rice production. Rice was the food staple of choice.

Rice sufficiency varied significantly among households (see Figure 5.5). One quarter of all households covered less than sixty per cent of their food requirements. A little less than half produced enough paddy to make up between sixty and one hundred per cent of their food needs. The remaining households harvested more paddy than they needed for their own consumption.

![Figure 5.5: Distribution of rice sufficiency levels](image)

Total paddy output was strongly correlated with asset ownership (see Table 5.3). Households with more assets tended to harvest a higher amount of paddy. This corresponded to the strong correlation between asset ownership and rice terrace holdings, in conjunction with the relatively unequal distribution of rice terraces among households (see V.1.2). In contrast, labor capacity, the family cycle and access to political power did not display any independent correlation with paddy output.

**Table 5.3: Factors associated with paddy production**

<table>
<thead>
<tr>
<th></th>
<th>total paddy output</th>
<th>rice sufficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(coef.)</td>
<td>(sign.)</td>
</tr>
<tr>
<td>labor capacity</td>
<td>0.47</td>
<td>HS</td>
</tr>
<tr>
<td>asset proxy</td>
<td>0.56</td>
<td>HS</td>
</tr>
<tr>
<td>age of hh. head</td>
<td>0.36</td>
<td>HS</td>
</tr>
</tbody>
</table>

Source: Field research.
Note: See note 6 for an explanation of the used indicators and symbols.

Rice sufficiency did not display a strong correlation with either attribute (see Table 5.3). Asset ownership showed a weak association with rice sufficiency, though not as pronounced as for total paddy output.
Households with assets tended to produce more paddy, but they also had more mouths to feed (see V.1.1).

The composition of rice production varied over the family cycle. Very young and young households covered a relatively high portion of their food needs through rice swiddening. Old households with sons achieved the largest output on rice terraces in relation to their reproductive requirements. Yet for overall rice sufficiency, there was no systematic association with the family cycle.

**V.1.4 Cash cropping**

In 1997, corn had become the major source of cash in Chieng Dong (see III.3.4). Revenues from the sale of corn surpassed income from any other activity. In addition to corn, a few households had begun to grow sugarcane as a cash crop. Comparing households, the area under cash crop cultivation varied tremendously, even if calculated on a per capita basis (see Figure 5.6). Some households worked as little as a few hundred square meters per capita, while others worked more than 2,000 m².

![Figure 5.6: Distribution of cash crop area](image)

Labor capacity was correlated with the area under cash crop cultivation (see Table 5.4), just as it was with upland plots (see V.1.2). The more labor a household contained, the larger an area under cash crop cultivation the household cultivated. In contrast, the family cycle, asset ownership and access to political power did not show any independent correlation with the area under cash crop cultivation. At the same time, households with much labor worked proportionally smaller areas than households with little labor. This implied that younger households worked proportionally larger cash crop fields than older ones, just as they enjoyed larger upland holdings (see V.1.2).

**Table 5.4: Factors associated with cash crop cultivation**

<table>
<thead>
<tr>
<th>Factor</th>
<th>coef.</th>
<th>sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td>labor capacity</td>
<td>0.34</td>
<td>HS</td>
</tr>
<tr>
<td>asset proxy</td>
<td>0.10</td>
<td>NR</td>
</tr>
<tr>
<td>age of hh. head</td>
<td>-0.05</td>
<td>NR</td>
</tr>
</tbody>
</table>

Source: Field research.
Note: See note 6 for an explanation of the used indicators and symbols.

**V.1.5 Investment in assets**
In 1997, villagers continued to invest in productive and social assets. They built rice terraces, purchased water buffaloes and cattle, and built houses.

Twenty-six households built new rice terraces in 1997. The construction of terraces was closely associated with labor capacity (see Table 5.5). Households with more labor were more likely to expand terraces. Asset ownership, the family cycle, and access to political power did not show any relationship with terrace construction.

Table 5.5: Factors associated with rice terrace construction in 1997

<table>
<thead>
<tr>
<th>Factor</th>
<th>Coef</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>labor capacity</td>
<td>0.45</td>
<td>HS</td>
</tr>
<tr>
<td>asset proxy</td>
<td>0.06</td>
<td>NR</td>
</tr>
<tr>
<td>age of hh. head</td>
<td>-0.02</td>
<td>NR</td>
</tr>
</tbody>
</table>

Source: Field research.
Note: See note 6 for an explanation of the used indicators and symbols.

