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Transformation of Vietnam's Upland Farming Societies Under Market Reform

by

Bernard Henry Henin

A Thesis Submitted in Partial Fulfillment of the
Requirement for the Degree of

DOCTOR OF PHILOSOPHY

in the Department of Geography

We accept this thesis as conforming
to the required standard

~~Dr. M. Flaherty, Supervisor (Department of Geography)~~

~~Dr. Philip Dearden, Departmental Member (Department of Geography)~~

~~Dr. Larry McCann, Departmental Member (Department of Geography)~~

~~Dr. Margot Wilson-Moore, Outside Member (Department of Anthropology)~~

~~Dr. Terry McGee, External Examiner (University of British Columbia)~~

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University of Victoria

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ABSTRACT

Vietnam's economic renovation programme (*doi moi*) has ushered in an era of major social and economic transformation. Since 1986, when the reforms were initiated, rural development in Vietnam has assumed new meanings, new forms of implementation, and new directions of planning. Central planning policies, once the hallmark of this socialist society, have been progressively abandoned in favour of free markets and a liberal development philosophy. In agriculture, a series of economic and land reforms have officially reinstalled the family farm as the primary unit of production. The results have been generally positive. All macro-economic indicators point to general growth and improved standards of living in much of rural Vietnam. Agricultural production has increased to the point that Vietnam is now one of the world's leading exporters of rice. Average incomes in urban and rural areas have improved. Poverty has declined in most of the country's population.

At the regional level, however, research has shown that progress has been uneven. The gap in social and economic conditions is growing within and among regions. Poverty remains entrenched in disadvantaged sectors of the rural population. The growth of the market economy in Vietnam has been generally accompanied with a decline of state investment in rural areas. At the same time, the country's hierarchical political structure continues to favour top-down planning, offering little provision for local input in economic and political decisions. This has hampered the development in many ethnic minority farming communities in remote areas.

This study addresses the consequences of commercialization and modernization of agriculture on ethnic minority farming communities in upland areas. It focuses on two case studies in the upland regions of North Vietnam: a

Nung commune of villages in Lang Son province, near the Chinese border, and a Thai village in Son La province, near Laos. These communities have been deeply affected by the forces of commercialization in ways that are uniquely shaped by their geographical location within Vietnam. The general questions addressed by the study concern the transformation of village economies under market reform. They examine the changes in standards of living and quality of life as well as the constraints acting on the development of family farms. Importantly, they focus on the role of the state and local government in influencing the process of rural development. An ethnographical approach has been adopted—a multiple research strategy, based on multiple theories of agrarian change, a mix of qualitative and quantitative methods of data collection, and multiple interviewers. The objective has been to gather insider knowledge through participant observation and depth interviewing.

The study presents the results of the empirical analysis of the data and their interpretation according to existing theories of agrarian change. It then refines some of those concepts in the light of the empirical data collected and presents new concepts and generalizations that shed light on the process of upland development in Vietnam and other reforming socialist economies of Asia.

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Examiners:

Dr. M. Flaherty, Supervisor (Department of Geography)

Dr. Philip Dearden, Departmental Member (Department of Geography)

Dr. Larry McCann, Departmental Member (Department of Geography)

Dr. Margot Wilson-Moore, Outside Member (Department of Anthropology)

Dr. Terry McGee, External Examiner (University of British Columbia)

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DEDICATION

This work is dedicated to the ethnic minorities of Vietnam.

Chapter 1

INTRODUCTION

"One cannot hope that in this very populated country, whose soil could not feed peasants much more generously than it is doing so today, material ease will reign one day. But man has more than material needs: traditional society has given peasants a social equilibrium that is lacking in many more developed countries, which the pursuit of exclusively material goals has thrown in disarray."

(Gourou 1936: 578)

1.1 Nature of the Problem

The study of agrarian change has been one of the most daunting tasks facing those who seek to understand Southeast Asia's contemporary development. Rural life in the modern state, while it had already been irreversibly transformed as the result of European colonialism, is now the object of pervasive influence from modernization and commercialization policies that have left very few farming communities unaffected by the development process. The voluminous literature that has become available on the transformation of peasant societies under the rising tide of modernization reflects the complexity of the subject and points to the difficulty of synthesizing the theoretical concepts laid out by researchers as the result of empirical studies¹. Research has examined the phenomenon along three broad dimensions.

The first dimension concerns the social and ecological consequences of technological innovation—the Green Revolution. These have been and continue to be investigated in a variety of Asian settings. One major concern has been whether the dissemination of Green Revolution technology is a primary cause of

¹ The concept of peasantry is elaborated in chapter 2.

social differentiation among farmers. Many authors, like Glaeser (1987), claim that while the new, capital-intensive rice technology supports the economic expansion ambitions of large, "progressive" farmers, it does little to improve the livelihoods of small farmers. Others, like Rigg (1989), maintain that the new agricultural technology is scale-neutral and that it is increasingly being adopted by all classes of farmers. The other broad area of concern addresses the ecological impact of the Green Revolution. The main research issue has been whether the introduction of crop monoculture combined with the intensive use of chemical fertilizers, herbicides, and pesticides has led to a situation of diminishing returns in agricultural production. The suspicion is that further increases in land productivity would result in farming practises that are neither ecologically nor economically sustainable in the long term. Most writers, including Glaeser and Rigg, are united on this issue. They emphasize the need for a change in agricultural production methods. In particular, they recommend that farmers move away from an input-intensive farming technology to an approach that combines modern rice technology with traditional agricultural practices and knowledge.

The second dimension relates to the impact of agricultural commercialization on rural societies. This issue has been widely investigated, often in direct association with the spread of new farming technology. Two opposing schools of thought exist on the impact of developing capitalism on peasant economies. One school, directly inspired by classical Marxist-Leninist thought, asserts that commoditization of agricultural production leads to the gradual disappearance of family farming, and promotes the differentiation of the peasantry into a small class of capitalist farmers and a large class of landless labourers. The other school insists on the resilience of the family farm. Much of the research on agrarian change in Southeast Asia supports this second view. According to Bray (1986), in most rice-growing regions the peasant economy survives in articulation with large-scale capitalist farming because peasants are able to supply goods more cheaply than capitalist producers. For Rigg (1997), it is the growing availability of off-field

employment opportunities that prevents rural people from being displaced from their land. Seasonal employment in rural and urban industries provides farmers with income to invest in their family farms (187-98). Elson (1997) contends that the forces of agrarian change essentially have their roots in the non-farm economy (173-9).

The third dimension addresses the consequences of modernization policy in the context of state building in the post-independence era. This area of concern has been, if not thoroughly researched, at least widely examined in a variety of case studies. In areas where ethnic minorities make up a significant section of the rural population, the important general research question has been whether national development policy and the bureaucratization of the administrative system have resulted in integration or assimilation of ethnic-minority groups into mainstream society. In political terms, the question has been whether the state political apparatus provides for local participation in rural development planning or whether it implies the imposition of a new social and economic order conceived in capital cities. Researchers like Chambers (1984) and Colchester (1994) call for rural development strategies that encourage local initiatives and give local farmers greater control over resources and access to a greater variety of development alternatives.

The three components of agrarian transformation—technological change in farming, commercialization of the rural economy, and state-building, are interacting to transform Asia's rural societies. This is particularly evident in Vietnam and China. In less than a decade, these two nations have undergone major economic transformation as their collective systems of agricultural production have been replaced by free-entrepreneurial systems based on family farms. Both Vietnam and China are multi-ethnic societies in which a dominant group—the Viet or the Han respectively—monopolize the control of the national and political agenda. In both countries, the ethnic minority groups, their interests subsumed to those of the dominant groups, have seen their livelihoods become increasingly disrupted by

national development priorities and ethnic integration policy (MacKerras 1994; Beresford and macFarlane 1995; Buffet 1998).

Although excellent field research has been performed on the impact of market reforms on the rural areas of Vietnam and China (see, for example, Ngo Vinh Long 1993; Croll 1994), few have focused on upland areas. This is especially true of Vietnam, where economic reform postdates China's by approximately a decade. The programme of economic renovation (*doi moi*), which was implemented nation-wide in 1986, has caused fundamental change in village life in the uplands. Little is known, however, about the nature of agrarian change and how it has manifested itself in a variety of important rural indicators including the growth of socio-economic disparities, the extent of poverty and landlessness, and the differential access to capital by men and women in different groups and economic activities. At the same time, the forces of rural transformation in Vietnam's upland regions operate in a context of constraints acting on farm and community development that has been inadequately explored. As a result, the theoretical framework on the transformation of upland ethnic minority societies under modernization policy remains largely undeveloped. And yet it is necessary to understand these changes in order to assess the effectiveness of the national reform programme for the social and economic development of the upland regions. Even under an increasingly liberal economic development ideology, Vietnam's government has an important role to play in steering the direction of investment flows and promoting development in ethnic minority areas. The need for such intervention calls for a better theoretical framework on these issues.

1.2 Research Objectives

The purpose of this study is to shed light on the process of development in Vietnam's uplands and to contribute to the theory on agrarian change in Southeast Asia. This goal will be achieved by investigating the effects of the current national development policy and free-market reform programme on the ethnic minority

populations who live in the mountain regions of Vietnam. The specific objectives of this study are:

- to critically assess the literature on agrarian change in Vietnam;
- to demonstrate the applicability of ethnographic work and interpretive research methodology to the study of human development;
- to examine through field study the transformation of the peasant-household economy under market reforms in Vietnam;
- to investigate the consequences of national development policy for ethnic minorities who live in the uplands of Northern Vietnam, and to identify the development constraints in that region;
- to further develop the theoretical concepts needed to explain the social and economic transformation of the farming communities who live in the uplands of Vietnam and its neighbouring countries.

This study will improve our understanding of agrarian change in the developing world and provide insights that will facilitate economic planning and thereby help to improve the quality of life in rural areas. The following section describes the content for the development of these objectives.

1.3 Commercialization of Vietnam's Rural Economy: Dilemmas

Vietnam, in its transformation from a socialist to a market economy, shares a multitude of development issues with China and other countries of Southeast Asia.

Reform in socialist economies: Vietnam and China. Pro-market reforms have had a

generally positive impact on the rural economies of Vietnam and China. The decollectivization of agriculture, the introduction of household responsibility systems in farming, and the commercialization of agricultural products have generated economic growth and raised standards of living in rural areas (Le Cao Doan 1995; Leeming 1993:89-91). However, these policies have also created a series of problems which call into question the viability of reform in economically disadvantaged areas.

Selden (1993) has documented a set of issues that challenge rural development planners in Vietnam and China. The privatization of agricultural production has generally resulted in a net disinvestment in agriculture; a rise in spatial differentiation and class polarization; a decline in community services in the areas of health, education, and welfare; a loss of state ability to control fertility; and a multitude of environmental problems. In Vietnam, where the margin above subsistence and levels of commodification remain much lower than in China, the effects of these problems have been more severe (de Vylder 1995; Fforde and Sènèque 1995). Several aspects of agrarian change in Vietnam are directly relevant to this study.

The debate on land privatization. Modernization and commercialization of agriculture have had a considerable impact on Vietnam's rural areas. Survey studies have shown growing social differentiation in all regions with increased affluence in the Mekong delta and widespread poverty in the highlands. In the 1990s, the question of rural inequalities has become a focus of debate on reform among government officials and academics.

Ngo Vinh Long (1993) summarizes the situation by noting that one side of the debate, composed of economists, agricultural experts, and social scientists has concluded that cooperativization of agriculture has generally failed. In their view, a thorough agricultural reform that includes privatization of land ownership, legalization of land transfers, and inheritance rights is necessary. The other side of

the debate, comprised mostly of party bureaucrats and theoreticians, argues that private land ownership would lead to land fragmentation and increased rural differentiation, forcing unemployed and landless peasants to migrate to already crowded urban areas. They speak against further erosion of the cooperatives and demand that the central government invest more in highland areas to close the economic gap between those areas and the lowland regions. Many scientific experts, however, are increasingly in favour of privatizing land. They contend that social differentiation is largely the result of occupational change and diversification in the rural economies rather than land concentration. In their view, the re-establishment of the peasant economy and market relations in Vietnam will be incomplete if the state fails to privatize land (Le Cao Doan 1995:119-24).

Resource scarcity in upland areas. The ethnic minority groups who make up the majority of Vietnam's upland population have had little input to the ideological debate which has affected their livelihoods and political fortunes in direct and significant ways (Rambo 1995). As a result of central planning policies, the upland areas have been subjected to national pressures of various forms including programmes for resettling lowlanders in mountainous regions and schemes of resource extraction, especially in forestry and mining. These developments have caused severe shortages of arable land and conflicts over land use between newcomers and the local populations.

They are also likely to have caused significant changes in natural resource use by farmers in indigenous communities. Although little research has been done to investigate those changes in Vietnam's upland areas, evidence from case studies in other parts of southeast Asia suggests that resource scarcity is one of the leading factors promoting changes in agricultural techniques and cropping patterns in farming communities. Cooper (1984), for example, showed that severe resource scarcity in the mountains of Northern Thailand led Hmong farmers to rely increasingly on the cultivation of opium as a cash crop for subsistence. Henin (1995)

presented the case of the Dai in Southwest China, who adopted rubber cultivation as a main commercial crop. Henin (1996) showed that the Akha of the same region essentially became tea growers. Given the rapid population increases and the high rate of deforestation in Vietnam's highlands, resource scarcity is of critical concern. One of the objectives of this research programme, therefore, is to investigate the changes in land use in a specific setting in Vietnam's upland regions.

The long arm of the state. Conflicts between local people and government are not limited to access to land. Since reunification of the country, an important goal of national policy has been to strengthen ethnic integration and national unity. The policy design and the implementation of development programmes to this effect, however, have been largely carried out in a hierarchical, top-down fashion which has, so far, provided very little scope for the participation of the local populations. Officially, Vietnam's Constitution recognizes the equality of all ethnic groups, and, in reality, the proportion of ethnic minority representatives in the National Assembly is higher than their numbers in the population at large². The goal of social and political equality for all Vietnamese citizens has been carried further into regional planning. In order to eradicate socioeconomic disparities between upland and lowland populations, the government has invested heavily into the infrastructure of upland areas and provided technical and managerial services. At the same time, it has extended its administrative network deep into these areas, gaining access to local resources as well as control over local institutions in order to achieve its national development objectives (Kerkvliet 1995).

Development dilemmas. An implicit objective of this research programme is to investigate the development dilemmas faced by rural communities in Vietnam's highlands. Hirsch (1990), in a study of development in rural Thailand, has pointed

² For a presentation of Vietnam's political system, read *Vietnam Economic Times* (1997) 'People Power: National Assembly Explained', *Vietnam Economic Times* (issue 41), pp. 14-21.

out the fundamental contradiction underlying the development process. On the one hand, rural development is promoted by central authorities as a means for local residents to improve their standards of living by giving them access to the resources available to the wider society, such as modern farming technology and investment capital. On the other, the access to village institutions and local resources afforded by rural development to the state and capital reduces local autonomy and diminishes control over local resources for the majority of villagers. It follows that rural development cannot be examined independently of an analysis of broader issues of control and power.

The political economy. Blaikie's analysis of the political economy in the rural areas of the developing world lends support to this conclusion. Blaikie (1985) argues that the vicious circle of marginalization of rural producers and ecological destruction results from decisions that must be considered as part of a wider political economic analysis. Research needs to be conducted to ascertain what implications soil degradation is likely to have on local conditions of growing inequality and impoverishment. The results of this research could help establish whether there are wider contradictions between the impoverished segment of the rural population, which both directly causes and is affected by soil degradation, and the more privileged class, which maintains the conditions for social inequality and environmental destruction.

The role of the village elite in the dispossession and marginalization of small farmers in Southeast Asia has been emphasized by Turton (1989). The members of this small minority of wealthy households have privileged access to land and resources. They derive their advantages from their external connections and alliances and from linking the villagers with state and market structures. In the case of Vietnam, a new rural elite has emerged, composed of local Communist Party members, local officials, and wealthy peasants. These influential individuals have used their positions of prestige and power in the village community to reinforce

their control over local economic activities (Kerkvliet 1995:77-80; Kaye 1994; Kolko 1995).

Development constraints. One important objective of this research programme is to identify the development constraints in Vietnam's upland areas. Increasingly, researchers have come to identify the lack of funds available for investment in the upland regions' infrastructure as one of the main obstacles to the successful implementation of economic reforms. The paucity of roads, electricity, credit facilities, and agricultural extension facilities has caused agricultural productivity in the upland regions to fall further behind that of the lowlands. The austerity measures implemented during economic liberalization have also amounted to a loss of social benefits, such as subsidized health care and education, which threatens the upland farmers' well-being and hinders their development (Kerkvliet and Porter 1995:16-7).

The decline in general investment in the upland region may also be accompanied by a decrease in community involvement in local development projects. Hirsch (1990) has remarked that an unhappy consequence of state-led rural development in Southeast Asian countries is that local communities have become increasingly reluctant to assume the responsibility for infrastructural work. Where in the past, school construction, road improvement, and irrigation maintenance were the responsibility of villagers, the uncertainty over whether the government or villagers are responsible for such projects leaves work undone. In Vietnam, Hiebert (1992a) has noted that infrastructural development is also made more difficult by an increasing local opposition to government development plans.

1.4 Research Methodology

The research approach adopted here is interpretive, based on ethnographic studies and fieldwork (see Chapter 2). The validity of this approach has been supported by a growing body of literature on research methodology (Hammersfield

and Atkinson 1993; Eyles 1988). The appropriateness of such method for the study of rural development is demonstrated here through its application to case studies in the uplands of North Vietnam. A multiple research strategy is adopted, based on multiple theories of agrarian change and a mix of qualitative and quantitative methods of data collection. These methods emphasize the importance of the human agency in rural transformation. Techniques of participant observation and depth interviewing, aimed at acquiring insider knowledge, reveal the experience of agrarian change in the peasant communities studied. The aim is to contribute to the expansion of the theoretical framework on rural development, agrarian change, and ethnic-minority integration in the developing countries of Asia.

1.5 Dissertation Outline

This dissertation has been divided in seven chapters. Chapter two discusses concepts of agrarian change in Southeast Asia and describes the research methodology employed in this study. Chapter three provides an overview of Vietnam's agricultural policy and its impact on rural people since independence. Chapter four presents the background to the two case studies conducted in this research programme and describes the field methods. Chapters five and six present and discuss the results of the case studies. Chapter seven summarizes the findings of the studies and presents the theoretical implications and conclusions. It also outlines the practical significance of the findings for the development of farming communities in the uplands of Vietnam and its Asian neighbours.

Chapter 2

RESEARCH METHODOLOGY FOR THE STUDY OF AGRARIAN CHANGE

This chapter discusses the conceptual and methodological frameworks adopted for the study.

2.1 Theory and the Nature of Research on Agrarian Change

One matter of central importance in conducting an empirical study of agrarian change is the applicability of existing concepts and theories. The complexity of agrarian change and the multitude of environments in which it is being investigated call for a clarification of key concepts. Agrarian change itself may be conceived as the study of the transformation of village life under the forces of modernization—commercialization of agriculture, intensification of cultivation methods, and state intervention in rural development. The transformation of rural society under these forces can be examined along a multitude of dimensions. These include the diversification of agricultural production, the growing contribution of non-farming activities and migration to the rural economy, and the factors enabling or disabling farmer participation in the national market. Also important are the changes in social values and cultural traditions in the village, the growth of income disparities within communities and regions (as well as the extent of poverty), and the changing nature of relations between farmers and the state. A thorough study of agrarian change must encompass these dimensions of change by examining the impact of modernization on rural life according to units of social and economic organization, of which the two prominent ones are the village and the household.

The peasant village

Much research on agrarian change depicts the traditional rice-growing village

in Southeast Asia (known as *ban* among the Thai peoples, *xa* among the Vietnamese, *desa* for the Malay) as an isolated, inward-looking, self-sufficient, and agriculturally-based community (Chandler 1987: 10-13). The village was a ritual community organized around the local temple (*wat* in the Thai village, *dinh* in the Vietnamese village) and a shrine dedicated to the local spirits (Keyes 1987: 159-60; Wolf 1969: 172-3). Moral economists such as Scott (1976) and Geertz (1963) emphasize the closed and corporate nature of the traditional village. At the centre of village organization were informal social controls which aimed at redistributing the wealth derived largely from agricultural production among villagers and providing for the minimal needs of the village poor¹. Thus, the model of the traditional village had a reserve of communal land that was allocated on the basis of the need of poor villagers. The land tenure systems in place (such as share-cropping) provided tenants as well as landlords a substantial level of subsistence crisis insurance, by which variable rents rather than fixed rents cushioned peasants against the vagaries of agricultural production. Patterns of cooperation at village level were based on strict reciprocity among individuals. "Patterns of reciprocity, forced generosity, communal land, and work-sharing helped to even out the inevitable troughs in a family's resources which might otherwise have thrown them below subsistence" (Scott 1976: 3). The collective practices of reciprocity and redistributive schemes were facilitated by the role of informal, non-state organizations that existed in the village. An informal village council, dominated by prominent local figures, performed recurring functions such as temporarily allocating parcels of communal land to land-poor families or redistributing the tax burden among villagers. Other nonpolitical organizations—kinship groups, temple organizations, trade associations, and so on—provided loyalties and commitments

1 Although the traditional institutions in the Southeast Asian village contained wealth redistributive mechanisms to improve the survival of the weakest, village communities were by no means egalitarian. Wolf (1969) points out that considerable disparities in wealth and status existed in the Vietnamese village. Thus access to land was controlled by "a corporation of family heads who held rights to land within the village orbit" (171). In contrast, "the village also contained people who held no land, and were hence socially and politically disprivileged" (171).

that promoted collective action (Little 1989: 48).

In the moral economy framework, the “norm of reciprocity” and the “right to subsistence” are the two main principles of the subsistence ethic that characterize the peasant economy (Scott 1976). This framework does not contradict the theoretical model of rational, profit-maximizing, risk-evaluating peasant behaviour proposed by Popkin (1976). In his view, the peasant-farmer is motivated by self-rational interest rather than that of the collective group. Peasants are “primarily concerned with the welfare and security of self and family” (31). They will favour personal investment in future welfare by accumulating savings and raising children over relying on reciprocity and insurance from the village (23). However, as Little (1989) remarks, “it is possible to regard peasants as rational decision-makers and still regard the traditional village as social context in which cooperation, collective actions, and communitarian practices occur relatively readily” (39). Little goes further by stating that “the subsistence ethic is cross-cultural because it derives from structural features of peasant life rather than cultural traditions or religious values (31).

The corporate nature of the traditional village in Southeast Asia has been progressively eroded under the economic development process first introduced under European colonial administration and then accelerated by the modern independent state. As redistributive wealth institutions of the traditional village were progressively dismantled by colonial authorities, disparities in wealth increased and community self-consciousness and solidarity were weakened (Marr 1981: 3-5). The experience of Vietnam in the post-colonial era highlights this transformation in a dramatic way. Vietnam’s agrarian arrangements today are considerably different from those that existed before the liberation of the country by the Viet Minh. The most radical transformation was the system of collective agricultural production imposed by the totalitarian Communist state in the years that followed the withdrawal of the French colonial forces in 1954. Villages in that era lost much of their traditional functions and organizational systems in favour of

communes, arbitrary administrative units that grouped several villages and even towns. Communes were the nexus of economic production as well as social control in Vietnam's rural areas². From the early 1980s, this system was progressively reformed and replaced by a system of production based on markets (*doi moi*) (see Chapter 3 and Chapter 4).

Important questions of agrarian change concern the impact of modernization on village society and village institutions. Has land reform towards privatization promoted accumulation of resources and wealth in the village? Does landlessness exist? What is the nature of social and cultural institutions in the village? Have redistributive schemes survived throughout the transformation process? Have tenurial arrangements changed? Has the commoditization of services replaced reciprocal labour exchange arrangements that prevailed in the traditional village? At the same time the validity of the village as a unit of analysis may be questioned. Rigg (1997) challenges the view of the village as the basic unit of rural life because extra-village links are important in defining the village itself (157). In his view agrarian change cannot be dissociated from urban transformation because a large proportion of the population in modern towns and cities originates in the countryside. In turn, major adaptations in agriculture can be viewed as adaptations brought in part by labour loss to non-farm work, land abandonment, and migration to urban areas (241).

The peasant household

One focus of a study of agrarian change is thus the transformation of the village as a basic unit of economic and social organization. Another is the transformation of the peasant household economy under policy reform and village organizational change. Peasant households are understood in this work as farming households which 'function as relatively corporate units of production, consumption, and reproduction' (Johnston et al. 1994: 436). They are characterized

2 The rural transformation process in Vietnam has to a large extent paralleled the one in China.

by direct access to land, by predominant use of family labour, and by a mix of subsistence and commercial agriculture. They participate in a subordinate status in wider political economies, principally the nation state, but also increasingly the global economy (Johnston et al. 1994: 436; Dickenson et al. 1996: 126-31).

Ellis (1988) brings to light that peasants make investment decisions in an economic environment distorted by a number of constraints (when compared with farm enterprises in developed countries). First, peasant agriculture is characterized by many uncertainties which influence peasants' economic decisions. These uncertainties take many forms. Natural hazards (droughts, floods, volcanic eruptions, pests and plant diseases) represent a substantial component of uncertainty in agricultural production as they can create havoc in the best managed agricultural communities. Market fluctuations are another form of agricultural uncertainty. They embody the fact that the unvoidable time-lag between the decision to plant a crop and crop achievement under imperfect market information may result in loss of income. State policies in the developing world often add an element of uncertainty to the economic environment. Decisions on farm input subsidies, pricing policies, and credit subsidies influence peasants' ability to invest into new farming technologies. The state also acts as an important force on agricultural production by providing extension work, infrastructural maintainance, and social services.