Four households purchased water buffaloes. On average, they owned less animals than other households, but counted on a larger labor force. Three households sold water buffaloes, all three to finance larger social expenditures, either house construction or a funeral.

Three households bought cattle. Two very young households purchased the animals to save the revenues from corn sales for the planned construction of a house in the following year. Seven households sold cattle, including four old households with a son and two middle-aged ones. Five of the households sold the cattle to cover larger social expenditures.

Five households built a new house. The five included one very young and three young households, as well as an old one without a son. Their labor capacity and asset ownership was much below the average. In addition, an old household with a son built a secondary house in the uplands. The household possessed an outstanding number of larger animals, but only average labor force.

In sum, household investment in productive and social assets did not follow a uniform pattern. Rice terrace construction displayed a strong correlation with labor capacity. Water buffaloes and cattle were mainly sold to finance house construction, weddings and funerals. House construction showed a strong relationship with the family cycle, as four out of five households with new timber houses were very young or young. Water buffaloes and cattle were purchased by all kinds of households, though those buying a buffalo tended to have an above-average labor force. Finally, access to political power did not show any relationship with changes in asset ownership.

V.1.6 Summary

Table 5.6 summarizes the findings of this section. Labor capacity was strongly correlated with collective paddy and upland holdings, the area under cash crops, and rice terrace construction. Asset ownership displayed a significant correlation with rice terrace holdings and a weak one with rice sufficiency. Access to political power did not display any direct relationship with any measure of differentiation, but was closely connected with asset ownership.

Table 5.6: Factors of differentiation
The family cycle displayed a strong association with all measures of differentiation, in direct and indirect ways. Labor capacity and asset ownership increased over the family cycle. Collective paddy and upland holdings therefore increased over the family cycle, because labor capacity grows. Terrace holdings also increase, because asset ownership increases over the family cycle. Similarly, rice sufficiency, the area under cash crops, and investment was tightly connected with the family cycle. Differences in rice sufficiency were less pronounced, as growing food needs counterbalanced the effects of increasing paddy output.

V.2 The Mechanisms of Differentiation

While the analysis of the previous section has demonstrated that the distribution of well-being in 1997 expressed stages in the family cycle, it has not discussed how the family cycle came to shape differentiation among households. The purpose of this section is to discuss the concrete processes, or mechanisms, that generated the patterns of differentiation described above. In particular, the question is why differentiation followed a cyclical pattern, instead of leading to more permanent differences among households.

The first part of this section discusses land tenure. The focus is on land tenure because capital played a minor role in production. Also, because households did not hire or exchange labor to a significant extent, the labor available for production was determined by the labor existing within the household. The second part of this section examines how households used the surplus from agricultural production. As discussed in III.2.3 and III.3.5, the surplus had grown rapidly in the 1980s and 1990s.

### V.2.1 Land tenure: the window of opportunity in the 1980s

After 1982, households gained and maintained control over land in two ways. First, the collective allocated wet-rice fields to households (see III.2.2). Each main laborer received an equal share of the collective paddy. In addition, the collectives continued to adjust household holdings periodically. The area of paddy worked by a household thus depended on the number of main laborers in the household.

Second, households gained control over upland fields through occupation (see III.2.4). Households cleared new land wherever considered suitable. Once cleared, they retained use rights for the land even during extended fallow periods. The area of upland fields worked by a household in a given year thus depended on the available labor in the household. Labor capacity also shaped the total upland area that a household could claim over the course of the 1980s. A household with much labor could occupy a larger area than newly established households, in which only the young couple could work upland fields.

Like with upland fields, households gained land suitable for rice terraces through occupation. Typically,
households constructed terraces where they had cultivated upland crops before. Yet unlike upland cropping, rice terracing was only attractive to a few households with much labor. Households needed to maintain presence at the terraces and in the village during the cropping season. They could only afford this if the household included a young couple or grown-up children. Terrace cultivation matched the labor capacity of old households, in particular. It required permanent attention but mostly light work only, work that could be done by the elderly parents.