The literature on agricultural development highlights the safety-first principle as a key trait of peasant behaviour. The uncertainties of agricultural production stimulate a risk-aversion behaviour that guides peasants in their decisions concerning new investments. The struggle for survival is often such that their main objective is to minimize the chances of producing below subsistence crisis level rather than maximize the average return. "The subsistence level—perhaps, a 'danger zone' rather than 'level' would be more accurate—is a threshold below which the qualitative deterioration in subsistence, security, status, and family cohesion is massive and painful" (Scott 1976: 17). Peasants express the

goal of securing subsistence through a wide array of choices: an inclination to mix crops and to employ several seed varieties for the same crop; a preference for stable if modest yields; a bias towards crops meant to be consumed rather than sold. Peasants will grow cash crops only when these do not compete with their subsistence crops in their requirements of land, labour, and capital.

Ellis (1988) points out that the peasant's risk-aversion behaviour often leads to resource use at the farm level that is economically inefficient. The lack of output maximization considerations in the peasant household's investment strategies unavoidably results in under-utilization of resources. At the same time, peasant risk aversion inhibits the adoption—and diffusion to others—of innovations that could improve the output and income of rural families. This is related to the imperfect knowledge system of modern agronomic techniques and to the structural constraints of adoption such as the high cost or the unavailability of rural credit. Peasant risk-aversion behaviour varies along class lines. Wealthier farmers, who are less concerned with survival, are more likely to innovate and intensify production techniques.

Agrarian differentiation

A principal objective of studies of agrarian change is to investigate the process of economic and social differentiation within and among rural communities communities. White (1989) questions the relevance of classical models and debates on agrarian differentiation to contemporary societies of Asia³. Many local studies point to local processes of socio-economic differentiation within a global capitalist context, but these analyses cannot be easily equated with "classical" models of differentiation as first advanced by Lenin in the context of Russian agriculture at the

3 Agrarian change is viewed here as the combined changes that occur in rural areas under the influence of three main forces or agents—population growth, commercialization, and the influence of the state (Rigg 1991:40). Some of the most important changes include socio-economic differentiation, rising landlessness, poverty, and the breakdown of traditional society (Rigg 1989:374-5).

turn of the century. Although classical analyses have much to offer in the way of specific approaches and insights which are relevant to the contemporary situation, this relevance "is to be explored rather than assumed or imposed" (18). White emphasizes that agrarian differentiation is a dynamic process that must be seen not only in terms of increasing income inequalities, but primarily in terms of changing relations among country dwellers. Differentiation involves a cumulative process of change in which different groups in rural society gain access to the products of others' labour, based on their differential control over production resources. This may include inequalities in access to land, draught animals, means of transport, credit, and so on. These changes are thus essentially qualitative rather than quantitative. They involve changes in the form or at least in the function of production relations. They can occur in expanding, stagnating, or declining rural economies (20.).

Turton (1989) warns about the dangers of simplifying the differentiation process and applying categories of unity and solidarity, which, although commonly used in the political discourse are problematic for an analysis of agrarian trends. The category "one nation" or "one people" subsumes the distinctions of regional identities. Similarly, the category "villagers" connotes an undifferentiated unity of communities. Other categories such as small farmer, landowner, tenant, wage labourer, and the rural poor need to be examined for their problematic assumptions. The main aspect of agrarian change is one of differentiation, in which "many divisions have been created ... which fragment and cross-cut lines of class, community, and household" (75). An individual producer may be simultaneously landowner, share-cropper, waged worker, hirer of labour, and so on (75).

Rural poverty

Chambers (1983) recommends a "balanced pluralist approach" for the study of agrarian change, especially when applied to the emergence or spread of rural poverty. The many causes of rural poverty suggest an empirical study with a wide

span in both political economy and physical ecology.

Political economists conceive of rural poverty in terms of economic forces, social relations, property rights, and power. Rural poverty is a consequence of processes which concentrate wealth and power. These processes operate at three levels: internationally through neo-colonialist forms of unequal exchange which work in favour of the world's core economies; internally, as the urban middle-class exploits the rural producers through unfair trading; and within rural areas, as the elites consolidate their power and wealth (37). To political economists, modern technology and commercialization of relations of production play an important role in these processes. Both concentrate wealth in the hands of the privileged rural inhabitants, who have access to credit, land, technical assistance, and market information. Both destroy the livelihoods of peasants and artisans at the same time as they weaken the traditions of responsibility and sharing (38).

Physical ecologists, on the other hand, mainly natural scientists and practitioners, explain rural poverty in terms of physical and biological factors. They cite population growth and pressures on resources and environment as the main causes of poverty. Uncontrolled population growth and uncontrolled exploitation of natural resources combine in a vicious circle of rural poverty. Other factors worsen the situation: the physical weakness of the rural poor caused by malnutrition and diseases; natural disasters—floods, droughts, cyclones; wars and persecution of rural refugees (39).

Each of these two realms of conceptualization on its own provides a partial—and incomplete—explanation of rural poverty. When combined, however, they provide the basis for a sound analytical framework to investigate the transformation of rural society and its natural environment. A full conceptualization of agrarian change, however, yet requires a third element: the local culture, the ensemble of cultural practices of natural resource use and rural institutions which gives a specific case study its unique character in the greater body of empirical investigations.

The household economy and the political economy

Blaikie (1985) emphasizes the fact that there can be no single theoretical conceptualization of environmental degradation and associated rural transformation. There is, instead a wide variety of social and physical contexts in which such a transformation occurs. A thorough study of agrarian change requires to integrate analytically physical and socio-economic factors, and local and external concerns (80-1). A "bottom-up" analytical approach starts with the smallest decision-making unit which uses land. This will normally be a household constituting a nuclear or extended family or pastoral group. This unit is the smallest one which collectively makes decisions about privately controlled resources (labour, land). It is necessary at this analytical stage to investigate the decision process within the household and to examine the division of labour, the distribution of profits, and inequalities between genders. It is important to recognize that a specific individual may be involved in a multiplicity of economic relations with others⁴. A full investigation of the household economy should also include non-agricultural activities, including temporary migration to cities, and participation in informal and remittance economies (82-3). Rigg (1997) emphasizes that at the functional level the household is socially rather than spatially constructed. It includes all the people who participate in the reproduction of the household, even those who live a great proportion of their time in urban areas (161-2). Rigg, nevertheless, regards the household as a "fractious social unit." All members are not necessarily equal members, "subsumed within and driven by one household-determined ethic, and bound together by necessity and by kinship" (162). The concept of "household strategy" may thus be generally inadequate (162).

4 For example, a "marginal peasant" male "may be involved in tenancy, debt, and wage relations with various others. He may work all year-round as subsistence farmer on his owned or tenanted plots and seasonally as a wage labourer on another farm or in a town nearby. He may hire one or several workers on some of his owned plots at peak agricultural times. He may be subjected to formal and informal exactions by various village and state officials" (White 1989:21).

The next analytical step is to examine the political and economic structures influencing households' economic decisions. Taylor and Adelman (1996) point out the difficulty of studying households as isolated economic units. Complex linkages exist among household-farms within villages and between villages and the outside world (3). At the local level, village councils may play an important role in overall land use, deployment of labour, and fee imposition. A wider concern will include the national and international power structures. At government level, "the state must be recognized as political rather than neutral in the course of its executive power" (Blaikie 1985: 85). As such, it forms a powerful and coherent set of economic interests. Officials are in a privileged position to gain access to land, secure credit at favourable rates of interest, obtain monopolies in import and export businesses, and so on. At the local level, government officials are likely to be engaged in a "web of social and economic relationships" with villagers (86). They will both provide local residents with access to government services (land-use permits, credit, market information) and rely on them for economic perks. The analysis of relationships within the government hierarchy must then be linked to an analysis of relations between national and foreign economic and political interests (87).

In sum, agrarian change can be analyzed in "a framework of Chinese boxes", each fitting inside the other—"the individual within the household, the household itself, the local community, the local bureaucracy, the state bureaucracy, and finally international relations" (88).

Human ecology

Rambo (1983) points out the advantages of the human ecology perspective, or the study of human interactions with the environment. In particular, the systems model of human ecology represents a powerful analytical tool to investigate the dynamic relationships between people and environment. It assumes that two integral systems, the social system and the ecosystem, interact with one another by exchanging energy, materials, and information. A social system is composed of a

human population together with its technology, cultural values, and social institutions. An ecosystem is composed of physical and biotic components. During exchange, both systems change their internal configuration according to their internal dynamics. This approach has been successfully employed to investigate the impact of population pressure on a marginal environment (Le Trong Cuc, Gillogly, and Rambo 1990; Le Trong Cuc and Rambo 1993). In general, the systems model is too complex to be used as an operational research model. However, it can offer specific guidelines for the design of research procedures by revealing the areas of interactions between human social systems and ecosystems which are especially significant⁵ (Rambo 1983:29; Beebe 1995:43).

Ethnography

The systems model suggests the need for a holistic approach to field study. The importance of such an approach is underscored by Hirsch (1990) in the study of village life. Hirsch's methodological framework assumes the indivisibility of peasant livelihood in which production, consumption, health, education, debt, and so on are intimately connected. A study should therefore not limit itself to a single well-defined aspect of village life. A thorough understanding of rural transformation requires consideration of peasant production unseparated from consumption and other aspects of social and economic life (5). Hickey (1993) adds support to this perspective. In upland communities, especially, people have developed "a sociocultural system which is optimally adapted to their ecological situation. They see this ecological niche as a place in which a total style of life—including religious, political, and economic dimensions—has been worked

5 In connection with the systems model, Chambers (1983) recommends the use of *Rapid Rural Appraisal* techniques (RRA) for studies which are part of rural development projects or policy impact assessment. These approaches avoid both the "shallowness of rushed rural development tourism" and the impracticality of lengthy academic investigations. These techniques take on various forms, including searching for existing information; learning from key informants; practicing direct observation, and conducting individual and group interviews with informal or selected groups (201-9). For a thorough discussion of rapid rural appraisal techniques, see Beebe (1995).

out and can be maintained" (xvi).

Undoubtedly, some of the most enlightening studies of agrarian change derive their strength from the holistic nature of ethnographical work. These studies have made significant theoretical contributions to agrarian change (see for example Geertz 1963, Cooper 1984, and Peluso 1992). They offer a powerful alternative approach to formal research based on quantitative methods and classical models of economics. Conventional and neo-classical economics, through the formulation of hypotheses from models developed a priori and independently of the empirical study to be conducted tends to "marginalize the use and discussion of certain kinds of information, both in the construction of problems and in the collection of data" (Lockwood 1993). In contrast, the ethnographical method highlights the importance of insider knowledge. It takes as a focus the fieldworker-respondent relationships, which it sees as permeating the entire research process. Fieldwork, in sum, is the essential tool for concept formation and the development of theory.

2.2 Qualitative research methods

To acquire insider knowledge is at the very heart of qualitative research methods in social sciences. These methods are often known as the interpretive method in human geography and the ethnographical method in social anthropology. According to Eyles (1988), the aim of interpretive geography is to "uncover the nature of the social world through an understanding of how people act and give meanings to their lives" (2). It is to reconstruct social reality by searching for and accepting definitions and meanings as given by individuals. The method recognizes the intersubjective nature of the social world: observer and observed share an experience of everyday lives. An investigation of this experience requires methods which allow the acquisition of insider knowledge "through interaction, observation, participation in activities, and informal interviewing" (2). This is, as Hammersley and Atkinson (1995) point out, the essence of ethnography. These writers see ethnography as a set of methods involving social researchers as

participant observers in the social world that they attempt to understand. This approach avoids the limitations of logical positivism and naturalism by accepting both quantitative and qualitative methods as legitimate mode of enquiry⁶ (1-3).

2.2.1 Reflexivity

A reflexive approach to social research recognizes that researchers are part of the social world that they study and that their theoretical orientation and behaviour reflect their socio-historical locations. The data which they collect and construct invariably reflect their theoretical presuppositions and “common-sense” knowledge (Hammersley and Atkinson 1995:16). Lockwood (1993) notes that reflexive ethnography includes “the ethnographer in the ethnography itself” (167). It concedes that “the person of the ethnographer, past experience, and present personal reactions to fieldwork” are an integral part of the data of the study (167). Indeed the whole research process, from its conception to the publication of the findings, is affected by social processes and personal characteristics of all involved—researchers, informants, host institutions, and even future readers. A reflexive approach also acknowledges that the production of knowledge by researchers is likely to have social and political consequences, especially for the people studied. Concerns for the ethical implications of the research permeate the whole research process.

Hammersley and Atkinson (1995) emphasize the important following aspects of reflexive social research. First, a concern for reflexivity does not undermine the researchers’ commitment to realism—to analyze and represent social phenomena as they exist, independently of the researcher’s effort. Rather, it suggests that the knowledge they hold may be erroneous and that where doubt exists, engaging in

6 For a discussion of *logical positivism* and *naturalism* in social sciences, see Hammersley and Atkinson (1995), chapter 1. Essentially, central to positivism is a conception of the scientific method modelled on the natural sciences, especially classical physics; methods are concerned with testing theories. With naturalism, the social world is studied in its “natural” state, undisturbed by the researcher. Evans (1988) remarks that both positivism and naturalism place emphasis on the directly observable; on the separation of the researcher from the researched, and on the distinction between theory and method. In contrast, participant observation requires that the researcher take part in the social phenomena studied. In a way, the researcher is used as a methodological tool (199).

systematic enquiry is justified. Second, it is important to realize that ethnographic research necessarily contains an element of reactivity, as researchers are likely to have an effect on the people studied. Reactivity is not necessarily an obstacle to the research process, and researchers can choose to minimize it, monitor it, or exploit it. "How people respond to the presence of the researcher may be as informative as how they react to other situations" (18). Third, ethnographic research is an active process which constructs accounts of the social world through selective observation and questioning; through writing fieldnotes and transcribing audio- and video-recordings; through theoretical interpretations of the data recorded; and through writing the findings. In a sense, both data and findings are constructed. Data should thus not be treated at face value but treated as "a field of inferences" in order to identify and test hypothetical patterns. "Different research strategies can be explored and their effects compared with a view to drawing theoretical conclusions" (19). Fourth, the primary goal of research must be to generate knowledge. Researchers "should try to minimize any distortion of their findings by their political convictions or their practical interests" (21). To direct research towards achieving particular social or political goals "would increase the chances of their findings being distorted by ideas about how the world ought to be" (20).

According to Wilson (1993), to engage in ethical research is not necessarily conditional on advocating a particular cause—however noble this might initially seem. Rather it is about making "the most rigorous application of methods enabling objective understanding ... Such research ultimately has the greatest potential to identify actual processes and relationships: it provides the most powerful critique of the use of power and ideology, and the greatest potential for progressive social actors to take a situation forward on the basis of real understanding" (182). The presentation of reality is the professional role of researchers even if they may have, as citizens, moral obligations to engage in political debates and social movements (182). Ethics thus demands "a rigorous search for the truth" (180). To achieve this goal, researchers can present people

studied with opportunities to comment on their interpretations, and also provide readers with honest descriptions of their research methods and data, and the views of respondents and local actors (180).

One important objective of ethical social research is to enable the reader “to hear the voices and appreciate the actions” of as many people involved in the process as possible (181). Qualitative research can give marginalized groups a voice. By emphasizing close, in-depth empirical study, it is “well suited for the difficult task of representing groups that escape the grasp of other approaches” (Ragin 1994:83).

2.2.2 The Process of Analysis

Through its focus on acquiring in-depth knowledge from case studies, qualitative research provides “rich raw material for advancing theoretical ideas” (Ragin 1994:83). Theory is developed using two modes of analysis—induction and deduction. Induction enables us to develop generalizations from information presented in case studies—through “refinement, abstraction, typification, and categorization” (Eyles 1988:4). Like Geertz’s ethnographical method, it is based on “thick description,” that is a system of analysis in which “the aim is to draw large conclusions from small, but very densely textured facts” (Geertz:1973:28). It is a research strategy that directs investigators to pay close attention to evidence that challenges the images which they are developing. It is concerned “with the degree to which the image of the research subject has been refined, sharpened, and elaborated in response to both confirming and disconfirming evidence” (Ragin 1994:94).

Essentially, the analytical induction technique “facilitates the reciprocal clarification of concepts and categories, a key feature of qualitative research” (94). In the initial stage of analysis, the concepts are normally not elements of an explicit analytical model. Rather, they take the form of a loose collection of “sensitizing concepts,” which give a sense of direction in approaching empirical instances.

These concepts are thus “often drawn from half-formed, tentative analytical frames, which currently reflect current theoretical ideas” (87). Over time, as the analysis proceeds, they will develop into more significant analytical concepts, sometimes called “definitive concepts” (Hammersley and Atkinson 1995:212). These will form as a stable set of categories is established, in terms of which a systematic coding of all data can be carried out (213).

The development of analytical ideas thus rarely takes a purely inductive form. Theoretical ideas and common-sense expectations play a key role. Generally, it implies combining deductions from already existing models with inferences from constructed categories. Researchers work back and forth between their ideas and evidence in a process of “double fitting,” which Ragin calls “retroduction,” a term that describes the interplay of induction and deduction in the qualitative approach to social research (Ragin 1994:98). Where a category forms part of an existing model, it may be possible to explore relations with other categories and test the model. However, sociological models are rarely sufficiently well developed for hypotheses to be derived and tested without having to further develop the theory as a precondition. In particular, appropriate indicators for the concepts which are part of the theory or explanation would have to be specified.

The ethnographer may also not confine the development of ideas to a single theoretical framework. Rather, he or she may engage in “‘theoretical triangulation,’ approaching data with multiple perspectives and hypotheses in mind” (Hammersley and Atkinson 1995:214). The strategy is to make use of all theoretical resources available to make sense of the data.

2.2.3 Fieldwork

Multiple research strategy

Adopting a multiple research strategy is a particularly effective way to investigate the social world (Eyles 1988:4). The use of multiple theories widens the

range of theoretical propositions. The researcher's task is then to explore the empirical relationships that pertain and assess the relative explanatory merits of the various theories. Similarly, multiple investigators may provide a more detailed and more objective view of social reality. They may come from diverse disciplines; have different ethnic origins; and include both men and women⁷ (4). There can also be multiple data sets obtained by applying multiple data collection methods, such as statistical coverage, observation, and ethnographic description. Statistical surveys and quantitative methods thus remain relevant for qualitative research. Data obtained through these methods can be useful to correct ideas gathered through conversations; demonstrate the generality of field observations; or open new avenues for interpretation. Conversely, field research may "cast a different light on survey results" (5).

Formal interview

Formal survey research makes use of the formal interview, based on the structured questionnaire, in which questions are asked and recorded in a standardized form. It constitutes a means of obtaining a large number of data relatively quickly, in a form amenable to relatively easy and rapid analysis. By its very nature, however, the structured interview forces respondents to answer questions concerning categories defined by the researcher. The obvious danger is to miss out on the conceptualizations held by the people studied as it tends to exclude interesting stories and relevant comments that they might wish to add. The sequencing of questions also affects the nature of the information provided by respondents. The formal interview also neglects the audience-effect of the researcher. It fails to consider that individuals may misrepresent their actions and emphasize their adherence to their societal norms (Devereux and Hoddinot 1993:30-1; Eyles 1988:6-7).

⁷ Eyles remarks that any group of researchers is likely to remain affected by a class bias since most researchers belong to the middle class.

Informal interview

In this method, also referred to as depth interview, there is no formal questionnaire. Rather, the interviewer introduces a series of topics from a checklist. He or she "tries to tailor the questions according to each particular individual and asks the questions in an order appropriate for the interviewee. The aims are to ensure that the questions have the same meaning for all respondents and to engage the respondent in a 'conversation' to set the respondent at ease" (Eyles 1988:7-8). This method requires that the interviewer be sensitive to which questions are relevant and meaningful. It makes the recording of everyday life possible by allowing people to describe their lives in their own words. The method is especially useful at an early stage of fieldwork in order to reveal background information and the concerns of local people; and in certain types of interviews such as group interviews and those for collecting life stories or reconstructing local history (Devereux and Hoddinot 1993:30).

The informal interview method has also drawbacks. An obvious one is its unrepresentativeness. By focusing the interviews on selected informants in a specific site, the interviewer risks missing out on the perspectives of other local people. Another disadvantage is in the nature of the information collected. Informal interviews produce good case studies and good quotations, but rarely good statistical aggregates. Responses are difficult to compare where each individual is asked different questions, or leads the discussion towards his or her own interest. Even when asking specific quantitative information, the interviewer risks missing important details "without the memory prompt of a coded questionnaire form on her or his lap" (30).

Participant observation

Another approach to fieldwork which raises similar issues is participant observation. In this method, the researcher gathers data by participating in the daily

life of the group that he or she studies. There are a variety of ways in which the researcher may engage in participant observation, ranging from complete participation to complete observation. In the role of complete participant, the ethnographer's activities are completely concealed. This role enables him or her to obtain an internal view of the community studied by gaining access to "inside knowledge" without restrictions. This role, however, is very difficult to perform, and time constraints may make its application unpractical. In contrast, the complete observer has no contact with the people observed. The advantage is that, like the complete participant, the complete observer minimizes any reactivity which his or her presence might cause among local people. The danger for the complete participant is to fail to understand the perspectives of the participants. In this role, the fieldworker is to infer these perspectives from observations and background knowledge without being able to check these interpretations against participants' answers to questions. The risk is thus of "seriously misunderstanding the behaviour observed" (Hammersley and Atkinson 1995:110).

Most field research involves roles between these two extreme positions. The participant-observer is both inside and outside the community studied. Although immersed in it, he or she must "remain a critical commentator able to see a complete pattern with daily or routine interactions or events" (Eyles 1988:9). The decision on the role to adopt in a setting will largely depend on the purpose of the research and the nature of the setting. Fieldworkers can adopt different roles within a setting in order to obtain access to various kinds of data and acquire some sense of the kinds of bias characteristic of each. Throughout the various roles adopted, the ethnographer's aim is to maintain a marginal position in order to minimize the bias that may arise from "over-rapport" with the people studied (Hammersley and Atkinson 1995:112). In each role, the fieldworker is in the marginal position with respect to the community studied of being both an insider and outsider. Participant observation thus "provides an insider's account with an outsider's detachment" (Eyles 1988:9). Evans (1988) emphasizes that because this method relies heavily on

“social skills”, it requires a substantial amount of introspection on the part of the researcher (204).

In practice, participant observation is less a single method and more a combination of methods and techniques that involves social interaction in the field, direct observations, informal interviewing, systematic counting, and collection of documents and artifacts (Devereux and Hoddinot 1993:31). For many researchers, it represents an opportunity to generate questions and give meaning to data (Lockwood 1993:166). If all questions to be asked are predetermined by theory, the research process is robbed of much of its potential benefit. Questions that arise from fieldwork are not likely to be of the form of direct tests of behavioural postulates. Rather, they will “arise from discussions about what those postulates imply” (176). Participant-observation is a case-study approach in that it concentrates on a small place or group of people, “allowing theoretical generalizations to emerge from its detailed investigation of a selected dimension of reality” (Eyles 1988:9).

Selecting a Site

The decision of where to locate an ethnographic study is a matter of careful consideration. In principle, the ethnographer’s aim is to choose a setting which is most appropriate for investigating the research problem on the basis of certain established selection criteria. One difficulty encountered, especially in the initial stage of the research, is that these selection criteria may not be unambiguously defined. Because in ethnographic research, the development of research problems is rarely completed before the fieldwork begins, the nature of the setting is likely to influence the development of research questions. The ethnographer is thus “rarely in the position to specify the precise nature of the setting required” (Hammersley and Atkinson 1995:37). Another difficulty lies in that “the case investigated is not isomorphic with the setting in which it takes place” (41). To study a peasant community is not necessarily the same as to study a hamlet, a village, or a cluster of these. Olsen (1993) points out that a study area is never “representative” of a

population studied. "Setting a boundary, or selecting some clusters of households scattered over a plain, is the most arbitrarily and least scientific of the [respondent] selection process" (59).

Devereux and Hoddinot (1993) remark that village studies are often criticized for their "micro-level" focus, which make the validity of generalizations about whole regions questionable. "There is a real danger of getting so immersed in one village or community that it becomes difficult to draw comparisons or wider conclusions" (36). It is important to "contextualize fieldwork" by developing a certain understanding of neighbouring villages and districts (36). One option is to do a less in-depth study of a secondary site while conducting the main fieldwork in the primary site. Where the aim is to generalize from one or several case studies, it may also be possible to assess the suitability of the case studies by comparing their relevant characteristics with information about the target population (Hammersley and Atkinson 1995:44). Normally, pragmatic considerations also play an important role in the choice of a site. This is especially true in theory development because the criteria specifying suitability are often poorly known, at least in the early stages of the research process. Easy access to respondents, travel costs and time, and the availability of documentary information are often major considerations in deciding on a research site (38). Often the final choice depends on balancing the practicability against the desirability of the site in other respects (39).

The interview setting

One issue concerns the relative merits of a private versus a public interview. A public interview may encourage a more general discussion of issues. Where the information is in the public domain, on-lookers may assist or correct respondents. The fieldworker can use this situation fruitfully for group interviews. Group interviews are very useful for brainstorming and filling in background information. With old men or women, for example, they are often useful for recall of historical information and for cross-checking names, dates, and events (Devereux and

Hoddinot 1993:31). When the research deals with matters that are personally sensitive, on another hand, the presence of outsiders may intimidate the respondents, who may then decide to remain silent or perhaps even answer untruthfully⁸. In general, the more sensitive the topic, the stronger the case for conducting interviews in private (32).