In sum, collective paddy allocation and the loss of state control over the uplands provided a window of opportunity for households in the 1980s. Household land holdings largely depended on labor capacity. Correspondingly, food output and cash income were closely related to labor capacity. Rice sufficiency levels reflected the balance of labor capacity and food needs. For its close association with labor capacity, the family cycle thus shaped household land holdings, food output, cash income and rice sufficiency. Young households worked smaller fields, harvested less paddy and cassava, and suffered from rice shortages, as they had to feed a relatively higher number of dependents. Old households tended to work the largest fields, enjoy the highest food output and income, and cover a large share of their food needs with rice.

V.2.2 Land tenure: increasing rigidity in the 1990's

By 1990, the window of opportunity was closed. Villagers had claimed all suitable upland areas in the vicinity of the villages (see Figure 2.10). Yet upland holdings remained flexible (see IV.1.1). Households with a capacity to work more land gained access to new land by asking relatives, mostly parents, for a share of their land. They borrowed land temporarily from relatives or other villagers. And in many cases, they were able to expand their existing fields, as neighbors accommodated their lack of land. Land allocation did not stop this flexibility (see IV.6.3 and IV.6.1).

The villages continued the allocation of collective paddy on the basis of labor capacity (see IV.4.1). In 1995, they slightly modified the allocation rules. They decided to take away collective wet-rice fields from households which had accumulated significant debt with the collective. Once the rule took effect, the village collectives withdrew all or a large part of wet-rice fields from nineteen households, including three in the sample (see V.1.2).

Unlike upland fields, households could no longer occupy new land to build rice terraces in the 1990s. They had to rely on the land occupied in the previous decade or find other ways to gain control over suitable land. Yet most households had not considered the potential for rice terracing when they claimed land in the 1980s. It was more or less a matter of luck whether or not a household, or its close relatives, had occupied an area suitable for rice terraces. At the same time, as more and more households worked terraces, its labor requirements shrunk. Close relatives cooperated with each other, taking turns watching terraces or houses. The cultivation of rice terraces became feasible for young households.

Many households built terraces in the 1990s. Out of 65 sample households, 35 began terracing in the 1990s. Three quarters of them constructed terraces on land on which they had worked upland fields before. Another twenty per cent received terraces or suitable land from close relatives, mostly parents. Only two households found other ways to claim suitable land. In comparison with those that had begun terrace cultivation in the 1980s, they all worked significantly smaller areas.

In sum, labor capacity remained an important determinant of household control over land, though to a lesser degree than in the 1980s. Rice terrace holdings became more independent from labor capacity as the distribution of land in the 1980s mediated the influence of labor on terrace holdings. In response, households began to direct their productive activities in two different directions. Older households focused on rice terracing and animal husbandry, if they had occupied suitable land in the 1980s. They reduced the effort spent on corn cultivation. Younger households emphasized corn cultivation as a strategy of rapid income generation. The continuing flexibility of land tenure allowed them to expand their upland fields.

V.2.3 The use of production surplus for reproduction

The social reproduction of the household absorbed the largest part of production surplus. Once the retained surplus increased, households began to construct new houses made from solid timber and covered with tile roofs. A household needed to prepare the construction of such a house for several years. The households saved the revenues from the sale of crops and animals, typically in the form of a buffalo and/or cattle. The men in the household collected suitable timber during the agricultural off-seasons. Once the household estimated it had sufficient wood and savings, it sold the animals to finance the cash expenditures, between seven and eight million VND.
The increasing surplus also motivated households to spend more resources on weddings and funerals. The expenditures occurred by households on the occasion of these events exceeded the average annual income by far. For a wedding, the groom's family had to organize two parties of three days each, which were often attended by more than 100 guests, and pay a bride price of around one million VND. Funerals were similarly lavish, usually involving the slaughter of a water buffalo or a cattle. Well-off and poor households alike were expected to host big parties and pay the standard bride price.

In addition to these large expenditures, villagers used their rising cash income to purchase durable consumer goods (see III.3.5). Men began to purchase new or used motorbikes in the late 1980s, sometimes selling three water buffaloes or cattle to purchase a new bike. Women liked sowing machines and rice mills. Wealthy households spent money to furnish their houses and purchase TV sets. In addition, they occasionally invited relatives and neighbors for small rituals and paid for their children's schooling.