A second issue is when to conduct interviews. Since interviews can represent a real imposition on respondents' time, it is important to meet on days and times that are convenient to respondents. Making appointments is one way of insuring that interviews are not too intrusive, keeping in mind that they may have to be rescheduled (32). One related matter is finding the best time of year to conduct interviews. Periods of intensive agricultural activities such as harvests, are to be avoided, as farmers may not consent to meeting the fieldworker. In areas with only one growing season, it may be easier to work during the dry season, when local people have more time to spare, and when travel is easier. One problem is that during the dry season, many rural workers (especially young men) often move to urban areas to seek employment outside agriculture. Seasonal out-migration may frustrate the fieldworker's efforts to address a population sample which is representative of the community. A second problem is that conducting fieldwork only during the dry season would introduce a bias in the study ("dry-season bias") because food in agricultural communities is often more abundant in the dry than in the wet season (Chambers 1983:20-1). In short, "interviewing schedules should be built around the seasonal, weekly, and daily patterns of domestic and economic activities" (Devereux and Hoddinot 1993:33).

Selecting Informants

No social setting is socially homogeneous, and, unless the whole population of relevant actors can be studied in-depth, an adequate representation of the

⁸ During a food crisis, for example, respondents have an incentive to understate their stocks of food and general wealth in the expectation that food aid will be brought into the community (Devereux and Hoddinot 1993:32).

population will require some form of sampling. In ethnographic research, as in survey research, the aim is often to seek a representative sample. Where clear boundaries around the population and a full listing of its members exist, this may be approached by selecting a random sample of suitable size or a stratified sample that takes account of known heterogeneity within the population (Hammersley and Atkinson 1995:136-7). Sampling thus involves two stages—identifying a sampling frame and choosing individuals or households within it.

Regarding the sampling frame, Devereux and Hoddinot (1973) remark that the village should not necessarily be considered as a bounded unit for sampling purposes. Village boundaries may not be clearly defined or kin relationships may represent connections between households that are more important than geographical proximity (28). What is crucial when selecting a sampling frame is “whether clusters of households are distinct from others in ways which matter to the research” (29). For example, a study of rural out-migration might consider migrants from the village who have taken residence in urban areas. It is important to decide on the unit of analysis at the outset of the research (before choosing the sampling frame) as this will influence the composition of the sample drawn from the established survey area. Whether an extended family, nuclear family, or individual is preferred as a sampling unit will depend on the focus of the research (29).

Once a sampling frame has been created, the next step is random sampling. Having drawn a list of households, and completely identified them, the ethnographer may invoke a procedure designed to select a sample randomly. The larger the sample is in relation to the population (i.e. the larger the sampling fraction), the more representative it is likely to be. There is, of course, a trade-off between sample size and depth of contacts with respondents (Olsen 1993:59). To improve the representativeness of a sample, or to ensure that specific categories of the chosen analytical unit (e.g. household) are included, the fieldworker can stratify the sample. Stratifying criteria will reflect the research interests; they may include

household composition, social class, total wealth, gender, economic activities, type of farm management, and so on. This method thus requires more information than straight random sampling; and its use may be made somewhat problematic under time constraints. According to Olsen, “the best stratifying characteristics are those that are easy to identify, that are not sensitive or controversial for any respondents, and that separate the population into a few, very disparate groups” (60). The use of indicators for stratifying criteria will increase the applicability of the method. Hoddinot (1993) notes that the age of the household head, for example, can be used as a proxy for the stage in the household cycle⁹. Similarly, the dwelling wall material can be used to represent household wealth¹⁰.

Whatever the sampling method chosen, it is essential to include households from every major category of interest. Some very important social groups may be quite small in numbers and, therefore, easy to miss in sampling— the landlords, merchants, notables, dispossessed, and others. If the fieldworker cannot ensure that these groups are represented through sample stratification (perhaps because the characteristic of interest is too sensitive to discuss during a brief census visit), it may be necessary to augment the sample¹¹ (Olsen 1993:59-60).

Ethnographic research, however, does not always require a representative sample of informants. This is the case when the primary concern is to elicit information rather than document perspectives or discursive practices. Here the ethnographer’s aim will be to target key-informants, that is “people with the knowledge desired and who may be willing to divulge it” (Hammersley and Atkinson 1993:137). In life-history work, for example, it may make sense to seek

9 If not available from official sources, information on ages could be obtained by conducting a small census (Hoddinot 1993:80).

10 This method is faster than collecting detailed information on household composition and asset holdings (but more time-consuming than just enumerating the survey area and choosing households by random selection) (Hoddinot 1993:80).

11 For a successful example of sample augmentation, see Olsen (1993:60-5).

access to only one or two informants who are especially knowledgeable about the issues being investigated, and to interview them repeatedly (136).

The danger in limiting a sample to a small selection of respondents, however, is to succumb to a professional bias, which confines investigation only to issues that are relevant to the researcher's specialization. For example, extension personnel trained to advise on cash crops tends to be drawn to the more "progressive" farmers; those engaged in family welfare find better-off, better-educated families more receptive (Chambers 1983:22-3). Informants may also be selected on the basis of "'theoretical sampling,' choosing those whose testimony seems most likely to develop and test emerging analytic ideas" (Hammersley and Atkinson 1995:138). The ethnographer will usually decide who will be interviewed (and when and how) as the research progresses, according to his or her assessment of the current state of the theoretical ideas created so far in the research process (138).

2.2.4 Validation

The criteria of validation in qualitative and interpretive approaches to social research, in contrast to those characteristic of positivist and naturalist approaches, all reflect the fact that qualitative research "does not stand outside its subject-matter," that it is "part of the investigation and the discourse itself" (Eyles 1988:11). Principles of validation are, therefore, also part of the discourse and practice adopted. Whether a particular approach can be validated will, in practice, depend to a large degree "on the coherence of argument and the reason, consistency, and honesty of the theorist" (11). Like any other aspect of qualitative research, validation rests on the ability of the fieldworker to participate meaningfully in social life, and thus it requires a great deal of reflexivity (Evans 1988:201). The researcher will reflect on the nature of the research, interpretations drawn as the result of fieldwork, and roles adopted in participant-observation. Questions of validation are thus likely to also involve ethical questions concerning researcher role and the purpose of the research (11).

Concepts and indicators

Analytically, one important element of validation concerns the relationship between theoretical constructs and empirical observation. This relation is often seen in terms of relation between empirical indicators and theoretical concepts. The central question is whether a given empirical indicator adequately represents a given theoretical concept. According to Eyles (1988), three main procedures are applicable to conduct this investigation. First, there is face validity, which addresses the question of whether the relation between concept and indicator is plausible. The appeal is to a "commonsensical, consensual understanding of a relationship" (12). Second, there is criterion validity "whereby a new indicator can be compared with an existing, generally accepted one" (12). This procedure is especially useful in refining an established relation between concept and indicator. Third, there is construct validity, which depends on whether propositions which are assumed to be likely in constructing the new indicator are confirmed when the new indicator is used. To add intervening variables (indicators) in order to assess a relationship is an example of search for construct validity (12).

When probing the validity of indicators, it is important not to disregard evidence which does not fit assumptions. Eyles points out that the interpretive geographer searches for evidence that refutes an assumed relationship between phenomena in the same ways as the statistical geographer attempts to avoid spurious correlations. Disconfirming evidence and searching for counterfactual arguments are important procedures in the process of validation (12).

Triangulation

Another important principle of validation is triangulation, which refers to checking inferences made from one data set against those made from others. Triangulation reflects the feeling shared by many field researchers that "the best way of cross-checking data is to adopt a variety of approaches to the same issues"

(Devereux and Hoddinot 1993:35).

One form is respondent validation. With this strategy, ethnographers test the validity of their accounts by exploring the extent to which the participants themselves agree with these accounts. The value of respondent validation lies in the fact that the participants may be part of "information networks that are more powerful than those accessible to the ethnographer" (Hammersley and Atkinson 1995:228). They may thus have access to additional knowledge of the context—of relevant events, of temporal framework, of others' ulterior motives—that is not available to the ethnographer, besides, of course, having access to their own experience of events (228). At the same time, it is necessary to recognize the limitations of this method. Respondents may receive false information through their networks; and their memories are not infallible. Since "much social action operates at a subconscious level, leaving no memory traces," the researcher "can not assume that they are consciously aware of the decision rules they use" (229). There is also no guarantee that respondents will not misinterpret or misdescribe their own actions as they generally interpret data in the light of different concerns to those of the researcher (229).

Respondent validation belongs to a broader type of triangulation: data-source triangulation. This involves comparing data relating to the same phenomenon but deriving from different phases of the fieldwork, different points in the temporal cycles occurring in the setting, or different participants (as in respondent validation) at various locations in the setting. Another type of triangulation is researcher triangulation, which refers to comparing data obtained by different researchers in a team. This method is especially effective where researchers have adopted very different roles¹². There is also technique triangulation, which compares data obtained by using different data collection techniques, such as participant observation, interviewing, and documents (230-1).

¹² Comparing data obtained by researchers having adopted different roles in the complete-participant to complete-observer range has much potential for both shedding new light on the issues investigated and checking the validity of the data collected.

In short, triangulation involves checking the links between concepts and indicators by recourse to other indicators. Data on cash income, for example, can be cross-checked by collecting information of major household expenditures, which are subject to comparatively smaller errors or less likely to be deliberately under-reported (Hoddinot 1993:82). Harriss (1993) recommends to systematically cross-check all sensitive data—income, profit, savings, moneylending, crime, corruption— during the interviews themselves. This can be done through direct and indirect questioning, as well as estimation techniques specific to the information elicited. Croll (1995) suggests that all interview data be also checked where appropriate documentation is available, such as land contracts and official estimates of remuneration, taxes, and local welfare levies (296). Chambers (1983) notes that flexibility in cross-checking data is a definite advantage of the ethnographical method over the large survey method (55-8).

Triangulation is not the straightforward matter of comparing one set of data to another. Even if all the data obtained from different sources match, this does not guarantee that the inferences are correct. It may be that all the inferences are invalid as a result of systematic error or intended distortion by the respondents. For example, in prosperous rural areas, households commonly under-report income, regardless of the interviewer or of the method of interviewing used, for fear of having to pay higher taxes¹³. Similarly, differences between sets of data may be just as important and illuminating. For example, when formally interviewed, people tend to yield responses that correspond more closely to their perceptions of social norms than in more spontaneous forms of inquiry. An examination of the

13 Harriss (1993) points out that it is possible to minimize the “observer error”—the systematic error that results from the “inevitable projection of the observer into the situation being measured” (p. 143). The fieldworker can achieve this by making frequent personal contact with local people, showing flexibility in setting up interviewing sessions, and explaining research interests as openly as possible. The fieldworker can also minimize the “environmental error”—which invariably arises from the fact that he or she is an outsider to the community studied, by participating as fully as possible in local life. Learning the local language (when time allows), wearing local clothes, and eating local foods will help bring down social barriers and help the fieldworker familiarize himself or herself with the local setting (144-5).

differences in responses would thus shed light on what these perceptions may be¹⁴ (Hammersley and Atkinson 1995:230-2). Data, thus, “must never be taken at face value” (232). The aim of triangulation is “not of checking whether data are valid, but of discovering which inferences from those data are valid” (232). Triangulation, like any other form of method validation is an essentially reflexive process.

Triangulation is not confined to the realm of fieldwork. In theoretical triangulation, data sets can be analyzed using multiple theories. More generally, a study can be approached using different theoretical perspectives, each yielding different orders of data. In this form of triangulation, a multiple theoretical strategy is the basis for validation (Eyles 1988:13). It is important to recognize that theoretical triangulation like other forms of validation rely on the importance of the “insider account”. In qualitative research, the methodological principles behind validation are the same as those guiding the research method adopted to investigate an issue. Eyles notes that clarity as to the aims of the research will greatly help answer questions of method—and, therefore, of validation (14).

2.2.5 Writing

Writing the results of a study is intimately connected to both analysis and fieldwork. The methods and forms that we employ in writing cannot be dissociated from the ways we reconstruct the social world. To construct an ethnographic text is a value-relevant activity, in which we display “implications of ethics and ideology” and “implicit claims to authority” (Hammersley and Atkinson 1995:253). Classical ethnography has inscribed a strong distinction between observer and observed, between the author and the people studied. Clifford (1986) notes that Western anthropologists have tended to “visualize” and “textualize” cultures and societies

14 For a discussion of “bias” in data collection, read Lockwood (1993: 171-5). Essentially he remarks that the concept of bias has a meaning specific to the academic discipline practiced. In classical economics and demography, the tendency is towards the development of techniques to correct and clean data. In realist anthropology, the response is to do better data collection—“probe further” (175). A reflexive approach makes “the fieldwork situation itself part of the research object—to make it less transparent” (175). The problem of bias does not arise because the concept of bias is not accepted.

other than their own. The metaphors of participant-observation, data collection, and cultural description, which have dominated anthropology until relatively recently all “presuppose a standpoint outside—looking at, objectifying, or, somewhat closer, ‘reading’ a given reality” (11). The Western writer’s privileged, omniscient mode of narration is demonstrated in Edward Said (1978). For Said, “the Orient functions as a theatre, a stage on which performance is repeated” (Clifford 1986:12). It is also “textualized” with “its multiple divergent stories and existential predicaments ... coherently woven” and “lovingly brought to light” by the outside scholar (12). The effect of author domination in such spatial and temporal deployments is “to confer on the other a sense of identity, while also providing the knowing observer [and the reader] with a standpoint from which to see without being seen, to read without interruption” (12).

Reflexivity in writing

Discursive ethnography discards the visual paradigm. The dominant metaphors “shift away from the observing eye and toward expressive speech (and gesture)” (12). The writer, renouncing objective and distancing rhetoric, adds his or her voice to the analysis, giving rise to a “cultural poetics”—an interplay of voices, of positioned utterances (12). The aim is to acknowledge the reflexive relationship between the text and its subject-matter, for which the ethnographer must demonstrate a command of the rhetoric of ethnographic writing. At the same time, as Hammersley and Atkinson (1995) warn, the writer should not “privilege the rhetorical over the rational” (257). While a good, reflexive ethnographic text is often evocative and rich in descriptive detail, it does not attempt to unduly sway or seduce the reader. It is important that the ethnography retain its authoritative status as a work of scholarly, scientific research. One of its objectives is thus “to display and demonstrate the adequacy of its methodological and empirical claims” (256). The successful text demonstrates how existing analytical ideas “are being developed, tested, modified, or extended” (257). It also describes all participants in

the research process—questioners and respondents—and shows the limitations of the research methods employed and the limits to the fieldworker's knowledge¹⁵ (Lockwood 1993:177).

Reflexivity in ethnographic writing also implies taking account of the potential audiences for the text produced. There are many potential audiences for accounts of the social world, including students, scholars, professionals, policy-makers, and lay people. Audiences may expect different forms and styles of writing—an academic monograph, a journal article, a popular magazine article, a methodological paper, or an autobiographical account of the fieldwork experience. They differ in the background assumptions, knowledge, and expectations which they bring to the ethnographic text. It is virtually impossible to match the interests and backgrounds of all potential audiences simultaneously (Hammersley and Atkinson 1995:259).

Multiple modes of writing

Van Maanen (1988) points out that three basic modes of ethnographic representation are today commonly found—the realist, the confessional, and the impressionist tale. All three are distinguished by specific forms and conventions of writing and appeal to established audiences (126).

The “realist” tale is characterized by the almost complete absence of the author from most segments of the finished text. “Only what members of the studied culture say and do and, presumably, think are visible in the text” (46). “The convention is to allow the fieldworker's unexplicated but assumed experience in the culture to stand as the basis for textual authority” (47). Today's realist ethnographers

15 In a village study in coastal Tanzania, Lockwood (1993) shows how it had not been possible to determine the ages of adult women with certainty. When asked directly by a female interviewer, women gave ages that were characteristically different from those given by household heads. Men, especially, tended to consistently underestimate the ages of women in the village. The author concluded that, since a woman's age was not verifiable by any record of any kind, it was a “cultural truth.” None of the two sets of data on women's ages was closer to truth than the other. The author concluded that the concept of bias was inappropriate here (172-5).

are deeply concerned with presenting the native's point of view. Extensive, closely edited quotations convey to readers that the views expressed are not those of the author or of the fieldworkers but are authentic remarks literally transcribed during fieldwork. However, the ethnographer has the final say on how the culture is to be interpreted and presented. The author claims a right to interpretive authority over the data collected on theoretical and methodological grounds. Where a cultural description is tied to a theoretical problem of interest to the fieldworker's research community, empirical field data are put forth as facts to demonstrate the important elements of the theory.

In almost complete contrast, the fieldworker may also decide to disregard theory and rest the entire case on the members themselves. The situations that comprise the field data, along with the generalized renditions of the native's point of view, are collapsed into explanatory constructs, so that the fieldworker's analysis coincides with the terms and constructs used to describe the events. "Grand theory, concerned with collective behaviour, cultural function, social structure, or historical change, gives way to a communicative-interpretive theory, concerned with how people achieve common understanding" (52). The author then offers one reading of these interpretations and arranges and selects facts to support this reading. Conspicuously absent of this reading are self-reflection and doubt, which have become the distinguishing mark of ethnographies outside the realist mode.

The "confessional" tale, on other hand, unmask the author and reveals his or her participation in both fieldwork and writing. It is, above all, "an attempt to demystify fieldwork or participant-observation by showing how the technique is practiced in the field" (73). Some of its prominent features are "stories of infiltration, fables of fieldwork rapport, minimelodramas of hardships endured (and overcome), and accounts of what the fieldwork did to the fieldworker" (73). One of the conventions used in a confessional tale is "personalized authority," by which the voice of the author is heard and his or her presence felt throughout the text produced (74). An intimacy is established with readers; a portray of the author is

developed. The author then cast himself or herself as a student of the observed group or culture or an interpreter of indigenous texts that are available to the ethnographer in the field. Either way, the details that matter in a confessional tale are those that constitute the field experience of the author (76). Having examined and displayed his own preconceptions, biases, and motives, the author claims to have obtained a new perspective on the social world—a similar one to the native's—by way of dialogue and rigorous application of field methods. "The attitude conveyed is one of tacking back and forth between an insider's passionate perspective and an outsider's dispassionate one" (77).

The necessity of confessional tales rests on the fact that social facts, including renditions of native points of view, are analytical constructions, themselves subject to social enquiry as to their origins. There are many ways to interpret field data, which are themselves interpretations of what is being done and said in the field, mediated many times over. The process of analysis is based on this "second order, textualized, fieldworker-dependent version of the events", rather than the events themselves (95). Understanding the methodological foundation for a study—including the text produced—requires "cracking open the textualization process itself" and baring its elements to the reader (95-6).

The third popular form—the "impressionist" tale—has literary, rather than disciplinary, standards of writing. This form of writing is based on dramatic recall. It seeks to imaginatively place the audience in the fieldwork situation, in order for it to "re-live the tale with the fieldworker" (103). Most frequently, it is found in essay form.

These three modes of ethnographic writing—realist, confessional, and impressionist, although different in aims and forms, do not exclude each other. Rather, they tend to "exist side-by-side" along with other types, reflecting researchers' professional backgrounds and methodological inclinations (126).

Van Maanen identifies other forms of ethnographic expression. One is the "critical" tale. It is a response to the criticism that ethnography too often suffers

from "parochial, romantic, and limited vision," that it is blind to the political economy that largely determines the fate of the disadvantaged groups that it purports to examine (127-30). Another form of writing is the "formal" tale, which is largely concerned with building, testing, or generalizing theory. Writers of formal tales generally attempt to advance narrower versions of ethnography under labels such as "semiotics," "ethnosemantics," "ethnoscience," "structuralism," and so forth. These tales generally suffer from the tendency to underrepresent the importance of human agency in social life (130-1).

Yet another, increasingly popular, form is the "jointly told" tale. The current trend among social researchers to produce texts jointly authored by them and their subjects of enquiry "opens up for readers the discursive and shared character of all cultural descriptions" (136). The jointly told tale highlights the increasingly recognized fact that "the heart of ethnography is discourse" (137). It is an attempt to "bridge the gap between two meaning systems of equal validity" but not always equal power. Clifford (1986) urges ethnographers to question monophonic authority and to employ "dialogism and polyphony" as modes of textual production. Once informants are included as co-authors in ethnographical texts, new, critical questions can be asked of all ethnographies (17). Tyler (1986) argues in favour of a "post-modern ethnography," which "privileges 'discourse' over 'text,'" "foregrounds dialogue over monologue, and emphasizes the cooperative and collaborative nature of the ethnographic situation in contrast to the ideology of the 'observer-observed'" (126). The challenge of writing ethnography, as Van Maanen (1988) points out, is "to balance, harmonize, mediate, or otherwise negotiate a tale of two cultures" (138). No single mode of writing can address this challenge entirely satisfactorily on its own. The need is for more ways to analyze and represent the social world, all of which are likely to require a great deal of creativity—and reflexivity—on the part of the researcher.

2.2.6 Ethics

Smith (1988) emphasizes that “qualitative research raises questions which may not be so starkly revealed in other approaches” (263). It has been pointed out earlier that the aim of ethical field-based research is to produce true accounts of social phenomena. The pursuit of knowledge, however, itself raises a number of ethical issues at each stage of the research process. Undertaking fieldwork, especially, “becomes much more than just data collection, because the researcher enters the world of the researched” (Wilson 1993:179). As they engage closely in the life of the locality studied, researchers “have to make decisions about the form and content of their involvement in ‘other people’s societies’, and the responsibility that this entails” (179). The researcher’s dual engagement (personal and professional) raises ethical issues which are presented here under the headings: informed consent, privacy, sharing experience, personal relationships with local people, and ethics in writing up.

Informed consent

The codes of ethics of major professional societies are unanimous in insisting that researchers genuinely inform participants in order to obtain their unconstrained consent to social research. Fieldworkers have the duty to reveal the purpose of the study, who is sponsoring and funding it, how the data will be collected, and how the findings may be used (Wilson 1993:185). Strict adherents to this position argue that the field method of covert participant observation, by which participants are left unaware that research is taking place, is never justified. It amounts to deception and manipulation, and thus “contravenes human rights of autonomy and dignity” (Hammersley and Atkinson 1995:264). Other commentators take a contrary view. They contend that covert methods are justifiable in situations where social research would generate enough reactivity on the part of the people

studied to make social research difficult to perform or invalidate its findings¹⁶. In practice, research is likely to fall "on a continuum between the completely covert and the completely open" (266).

Even when operating in an open manner, it may not be possible to inform research participants fully. One reason is that, especially in the initial stage of the research, the fieldworker is unlikely to know the future course of the research in detail. Another reason is that participants may not share similar interests in the research as the researcher, making communication generally difficult. The number of participants and their social background may also limit the ability of the researcher to obtain fully informed consent (266).

Most researchers recognize the need to inform participants of the general purposes of the investigation (Sidaway 1992:406). But even those who insist that consent be continually renegotiated to match the changing understanding of the fieldwork situation by both fieldworkers and local participants concede that covert research is sometimes needed¹⁷. They opine that "covert research techniques are not necessarily ethically illegitimate provided that they are not too personally intrusive, that the people studied have agreed to the topic concerned being investigated, and that there is no other way of getting the data" (Wilson 1993:186). Wax (1995) argues that the concept of informed consent is not only problematic, it may not carry as much moral value as its defendants assert. "Fieldworkers generally operate in a position of minimal power and have slight ability to affect their hosts" (330). The real impact of fieldwork on the people studied is not directly generated by

16 For example, if a study investigates teachers' behaviour in addressing boys and girls equally in the classroom, it may be better not to inform teachers on the purpose of the research, for fear of generating corrective behaviour which may invalidate the study. It is worth noting here that the presence alone of the researcher may have an influence on teacher behaviour, regardless of whether or not teachers are informed on the purpose of the research (Hammersley and Atkinson 1995:265).

17 An example which is relevant to the transformation of rural societies as the result of economic liberalization is the study of moral behaviour of which we morally disapprove (such as drug consumption, prostitution, and official corruption). Such investigation would be extremely difficult if researchers had to first seek informed consent of the participants.

the fieldworker's presence in the local community. Rather, it is likely to be felt as the result of dissemination of findings (to whom, and under what circumstances) after fieldwork has been completed (330).

Fluehr-Lobban (1994) emphasizes that what matters in ethical research is the "spirit" of informed consent: that the researcher be open to local people's opinions and concerns; that he or she agree to disclose the research goals, methods, and sponsorship; that he or she consider and refer to the people studied as participants rather than informants; that research design and fieldwork be a collaborative effort between the researcher and all other participants. The value of open, collaborative research is to raise "relevant issues that inform and thereby empower the participant" (8).

Privacy

The central issue facing researchers upon completion of fieldwork is whether the information collected privately through fieldwork belongs to the public domain and thus can be communicated to larger audiences. Hammersley and Atkinson (1995) point out that, as for informed consent, this controversy cannot be easily resolved. Not only is the distinction between public and private domains often blurred, but privacy is also often defined in terms of specific audiences¹⁸ (267). Wilson (1983) remarks that, in a research setting, confidentiality is seldom an issue if informants are told that the information they provide may be divulged by researchers. Knowing this may even encourage respondents to provide information with greater accuracy. Wilson argues that the real issue is anonymity. The anonymity of respondents must be maintained where the data provided and remarks made could be politically compromising (187). Ley (1988) recommends casting fictitious names for both persons and places in order to protect the anonymity of individuals and communities (133).

18 In a University department setting, for example, information may be freely circulated among faculty members but withheld from other staff members or students. Similarly, in a family setting, children may be refused access to some type of information by their parents.

There is no doubt that the consequences of publishing findings of fieldwork have to be explored. The public reputation and material conditions of individuals involved in the study may be at stake, especially when individuals described are recognizable and their behaviour, therefore, open to scrutiny. In some cases, whole communities may be affected by the publication of study findings¹⁹. Sidaway (1992) emphasizes that, although researchers will not always be able to foresee all the consequences of their fieldwork and the publication of their findings, they will likely avoid generating undesirable side-effects if they develop and maintain an awareness of the potential impact of their writings on the people researched (407).

Sharing experience

While ethics require that researchers be aware of potential costs to the community involved in a study, they also demand that there likely be benefits. As Ley (1988) points out, "ethnographic research represents an intrusion in the lives of others," and the issue of whether anything will be returned to participants ought to rank high in a researcher's priority list (132). The problem is that benefits and costs for those involved in the research are not easy to assess. Whether exploitation, whereby researchers benefit exclusively from the investigation, occurs is a matter of judgment. Hammersley and Atkinson (1995) remark that the argument about the exploitative potential of ethnographic research leads to a variety of recommendations, such as the need to give participants something back in the form of services or payments; to empower participants by enabling them to take an active role in the research process; or to study the rich section of the community rather than the powerless. Such recommendations, however, are controversial in

¹⁹ Hammersley and Atkinson refer to the dramatic example of Georges Condominas's anthropological account of Sar Luk, a village in the mountains of South Vietnam, published in French in 1957. This account was illegally translated in English by the US government during the Vietnam war and used by its army and South Vietnamese forces as part of "ethnographic intelligence." although it is not known whether this information was implied in Sar Luk's destruction by the South Vietnamese army, it is clear that the publication of the study findings had "potentially deadly consequences" for Sar Luk's residents (272).

themselves (274-5).

Sidaway (1992) recommends sharing the results of the research—with local researchers, host institutions, government, and with the local people studied. This means considering outlets “beyond the margins of academic journals and ‘professional’ conferences” (406). Wilson (1993) suggests that one of the most effective ways to return something back to the community studied is to share the research experience with the participants. In a view contrasting sharply with Wax’s (1995), Wilson argues that most of the benefits that the local people will derive from the study “will come from the human contact and intellectual stimulation in the actual fieldwork process” (188). Researchers must be prepared to share of themselves and their world, and to entertain as much as show genuine concern for problems faced by the local people. Making the research process interesting for those studied will also stimulate local interest in the study and benefit the researchers themselves.

In terms of benefits to local people, Wilson argues that sharing the “process” of the research is at least as valuable as sharing its “products.” To regard fieldwork as a cross-cultural exchange of information and ideas represents an opportunity to learn for all participants involved. Engaging creatively in community life is often the most effective way to have a positive effect on a region studied. As fieldwork progresses, researchers will gain much by informing people about their growing understanding of the situation investigated and to let them know what they will write about. Before leaving, they should organize meetings with members of the community and officials to share their main findings and stimulate further debate of the issues. They may also wish to support community projects aimed at improving local conditions (social, economic, environmental) which proved to be problematic during fieldwork. It is also a good idea to thank a community for their cooperation by organizing a public event such as a feast (188-9).

Personal relationships with local people

One goal of ethical fieldwork is to create relationships that are based on mutual respect and openness. A fruitful learning experience for all participants involves establishing relationships of trust. This is especially true when fieldwork requires gaining access to information considered sensitive in the local culture studied²⁰ (Devereux and Hoddinot 1993:33). It is, nevertheless, important to realize that tensions may arise between these relationships as sources of companionship and friendship, and as sources of data and access to society (Wilson 1993:191). The personal relationships developed in the field between researchers and local participants will bear subtle aspects of asymmetric power relations. In particular, the temptation for the researcher to disregard whether or not local assessments of the research are positive is real because his or her self-esteem is derived elsewhere, and institutions that matter to the researcher will not hear or heed local views. A source of tension is thus likely to exist "between the trust, empathy and intimacy that are sought in friendship, and the institutional order of economic and power relations that inevitably influence it" (192). "Working ethically with people requires the researcher to overcome this gap, generated by the fact that they do not consider themselves to belong to the same moral and social field as those studied" (192).

One crucial aspect of relationships between the fieldworker and the local people is economics. Fieldworkers cannot become part of the community studied without a certain form of economic engagement. The problem for most researchers is "how to affirm their social membership of a community without distorting it by their peculiar access to wealth and power" (193). Hoddinot (1993) notes that one way to reciprocate the generosity of individuals for taking part in interviews is in the form of cash payment. Although respondents generally do not expect to be repaid, financial compensation seems appropriate when interviews are long enough to

20 Francis (1993) points out that living with a family provides the researcher an opportunity to introduce himself or herself in a way that is analogous to the cultural norm. At the same time, his or her acceptance by the hosts can signal to the community members that the researcher's presence is not a threat (89).

represent a loss of income²¹ (p 21). An alternative to cash payment is to offer small gifts. Wilson (1993), however, cautions against engaging in gift-exchange with local people without first understanding its local principles. Rural societies tend to show a great concern for the structural relationship between giver and receiver. When not reciprocated, gift-giving tends to transform a situation of equality into one of patronage. Given that researchers have little experience in making something positive out of patron-client relationship, their relations to the people of the community may deteriorate very quickly. Gift giving, if fieldworkers decide to engage in it, requires close consideration of local knowledge and advice. For moral reasons, fieldworkers may consider to offer support, including gifts, to local destitutes. Not only is knowing the local poor essential to understanding the economy and society of the area studied, providing discreet aid to the local poor (occasional gift of food or clothing, transport to clinic) is an effective, professional way to do ethical fieldwork (Wilson 1993:193-5).

Ley (1988) recommends that the researcher have a separate community role (besides that of fieldworker) for several reasons. First it creates an identity that some local people may consider more legitimate than the one of a researcher. Second it provides an entry point to the community and facilitates making contact and settling in. Third it enables the researcher to offer the community a return for its members' cooperation in the study through voluntary service (129). Francis (1993) notes that the question of repayment and obligation to the community studied is, in some occasions, a distressing problem in fieldwork. In impoverished communities, expectations of outside help, especially from long-term fieldworkers, are usually high (90).

Croll (1994) points to another important set of relationships in which

21 According to Hoddinot, cash compensation may create frictions between respondents. If significant disparities exist in the community equal payments are inadvisable because they mean very different things at different levels of society. While they may be welcome in poor households, they may be considered an insult in wealthier ones. Yet giving more to the rich may exacerbate existing inequalities, and giving only to the poor may be interpreted as favouritism on the part of the fieldworker (21).

fieldworkers will unavoidably be implicated—those with local officials. She urges not to neglect the role of local cadres in influencing relationships between fieldworkers and local people. Some sensitive questions are more open to cadre interference than others, such as family planning. In some cases, local officials may not even allow fieldworkers to interview households directly in a private setting (296-7). Devereux and Hoddinot (1993) remark that the cooperation of local officials is likely to depend on their personality, on their work load, and on local customary practices. They advise fieldworkers to seek local advice on “what constitutes ‘normal behaviour’ and what amounts to unacceptable abuses of power by bureaucrats” (17). Researchers, however, cannot expect cooperation of local cadres without first obtaining official clearance for their work. They should also seek permission from traditional authorities (village chiefs or headmen), where these exist. These, if treated with due reference and respect, as local customs demand, are likely to be supportive of the research project, in the hope that development projects and other benefits will follow from the research (17).

Ethics in writing up

Many complex dilemmas arise at the stage of writing up the findings of the study. Wilson (1993) observes that, after returning from the field, the researcher finds herself or himself under increasing pressure from academia to produce “ideas,” which are embedded in established theory. Meanwhile, the researcher, who has had a rich and confused experience in the field, “still doubts the legitimacy of ‘pronouncing’ on what she or he knows was a profoundly messy reality” (195). When transposing the real-life experience of fieldwork into an ethnographic account, ethics require to think critically about what benefits are likely to have accrued to the people who were the focus of the study. These considerations are essential if researchers wish to maintain an engagement with the world of the people they have studied. It is important to keep the human element intact if one is to deal with remaining ethical questions on the basis of personal commitment

rather than a “sense of contract” (196).

While in the field, it is worth finding out which information local people would like to see written about and disseminated. The issues that locals consider important may reveal key features of their society. “Responding to the challenges of ‘writing for the people studied’ ... can give foundation to ethical concerns of how to represent others accurately, yet sympathetically” (197). One early concern upon completion of fieldwork is to send something back to the community. It may be profitable to deposit copies of fieldnotes in a library in the host country. These may be useful for historical studies or for critical local scholars to examine the research done (197). Publishing material of local interest in the host country is also likely to be quite valuable for the community studied as well as for local scholars, technical experts, and development planners. It will be worth considering disseminating information through non-academic channels, such as local and international press, radio, relief agencies, human rights organizations, and other groups with possible interests in the study performed. Before releasing information to broad audiences, however, researchers will have to consider carefully the potential risks and benefits for the local people, as well as their reputation as scholars. Publishing sensitive information may upset institutions in the host country (or international agencies) which may seek to tarnish the researchers’ reputation or to prevent further studies from being conducted (p 197).

2.2.7 Conducting ethical research: a final thought

As Wilson (1993) points out, ethics in fieldwork “is not about following prescribed formulae,” but rather, about “thinking over the processes and situations” in which the researcher is involved before, during, and after fieldwork (198). “What is and is not legitimate action on the part of the researchers is necessarily a matter of judgment in context, and depends on the relative costs and benefits of pursuing research in various ways” (Hammersley and Atkinson 1995:277). Ethical research requires that researchers be aware that their work may have a considerable impact

on the people they are studying and that publishing findings “on the grounds of a public right to know can be dangerous if it is not tempered by other considerations” (279). As Adler and Adler (1991) observe, it may be in the best interest of the community researched to exercise “a degree of self-censorship, avoiding discussing potentially discrediting aspects of the setting” when publishing findings (179).

The difficulty in conducting ethical research is that potential indeterminacy surrounds most ethical issues (Hammersley and Atkinson 1995:281). What constitutes harm is often a matter of judgment and may be contentious. The difficulty is compounded by the fact that judgments on ethical conduct may be culturally specific. Although values exist across most societies, to which people subscribe, there is also a plurality of values and cultures to which human beings can be committed. It may not be possible or even desirable to avoid acting in ways that conflict with these values (280). In the end, social researchers will have to “weigh the importance and contribution of their research against the chances and scale of any harm that is likely to be caused” to the people involved and to others (284). The indeterminacy and uncertainty about what constitutes ethical behaviour may have to be resolved in favour of the interests of the research. One position strongly defended by researchers is that the most effective research strategies should be accepted unless there is clear indication that these are ethically unacceptable (284-5).

One central issue in the problematics of conducting ethical research in the developing world is the asymmetry of power relations between the “core” of the world system, to which the researcher belongs, and its “periphery”, in which the study is invariably located. This imbalance of power influences the direction and uses of research in favour of the interests of researchers and their supporting institutions. To redress this situation, Sidaway (1992) urges to engage in “collaborative and mutually co-operative research led by the host country” (405). In practice, however, “politics, logistics, and resources often dictate otherwise” (405). Even in the case of approved collaborative research, the issue of unequal relations between researchers (outsiders) and the local people (insiders) remains. Razavi

(1993) notes that various factors contribute to this asymmetry, including the researcher's nationality, class, gender, and institutional links. The researcher through personal efforts—by learning the local language, obeying local customs, and taking part in community life—may achieve a more balanced relationship with respondents. Other factors, such as social class and income are “not negotiable” (157). Offering a day's wage to respondents in compensation for interview time, for example, confirms and reproduces the class asymmetry that exists between researcher and local people (157).

In the long term, “research reciprocity” may provide the best hope for research relations that are more balanced (Wax 1995:330). One potential benefit of research in the developing world is to offer “a counter to universalistic and ethnocentric views” (Sidaway 1992:406-7). Such research can only generate opportunities to challenge frameworks and assumptions developed in the core (407). This may lead to a healthier foundation for action programmes and other development efforts to redress global inequity in the world system.

2.2.8 Summary

This chapter has presented the conceptual framework adopted in the study. First it has clarified key concepts of agrarian change and described the nature of the peasant village and the household economy in Southeast Asia. Second, it has emphasized the need to adopt a pluralist approach for the research of agrarian change. Socio-economic differentiation and poverty in rural areas involve a consideration of the physical environment, social environment, and political economy in which farmers operate. The fundamental unit of analysis may be the peasant household, in which the division of labour and inequalities between genders and generations are also investigated. Higher levels of analysis include local government, state, and national business interest. Third, it has demonstrated the strength of qualitative research methods (also known as the interpretive or ethnographical method) for the study of agrarian change. These focus on acquiring

insider knowledge in case studies through interaction, observation, and interviewing. Induction and deduction are the two modes of analysis from which theoretical concepts are then developed. Ethical considerations emphasize the need for researchers to exercise reflexivity in conducting research, analyzing the findings, and writing conclusions. The following chapter provides the background material on the transformation of Vietnam's rural economy in the post-colonial era.

Chapter 3

AGRARIAN TRANSFORMATION UNDER MARKET REFORM IN VIETNAM: OVERVIEW

This chapter reviews agricultural and rural development policy in post-colonial Vietnam. It discusses the consequences of *doi moi* (economic renovation) for rural communities and outlines the development constraints in lowland and upland areas.

3.1 Introduction

A process of agrarian transformation has swept through rural Vietnam since the mid-1980s. It has led to the replacement of collectivized production by family farming, and converted Vietnam from an inefficient agricultural producer to a world-class rice exporter. What are the causes for this transformation? What prompted the Marxist-Leninist government to embrace pro-market reforms in agriculture? There are solid grounds to believe that the reform process started well before the state launched its economic renovation programme (*doi moi*) in 1986. Economic reforms were not only born out of the failure of collectivized production to raise production enough to meet national targets; they were also a state response to growing peasant resistance to production cooperatives, which were unable to provide food security to rural producers (FForde 1991; Kerkvliet 1993). Spontaneous changes were initiated "from below" by individuals, agricultural cooperatives, and state enterprises in the early 1980s. They were progressively matched by piecemeal economic reforms "from above" which eventually transformed Vietnam's agrarian structure entirely (De Vylder 1995: 34).

How far will Vietnamese authorities go in their gradualist approach to agricultural reform and economic decentralization? Will the fundamental

contradiction that the Vietnamese economy is now “run by a Leninist Party that favours free markets” be resolved without far-reaching political reform (Fawcett 1995: 12). Reformers face a daunting task. Vietnam’s economy is making a double transition: from central planning to the market, and from underdevelopment to a more advanced state. The role of the state in this transition has yet to be precisely defined. Under socialist renovation, the trend has been to encourage the growth of a market economy. However, no clear signal exists on how much control it will attempt to retain on economic activities and fundamental rights such as property rights and private ownership (McGee 1995: 253-55). In agriculture, the reforms implemented since *doi moi* was initiated have achieved considerable success in increasing food production and raised living standards in much of Vietnam’s countryside. What the next phase of the reform programme will be is unclear. The question dividing Vietnam’s economic planners is whether the so far mostly growth-oriented reform programme will have to change in order to address the important social issues that have emerged during the economic transformation process. The market forces that have created wealth have also generated considerable socio-economic disparities throughout rural areas. A rural-urban divide is growing, fuelling large-scale migration of unemployed rural workers to cities. Poverty remains entrenched in economically disadvantaged regions such as remote mountains and the central coast. The growth of inequalities that has accompanied the pro-market reforms may represent the largest threat to the social and political integration of the nation (Ngo Vinh Long 1993: 204).

Vietnam’s agricultural development faces numerous obstacles. They include extreme population pressure, scarcity of productive land, soil degradation, an inadequate and decaying physical infrastructure, institutional deficiencies, and “a general shortage of funds” (Rambo et al. 1993: 1-2). The productive agricultural areas in lowland plains and river deltas are under threat of overuse as the result of unchecked population growth (Rambo and Le Trong Cuc 1993: 174-85). The situation is especially severe in the country’s two main rice-growing areas – the

Mekong Delta and the Red River Delta, where almost half of the total population is concentrated and which are particularly vulnerable to floods.¹ In midland and upland regions, fragile soils may have been irreversibly damaged through slash-and-burn farming practices, commercial logging, and deforestation by lowland migrants (Veilleux 1993; VNN 1994).

The reforms implemented so far have left unaddressed important aspects of rural development. Nowhere is it more apparent than in the land privatization debate which has divided the country's economic planners and law-makers. Increasingly, concerns are being raised that although new land reforms have undermined collective ownership, they have failed to set up in its place the foundation for a private agricultural economy (Le Cao Doan 1995: 122). The debate has expanded to the future role of cooperatives, as household farming becomes the dominant form of agricultural production. Importantly, the role of the state in both creating an "enabling environment for development" and intervening to protect the environment, regulate market forces, and promote social policies that alleviate the long-term marginalization of the poorer sectors of society has become the subject of intense scrutiny in Vietnam's political circles (Porter 1995: 244).

The following sections review Vietnam's agrarian transformation process since collectivization. They assess the consequences of agricultural reforms for the rural population; analyzes the constraints on Vietnam's agricultural development; and explores avenues of progress which could be used by policy makers to promote people-oriented rural development.

3.2 The collective era

In the two decades that followed the defeat of the French forces by the Viet

1 According to the 1989 census, between 21 and 22 percent of Vietnam's total population (64.4 million) lived in each of the two rice growing deltas of the Red River and the Mekong river (World Bank 1995: 6). These highly productive regions produce most of Vietnam's rice. They are, however, extremely vulnerable to regular flooding in the typhoon season (fall). The 1996 floods, for example, destroyed almost 80,000 hectares of crops in the Mekong Delta (VET 1997b).

Minh (1954), North Vietnam and South Vietnam, which under the Geneva Treaty became two separate political entities followed a very different path of agricultural development. In the North, the Marxist-Leninist government first implemented a land reform programme to redistribute the scarce agricultural land to millions of impoverished peasant families. It then launched a programme of collectivization which, within two years, radically transformed the agrarian structures. In the South, on the other hand, the Western-influenced polity based its agricultural development strategy on market principles. It did not become exposed to collectivization ideology until the two countries were reunified in 1976 under the North's leadership.

Land reform

In 1954, the government of North Vietnam (the Democratic Republic of Vietnam) implemented a land reform programme nation-wide "to accelerate the momentum of the Viet Minh's egalitarian socioeconomic policy" (Hy V. Luong 1992: 186). The goal was to redistribute the holdings of middle and large landowners and "exploiting classes" to the poorer peasants.² This land reform programme greatly transformed the agricultural production structures in the northern rural areas.

The land reform radically transformed the colonial class structure as a strategic step toward a collectivistic political economy. It also consolidated the position of the Communist Party among the rural masses and led to concrete improvements in the lives of the vast majority of peasants (Hy V. Luong 1992: 195).

The agricultural sector, which had suffered considerably during the war of independence with the French, recovered very quickly at this stage. In the years that followed the land reform, much of the cultivated area that had been put to waste by the war was restored, and productivity increased rapidly. In 1957, after three years of

² Land reform in the Democratic Republic of Vietnam had already been underway since the early 1940s.

economic recovery, agricultural production exceeded the level of 1939, the year of highest production before the war. Paddy output rose from 2.4 million tonnes to 3.96 million tonnes. Many traditional enterprises, such as pottery, porcelain, blacksmithing, and weaving, were restored and developed (Chu Van Lam 1993: 151; Footnote 1).

The cooperative programme

Soon after the land reform, the Communist Party implemented a cooperative programme with two main objectives in mind. The first was to increase agricultural production and procure resources for the rapid industrialization of the country – a top priority of Vietnam's development planners. The second was to counter the growth of socioeconomic differentiation which Party ideologues thought would inevitably accompany the process of economic growth³ (Hy V. Luong 1992: 197).

The cooperative programme was launched with the formation of labour-exchange teams in 1956. The work-exchange team arrangement allowed households to continue to own land and equipment but, at the same time, it encouraged them to participate in "integrated production" by joining seasonal or permanent work teams. A team could be drawn from several families or a whole hamlet. Participation in a seasonal team was considered mutual aid and, therefore, did not involve paying workers. Membership in a permanent team, on the other hand – for example, fertilizer team, pesticide spray team, or mechanization team – was rewarded with payments according to work days or work points (Vo-Tong Xuan 1995:186).

Beginning in 1958, cooperatives were established, which gradually replaced the labour exchange teams. Ngo Vinh Long (1993), distinguishes two important

³ The economic system adopted by North Vietnam's government, known as the DRV (Democratic Republic of Vietnam) model, was essentially Stalinist, with orthodox soviet institutions. Its primary goal was to achieve rapid economic growth, especially in heavy industry, through central planning (Fforde 1991: 296-7).

periods in the maturation of the collective movement.

Cooperative formation. From the late 1950s, and during the first Five-Year Plan (1961-1965), the agricultural sector became almost entirely collectivized. Cooperatives were formed at the hamlet level, which would typically comprise a quarter or a fifth of a village's population (Ngo Vinh Long 1993: 166). Under this arrangement, "all the means of agricultural production (rice fields, draught animals and farm instruments) were pooled except for the five percent of cultivable land that could remain in the possession of cooperative members for household use as residential, gardening, and animal husbandry land" (Hy V. Luong 1992: 197). All farm operation was done in accordance to a plan laid out by the cooperative. The "workday contract" (*khoan cong*) was put in place, under which cooperative members were paid according to the number of workdays performed. The organization of labour was relatively simple: cooperative membership was divided into work brigades (or teams) which performed all tasks related to production. This period was "the 'golden' period of the collectivization programme. Yield per hectare of cultivated surface increased by 43.5 percent and productivity per agricultural worker doubled. Availability of rice in the North reached fifteen kilograms per person per month, the highest level in thirty years" (Ngo Vinh Long 1993: 166).

Advancement of cooperativization. In the late 1960s, as the war with the United States intensified, cooperatives expanded and consolidated into "high-level cooperatives, which included entire village populations, in an attempt to channel human and material resources for the war effort" (Ngo Vinh Long 1993: 166). By the beginning of 1970, some larger cooperatives included several villages. A new division of labour, with work teams specializing in soil preparation, irrigation, seedling production, pesticide application, and other tasks was shaping up. These units existed side-by-side with basic production brigades, which were in charge of the planting, crop tending, and harvesting operations. The tasks performed by the

production brigades were defined according to a system of “three contracts” (*ba khoán*): a “product-contract” to deliver at the end of each harvest a given quantity of produce determined by the fertility of the assigned cultivated surface; a “production-costs contract, that provided brigades with fixed amounts of seeds, fertilizers, and fuels; and a “piece-work contract” that fixed the number of work-days for each task. The production brigades in turn subcontracted portions of the work to groups of workers or to individuals and households (Ngo Vinh Long 167-68). The high-rank cooperative resembled the Soviet collective farm, where members pooled virtually all their resources to work under a unified management. Payments were made solely on the basis of the amount of time spent working in production teams. Workers were assigned a number of points at the end of each day; they were paid at the end of each month according to the number of workpoints accumulated⁴ (Vo-Tong Xuan 1995: 187).

Life under collective agriculture

Cooperatives “injected new life into Vietnamese agriculture, making possible investment in irrigation and increasing crop intensification under war time conditions” (Selden 1993: 222). They offered a form of social insurance and a safety net that was well adapted to the needs of soldiers at war and their families. They also insulated peasants who lived in poorer regions from innumerable hardships (Kolko 1994). Although agricultural production remained generally low, Vietnam had achieved considerable progress in social welfare compared to other nations with comparable or even higher income levels. By 1985, life expectancy had reached 65 in spite of the fact that the daily calorific supply was only 2,300 calories (Selden 1993: 217).

As the collective movement continued to accelerate in the north, however,

⁴ The advanced cooperatives in Vietnam were much smaller in size than the Soviet collectives or the Chinese communes, which were the basic units of production in the Maoist era. Typically, they would include two hundred households, or the size of a Chinese brigade (Selden 1993: 220).

its shortcomings began to severely affect agricultural production. From 1966 to 1972, production of staples, soybean, and sugar decreased by 3.4 percent; 18 percent, and 15 percent respectively (Ngo Vinh Long 1993: 169). One factor accounting for this decrease was the American bombing of the North, which reduced the cultivated surface and damaged the rural infrastructure considerably.⁵ The main problem, however, was the cooperatives' decision to increase their sizes to unpractical levels. When the country became reunited, 85 percent of the cooperatives in the North had been consolidated into high-level, village-size cooperatives. After reunification, the government pushed cooperative consolidation even further in order to achieve "large-scale socialist production." By 1979, land, draught animals, and all other means of production had all been taken over by the cooperatives. Labour had been further reorganized into "specialized brigades," which, since they were given specific tasks many steps removed from the final product, had little incentive to coordinate their activities and perform their tasks properly. "Time delays, sloppy soil preparation, and inadequate irrigation of the specialized brigades not only undermined efficiency, but also reduced the income levels of members in the basic production brigades" (Ngo Vinh Long 169-70).

Agriculture had been set in an "uneconomic mode" (Le Cao Dao 1995: 114). During the Second Five-Year Plan (1976-1980), agriculture grew only by an average of 0.6 percent annually, a figure well below the official target of 16 to 18 percent (Vokes and Palmer 1993: 173). One reason was that expansion of the cultivated rice area, one of the strategies employed by the cooperatives to boost production, was generating smaller returns due to terrain limitations for agricultural production. More importantly, incentives to work on collective farms "were weakened by the poor management of cooperatives together with the fixed norms and the work-point system" (Le Cao Dao 172). Farmers found more incentive to work on their

5 It has been estimated that between five and six percent of North Vietnam's arable land area was heavily damaged by American bombings (Ngo Vinh Long 1993: 169).

private plots, and the large collective fields were largely underused.⁶

Peasant opposition to collective agriculture grew as cooperatives grew in size. Kerkvliet (1993: 7-10) lists five major reasons given by farmers in North Vietnam for opposing the cooperatives' directives.