Households only spent a minor share of the surplus on investment in crop production or animal husbandry. The only productive use of income for most households was the purchase of chemical fertilizer and seed in small amounts, making up less than ten per cent of total income. In addition, some households hired laborers to build rice terraces, purchased seed fish, or bought large animals. A few more adventurous villagers hired a caterpillar to dig large fish ponds for commercial production. A few others purchased fish ponds and rice terraces from fellow villagers.

In sum, households spent most surplus on their social reproduction and the purchase of consumer goods. The family cycle shaped the use of production surplus. Recently established households saved the surplus to finance house construction. If they had already built a timber house and their children were still small, they spent the surplus on the purchase of household items and consumer goods. Households with children approaching marriage age saved the surplus for their weddings. Old households liked to buy consumer goods and invested some surplus in livestock. Thus, differences in household income did not translate into more permanent differences in productive assets.

V.2.4 Livestock: storage and accumulation of surplus

Livestock was a major component of household reproduction. Households raised water buffaloes and cattle for three purposes. First, all but the very young wanted to have water buffaloes as a source of draft power for the preparation of wet-rice and corn fields. Very young households rarely had a water buffalo because they lacked labor to tend a buffalo. In addition, they saved the production surplus for house construction. They relied on their parents and close relatives to lend them a buffalo for the preparation of wet-rice fields.

Second, households that anticipated larger social expenditures used income from corn production and small animal husbandry to buy water buffaloes and cattle as a form of savings. After the late 1980s, most households used a significant part of the revenues from booming corn outputs to purchase livestock. They raised large animals, in particular cattle, for several years until the return from their sale was sufficient to finance house construction. Even after they had built a house, households continued to use livestock as a form of savings. For example, households with sons approaching marriage age raised cattle to finance the future wedding parties and bride price.

Yet the number of livestock raised by a household did not only depend on reproductive needs but also labor capacity. The household needed to have sufficient labor to watch the animals and collect feed when required. For lack of labor, newly-established households rarely raised animals to store wealth. They saved surplus in kind or cash. Only when children reached the age at which they could tend livestock were households able to use livestock for the storage of wealth.

Third, some households with lots of labor, usually those with elderly parents, raised water buffaloes and cattle for accumulation. They built up herds that were intended to yield continuous flows of income. The elderly parents dedicated themselves full-time to herding animals, allowing the herd to grow gradually through natural multiplication. Once the herd had achieved a substantial size, the household matched the use of animals for sale or slaughter to natural reproduction.

In sum, labor capacity and reproductive requirements shaped the number of water buffaloes and cattle kept by households. Young households rarely kept livestock because of labor constraints. Well-established households tended to raise water buffaloes, and also cattle if they anticipated larger expenditures. Finally, households with elderly parents raised buffaloes and/or cattle for accumulation. The investment of surplus into livestock thus followed the family cycle (see Figure 5.7).

Figure 5.7: Animal ownership by stage in family cycle
V.2.5 The family cycle

In the mid-1990s, the situation was the following. A newly established household typically included a young couple with two small children. The household lived in a temporary hut, which was made from bamboo and covered with straw. It did not own any large animals nor durable consumer goods. The young couple faced the challenge to accumulate significant surplus and materials for the construction of a wooden house. The couple had to watch and feed the small children, while trying to sell large amounts of paddy and corn to generate income. They spent three to six years preparing for house construction.

Young couples above 30 years of age typically lived in a newly constructed wooden house. They had around three children, who were gradually increasing the labor capacity and food requirements of the households. The households received a larger share of the collective paddy than very young couples. They continued to work relatively large corn fields because corn cultivation provided quick returns to expended labor. Rising food requirements motivated the households to work rice terraces, if they were able to get suitable land, mostly through their parents. In addition, the children's labor allowed them to raise one or two water buffaloes as a source of draft power. The income from corn cultivation mostly financed the purchase of small household items, such as thermos bottles and clothes, and possibly of some durable consumer goods, such as furniture or a motorbike.

Households with children approaching the marriage age included eight persons, on the average, including a set of parents and six children. They utilized their rapidly growing agricultural labor capacity to expand cultivated areas. They received large wet-rice fields from the collective and worked large corn fields in the uplands. Motivated by high food requirements, they worked terraces if they had suitable land. Food production and income thus were significantly higher than in younger households. Rice sufficiency depended on the area of terraces worked by households. In addition, growing labor capacity allowed them to raise more livestock. They eventually used the livestock, mostly cattle, to finance their sons' weddings.