First, there was little incentive to work diligently. In theory, harvests were to be divided among farming families according to labour points. In practice, distribution lists grew longer with the size of the cooperatives to contain more and more people who were not part of the production process. Second, collective resources were neglected. Ploughing animals were overworked and underfed; farm implements went un-repaired; land was often improperly cultivated and tended. Third, villagers complained that living conditions were stagnating or deteriorating. According to a national survey, the production of cereal grains per capita in the north, an indicator of food availability and standard of living in an economy that is mostly based on subsistence, after rising to 318 kilograms per person in 1961 had dropped to 247 by 1976, and bottomed at 215 out in 1980. At least 20 percent of the rural population had insufficient food⁷. Fourth, villagers complained about the "administrative dead weight" that they had to bear. Villagers resented having to spend 45 to 60 days a year in meetings, seminars, conferences, and other events called by local, district, and provincial leaders. They also resented supporting numerous officials who did little work, and yet, according to them, lived better than

6 One common form of resistance to collective farming was the peasants' growing attentiveness to household plots. From the early days of the cooperative movement, five percent of arable land had been set aside for private use by families, who were free to keep whatever they decided to produce on these plots (rice, vegetables, poultry, fish, and so forth). Yields were much higher on these plots than on collectivized land, which villagers at best tended to neglect. By the 1970s, many families in the North derived at least two thirds of their income from these small plots. In reality many families encroached on collective land to enlarge the area for private use beyond the legal five percent. In many villages, the area used by families for private farming was of the order of ten percent (Kerkvliet 1993: 11-12).

7 Yields per unit of cultivated area, on another hand, had risen from 1.6 to 1.8 tons/hectare in the 1960s to over 2.4 in 1974, "probably due to large irrigation projects in the Red River Delta during the 1960s, the spread of high yield varieties, and the sheer determination of a people fighting for national survival" (Kerkvliet 1993: 8)

most farmers. Many of these officials also behaved like local despots, commandeering local inhabitants, syphoning local produce to sell on the black market, and appropriating the best land for themselves and their families. Fifth, they objected that collective farming undermined the family and kinship networks as production units. As cooperatives grew in size team coordination became more complex. People from different neighbourhoods and villages who were put together in work teams and production brigades found it increasingly difficult to cooperate. In North Vietnam, when families were reunited after the American war, continuation of collective work made even less sense to many villagers. "Yet precisely then, central authorities accelerated the push to consolidate cooperatives into larger ones" (Kerkvliet 10).

In short, "throughout the North, the development of 'high-level cooperatives' and 'specialized brigades' engendered commandism, inefficiency, corruption, waste, and dissatisfaction" (Ngo Vinh Long 1993: 172). As cooperatives grew in size, they became less productive and members earned considerably less income. In the late 1970s, the availability of rice per capita in the entire northern half of the country decreased precipitously from 15.4 kilograms a month in 1976 to 11.6 in 1978 and 10.4 in 1980 (Ngo Vinh Long 173).

Cooperativization in the South

After 1975, production teams and cooperatives were introduced in the South. The collective movement progressed very rapidly in the Central Coastal provinces and the Western high plateau provinces. It did, however, encounter strong resistance in the Mekong delta, where a healthy private economy had flourished until then. By 1986, less than six percent of farming families had joined an agricultural cooperative (Vo-Tong Xuan 1995; Chu Van Lam 1993). Unlike in the North, agricultural production in the Mekong delta remained organized according to the family farm. Nevertheless, farmers were affected by collectivization efforts. A land redistribution programme was put in place to allocate land to households in

proportion to their sizes (including adults and children). Most family assets (tractors, threshers, irrigation pumps, and draught animals) were confiscated by cooperatives and sold to the province, which then allocated these resources to cooperatives or districts for use in equipment pools.⁸ The net result was a sharp decline in draught power and input supplies in the Mekong delta because resources were allocated on a priority basis to families who had joined cooperatives. The overall impact of these policies on agriculture in the south was to create “a situation that wavered between shortages and bare self-sufficiency in food production” (Vo-Tong Xuan 1995: 19).

3.3 The reform process

Spontaneous reforms

While resistance against cooperatives kept mounting in the North, peasants generally avoided open confrontations with government authorities, preferring instead to resort to what James Scott (1985) termed “everyday forms of resistance.” It also stimulated a great deal of creativity on the part of the farming population and cooperative management. By the mid 1960s and through the 1970s, some northern villages were experimenting with alternative arrangements which rural inhabitants fondly called “sneaky contracts” (*khoan chui*). Some villages contracted pig raising, normally an activity of the cooperative teams, to households, allowing them to retain a high percentage of the net earnings. Others leased collective land used in the winter months for growing vegetables to families for individual use. Some areas, encouraged by these experiments, took the next step and contracted rice production to households (Kerkvliet 1993: 13).

The success of the household contract system in improving agricultural production encouraged many northern communities to adopt it and to further

8 Family assets were sold at an assessed value that was considerably lower than the market value (Vo-Tong Xuan 1995: 188).

experiment with arrangements tailored to their specific needs. Initially, the movement was smothered by party ideologues at provincial and national level on the grounds that they were “contrary to the principle of socialist management;” and that they were “a symptom of rightist thinking” (Hy V. Luong 1992: 203). Eventually, the party recognized the effectiveness of the practice, which became legalized under the name of “new contract” (*khoan moi*) by Directive 100 of the Central Committee in January 1981. This contract “not only altered significantly the relationship between the state and local areas but also the role of cooperatives, households, and male and female workers” (Ngo Vinh Long 1993: 174).

The system became known as “Contract 100” (*khoan mot tram*) or the “product contract” (*khoan san pham*) (Kerkvliet 1993: 19). Cooperatives were authorized to assign parcels to individual households for a number of years (typically three to five) and contract directly with each the planting, tending, and harvesting of rice and other crops. Cooperatives would take care of the land preparation, irrigation, and seed and fertilizer supply. A contract stipulated that a household should produce a fixed quota for which it would receive labour payment. The household could dispose of the excess of this quota as it wished. The right to sell the surplus generally acted as an income incentive (Vokes and Palmer 1993: 173; Hy V. Luong 1991: 262-3).

This reform prevented the collapse of the cooperative system. “Since the household economy was seen as a unit of the cooperative system, any reforms leading to the improvements in the efficiency of these units could be said to increase the internal efficiency of that system” (Vokes and Palmer 1993: 174). Product contracts provided a way to motivate labour and mobilize the capital generated in cooperative production for family farming (Chu Van Lam 1993: 154). The limitation of this reform, however, lay in the uncertainty surrounding future application of the cooperative’s retained power over land allocation, quota imposition, and input supply. Much of the responsibility for production under the new arrangement continued to be assumed by the collective. The “new contract” was essentially an

improved form of labour utilization and income distribution within the control of cooperative cadres, who “still assigned tasks to collective groups, families, and individuals on the basis of whom they thought could perform best or whom they personally favoured. Labour arrangements as such did not change, nor did the power of cooperative and village leaders” (Ngo Vinh Long 1993: 175).

Nevertheless, peasants gained a great deal of autonomy. They were able to invest in farming with greater certainty and choose farming techniques that they thought were best suited for improving productivity and achieving an economic surplus. The initial results of Contract 100 were impressive. In the Third Five Year Plan (1981-1985), food production increased by 4.9 percent per year, in sharp contrast with the declines experienced in previous years (Selden 1993: 241). Average rice productivity increased from 2.2 tonnes per hectare to 2.7 tonnes per hectare (Le Cao Doan 1995: 115).

By 1986, several problems were apparent, all pointing to the fact that the peasant economy had not firmly established firm roots, and that “farming families still did not have sufficient incentives to invest their full energy and resources into farm work” (Kerkvliet 1993: 19). Cooperatives often re-assigned land parcels to households after only one or two years, leaving them unsure as to what their next investments would be. Cooperatives also still assigned many phases of production to specialized work teams, for which administration, coordination, and labour were generally unreliable. They often raised the quotas contracted to families to the point that they could retain only a small fraction of their output. They also arbitrarily set up a number of social funds (sometimes over twenty), to which peasants had to contribute a substantial portion of their income. Under these circumstances, families derived a net income from the “product contracts” which was much lower—often only 15 to 20 percent—than in the initial years of the reform (Le Cao Doan 1995: 116; Chu Van Lam 1993: 157). Peasant incomes were further lowered by pricing policies which, although reformed in the early 1980s, continued to discriminate against peasants’ interests by making agricultural inputs expensive

when compared to the prices that they obtained for their products. The bottom line is that the bulk of family production went to the cooperative to compensate for costs of production and to create a food surplus to feed the urban population at low cost. Many peasants went deeply into debt as they were unable to pay their dues to the cooperative and had to borrow frequently from the state (Chu Van Lam 1993: 157).

Peasants balked at the situation. Their reaction was to refuse to pay quotas, engage in “sneaky contracts” that went well beyond the provisions established by Contract 100, or quit their fields altogether. Conflicts often ensued when cooperatives resorted to force to compel the households to turn over the production contracts. Labourers, upset by the cooperatives’ agricultural policies focused their attentions and efforts on the contracted fields at the expense of those farmed collectively. They frequently misused communal land and encroached into unauthorized areas. Peasants were unsatisfied with what they felt was an unfinished reform. The old structure of collective agriculture remained essentially intact, with numerous idle cadres and an often stifling bureaucracy within the cooperatives (Kerkvliet 1993: 20). Contradictions between peasants’ individual interests and the social and collective welfare caused agricultural production to regress in 1986-1987. In 1987, food production fell to 17.5 million tons from 18.37 million tons the year before. In 1988, it fell even further, leaving over nine million people hungry and domestic animals in jeopardy (Chu Van Lam 1993: 157).

Doi moi

From the early 1980s, there was considerable debate about the very idea of a centrally controlled economy. The “liberalizing atmosphere” induced the Sixth Congress Party in 1986 to set forth a framework for an economic and political reform programme (*doi moi*) to move Vietnam rapidly to a mixed economy with substantially freer markets. This change in ideology combined with persistent limitations of “Contract 100,” food shortages, and continuing pressure from farming communities led to further agrarian reform (Fforde 1991: 303; Kerkvliet 1993: 20).

Resolution 10 (1988)

In April 1988, the politburo issued Resolution 10 , entitled "Renovation in Agricultural Management," which recognized the existence of the household sector and affirmed its equality to the state and collective sectors in rural areas. The directive laid out the specifics for "Contract 10" (*khoan moi*) or "household contract" (*khoan ho*), which promoted full-scale family farming. Throughout Vietnam, land, draught animals, and other factors of production were redistributed to families (Kerkvliet 1993: 20-21). A key provision was the leasing of cooperative fields to peasant households for a period of at least fifteen years in the case of annual crops (longer for perennial crops). Peasants obtained complete "use rights" on these plots and thus were free to enter crop production contracts with the cooperatives. Crop yield levels were to be decided at the time of contracting and remained fixed for periods of five years, with readjustments at the end of every five-year cycle. Contracts were designed in a fashion that households could retain at least forty percent of average crop yields after production costs, taxes, and other contributions to village social and welfare funds. Households which had been able to produce in excess of these quotas could keep the entire surplus (which they were free to sell on the markets). Those that did not meet the contracted yield quotas, however, were required to compensate the cooperatives in kind or cash at the going market prices (Ngo Vinh Long 1993: 177). This system had effectively given peasants full control of their farming businesses (Le Cao Doan 1995: 118).

The reform amounted to a "new land reform," as rural inhabitants like to call it. The reform effectively privatized the management of agricultural production by returning it to individual households. Legally, however, all land still belonged to the state. Farmers received usufruct rights on the land parcels assigned to them by the cooperatives and they became liable for the land tax upon this land⁹ (Fforde

⁹ Under Resolution 10 agricultural land is distributed in two or three rounds. In the first round, peasants are allocated land for their own consumption. In practice, most of the village land is allocated in this round. In the second round, land is assigned to either newly returned farmers to the

1991: 313; Wurfel 1993: 32). A two-tiered land ownership system was thus established, with the state at the higher level and the communes and villages at the lower. The state owned the land, and the communes and villages were responsible for its distribution to the households which fell under their administration.¹⁰ Village cooperatives were to redistribute agricultural land to households every ten or fifteen years for annual crops (longer for perennial crops) according to their needs¹¹ (Wurfel 1993: 32).

Associational activity

There were also limited political reforms, aimed at improving the representation of the rural communities in Vietnam's political process. These reforms encouraged and legalized the activities of local groups and associations which did not engage in overtly political activity (Thayer 1995: 52). In March 1988, the first congress of the Vietnam Peasants Union (*Hoi Nong Dan Viet Nam*) was held. The purpose of the union was to strengthen the family economy and give peasants a stronger voice in the implementation of policy. Specifically, the Peasant Union set as its goals to enable the farming household to retain thirty to forty percent of the quota delivery and to impose a significant reduction of agricultural input prices. It also vowed to expose corruption among rural cadres and destroy the

village, such as discharged soldiers, or to other families which farmed efficiently. In the third round, land is sold by bidding. Often set aside for bidding are waste land or water surfaces, areas which are difficult to cultivate or require special investment (Le Cao Doan 1995: 121).

10 The commune (*xa*) is the smallest administrative unit of government in rural areas. It encompasses one or several villages (*thon, lang*). A village is normally composed of hamlets or neighbourhoods (*xom*), interspersed among the paddy fields. A village cooperative (*hop tac xa*) consists of a whole commune or several villages within it (Le Trong Cuc et al. 1990: 52; Kerkvliet 1995: 75).

11 The exact length of the lease is to be locally determined by the commune or village administration. The guidelines set by Resolution 10 are ten to fifteen years for annual crops and longer for perennial crops such as tea. Forest land can be allocated for up to one hundred years. Farm families are given legal ownership of the land on which their house is built (Wurfel 1993: 32).

“new class of oppressors and tyrants” who were exploiting the peasantry (Wurfel 1993: 31-2). Indeed, in the liberalized economy, many cadres were able to abuse their privileged position in Vietnamese society to realize quick profits through illegal land deals and fee collections. Together with other wealthier peasants, they began to form a new rural elite with much local economic and political power (Elliott 1993: 85; Ngo Vinh Long 1993: 178; Kolko 1995: 31).¹²

It is also likely that the Peasants Union was expected to become a more effective channel of party influence in the countryside to compensate for the declining significance of the cooperatives after the introduction of the contract system (Wurfel 1993: 31). In the new economic climate, cooperatives were either dismantled or they survived and modified themselves into service organizations—providing households with seeds, fertilizers, water, and other resources—besides overseeing the distribution of the contracted land and collecting taxes for the state (Ngo Vinh Long 1993: 178; VNN 1996i).

Since 1988, the trend has been for the village political administration (commune People’s Committee) to assume the cooperative’s important administrative functions, such as land management, tax collection, and social policy¹³ (Tran Thi Van Anh and Nguyen Manh Huan 1995: 210). Nevertheless, although collectivization has been dismantled, the goal of cooperativization has not been abandoned. “Legally speaking conceptual relations continue to exist between

12 Popular outcry against corruption has led the state to launch sweeping anti-corruption campaigns. The overall results of these campaigns, however, have so far been limited (Thayer 1995: 56-7).

13 In the 1980s, and until very recently, the village cooperative (*hop tac xa*) was the fundamental administrative unit in rural Vietnam. It was both a production unit and an organization responsible for the welfare of its members. As such, it had important economic and social functions. It considered applications from new members or new households in the village, granted land for houses and home gardens, distributed paddy land, and organized the work of the production brigades. It had other duties such a provision of schools, day nurseries, and medical services; provision of information and advice; etc. As a production unit, the cooperative was responsible to the district, provincial, and national authorities. Each cooperative made its own five-year plan and a more detailed one-year plan, which became included in the National Plan, which regulated taxes and the distribution of inputs to farmers (Le Trong Cuc et al 1990: 52-7).

cooperatives and farmers ... This is posing constraints on the full liberalization of agriculture and its complete shift to a full economy commodity" (Le Cao Doan 1995: 118-9).

Production under the household contract system

In the improved economic climate, the new agricultural policies quickly generated positive results.¹⁴ First, land was used more productively. Through contracts and bids, much land was put back into use. Second, a large source of investment capital for agriculture was mobilized in rural areas. In the Mekong delta peasant and government investments helped increase rice production from 1.2 to 1.5 tons per hectare per year to 8 to 10 tons per hectare per year by raising two crops. In the central highlands, over seventy percent of the capital invested in coffee came from farming families. Third, agricultural productivity increased considerably, and agriculture developed from self-sufficiency to commodity production. In 1989, rice production was 21.44 million tonnes, an increase of over three million tonnes over 1987. Vietnam was able to export 1.4 million tonnes of polished rice (Chu Van Lam 1993: 159-160; Ngo Vinh Long 1993: 178). Since 1989, food production has expanded well beyond the national population growth rate of 2.3 percent. By 1995, food production per capita was 370 kg, an increase of 70 kg over 1989 (Nguyen Cong Tan 1996). Rice production had reached 25 million tonnes. Vietnam had become the third largest rice exporter in the world (VNN 1996a; Fforde and S  n  que 1995: 108).

One important factor in the success of these reforms was the abolition of the two-price system for agricultural products which had prevailed until 1989, effectively ending residual central planning.¹⁵ By freeing up commodity prices and

14 The new agricultural policies were not alone to influence production. Other important factors were the rise of trade of agricultural products as the result of open-border policy, rising urban incomes, and improved market structures throughout the nation.

15 Under central planning, farmers were confronted with two pricing systems. One consisted of the official prices that were fixed by the state for procuring the farmers' products under contract. The other was determined by the free market. Market prices were often considerably higher than those offered

further liberalizing trade, reformers provided agricultural producers with powerful incentives to invest in their farming operations¹⁶ (Fforde 1991: 302). From this, new business opportunities arose, providing farmers with significant incomes. Families were now able to buy a variety of consumer items, invest in the education of their children, and increase their levels of savings (Kerkvliet 1993: 21).

3.4 Social consequences

Socio-economic differentiation and poverty. One pervasive side-effect of the new privatized agricultural sector has been the seemingly unstoppable growth of socio-economic disparities within and among rural communities. Government surveys show that by 1990, differentiation had increased in all regions of Vietnam. Ngo Vinh Long (1995: 182-200) provides an in-depth analysis of the results of these surveys. He points out that differentiation had grown most severe in lowland agricultural areas, especially in districts close to towns and market centres, where the market economy was more developed. The growth of socio-economic differentiation largely represented a diversification in economic activities: by moving out of agriculture, people freed up land for others and created new businesses and new employment opportunities. In general, differentiation coincided with an increase in productivity and wealth. In purely agricultural regions, however, where economic diversification had not occurred, differentiation had generated "agricultural involution" (the subleasing of progressively smaller plots over time) and "helped to resurrect traditional forms of exploitation" (Ngo Vinh Long 200). There were also considerable income disparities among regions.

by the state agencies.

¹⁶ If the freeing of prices of agricultural products was a major incentive for farmers to increase production in the years following *doi moi*, it has, in recent years, worked in the opposite direction. With increased production, food prices have declined, generally contributing to a lower standard of living for farmers and acting as disincentive to achieve higher production. This is especially true of rice, of which the price dropped fastest in past years (VNN 1996j).

Wealthy families had multiplied considerably faster in the Mekong delta than in all other regions. At the same time, poverty had become entrenched in much of the mountainous regions of the north and central provinces. The surveys attributed the persistence of low incomes to geographical factors, lack of capital, weak infrastructure, and lack of experience among upland farmers in multicropping and sideline occupations.

A debate among social researchers on the primary causes of socio-economic differentiation has been under way since the introduction of the economic reforms. One side of the debate argues that social differentiation is the result of occupational change and economic diversification in rural areas as well as the redistribution of wealth associated with these activities. The other side, however, contends that the root cause of differentiation is the resurgence of a new class of exploiters and local despots who have been able to take advantage of the economic reforms through their privileged position in Vietnamese society. Whatever the reasons, a resumption of capitalist forms of production has been noticeable. In some regions, such as the Central Highlands and the Mekong delta, "estate owners" have appeared and the number of agricultural workers who rely solely on wage labour for a living has increased. In those regions, the income gap between rich and poor households has widened considerably (Ngo Vinh Long 189).¹⁷

Another debate exists on the issue of the precise impact of *doi moi* on poverty. Government studies show that the effects of pro-market reform have been generally positive. The Ministry of Labour, War Invalids and Social Affairs defines absolute poverty as an income equivalent of monthly rice production: 25 kg in urban areas, 20 kg in lowland rural areas, and 15 kg in upland areas (VNN 1996f). Using this definition, surveys conducted by the General Statistics Office reveal that, between 1989 and 1992, the rate of absolute poverty across the nation decreased from 25.3 percent to 12.1 percent. In the northern mountains, it declined from 31.9

17 The 1990 government surveys showed that the incomes of rich households were of the order of one hundred times higher than those of poor families (Ngo Vinh Long 1993: 189).

percent to 13.2 percent, and in the Red River Delta from 25.4 percent to 12.1 percent (Dao The Tuan 1995: 153). Many independent researchers agree that commercialization of the economy has led to an overall reduction in poverty rates throughout Vietnam. Beresford and McFarlane (1995) contend that if income disparities in Vietnam were low before economic restructuring, people generally lived in a state of "shared poverty" (57). Rigg (1997) remarks that, as the result of economic reforms, "Vietnam may be making the transition from shared poverty to unequal prosperity" (104).

Other analysts of socio-economic development in Vietnam are less optimistic. They caution about the validity of longitudinal comparisons based on data collected at different times using different methods. Thu Hanh (1996) reported that at least 20 percent of Vietnam's population lived in absolute poverty, half of these in abject conditions, without access to medical care. Remote and mountain areas were especially afflicted by poverty. In a similar vein, the United Nations' Food and Agriculture Organization (FAO) estimated that over half of Vietnam's population did not enjoy daily food security (LCDV 1996b). Buffet (1998) contends that the trend may actually be for rural poverty to increase over time and in comparison with urban areas. He attributes this trend to a sharp decrease in farm land per capita and a bias of government and foreign investment in favour of urban areas (15).¹⁸

Land concentration. By permitting land to be distributed to households, the 1988 Land Law, under the influence of the market economy, opened the ground for land use rights to become a type of property. Soon after the Law was enforced, an "informal, technically illegal" land market emerged in which land use rights "became bought, sold, mortgaged, and rented" (Kerkvliet 1995: 73). In most communes, the wealthier households are now able to accumulate land that has

18 Another factor may be the Asian economic crisis of 1997, of which the impact on poverty in Vietnam has not yet been fully investigated.

been sold or pawned by peasants who are experiencing financial difficulties or who opt to quit agriculture. With land concentration have come landlord-tenant arrangements and the hiring of agricultural labourers (73). Land concentration is linked not only to greater economic differentiation, but also to the emergence of a division of labour in rural areas. The trend has been noticeable in areas where land is abundant, such as in the southern provinces where large landowners also engage in many lines of business.¹⁹ This is also true, and perhaps to a greater extent, where land is scarce. In areas where families have no more than one-fifth or one-third of a hectare per household, such as the Red River delta, some peasants sell their land to accumulate funds to change profession. The primary reason for farmers to want to leave agriculture in both land-rich and land-poor areas is their discontent with the low standards of living afforded by the relatively unprofitable rice farming sector (Dang Phong 1995: 168-9).

Unemployment and rural-urban migration. Unemployment in Vietnam's rural areas has risen sharply since the introduction of the economic reforms. One explanation is purely demographic. Each year the number of rural people who reach the working age increases by over 800,000. Meanwhile the already scarce agricultural area (0.51 hectare per household) continues to decline due to urbanization (Tran Thi Van Anh and Nguyen Manh Huan 1995: 206-7). Another explanation lies in the modernization of farming practices and the replacement of collective agriculture by more productive, less labour-intensive forms of agricultural production, which have contributed to the rise of underemployment in

19 In the larger districts of An Giang province, for example, 25 percent of households own two hectares or more of arable land. With two hectares cultivated in two seasons, families can produce over 20 tons of rice, earning them well enough to provide for daily needs and purchase pumps, threshers, and other kinds of farming equipment. The most extreme concentration of land occurs in the Plain of Reeds (Dong Thap Muoi), where families may have use rights to ten hectares or more. Some are known to have access to as much as 100 hectares (Dang Phong 1995: 167).

rural areas.²⁰

Rural unemployment, in part, has triggered a process of rural-urban migration nationwide. The share of urban population, which was relatively stable before socio-economic renovation, increased from 19.3 percent in 1985 to 20.3 percent in 1990 and 24 percent in 1992 (Le Thac Can and Vo Quy 1994: 76). Most estimates point to a total level of urbanization of at least 35 percent by the year 2010 (Le Thac Can and Vo Quy 1994: 76; McGee 1995: 268). Yet only half the annual 1.2 million young migrants are able to find employment (Kolko 1995: 38). The migration of young and adult workers to cities has resulted in a shortage of infrastructure and social services in urban areas and in their neglect in the countryside.²¹

One possible solution to the problem of rural unemployment lies in the traditional craft industry which before the socialist era productively employed a large sector of the rural population. Calls for government initiatives to revive the traditional craft industry, which could employ over two million people, have become increasingly frequent (VNN 1996b). Another is to invest in rural industries, which could, for example, specialize in the processing and marketing of local agricultural products. These industries have been the cornerstone of success in China's rural development (Leeming 1993; Selden 1993).

It must be emphasized, however, that rural-urban migration is motivated by factors other than rural unemployment. One important force motivating rural workers to migrate is the prospect of higher wages in urban areas. Not all Vietnam's rural regions, however, have experienced a modernization of agricultural production. Farming in the most remote and mountainous areas remains labour-

20 In the early 1990s, the level of underemployment nationwide was estimated to be at least 25 percent. Today, the vast majority of farmers work less than 200 days a year (Kolko 1995: 38).

21 Another reason for the growth of unemployment nation-wide comes from structural change and the replacement of central planning by a market economy. This has especially affected cities, where the reduction of staff at all levels of government and in state-owned enterprises has created a large pool of unemployed workers (Nguyen Minh Luan 1993: 10)

oriented like in the traditional past. Yet, some of these regions have been the subject of considerable out-migration (VET 1998: 18).

So far, Vietnam's government has been unable to cope with the growing urban crisis. Attempts to stem the flow of migrants to urban areas by setting controls on the unofficial labour markets have been unsuccessful. Most social critics within the country are now calling for the state to change its strategy to deal with the issue. They urge the state to support and protect migrants instead of preventing them to work in urban labour markets. They point out that at the root of the problem is the widening gap between urban and rural incomes. They recommend that government increased its assistance programmes to rural areas and further liberalize the urban economy (VET 1998: 19).

Decline in social services. The abandonment of the cooperative agricultural system has had a considerable impact on the social services available to rural inhabitants. This is especially true of health and education, which, although generally underfunded in the collective era, were made freely accessible to the general population through the cooperatives. Under *doi moi* the costs of health and education are shouldered largely by the individual households as no public system has been installed to compensate for the loss of cooperative services (Tran Thi Van Anh and Nguyen Manh Huan 1995: 213; Kolko 1995: 35).

One major constraint to the development of a national health system is the drop in funding by the central government. Since 1989, market-oriented reforms have been introduced into the health sector to stimulate cost recovery. A system of fees has replaced the previously free services at district-, provincial, and national level hospitals. Meanwhile, as part of the decentralization effort, lower levels of government—especially at the district and commune level—have been made responsible for investment in health care services, including water supply, sanitation, and the purchase of essential drugs. In the productive lowland areas, communes can often afford this investment through levies from improved

harvests. In poorer regions, however, such as the central highlands and the mountains of the north, health services have greatly deteriorated. In those regions, medical stations conspicuously lack supplies and medical staff (Thu Hanh 1996). In general, health-service delivery has declined since the economic reforms due not only to service fees and shortages of drugs and supplies, but also to staff absenteeism because health-care workers have had to supplement their clinical work with sideline farming (Kaufman and Sen 1991: 245-7). Women have been especially affected by the health care reforms. The weakening of collective support for health care has placed a greater burden on women, who, traditionally, have borne the responsibility for family health.²² The privatization of health care has contributed to the persistence of poverty in rural areas. Health care costs are often the single cause of chronic indebtedness for the bottom fifteen percent of the population (Kerkvliet and Porter 1995: 17).²³

The national education system, once one of Vietnam's greatest achievements, has suffered a similar fate as the health care system. The primary and secondary levels of education, which were formerly financed by the agricultural cooperatives have been an indirect casualty of the reforms. In many rural areas, schools are routinely abandoned as buildings deteriorate beyond the point of repair and teachers are left unpaid. In the schools which remain, enrolment has declined sharply. Many children are forced to drop out of school before completing even primary education because families cannot afford the tuition fees and because parents want them to work in the fields at an early age (Hiebert 1994a: 71; Kolko 1995: 37). Not surprisingly, education levels are falling throughout the countryside. In 1995, nine

22 According to a recent survey by the Ministry of Labour, War Invalids, and Social Affairs, a woman in Vietnam's countryside works 11.5 hours a day. This includes farming and house work, including tending her children. In comparison, men work 7 hours daily in and out of the agricultural fields (Phan Thi Thanh 1996).

23 Two troubling consequences are the resurgence of malaria in the mountainous border regions and a general increase in malnutrition. Child malnutrition in 1995 was estimated at 36 percent (Kerkvliet and Porter 1995: 17).

percent of adult workers were illiterate; forty percent had not completed a basic education. School drop-out rates continue to increase, especially among girls. Girls have now a lower educational level than their mothers (Tran Thi Van Anh and Nguyen Manh Huan 1995: 208). Ethnic minorities in the mountain provinces have been especially affected by the cutbacks on education expenditure. Educational achievement among these groups is low, with one in 54 lowland settlers getting through middle school, but only one in 116 of the national minorities (Beresford and McFarlane 1995: 60).

3.5 Land privatization debate

A complex problem in phasing in further reforms is the impact that they will have on existing social programmes. Some of the most sensitive issues concern land reform. The confused situation of land tenure which has resulted from the breakup of cooperatives is a political problem "which brings to head the potential conflict between revolutionary and reform objectives in the sharpest term" (Elliott 1993: 82).

Since the allocation of land to households, numerous disputes over fields and boundaries have emerged. One common area of complaint is the manner in which land use rights have been distributed within villages. In some areas, especially in the southern provinces, former landlords and dispossessed religious groups petition authorities to return the fields that were earlier confiscated by the cooperatives or simply try to retake them. In most villages, families with children born after they received land from the cooperatives attempt to obtain more plots from the local authorities to compensate for their increased food requirements. In the lowland agricultural areas of the North, a frequent issue of controversy concerns the "second land fund." This is the portion of village land (usually 10-15 percent of the village total) which, rather than being distributed to households on the basis of individual needs, is auctioned regularly and left to farm by the highest bidders for

one or two years or kept under village management for community use.²⁴ Villagers often complain that parts of this land have been taken over permanently by individual households. In some places, auctions are not held and old contracts are renegotiated out of public view. In others, families have used this land to build new residences. Misuse of the second land fund invariably involves cooperative officials who take advantage of their office to award this land to relatives or “usurp it for themselves” (Kerkvliet 1995: 75). Disputes also take place within families, between husbands and wives because the official policy to issue land licences to household heads has worked to the disadvantage of women (Tran Thi Van Anh and Nguyen Manh Huan 1995: 208).

Disputes also commonly occur between villages, communes, and even districts. Boundaries, which became irrelevant during the collective era, have once again assumed importance. With the weakening of cooperatives and communal authority, many villages have reasserted their rights over fields and water. Occasionally conflicts burst into bitter confrontations. In upland areas, minority groups often clash with settlers from the lowlands, state enterprises, and outsiders in their attempts to reclaim use of their traditional lands, the control of which they lost during the massive state-sponsored resettlement campaigns for lowland

24 The classification of rural land varies from region to region. Typically, land in low-elevation areas is divided in four categories:

- *Residential land.* Every household has the right to one *sao* (360 m²) of residential land, which is assigned by the village cooperative.
- *Five percent land.* This land was allocated in 1960 and later again in 1985. Younger members of the population have been excluded from this land fund.
- *First land fund.* This represents the land that was contracted to households in 1988 for individual production.
- *Second land fund.* This land is granted more as a privilege than a right, and a much higher agricultural tax is collected on this fund.

(Source: Gladys et al. 1993: 89-92)

Vietnamese in the 1970s and 1980s (Kerkvliet 1995:73-4).

Not surprisingly, the land question has revealed itself in Vietnamese society as an unfinished land reform. It is a much debated issue on which two camps have entrenched their positions. The pro-reform side of the debate consists of academic researchers and technical experts, who favour the privatization of land ownership and a rapid transformation of the role of cooperatives. The conservative side includes party theoreticians and bureaucrats who have a strong vested interest in the status quo or even in the cooperatives' eventual return to power. For these, the difficulties encountered in the collective model adopted earlier can be solved by reorganizing production and strengthening legislation (Ngo Vinh Long 1993: 191-2; Chu Van Lam 1993: 160). The reformers' view, however, is that although the new land distribution scheme has undermined the system of collective ownership, it has failed to set up in its place the foundation for a private agricultural economy. In this view, the new system still represents a "step backward" from the reform achieved in the national democratic revolution, which had, in effect, transferred ownership "from the hands of the landlords to those of the tillers," and replaced a feudal system of agriculture by a private peasant economy. It may have provided for immediate stability in rural life, but it has delayed real movement towards commodity production (Le Cao Doan 1995: 122).

The 1993 Land Law

Nevertheless, at the Seventh Party Congress in June 1991, central party delegates voted overwhelmingly for the principle that "all land is under the collective ownership of the entire people [the State] who give the peasants the right to work on it for extended periods" (Ngo Vinh Long 1993: 201). The congress deferred matters such as transfer of land use rights and land inheritance to future decisions by the government. In 1993, a new Land Law gave households and individuals the right to "exchange, transfer, rent, inherit, and mortgage land use rights" (Land Law 1993: 3.2). The law contains no provision for selling or buying the

land, leaving open the possibility that land use may be transferred at market value. Because the state wants to keep sufficient leverage to retrieve the land, the Law sets a time limit on land use rights to twenty years for annually cropped land and aquaculture and fifty years for perennial cropped land, with the possibility of renewal at the end of the contract. The 1993 law also specifically rejects all efforts by any party to reclaim land that was previously confiscated by the state and redistributed in subsequent land reforms (Kerkvliet 1995: 82). The law reflects a compromise between the need to keep the family land holdings small enough to achieve a more-or-less equitable distribution and the need to make them large enough to achieve “efficient” and “economic” production. The final limit has been set at three hectares per household for annually cropped land, with specific limits in each community to be defined by the local government (Kerkvliet 1995: 84). The Law also specifies that five percent of the cooperative’s land be reserved for community purposes (second land fund) (85).

Under the 1993 law, the role of communes and cooperatives with regard to assigning land and resolving disputes has been further diminished. While the law states explicitly that land may be assigned to individuals, households, and state offices, it does not mention communes, cooperatives, or production teams. It also stipulates that district officials, rather than commune cadres, have the final authority to transfer land use rights from one household or other economic unit to another and to settle land disputes. This provision in the law may reflect a concern shared by law-makers for reducing instances of abuse of power by commune officials and improper usage of local land resources—matters about which villagers have often complained since the beginning of the agricultural reform programme (86).

3.6 Further Issues in Agricultural Development

Economic diversification

The deregulation of agricultural production and the introduction of markets

in rural areas has opened up many new opportunities for families to move away from rice agriculture and diversify their sources of incomes. From a series of surveys conducted in 1993 in the northern, central, and southern parts of Vietnam, Dang Phong (1995) concluded that, in most areas, families had engaged in a variety of farming and non-farming activities to exploit the natural endowment of their communities and the trading opportunities which have emerged in the market economy.

Specifically, in the Plain of Reeds (Mekong delta), farmers have targeted the rising markets for meat products in Vietnam's southern cities, especially Ho Chi Minh City. Farmers now plant corn instead of rice, which is more profitable because it is sold for animal feed.²⁵ New sectors have emerged as the result of urbanization and growing wealth in the region. They include livestock farming (especially pig and poultry), production of animal feed and fresh water aquaculture.²⁶ In the central region, diversification has been made more difficult by the region's remoteness from large markets. Alternatives to rice farming such as upland agriculture and ocean fishing or prawning are beyond the reach of many households because these activities require substantial investments. In the north, the opening of trade routes across the border with China has created a demand for a variety of products: eels, frogs, snails, tortoises, and a variety of natural products. Deer farming has become popular in some provinces (such as Ha Tinh) because of the growing trade of antlers for use in traditional Chinese medicine. Markets for antlers are now also well developed in Hanoi and Ho Chi Minh City and demand

25 Corn is more valued than rice for animal feed because the whole corn plant produced is edible, whereas 35 percent of the paddy rice is not edible (Dang Phong 1995: 170).

26 Fresh water aquaculture is practiced using bamboo cages. One cage covering a water surface of one percent of a hectare can yield an income equivalent to one hectare of rice land. The initial cost of investment, however, is also the same (Dang Phong 1995: 171).

continues to increase as residents become more affluent.²⁷ In the mountain provinces of the north, quarrying building stone and prospecting for gold and gems have become important economic activities. Most peasants, however, simply work as labourers, and profits are appropriated by merchants and contractors (Dang Phong 1995: 171-4).

Dang Phong makes two important claims concerning the social consequences of agricultural reform for Vietnamese peasants. First, the concentration of land which has followed the reforms does not necessarily entail the pauperization of landless peasants and small landholders. Because of the excessively low ratio of agricultural land per inhabitant, to be truly productive, the agricultural sector should employ far fewer people on much larger land holdings than it does now. The profits generated by an efficient agricultural sector could be used for capital investment in other labour-intensive sectors of the rural economy, such as rural industries and services.

Second, the diversification of the rural economy has the potential to slow down rural-urban migration considerably. Urban growth occurred during the collective era and in the initial phase of the reform period, in spite of government attempts to control it, largely because agricultural cooperatives were unable to employ peasants productively.²⁸ Large numbers of underemployed rural workers were lured by employment opportunities in the cities' heavily subsidized state industries and extensive bureaucracies, causing a rural-urban migration phenomenon which the government was unable to slow down with decrees (Dang Phong 1995: 175-6). Against this view, however, it must be pointed out that the rural population during the collective era grew faster than the urban population and that Vietnam, in fact, achieved a negative rate of urbanization during that

27 Keeping one male deer is as profitable as cultivating one hectare or rice paddy. The purchase of a deer being relatively high, two-thirds of the deer in Ha Tinh are jointly owned or leased (Dang Phong 1995: 172-3).

28 Hanoi's population went up from 300,000 in 1954 to two million in 1990 (Dang Phong 1995: 176).

time.²⁹ On the other hand, as was noted earlier, the rate of urbanization in Vietnam has increased sharply since 1986, when *doi moi* was introduced. It is unclear at this point, for how long this trend will continue to prevail. The future of urbanization in Vietnam is likely to depend on government policies in the domains of population control and relocation, town development, industrial decentralization, and rural development (McGee 1995: 274-5).

Constraints to rural development

Rural industries. Although agricultural diversification is now under way, rural sidelines and industries are still only weakly developed, especially in the northern half of the country. Three decades of a Soviet-inspired model of economic development which emphasized the rapid growth of heavy industry have left the countryside relatively deprived of sideline enterprises and small-scale industries (Selden 1993: 244). Factories for processing agricultural produce are either nonexistent or lacking in capacity. Some southern provinces, for example, produce far more sugar cane and raw sugar than they can process, leaving much of it to waste after each harvest. The situation is similar in the north. Bumper crops of cabbage and tomatoes in the Red River delta go to waste because canning facilities are not available locally. Private investors are reluctant to invest in these industries because of the uncertainties inherent to agricultural production and shifting pricing policies (Dang Phong 1995: 180-1). State revenues have been so far too small to address these deficiencies adequately. The lack of local industries remains a serious obstacle to the generation of rural employment (Tran Thi Van Anh and Nguyen Man Huan 1995: 207).

Infrastructure. The development of rural enterprises has been hampered by the

29 The proportion of people living in Vietnam's urban areas decreased from 20.6 percent in 1976 to 19.8 percent in 1989 (Nguyen Trung Dieu 1995: 109).

generally poor physical infrastructure. Vietnam's countryside is in dire need of roads, irrigation canals, water reservoirs, grain storage facilities, electrical power stations, and other infrastructural components which would be necessary for developing its rural economy rapidly (Dinh 1993: 549; VNN 1996c).³⁰ In reality, since the privatization of agriculture, the state has decreased its investments in agriculture. The decentralization process which has accompanied the economic reforms has made provinces and districts directly responsible for financing the development and maintenance of the rural infrastructure. As most provinces are too poor to assume this responsibility, all aspects of the economic infrastructure have suffered. Isolated communities have been especially affected because markets remain uncompetitive due to inadequate power supplies, market facilities, and transportation networks. Markets thus tend to be localized and fragmented. This generates inefficiency of marketing procedures, hampers competition, and encourages the growth of localized monopolies (Porter 1995: 224-5). Another significant aspect of the problem is that teachers, health workers, and technical specialists have no incentive to work in such communities (Fforde and Sèneque 1995: 124-8).

Economic decentralization has had an uneven impact on Vietnam's economic regions. Porter (1995) has shown that endowments in education, health, market facilities, agriculture, electricity, and roads vary tremendously across the country, and that capital investments are heavily biased towards districts near urban centres. In the country's extensive mountainous areas and coastal zones, where the infrastructure is least developed, economic growth is slow or stagnant. In these regions, economic liberalization and reduced state investment in the local infrastructure has contributed to the "marginalization" of a rapidly growing number of farming families.

30 It has been estimated that over half of the population of the eleven mountainous provinces of the north does not have access to fresh drinking water because of lack of wells and reservoirs (LCDV 1996a).

Capital and credit. Another obstacle to the development of rural enterprises and the household economy is the lack of capital. Private investment in agriculture so far has been limited because households do not have the money to buy new inputs, improve farm technology, or start up businesses outside agriculture. The national bank, on the other hand, does not have the resources to fulfil all the agricultural sector's needs (Dang Phong 1995: 179). Most of the loans to farmers are provided by the Vietnamese Bank of Agriculture (VBA) and the Bank for the Poor, which gives preferential credit to the poor. There are also share banks and credit cooperatives, but their loan facilities are small, and they charge a much higher interest than the VBA. Most of the loans dispensed by the VBA are given to households of the upper and middle strata, and in 90 percent of the cases to men. Poor households, and especially those headed by women, have difficulty borrowing from these lending institutions because they do not have the collateral required by the credit rules in effect. There has been an effort in recent years to lower interest rates for agricultural loans and simplify credit application procedures.³¹ However, the lack of district and commune branches and the lack of transportation and information, especially in remote rural areas, discourages farmers from applying for bank loans. It is clear that the present formal credit system is biased against the rural poor (Tran Thi Que 1995: 202; Tran Thi Van Anh and Nguyen Manh Huan 1995: 212).

Most working capital is, in fact, financed from private savings and informal credit networks (FForde and S  n  que 1995: 129). The fact that personal savings have replaced the state as the main source of financial resources reflects the erosion of social safety nets that has taken place in recent years (De Vylder 1995: 50). Most poor households are forced to borrow from informal credit networks at very high interest rates, often 10 to 50 percent per month. At those rates, debts grow rapidly beyond the

31 In its drive to modernize and liberalize the national economy, Vietnam has made the development of agriculture a top priority. One component of this effort has been to make credit increasingly available to individual farmers. From 1993 to 1996, the Vietnamese Bank for Agriculture has provided credit to 17 million farmers in the total amount of VND 45,000 billion (approximately \$ 4.1 billion). The Bank for the Poor provided credit to over 1 million small farmers (VNN 1996m).

total value of the total family assets. The reliance on informal credit networks is an important cause of landlessness in the Vietnamese countryside (Tran Thi Que 1995: 203).

Rural development institutions. With the gradual disappearance of the producer cooperatives, the state has left behind a vacuum in terms of access to rural credit, market information, improved technology, and agricultural extension services (de Vylder 1995: 47). With the encouragement of the Party, autonomous farmers' organizations have emerged as a response to the institutional gaps inherited from the collective era. These organizations are formed locally to assist farmers in areas such as marketing, joint production, credit, transport, irrigation, and other economic activities. They tap into the extensive informal credit market and exploit the considerable capacity for organizational innovation of Vietnam's rural people, by-passing the existing formal finance and administrative structures entirely (Fforde and S  n  que 1995: 129). Community religious groups have also reemerged, often formed around village pagodas, temples, and meeting houses (Kerkvliet 1995: 87). Traditional ritual practices, such as gift-exchange and feasting reciprocity, once under critical attack from the Marxist state are now popular again among rural people. These practices provide a much needed element of collective solidarity and "psychological security" in the risky, liberalized economic environment of modern Vietnam (Hy V. Luong 1991).

Environmental constraints. Since the 1950s, Vietnam's arable area has been under intense pressure for a number of reasons. One factor is the central planning policies that promoted agricultural expansion into forest areas, resettlement of lowland farming communities into upland regions, and intensification of agricultural practices. These policies generated a number of serious environmental problems, such as soil erosion, loss of soil fertility, and laterilization in mountainous areas, and chemical pollution of soils and streams in lowland areas, perhaps to an extent

unmatched in other parts of Southeast Asia. Another factor is the thirty-year war, which poisoned and destroyed large tracts of agricultural and forest land.³² Some areas have not yet recovered from this devastation. In these, agriculture is still undeveloped compared to other parts of Vietnam, and poverty is widespread (Vo-Tong Xuan 1995: 190-1; Le Thac Can and Vo Quy 1994: 71).

The major pressure on land resources, however, comes from population growth. In 1945, when the population of Vietnam was 25 million, the total land resource available per inhabitant was about 1.3 hectare, with 0.2 hectare for agricultural use. Today, with a population close to 70 million, the land resource per capita is 0.47 hectare, 0.11 hectare of which is arable (Le Thac Can and Vo Quy 1994: 70). The potential for expansion of agricultural land is limited to a few regions such as the mountainous regions of the north, the central plateaus, and the southeastern part of the country. Expanding agriculture in those areas would require considerable amounts of capital and technologies which are appropriate to solve the complex economic, ecological, and environmental problems associated with upland agriculture (70-1).

In the highly populated river basins such as the Red River delta, as Rambo and Le Trong Cuc (1993) point out, agro-ecosystems have become "highly vulnerable to even minor perturbations" (172). In these areas, the family response to high population pressure and the dismantling of large-scale cooperatives has generally been to return to an involutionary approach to agriculture as in traditional times and the colonial era. Individual households have been farming gradually smaller plots, and they have only been able to sustain food production levels at the cost of ever-greater labour inputs. The authors warn that the Red River delta agro-ecosystem "has limits beyond which additional labour or finer tuning of management cannot further boost yields" (Rambo and Le Trong Cuc 177). They also

32 It is estimated that, from 1965 to 1975, 72 million litres of herbicide destroyed the vegetation on millions of hectares of agricultural and forest land. Some 13 millions of bombs and shells were dropped, creating more than 25 million craters and displacing 3 million of cubic meters of earth (Le Thac Can and Vo Quy 1994: 72).

remark that deepening poverty of the peasantry as a whole is one likely outcome without the support of redistributive institutions in the wake of the demise of the agricultural cooperatives. If permanent privatization of land tenure displaces the current periodic redistribution of communal lands, "the outcome is likely to be a differentiated society of well-off households and many poorer, land-short households" (177).

In the mountainous regions, where population densities are much lower than in lowland areas, demographic pressures are nevertheless having a considerable impact on the land resources. The indigenous groups, which have been excluded from national birth control campaigns, have seen their population grow at the very high rate of 4 percent annually. Since many upland farmers continue to practice extensive pioneer-swiddening methods of farming, the increase in population represents a severe pressure on the local forests. This rate is in all likelihood too high for long-term sustainability (Veilleux 1993: 76-8).³³ The mountain forests have been under pressure from other sources. The population in the mountain regions increased considerably after reunification of the country, when the Communist government relocated large numbers of lowland Kinh farmers to New Economic Zones established in these regions.³⁴ The newcomers added to the population pressures on the fragile mountain environment causing deforestation and soil degradation. Recently, the development of roads have opened up the mountain regions to commercial interests of various types, including logging (Hickey 1993: 263-4).

In response to increased pressures on forest resources, upland farming

33 Official estimates attribute the loss of five million hectares between 1943 and 1983, or 125,000 hectares per year, to swidden agricultural practices (Veilleux 1993: 77).

34 Between 1976 and 1985, over six million lowland farmers were relocated to the upland regions. The resettlement programme, however, largely failed because most farming households were unable to adjust to the upland environment. Their farming practices, an adaptation of local rotational swiddening techniques proved to be ineffective. They also often clashed with the local ethnic minority groups over resources and cultural practices. Many returned to the lowland. The relocation programme was officially suspended at the end of the 1980s (Veilleux 1993: 76).

communities have adapted their farming methods. Rotational swiddening has become more popular than pioneer swiddening, and it is now practiced by over two million sedentarized farmers (Veilleux 1993: 76). Many upland farmers have abandoned family farming altogether to work in state farms, logging camps, and commercial plantations (Hickey 1993: 264). The state, in theory at least, has acknowledged the problems posed by environmental change in the mountain regions, and it has given special consideration to upland development in its National Plan for the Environment and Sustainable Development (1991). It has pledged to protect the hydrological system against excessive erosion, protect the biodiversity of forests, decrease incentives for lowlanders to move to upland areas by promoting lowland crop diversification, develop agricultural techniques which are appropriate to mountainous areas, and encourage agricultural diversification in these regions by improving access to markets (Veilleux 1993: 82).³⁵ The state has also acknowledged the mistakes made in the past as the result of central development planning, and it has prompted local authorities to show sensitivity towards local cultural practices in land use decisions. In particular, it has recognized the special needs of migratory groups in their search of land for swidden farming (Hickey 1993: 265).

So far, however, efforts to integrate the upland regions into the national economy have largely failed. The poor infrastructure, especially the lack of roads and power supplies, have discouraged investors to take an active role in promoting commercial crops and rural enterprises. Low government expenditures on upland development have kept indigenous groups generally poor, uneducated, and physically weak (Hiebert 1992; Hiebert 1994a; Beresford and McFarlane 1995: 60).³⁶

35 Specifically, these include agroforestry, contour planning, and terracing.

36 Vietnam's upland minorities lag far behind its lowland population in education and health. Education expenditure in the mountain provinces has been low compared to the lowland provinces. According to 1989 census figures, only 10% of the Hmong population in the northern highlands can read and write (only 3% of the women) (Hiebert 1992). Health achievements have been equally dismal. The incidence of malaria and goitre has been rising since the mid 1980s. Children in the highlands now

For most of the small ethnic groups in mountainous regions, economic and cultural marginalization remain a real threat (Hickey 1993: 265-6).

3.7 Prospect for rural development

As Kerkvliet and Porter (1995) have noted, Vietnam in its development shares the same dilemmas as its neighbouring countries. "Growth, expansion, entrepreneurship, and personal financial success are encouraged and celebrated, but concerns about equity, distribution, quality and extent of public services, and environmental costs and sustainability are also evident" (31).