Old households typically included elderly parents, a son with his wife and two or three small children, and another unmarried child. The young couple and their elderly parents provided sufficient labor capacity to work relatively large areas of rice terraces and to raise a larger number of livestock. Production surplus was significant and financed the purchase of durable consumer goods. The households usually produced sufficient rice to cover their food needs as they had been able to claim large terrace areas in the 1980s. The situation was, however, radically different for households without kids or with only one child. Their labor capacity was rather limited, constraining the household's ability to cultivate wet-rice and corn fields. Such households often lived in simple huts only.

Differences among households followed the family cycle. The family cycle shaped the distribution of well-being because it determined differences in labor capacity and reproductive requirements to a large extent. The family cycle also decided the period of time during which a household had been able to produce surplus. The older a household was the more productive it was and the more social assets it tended to own. Differences in well-being thus were not permanent. Differentiation followed a cyclical pattern.

In addition to the family cycle, the ratio between consumers and producers in a household influenced household well-being in a few extreme cases. Parents with many children, particularly sons, faced a
tremendous challenge to feed the children in young age and cover the expenses of their weddings. Couples without children met difficulty in old age, as discussed above. Households with ill members suffered from a loss of labor capacity. Yet for most households, consumer/producer ratios had a limited effect on wealth.

Access to political power did not have an independent effect on household well-being. The close association between ownership of productive assets and access to political power observed in the previous section was due to two reasons. First, village officials were selected among the successful farmers in the village, those who had more productive and social assets than other households (see IV.3.1). Second, village officials liked to acquire furniture. The furniture raised their status in the eyes of occasional visitors from outside the village. Village officials also liked to use motorbikes to make travel to commune and district authorities more convenient.

V.3 Summary and Conclusions

Differences in well-being among households displayed a cyclical pattern in Chieng Dong. The new opportunities and rising surplus under agricultural reforms did not lead to the emergence of permanent differences in wealth. Wealth differences remained temporary because of the particular nature of the institutions regulating control over productive resources. Access to land remained very flexible, and most surplus was used for the social reproduction of the household.

Differences between the rich and the poor in Chieng Dong did not take the common expression of permanent wealth differences because of the strength of village institutions. The institutions proved sufficiently powerful to control the differentiating force of the new opportunities arising from changes in national policy, technology, and market expansion. They differed from national policy. Village land tenure was different from land policy, as discussed in Chapter IV. And the use of most production surplus for social expenditures was openly disapproved by the state.

Village institutions produced a desirable outcome: the villages demonstrate a remarkable combination of growth with equity. Agricultural production rose because there were clear and commonly recognized rules on the use of productive resources. The benefits of growth were spread in an equitable way because all households had an equal chance to benefit from the new opportunities. Thus, just as in the case of land tenure, villagers found their own way to achieve important goals of development. They balanced growth with equity. In that process, they modified and ignored national policy.
VI. Conclusions: The Strength of Village Institutions

The purpose of this monograph was to contribute to an understanding of the effects of agricultural reforms on livelihoods and land use in the mountains. It reports the findings of a case study conducted in three villages of Son La province to explore the effects of reforms. The research examined the effects of reforms on production practices, livelihoods and land use of Black Thai villagers in Chieng Dong. It also analyzed the distribution of effects among households.

Agricultural production in Chieng Dong experienced impressive growth in the 1980s and 1990s. Agricultural growth facilitated strong improvement in living standards throughout the two decades. The benefits of growth and rising living standards were distributed in an equitable way. Agricultural growth also increased the pressure on the biophysical environment, through the expansion of cultivated land in the 1980s and the intensification of upland cultivation in the 1990s.

The findings are surprising for several reasons. Forest cover increased in the 1990s, contradicting the dominant narrative of continuing deforestation. Livelihoods improved in the 1980s and 1990s, challenging dire prophecies of a development impasse in the mountains. Land tenure displayed pronounced differences from the national policy, despite land allocation in the villages. Improvements in living standards were distributed equally, counteracting expectations that new economic opportunities will lead to increasing income and wealth disparities among villagers.