Socially, the challenge for Vietnam is, in the midst of rapid economic growth, to continue to redistribute the benefits of economic growth to the poorer sectors of the society in order to retain the achievements made earlier in land distribution, public health, and education. This will require the ability to remain autonomous from powerful economic interests and a will to exercise a "modulating influence" on market-driven forces (31). The state's capacity for public assistance is, however, limited by a severe shortage of funds which has left the economic infrastructure in rural areas in a state of dangerous neglect. Vietnam's rural development is further complicated by the slow pace of political reform and the many institutional inefficiencies inherited from the Marxist-Leninist model of government established under the Communist Party's leadership.

Environmentally, "Vietnam is in an ecological race against time" (Kemf 1991: 32). Vietnam's agricultural development is burdened at the start by a high population density and resource scarcity in river basins and coastal areas and deforestation and acute soil erosion problems in upland regions. Gradual soil degradation is likely to be consistent with experience in other countries of Southeast Asia and China, where yields have plateaued, or even declined (Kerkvliet and Porter 1995: 22). Vietnam, in particular, "has no margin of error, no unexploited cushion of resources on which to fall back" (Rambo 1994: 10). In all likelihood,

lag far behind those in the lowlands in immunization coverage (Hiebert 1994a).

population pressures on agricultural land will continue to increase for decades to come. Population is expected to grow by at least one million per year in the next fifteen years, representing a burden on natural resources that is spread very unevenly throughout the country (Feeney and Xenos 1992: 66-7). In the Red River Delta the amount of agricultural land per capita is expected to decrease almost by half, from an actual 0.11 hectare to 0.06 hectare, by the year 2000, and to 0.034 hectare by 2025 (Le Thac Can and Vo Quy 1994: 75). Increasing food production to match these population increases will require further intensification of agricultural practices, with severely negative consequences for soil fertility and water quality.

Increasingly, concerns are voiced in government circles that the delta's agro-ecosystem will break down as its performance is pushed to its outer limit in order to satisfy the subsistence needs of its growing population. Consequently, the search for appropriate resource management strategies designed to minimize the possibilities of system failures deserves a very high priority on Vietnam's national scientific research agenda. This is also true of the midland and upland regions, where fragile ecosystems are vulnerable to degradation and collapse at much lower population densities than in river basins and lowland areas (Rambo and Le Trong Cuc 1993: 185). The government's creative response to the environmental challenge in recent years offers a ray of hope. Since the Environmental Protection Law was passed in December 1993, a number of national parks and nature reserves have been created, and reforestation programmes and agro-forestry projects in the upland regions have been implemented (Le Thac Can and Vo Quy 1994: 74).

As experience has shown in China, however, active economic intervention by the state—in the form of pricing policies which work in favour of local producers, investment in rural infrastructure, and promotion of small-scale rural industry—may offer the best hope for alleviating the pressure of people on agricultural land (Rambo and Le Trong Cuc 1993: 182; Selden 1993: 243-5). In particular, attention to the development of local facilities for processing agricultural products will raise rural income by increasing the value-added component of locally

produced crops. They could stimulate crop diversification and reduce dependency on rice and other subsistence crops (Rambo and Le Trong Cuc 1993: 182). As agriculture continues to become more productive, it will be necessary to create employment in rural areas. Some strategies that may work to that effect are to encourage the use of labour-intensive technologies, promote trade and occupations which require little investment capital, support traditional crafts, and expand services in agriculture. Healthy agricultural development will require the close coordination of all sectors of rural society—rural producers, outside business, and state—and further integration of the farming family into the broader society (Nguyen Minh Luan 1993: 11). The fact that much of the agricultural reform programme has been inspired by locally-based, spontaneous changes in agrarian arrangements suggests that Vietnam's reformers may further benefit from acknowledging the diversity of the country's rural areas in the formulation of rural development policy. The best hope for improving the lives of the millions of Vietnamese peasants who still live in poverty may well be to build on traditional farming practices and rural institutions, which naturally came into being because of the need to cope with resource scarcity.

3.8 Summary

This chapter has reviewed agricultural policy in Northern Vietnam in the post-colonial era. Until the beginning of the 1980s, the prevailing ideology was collectivism. Land taken from previous landowners was controlled by cooperatives, which organized agricultural production. Resistance of the peasantry to collective policy prompted the state to re-install the family farm as the main unit of economic production. In 1986, a national programme of economic renovation (*doi moi*) was implemented, which stimulated the growth of the family farm enterprise. Land reform granted long-term land-use rights to farming families.

The consequences of these reforms have been far-reaching. On the one hand, they have stimulated agricultural production and helped raise standards of living in

rural areas. On the other, they have generated a series of problems, such as the growth of socio-economic disparities among and within regions and a rise in rural unemployment. Economic and social progress in rural areas is also hampered by infrastructural, institutional, and environmental constraints. Particularly disadvantaged are remote and mountainous areas, where poverty remains entrenched. Without active intervention of the state, these regions may never fully benefit from the reformed economy.

This research is intended to shed light on agrarian change in the uplands of Vietnam. It focuses on two different regions of northern Vietnam, where farming communities have been transformed as the result of *doi moi*. The following chapter describes the two study areas.

Chapter 4

BACKGROUND TO THE STUDY AND FIELD METHODS

This chapter first describes the physical, cultural, and socio-economic setting of the research areas. It presents the natural endowment and ethnic composition of Vietnam's northern upland region and then outlines the village selection process and describes the village characteristics in the two regions of focus.¹ The last section of the chapter presents the field methods adopted for the investigation.

4.1 The Northern Mountains

This study focuses on the socio-economic transformation of villages in the mountains of Northern Vietnam under market reform (see Figure 4.1). For the purpose of land use planning and socio-economic development analysis, Vietnam is often divided into eight regions (see Figure 4.2). These regions have been derived on the basis of topography, annual rainfall, dominant land forms, and soil characteristics. This conceptualization of Vietnam's regions, in which the northern uplands and midlands are often grouped in one single category, has been used in various large-scale surveys conducted by Vietnamese official research agencies to investigate the economic differentiation of peasant households and development needs in rural Vietnam (Dao The Tuan 1995).² Although many interesting results have been generated from those surveys, their usefulness is weakened by the fact that this typology ignores the wide variations in ecological and social characteristics existing in each region.

1 Much of the information presented here has been provided by local officials.

2 National surveys have shown, for example, that income per capita in the northern upland regions was lower than in the rest of the country except for the central highlands, where it was about the same. At the same time, there was less income inequity than in all other regions (Dao The Tuan 1995).

In Northern Vietnam it is thus useful to subdivide the northern upland region into two parts—the Northern Highlands (also known as Northern Mountains) and the Northern Midlands (see Figure 4.2). Highlands typically have elevations over 500 meters above sea level and midlands between 50 meters and 500 meters (World Bank 1995).³ This further differentiation takes into consideration variations in soil erosion susceptibility as well as cultural patterns of land use because the midlands, unlike the highlands, are a traditional zone of Vietnamese settlement. The consequences of pro-market reforms on land use and village life in the midlands have recently been examined in depth (Le Trong Cuc et al. 1996). This study focuses on the highlands. It takes into consideration the various factors—ecological, cultural, and political—that contribute to village life transformation in the northern highlands as the result of government policies which, increasingly, seek to boost socio-economic development in the region by promoting trade in rural areas (VNN 1996l).

4.1.1 The Natural Environment

Vietnam's northern upland region lies just south of the tropic of Cancer; its approximate range is 20 to 23 degrees north of the equator (see Figure 4.3). The climate is subtropical humid monsoonal with an average annual rainfall of 1,600 mm to 2,500 mm largely concentrated during the hot, wet season from late April to late October. The dry season, which lasts from November to March, generally accounts for no more than 15 percent of the annual rainfall. Compared to Vietnam's southern region, the north experiences considerable climatic variation throughout the year, with average temperatures in low lying valleys close to 15°C in January and 30°C in July. In the highlands, winters are considerably cooler, and the regions above 1500 meters experience near-freezing temperatures. (Nguyen Trong

3 Only very few hills in the midlands are as high as 500 meters. Elevations in the midlands range more commonly from 15 meters to 200 meters (Le Trong Cuc et al. 1996).

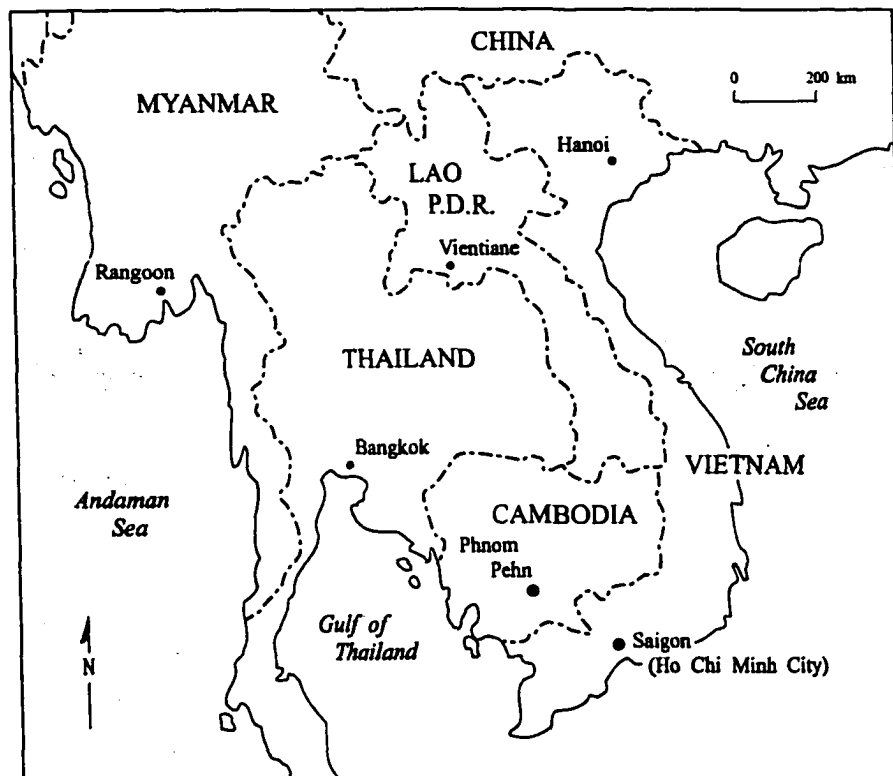


Figure 4.1 Mainland Southeast Asia

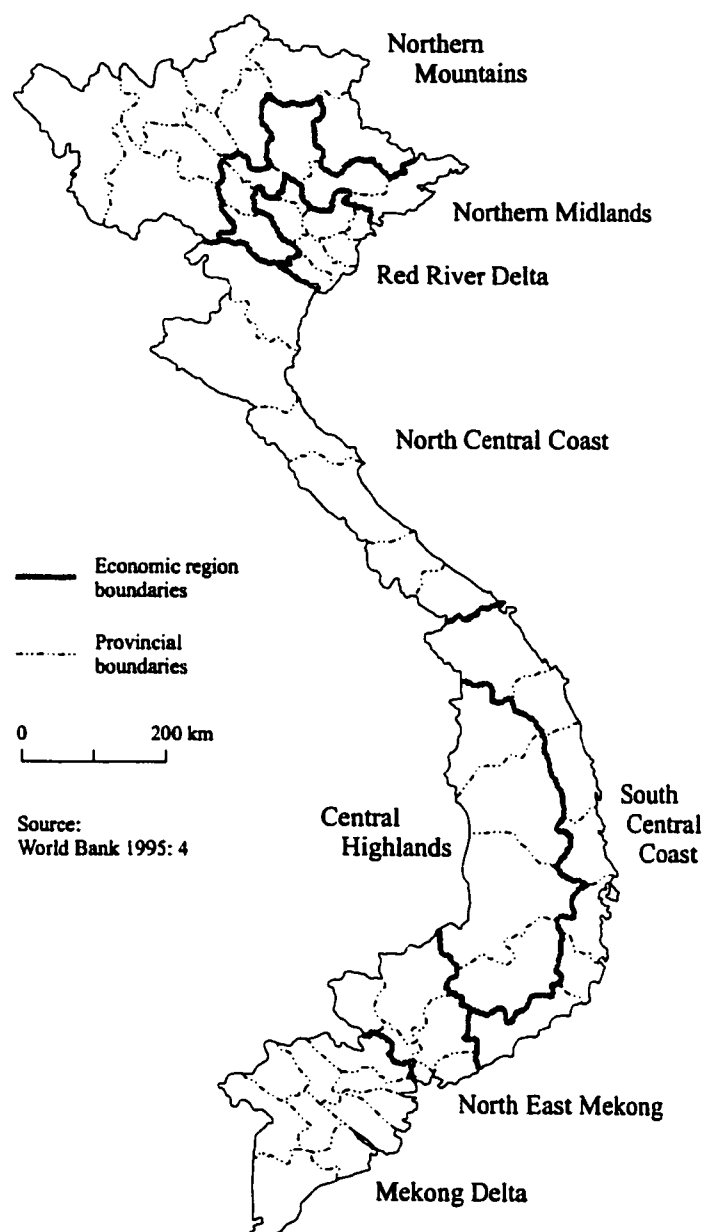


Figure 4.2 Vietnam's Economic Zones

Dieu 1995: 35-41).

Forests and deforestation

The northern upland region's diverse forest ecosystems range from dense tropical monsoon semi-deciduous forests at elevations below 1000 meters to sparse evergreen coniferous forests at higher altitudes. They have, since the mid-century, suffered considerable loss of biodiversity as the result of deforestation, the rate of which has been one of the highest in Asia (see Figure 4.4). In the Northern Midlands, forest cover decreased from 55 percent in 1943 to 29 percent in 1991. In the Northern Highlands, it decreased from 95 percent to 17 percent during the same period, representing the greatest decline in the country (see Table 4.1). As in the rest of the country, much of the remaining forest is secondary growth.⁴ The World Bank (1995) produced an extensive report on the dynamics of deforestation and environmental degradation in Vietnam. A summary of the findings on deforestation and barren land formation in the northern upland region is presented below.

The overall rate of deforestation in Vietnam's northern upland areas has varied considerably since 1943, decreasing substantially in recent years. From 1943 to 1973, the annual rate of deforestation was 1.0 percent in the midlands and 2.4 percent in the highlands. From 1973 to 1985, this rate increased substantially—to 4.5 percent in the midlands and 3.9 percent in the highlands—largely because of high demand for timber in the post-war reconstruction effort and policies which favoured exporting logs to increase government cash revenues. Since 1985, the net rate of deforestation has decreased as the result of reforestation programmes (World Bank 1995: 15).⁵

4 In Vietnam, only 2 million hectares of land, that is 6 percent of the total, are still covered with natural primary forest.

5 A number of reforestation programmes have been implemented country-wide with the objective to increase the forested area to 58 percent of Vietnam's total land area by 2010 (VNN 1996k). Official statistics indicate that the 42-year deforestation trend in the northern uplands has been reversed as

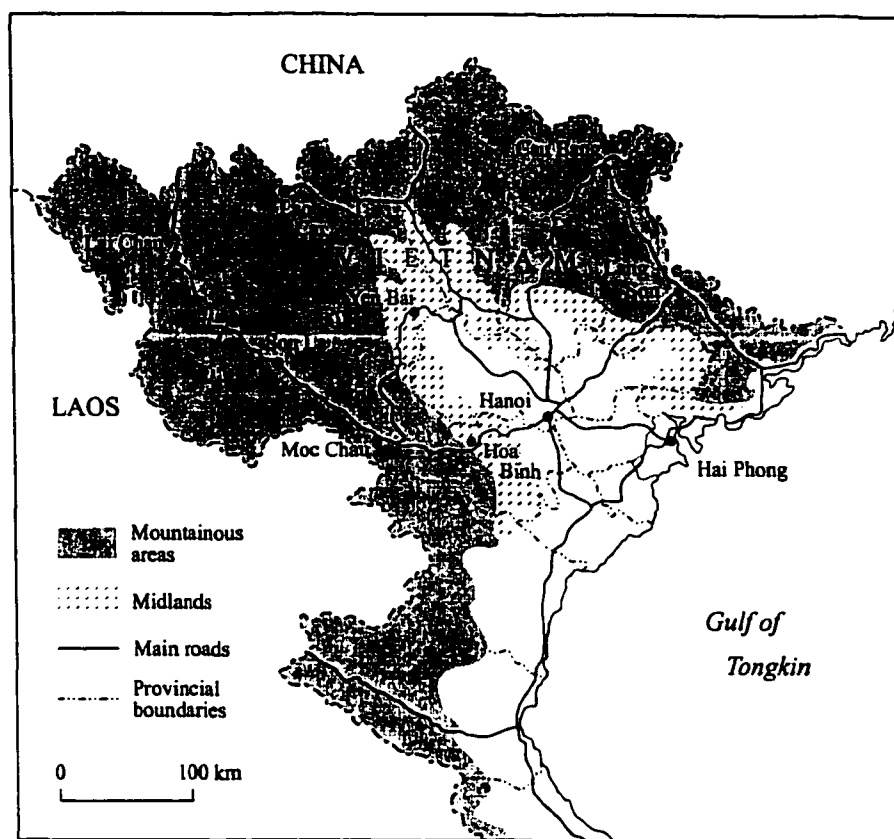


Figure 4.3 Northern Vietnam

the result of this endeavour. However, as the World Bank points out, official figures must be met with scepticism. During the mid-eighties, natural forests were redefined from being areas with over 30 percent of crown cover to areas with over 10 percent of crown cover. A substantial amount of areas formerly classified as "barren land" became thus classified as "natural forest" (World Bank 1995:220).

Causes of deforestation

The main sources of forest degradation in the northern uplands are arable land expansion, fuelwood consumption, and logging (see Table 4.2).

Arable land expansion. The expansion of agriculture into forest areas is the result of shifting cultivation, sedentarization programmes, and government sponsored settlement. It is principally motivated by the need to increase annual crop output as a response to chronic malnutrition experienced in the region. Its most direct environmental effects are soil erosion, watershed degradation, and disruption of plant and animal life.

Shifting cultivators belong to one of two groups—itinerant (or pioneering) and sedentary. The itinerant cultivators today are limited to a few minority groups living at the highest altitudes. Although their cultivation methods affect only relatively small forest areas, they do have a significant impact on natural forests, which are in short supply in the northern highlands. Sedentary shifting cultivators include most of the uplands' population. They have fixed settlements but shift their cultivation sites from year to year. Their main environmental impact results from over-cultivation—the primary obstacle to regeneration of natural forests on barren lands.⁶

Since 1968, shifting cultivators have been the target of a large-scale sedentarization programme (called "Fixed Cultivation and Sedentarization Program") of which the main objective is to make them cultivate a fixed area of land over time. The programme also encourages socio-economic development by providing infrastructural and technological support in farming and services in the area of education and health. The results of this programme have been mixed at

⁶ Most analysts accept the view that the two forms of shifting cultivation—itinerant and sedentary—are sustainable at population densities below 50 to 70 persons per km². The exact value of the threshold depends on a number of factors, such as soil susceptibility to deterioration, previous farming history, and crops grown.

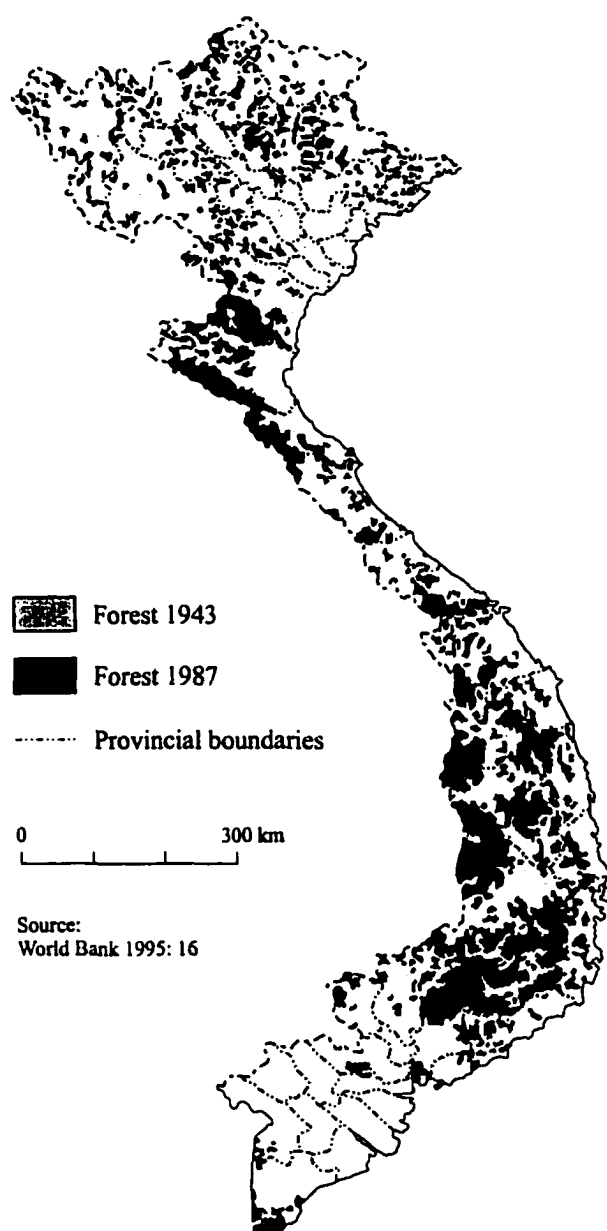


Figure 4.4 Vietnam's Forests

Table 4.1 Deforestation and Barren Land in Vietnam

Region	land area (1000 ha)	forest cover (% of land area)		barren land (% of area)
		1943	1991	
Northern Mountains	7645	95	17	60 — 65
Northern Midlands	3982	55	29	27 — 33
Red River Delta	1030	3	3	5 — 14
North Central Coast	4002	66	35	40 — 44
South Central Coast	4582	62	32	42 — 49
Central Highlands	5557	93	60	25 — 32
North East of Mekong	2348	54	24	23 — 34
Mekong Delta	3957	23	9	12 — 21
Totals (whole of Vietnam)	33104	67	29	35 — 42

Source: World Bank 1995, Table 2.1.

best. Because natural forest areas in the northern uplands are scarce and land holdings are small and on steep slopes, success has only been encountered where tree crops have been introduced (shellac, cinnamon, gum resins, fruit). Agriculture in the northern highlands and midlands remains generally unsustainable.⁷ The main point emphasized in the World Bank's report is that new settlements cannot be implemented in areas which are productively unsustainable (20-2).

⁷ Because of their slopes, soil instability, and soil susceptibility to erosion, the Northern Midlands and Highlands have become increasingly unsuitable for shifting cultivation. Of all of Vietnam's upland regions, it is there that shifting cultivators cause the most extensive degradation.

Table 4.2 Sources of Annual Deforestation in Northern Vietnam

Region	fuelwood ¹	Itinerant shifting cultivation ¹	Sedentary shifting cultivation ¹	logging ¹	fire ¹
Mountains	115	35	largest ²	17	0
Midlands	11	10	largest ²	23	0

¹ Unit of deforested area is 1,000 hectares.

² Data on sedentary shifting cultivation is not available by region. It is estimated that, country-wide, this type of cultivation creates at least twice as much deforestation as fuelwood collection (World Bank 1995:17).

Source: World Bank 1995, Table 2.2.

Government-sponsored resettlement programmes have been another major source of forest degradation in the northern uplands. In the 1960s approximately one million people were encouraged to migrate from the Red River Delta to the Northern Midlands and Highlands. The objectives of this policy were to relieve pressure on agricultural resources in the densely populated lowland areas; to develop agriculture in the upland regions; and to strengthen national defence. Although many of these migrants, who were ill-prepared for their new life, eventually returned to the lowlands, this first wave of migration caused much environmental degradation in the midlands, contributing to a situation which is often described as being ecologically unsustainable. After reunification (1975), the government encouraged "guided migration" to promote the establishment of "new economic zones" for permanent settlement (World Bank 1995: 20). Cooperatives and state-farms were established to develop agriculture and provide employment to

migrants. The World Bank points out that although this policy had some success in establishing permanent crops areas in the highlands, it also caused much unsustainable farming. Nguyen Van Thang (1995) emphasizes that government-sponsored migration in Vietnam's highlands has amounted to sheer exploitation of forest land, forcing indigenous people to move to the most remote regions of the uplands (110).

Since 1988, with the loosening of controls on inter-provincial migration, a new trend of spontaneous migration towards the remaining forests of the Central Highlands has established itself. This trend is providing a much-needed relief of population pressure in the northern uplands and it has helped mitigate some of the environmental problems there (World Bank 1995: 22). At the same time, the 1993 Land Law has provided a greater tenure security to both migrants and local inhabitants that has encouraged farmers to manage land in a more ecologically sustainable fashion than in the past (Nguyen Van Thang 1995: 111).

Fuelwood consumption. This is an important source of deforestation, especially in the Northern Mountains, where it accounts for over six times the amount deforestation caused by commercial logging (see Table 4.2). Its degradation effects, however, are less significant because fuelwood is usually obtained by cutting scattered trees and branches rather than clear felling. Fuelwood is also an important source of cash income for households in the high-altitude areas of the Northern Mountains that are still well-endowed with trees, mitigating to some extent the deficit of food production there. The danger is for forested areas in the Northern Mountains to come under greater pressure if the trade of fuelwood continues to expand in the Midlands and the Red River Delta, where fuelwood is in critically short supply (World Bank 1995: 17-8).