Sticky rice and collective fields stand as symbols for the particular trajectory of development in Chieng Dong. Villagers continued to plant sticky rice, the food staple of choice, though corn yielded higher returns to expended labor. The village collective retained a strong role in access to paddy land, in contrast to the national policy of long-term allocation to individuals. Sticky rice and collective fields stand as symbols that warn against generalizations about economic and ecological changes in the mountains. Livelihoods and land use in the mountains are too diverse to allow easy generalization.

We also found that the effects of agricultural reforms on livelihoods and resources in Chieng Dong were quite limited. For one thing, national policy competed with the influence of other external changes. New market and technological opportunities were at the core of agricultural intensification in the 1990s. The influence of the second and third rounds of reform, as represented by Resolution 10 and land allocation, was minor in comparison. Agricultural reform only had some effect on production in the early 1980s, when Decree 100 led to the loss of collective control over production.

More importantly, the effects of agricultural reforms were limited because they were ‘negotiated’ by villagers. Changes in the village institutions governing production were different from national policy. The expansion of upland fields under direct household control in the late 1970s predated the national mandate to increase the role of households in production. During the 1980s, collective control over production eroded long before policy ordered collectives to give up control. In the 1990s, village land tenure continued to display significant discrepancies from national policy.

Village institutions provided the basis for agricultural growth and its equitable distribution in the villages, but they were also at the core of ecological degradation. Village land tenure, in particular, shaped economic and ecological changes. The loss of collective and state control over upland fields led to the expansion of rice swiddening up the slopes in the 1980s. In the 1990s, village land tenure facilitated the security required for the construction of rice terraces and permanent upland cultivation. Land tenure rules also provided all households with equal opportunities to gain access to land according to labor capacity.

Our findings are specific to the Black Thai villages in Chieng Dong, but we would also expect to find similar changes in agricultural production, livelihoods and land use in other Black Thai villages. Social cohesion, strong village collectives, and a concern for equity are common traits among Black Thai villages. Black Thai villages also share a history characterized by relatively autonomous villages and communal land tenure. In addition, they tend to be located in valleys, combining wet-rice production with cultivation on the slopes.

We presume our findings to carry more general implications beyond Black Thai villages. The general validity of our findings stems from their structural characteristics. The findings demonstrate that the reach of state policy on the relations of production is limited in two ways. First, the influence of policy competes with the effects of other external changes. And second, national policy is ‘negotiated’ by villagers in the process of implementation. Village institutions shape policy outcomes, as well as the nature of local state authorities. Both village institutions and the nature of the local state are strongly influenced by history.
The negotiation of national policy is a structural element found in our study that has general validity. Villagers and local state authorities negotiate the implementation of national policy. Depending on the strength of village institutions and the nature of the local authorities, policy outcomes reflect more closely either village interests or state policy. In places with strong village institutions and responsive local state authorities, such as in Black Thai villages, policy outcomes are quite different from policy texts. In places where village institutions are weak and local state authorities are removed from the villages, policy outcomes resemble the national guidelines.

The negotiations take place everywhere, but their outcomes are different. In many mountain villages, their outcomes tend to show significant discrepancies from national policy. The reason is that mountain villages have distinct histories, shaping village institutions and local state authorities. These histories are different from lowland histories. Also, because the histories of mountain villages are highly diverse, policy outcomes may display significant variation.

The challenge is to turn the negotiation of national policy into an asset for development, particularly in the mountains. Meeting the challenge requires a change in the notion of how national policy is implemented and what it can achieve. It demands recognizing policy implementation as a negotiation process. The central state, local state authorities, and villagers participate in the negotiations. And the negotiations will only be successful if all three parties actively participate. If any party is left out it may choose to boycott the whole process. For example, the state has sponsored the planting of too many trees that never had a chance of survival.

Meeting the challenge will involve efforts to make the negotiation process more transparent and constructive. There are suitable methods to improve the cooperation between villagers and the state. Participatory Rural Appraisals can help state cadres to understand village conditions. Participatory land use planning can facilitate an avenue for negotiations about the use of land for agriculture or forestry. Participatory village planning provides an opportunity for villagers to express their needs and interests. These are just some examples of methods that make the negotiation process more transparent and constructive. They are not magic recipes; the development of effective cooperation will require patience. Yet they illustrate the way to go: turning the negotiation of national policy into an asset for development.