Commercial logging. From 1985 to 1991, commercial logging was a significant source of deforestation in northern Vietnam, especially in the midlands (see Table

4.2). Since 1991, an official ban on exporting logs and lumber has been put in place, and logging activities by state enterprises have decreased substantially due to a generally depressed domestic market and structural inefficiencies in the wood processing industry. Nevertheless, illegal logging continues to destroy large tracts of the remaining forests, often in erosion vulnerable, steep-sloped areas (Vietnam News 1994).

Other causes of deforestation. Other common causes of deforestation in Vietnam are fire, overgrazing, construction of dams, and war damages. In the north, damage by fire has been negligible due to the generally high levels of humidity (see Table 4.2). Over-grazing is generally not critical except in small localized areas. Dam building has caused considerable deforestation in Vietnam in the post-war era. The World Bank estimates that 30,000 hectares of forest are lost annually to the construction of dams. In the north, the Hoa Binh dam on the lower Da river alone has flooded tens of thousands of hectares of forest in several phases. A new dam on the upper Da River, now at the end of the design stage, will also have a considerable impact on forested areas when completed. Finally, the destructive effects of wars on upland forests are thought to have been largely mitigated over time (World Bank 1995: 19-20).

Soil types in the northern uplands

Most soils found in the northern uplands (at altitudes of up to 1,000 metres above sea level) can be described as red and yellow soils on metamorphic rocks and schist.⁸ These include lithosols and orthic and ferric Acrisols. These sandy and laterite soils are generally poor in nutrients and limited in water-retention capacity. The dominant type of natural vegetation found on these soils is dry dipterocarp forests. Through deforestation, these soils are highly vulnerable to erosion and

⁸ These soils cover a total area of 6 million hectares, that is approximately 18 percent of Vietnam's total land area (Nguyen Trong Dieu 1995: 53).

leaching. Erosion results in ground rock exposure and loss of considerable amounts of soil matter, which is washed down the slopes during periods of heavy rains. Leaching causes soils to become laterized. The resulting soils are generally acidic; contain a large amount of ferric and aluminium oxides but little organic matter (including potassium and phosphorus); and have poor capacity for water retention. The World Bank (1995) stresses that one of the most effective strategies available to upland farmers is to apply animal and green manure. Manure improves the plant root environment, impedes leaching by fixing aluminium, and buffers the soil against dramatic variations in acidity associated with changing soil moisture conditions (42-3).

Although most mountain soils are prone to erosion, their quality and resistance to leaching vary from area to area. In limestone areas (which cover one million hectares of land in Vietnam's northern provinces), soils (mostly chromic luvisols and calcic cambisols) are considerably richer in nutrients and have better water-retention capacity. Characteristically, mixed deciduous forests, or even evergreen forests grow on these soils. These soils have physical and chemical properties suitable to agriculture. Unfortunately, rugged terrain conditions and susceptibility to drought makes cultivation difficult (Nguyen Trong Dieu 1995: 53).

In the highlands proper (at elevations higher than 1,000 metres above sea level), soils are generally more varied and more fertile than at lower elevations. Red-brown limestone soils tend to be quite deep with often good water-retaining capacity. Such soils often support evergreen forests (Walker 1992:14). The cool climate and the high level of humidity also often result in the accumulation of thin layers of humus. This type of soil is appropriate to the cultivation of a wide variety of annual crops (such as maize and soya beans) and perennial crops (tea, cinnamon, medicinal plants) as well as cattle rearing (Nguyen Trong Dieu 1995:50-5).

4.1.2 Ethnic Composition

Vietnam's population is mostly rural. In mid-1994, the estimated total

population was 72 million, of which 79 percent lived in rural areas. Vietnam's population has grown at the average annual rate of 2.1 since the early 1980s. This is largely the result of a high fertility rate (4.0 for the whole nation; 4.4 percent in rural areas) which has decreased at a similar pace as the infant mortality rate (42 per 1,000 live births in 1994) (World Bank 1996:172-5; World Bank 1995:6). Officially Vietnam's population is made up of 54 ethnic groups, of which the main group, the *Viet* —also known as *Kinh* or *Nguoy Kinh* ("people from the capital")—account for about 85 or 86 percent.⁹ The remaining 14 or 15 percent consist of ethnic minorities (*Nguoy Dan Toc*), over half of whom live in the upland regions of the north.

Three major groups live at the mid-altitude range of the upland areas (approximately 300 to 1,000 meters above sea level). These are the *Tay*, the *Thai*, and the *Nung*. Members of these groups speak a language of the Thai-Lao-Shan language family (Walker 1992:18). They are culturally related to the Thai of Northern Thailand, the Lao of Laos, the Shan of Myanmar, and the Zhuang of Southern China. Of these three groups, the Tay are the most numerous, followed by the Thai, and then the Nung. Estimates of the sizes of these groups vary according to sources. Based on available census data, the population sizes for the end of the year 1996 are likely to be of the order of 1.75 million for the Tay, 1.45 million for the Thai, and 1.1 million for the Nung.¹⁰ The majority of these people have practiced a sedentary lifestyle for centuries, with wet-rice agriculture their main subsistence

9 The 1989 population census revealed that 87 percent of Vietnam's population was ethnic Vietnamese. This figure is now likely to be lower for two reasons. First, upland minorities have significantly higher fertility rates than the lowland Vietnamese. Second, in recent years, a family-planning campaign has been well implemented in urban areas (which are mostly populated by Vietnamese). It is thus reasonable to believe that, by the end of 1996, the proportion of ethnic Vietnamese was close to 86 percent of the total, and possibly between 85 and 86 percent. This would be close to Nguyen Trong Dieu's estimate (1995) of 84 percent (p. 81).

10 Dang Nghiem Van, Chu Thai Son and Luu Hung's estimates (1993) are 1.2 million for the Tay, 1.04 million for the Thai, and 0.7 million for the Nung. Nguyen Trong Dieu's numbers (1995) are 1.8 million for the Tay, 1.42 million for the Thai, and 1.16 million for the Nung. In both cases, these estimates are based on the 1989 census data. The estimates presented here are derived by calculating the average of these values and adding 18 percent to account for population growth from 1989 to 1996 (seven years at the average growth rate of 2.1 percent).

economic activity. Some, especially at higher elevations, also practice slash-and-burn agriculture.

At higher altitudes, a variety of other minority groups have established themselves over the centuries. The largest of these groups are the *Hmong* (known as Miao in China) and the *Dzao* (Yao in China; Mien in other neighbouring countries). The sizes of these groups are of the order of 670,000 for the Hmong and 660,000 for the Dzao.¹¹ Much smaller groups—of Tibeto-Burman origin—include the *Ha Nhi* (Hani in China; Akha in other neighbouring countries) and the *Lo Lo* (Yi in China). Although these groups are culturally distinct, they share two important characteristics: they practice slash-and-burn agriculture and they have animistic religious beliefs.

Family-planning campaigns have had little effect on population growth rates in upland areas. Ethnic minority groups continue to grow significantly faster than the ethnic Vietnamese population (Nguyen Trong Dieu 1995: 93).

4.1.3 Administrative Structure in Rural Areas

Vietnam's rural administrative structure is highly hierarchical. A complex web of administrative authority links the smallest rural community to the national capital. At the highest level of the administrative pyramid is the central government, followed by the provinces (*tin*h), which are divided in a number of districts (*huy*en), themselves containing a number of communes (*xa*). Each commune has a number of natural villages (called *lang* in the lowlands and *ban* in the uplands) which, in the lowlands, may consist of a number of hamlets (*xom*). In the uplands, no specific administrative distinction exists between a village and a hamlet.

¹¹ These numbers have been estimated in a similar fashion as for the Tay, the Thai, and the Nung. Dang Nghiem Van, Chu Thai Son and Luu Hung's estimates (1993) from the 1989 census are 560,000 for the Hmong and 474,000 for the Dzao. Nguyen Trong Dieu's numbers (1995) are 590,000 for the Hmong and 654,000 for the Dzao. I have taken the average of these values and added 18 % to take population growth into account from 1989 to 1986.

According to the 1992 Constitution, decisions regarding land use and socio-economic development are to be made at all levels of administration by people's committees (*uy ban nhan dan*). These are the executive bodies of the people's councils, which, according to the Land Law "exercise ultimate powers of decision and supervision regarding land management and land use in their localities" (GRSV 1994:246).¹²

Two levels of administration have a direct impact on socio-economic development in the rural communities: the district and the commune. The district is in charge of much land use planning, for which it has been endowed with an extensive administrative apparatus and considerable resources. It is also directly responsible for allocating land to households and individuals (GRSV 1994: 253). The commune, under rural reform, has gained considerable administrative power. It has assumed many of the functions of the former agricultural cooperatives, such as land management, tax collection, and social services (Tran Thi Van Anh and Nguyen Manh Huan 1995: 210). The commune's people committee (*uy ban nhan dan xa*) is headed by a chairperson (*chu tich*), a vice-chairperson (*po chu tich*), and a number of officials responsible for tax and accounting, population control, health, education, and agriculture. These officials have a generally strong influence on village life in their commune.

At the level of the village, which also has a people's committee, much administrative power is held by the village leader (*truong ban*), an official elected by the local population. The leader, who in the vast majority of villages is a man, has important social and economic functions for the community. He organizes work teams for the construction and maintenance of local roads, irrigation canals, and

12 A *people's committee* is the executive organ of the people's council, which directly represents the state at every level of administration. The *people's council* is elected by the people in its locality of purview for a period of three years. In turn, the people's council forms a people's committee. The people's council has legislative power; it can pass motions regarding socio-economic development, budget, and defence in agreement with the Constitution and the laws determined by higher levels of authority. The people's committee enforces this body of motions and laws in its locality (Constitution 1992:61-4).

public wells; explains government policy on agricultural and economic matters to villagers; supports farmers in their applications for bank loans; resolves disputes over land use among households; and reports thefts to district police. If the village has an agricultural cooperative (*hop tac xa nong nhiep*), the village leader is also the cooperative leader, and he thus makes important decisions in agricultural planning. In a nutshell, the village leader is the principal liaison between the villagers and the government.

4.1.4 Case studies

This research focuses on two case studies: Ban Muang, a Thai village in the district of Moc Chau, southwest of Hanoi, and Thuy Hung, a Nung commune near Lang Son town, north of Hanoi (see Figure 4.3). These two upland regions have been selected for study because they have been both affected by trade in recent years. Moc Chau district is on a high plateau in the Northwest region. It is linked to Hanoi and other lowland cities by a highway (Highway 6) through which it exports agricultural products. It is relatively isolated from its foreign neighbour of Laos, to which it has little road access. Lang Son town is linked to Hanoi by a relatively short highway (Highway 1). It is also close to China with which it is actively involved in trading. The proximity of Thuy Hung to the highway and Lang Son town motivates its inhabitants to participate in the trade of agricultural products. In most of the commune's villages, farmers grow a variety of cash crops which they sell in markets based on Lang Son town. This commune is thus especially appropriate to investigate the effects of pro-market reform and trade on upland communities with depth. The main purpose of including the other case study is to emphasize the development contrasts between the different mountain provinces of North Vietnam.

4.2 Case study 1: The Nung Commune of Thuy Hung

4.2.1 Setting: Lang Son Province

Thuy Hung is located in the province of Lang Son, a semi-mountainous northern province bordering China.¹³ It is directly north of Hanoi and accessible from it by the National Highway which connects the northern provinces to the south of the country. This highway is also Vietnam's main land trade link with China, of which Lang Son town, the capital of the province, is the first important entry point (see Figure 4.5). Currently, a new highway is being built, considerably wider than the previous one, and with much impact on the scarce paddy land area.

Lang Son's population is of relatively low density (86 persons per square kilometre) and mostly rural (84 percent).¹⁴ Its rate of population increase (13 percent from 1989 to 1995), however, is high. The main cause is a high rate of births in the rural population, which continues to defy attempts by the central government to control family size.¹⁵ There has been, otherwise, relatively little migration to the province from other parts of Vietnam.

Administratively, the province is divided in 10 districts and a total of 225 communes. The largest ethnic groups are the Nung (43.9 percent), the Tay (35.9 percent), the Kinh (15.3 percent), and the Dzao (15.4 percent). The Nung and the Tay tend to live at mid-altitudes—300 to 800 metres above sea level. The Dzao and a variety of smaller groups (15.4 %) are distributed at higher altitudes (above 800 metres).

13 Altitudes in Lang Son range from 50 to 1583 meters, but much of the province lies between 200 and 400 meters.

14 Lang Son's total land area is 8,187 square kilometres. In 1995, its total population was 706,465.

15 By law, the major ethnic minority groups must respect the same limit for family size as the Vietnamese: the maximum number of children allowed per family is *two*—in rural as well as urban areas. Fines and penalties threaten those who violate this rule. Smaller ethnic minorities are not subjected to this law. Regardless of the ethnic group, the two-child per family policy is rarely enforced in remote rural areas.



Figure 4.5 Province of Lang Son , District of Cao Loc and Commune of Thuy Hung.

The Kinh (ethnic Vietnamese) are essentially urban; they are mostly found in Lang Son town, by far the largest urban settlement in the province.

There is relatively little migration to the province, largely because of lack of economic opportunities. On the other hand, the rate of out-migration is significant, especially in the upland dwelling population, which continues to migrate to the Central Highlands in order to find cultivable land. This process started in 1979, soon after the Chinese invasion, as the result of war damage in the region.¹⁶

4.2.2 Land Use

Agriculture. Lang Son's economy is based on agriculture, which, in the market economy, has been diversified considerably.¹⁷ The main food crops grown in the province are rice, maize, cassava, potatoes, sweet potatoes, and vegetables. Cash crops include annual crops such as sugar cane, peanut, soybean, tobacco, and perennial crops—cinnamon, tea, coffee, and anise. Agricultural land in the province, however, is scarce. Paddy land in particular covers only 4.6 percent of the province's area, that is 0.06 hectare per capita. As a result, although farmers often grow two crops of rice a year—a spring crop and a summer crop—the province is acutely deficient in rice production. The rice deficit in recent years has been estimated at 70,000 tonnes per year.¹⁸ Rice productivity is not only limited by the lack of paddy land, it is restricted by a general lack of water due to a prolonged dry

16 The provinces to which ethnic minorities tend to migrate are Dac Lac, Song Be, and Dong Nai, in the south of the country.

17 Much of the information presented in this section was provided by officials in Lang Son's Department of Agricultural and Rural Development.

18 According to government sources, Lang Son's rice deficit is declining progressively, if only slowly, due to the introduction of new rice technology and rice varieties. The consumption of rice itself is also diminishing as people turn to other foods rich in protein content, such as meat and poultry.

season.¹⁹

Farmers have therefore turned to cash crops to earn the necessary income to purchase rice and other foods.²⁰ In particular, they have invested considerably in upland agriculture where they grow a mix of annual crops and tree crops, especially fruit, which, in some districts, has become their main source of income (VNN 1996d). The government, increasingly aware of the importance of hill farming for rural development in upland areas has promoted a number of agroforestry models in parts of the province with some success.

Land allocation and land tenure. Agriculture was never fully collectivized in the 1970s in Lang Son as most ethnic minorities resisted attempts by the state to transfer their family lands to cooperatives. Although cooperatives were implemented in many communes and priority to rice cultivation was imposed on the farming population, households generally held on to their custom of inheriting land according to family lines and producing crops according to their own decisions. The contract systems designed by the country's reformers (Contract 100 and Contract 10) were thus never implemented in the province, and for most indigenous people, the 1993 Land Law did not represent a significant change in land tenure. This law, in practice, came to confirm the right of families to farm on plots which they had used for generations.

Certificates have now been issued to families to use their plots of paddy land for a period of 20 years. For hill plots, the official process of certificate allocation is still on-going, and households are being given land use rights for a period of 50 years.²¹ In Lang Son, families have also acquired the right to sell their land use

19 The dry season in much of Lang Son province lasts from September to May (nine months).

20 The rice deficit in Lang Son is covered mainly through imports from the Mekong Delta and China.

21 In Lang Son's villages, the household head has been given two books of land use certificates: a *red* book confirming the household's use rights to paddy plots, and a *green* book, containing its use rights to hill plots.

rights to strangers. Newcomers to Lang Son's villages generally do not receive any land to farm from village authorities because communal land (Second Land Fund) rarely exists. It is generally the rule that all land which is not directly owned by the state belongs to families.²²

Forests and reforestation. Much of the land in Lang Son is barren, on hills or mountains that were formerly forested. According to government estimates, natural forests, which, by the mid-century still covered over half of the province, now represent only 17 percent of the province (mostly remote areas). Natural forests have been largely decimated as the result of misguided land use policies during the collective era, which opened up the province's forested areas to local inhabitants and settlers for farming. Deforestation continues to occur today as the result of commercial logging (which is now permitted only for domestic use), fuelwood collection by local inhabitants, and shifting agriculture. However, reforestation programmes and land reforms (especially the greater security of land tenure provided to households by the 1993 Land Law) have helped slow down the deforestation process considerably (see Chapter 5).

Reforestation is also actively encouraged by the provincial government, and the national reforestation programme provided by Decree 327 has been implemented in all of the province's districts. Decree 327 is a national strategy designed to involve farming households into the greening process of barren lands by helping them invest into tree plantations (Sikor 1995). The programme provides seedlings and fertilizers free of charge as well as special no-interest loans and payments to farmers who participate. Nation-wide, Decree 327 has produced a number of positive results in greening Vietnam's barren areas (World Bank 1995). A number of general concerns about the efficacy of the implementation of the programme, however, have been raised. First, the primary objective of the

22 There are three designations of land owned by the state: state farm, state-run forest farm, and state land forest. The province has the right to redistribute some of this land to land-poor households. This is sometimes done in the case of families with many sons.

programme has been to increase the production of commodity trees and raw materials for industrial use, such as pulp production and building construction. However, in an environment where food availability for a growing population is barely marginal, this objective is likely to conflict with the subsistence needs of local farmers. Second, the programme is almost entirely designed by the state, and thus it largely excludes farmer participation in resource use planning. Finally, compounding these problems is that planning so far has been based on inadequate data bases on land resources and few alternatives to traditional agricultural production systems have been developed. There seems to be little scope for expanding the range of objectives of the programme and including a model of agro-forestry which effectively benefits local farmers as well as state.²³

In Lang Son, the goal of Decree 327 has been to regreen most of Lang Son's barren areas by the year 2000. The programme, which was first implemented in the province in 1994, focuses on three specific needs: forest plantation, forest upgrade, and forest protection.²⁴ By replanting barren areas and upgrading damaged forests, the province hopes to achieve a density of 1,650 trees per hectare, mostly with pines, acacias, and fruit trees with a long productive lifetime such as anise.²⁵ There is also a special loan programme, under which farmers can borrow money at no interest to plant additional trees (fruit, tea, coffee) for their own use. Participation in the programme is becoming increasingly popular among local farmers. In 1995, 3.5 percent of Lang Son's hill land was regreened by farmers; in 1996, it was close to 5 percent. Nevertheless, a number of problems associated with Lang Son's implementation of the programme have been also detected. Thus, in the absence of

23 For more information on Decree 327 and other reforestation programmes, see Annex 5 and Annex 6 in the World Bank's report on Vietnam's environmental programme (1995).

24 The amount of provincial forest set aside for protection is now 6 percent. There are two small national parks, one in Huu Lung district (500 hectares) and one in Bac Son district (400 hectares).

25 On a national scale, the goal of the Decree 327 programme is to achieve a tree density of 650 trees per hectare in upland areas.

rainfall, the chances of tree survival in sun-dried areas, especially hill tops are low. Tree mortality is also heightened by the fact that many seedlings become quickly damaged by grazing animals. At the same time, there is a lack of diversity in the seedlings provided to farmers, which mostly include pines and acacias, trees intended for industrial use.²⁶ Finally, farmers have been reluctant to make use of the special loan programme provided by Decree 327 to plant extra trees because of unfavourable loan conditions.²⁷

4.2.3 Physical Infrastructure and Services

Roads. Roads in Lang Son province are generally lacking and of poor quality. Apart from the National Highway, virtually all roads are made of dirt, and in constant need of repair. During the rainy season, only 70 percent of the communes are accessible by four-wheel vehicle. Villages on remote mountain tops are essentially cut off from the rest of the province.²⁸ Two main factors are responsible for the sorry state of the transportation infrastructure in the province. First, socialist policies before *doi moi* tended to neglect—even repress—the development of transportation and communication systems throughout the country.²⁹ Second, Vietnam's upland regions experienced a sharp decrease in state investment during

26 Decree 327 provides seedlings to farmers through forest farms. There are 11 forest farms in the province, of which 2 are run by the state, 7 by the province, and 2 by districts. These farms also provide technical assistance to farmers. Farmers are actually paid for planting trees. Payment is scheduled in three instalments: one directly after planting the seedlings; a second after a period of three months of seedling growth; and a third after eleven months. The amount of the second and third payments depend, in principle, on the number of trees that survived.

27 It has been suggested that, in order to become popular, loan programmes would have to extend over the whole growing period of the trees planted because farmers will not derive any financial benefit from these trees before they bear fruit.

28 In fact, five of Lang Son's communes (all located at high elevations) have no road access at all.

29 Like in other Communist countries, the Vietnamese government attempted to control urban growth by restricting the mobility of rural residents.

the years that followed the implementation of economic reform; this had a generally negative impact on the state of the infrastructure.³⁰

Irrigation, crop storage, and food processing facilities. The state of the irrigation network is, in comparison, somewhat more developed. There are 3000 small irrigation facilities (dams, reservoirs, pumping facilities) in the province, most of them maintained by the communes. Another 500, of medium size, are operated by the province. Nevertheless, only 60 percent of the total paddy land area is irrigated, the rest is simply rainfed. Crop storage facilities other than in family houses practically do not exist. There is no food processing industry in the province. The anise processing facilities that had been built during the French colonial era were destroyed in 1979 during the Chinese invasion of North Vietnam.

Agricultural input provision. Farmers are to a large extent subsidized in their purchases of seeds and chemical inputs. Modern varieties of rice are imported from China, and chemical fertilizers, from a number of Asian countries. They are sold to farmers at prices determined by the state.³¹ Because Vietnam produces only 15 percent of its consumption of fertilizers, however, these are often in short supply.³²

Pesticides are supplied—and applied to farmers' fields—by the district's Agricultural Pest Control Department. Lang Son's Agricultural Office also started to

30 As in China, socialist development policies in Vietnam had a strong bias towards promoting self-sufficiency and subsistence and discouraging trade in rural areas. While agriculture—especially rice agriculture—received a substantial portion of state investment, the transportation sector was badly neglected.

31 One popular modern rice variety in Lang Son is CR203. Its yield potential in the dry season is 8 tonnes per hectare, for a growing period of 115 days. The most popular fertilizer is urea with a Nitrogen content of 46 percent. Its price in 1996 was set to 2,800 to 3,000 dong per kg. The price of phosphate was 1,100 dong per kg. Of all fertilizers used in Lang Son, 70 percent are supplied to farmers directly by state or province companies; the rest is sold privately.

32 Urea is mostly imported from Indonesia, Russia, Japan, the Philippines, and other Asian countries. Phosphates are produced locally.

implement Integrated Pest Management (IPM) in paddy rice agriculture in 1993. The programme is gaining in popularity each year, and so far 20 percent of the communes have implemented it. The main obstacle to its systematic implementation throughout the province is the lack of agricultural cooperatives in communes, and therefore the lack of qualified staff. The province also intends to extend IPM to hill agriculture in future years.

Electricity. Electricity is slowly making its way to Lang Son's rural communities. Of the 225 communes, 115 now receive electricity from the state power system, that is 54 percent of all households in the province. The goal is to reach 80 percent of the communes by the year 2000 (75 percent of households). The main obstacle is that mountainous areas are sparsely populated and isolated households difficult to reach. Alternatively, the province intends to supply small electricity generators to families in remote villages.³³

Education and health. The situation in Lang Son is the same as in other northern provinces. Every commune has a primary school. Secondary schools are usually located in district towns. Every commune has also a health station with a professional nurse, and sometimes a doctor. These health stations provide free vaccinations, iodine, and drugs for treatment of common diseases. Provincial authorities boast that local health stations have been highly successful in combating malaria, the incidence of which has declined sharply in recent years.

Credit provision. Several official money lending institutions operate in the district—the Agricultural Bank, the Farmers' Association, the Women's Union, and the Hunger Alleviation and Poverty Reduction Fund. The regular monthly interest rate set by the Agricultural Bank is normally 2.5 percent for a one-year loan and 2.1

33 The province estimates that by the year 2000, 15 percent of Lang Son's families will have small generators.

percent for a three-year loan. The Hunger Alleviation and Poverty Reduction Fund (*quy xoa doi giam ngheo*) provides loans at the monthly rate of 1.2 percent, and it is the lending institution most commonly used by farmers. There is also the Fund for War Invalids (*quy cho cai doi tuong chinh sach*) which provide small loans to war invalids. In addition, the reforestation programme promoted by Decree 327, in the villages in which it is in effect, provides three-year loans at a monthly rate of 1.7 percent. Many farmers, however, are reluctant to take up loans from these institutions because of the relatively high interest rates. Instead, they prefer to borrow from relatives.

4.2.4 **Inequity, Poverty, and Constraints to Development**

Since the introduction of pro-market reforms in Lang Son, disparities in standard of living between urban and rural areas have been increasing fast. While income levels have generally improved in urban areas, they tend to remain depressed in rural areas, especially in the highlands, where poverty remains entrenched. Absolute poverty is estimated at 10 percent in urban areas and over 21 percent in rural areas.³⁴

One reason for the persistence of poverty in rural areas is the relatively low productivity of agriculture. The causes of this situation are numerous and complex. Local officials emphasize that a variety of structural and environmental factors are at play. They often point out to a single factor: the lack of irrigation water. This is due to an inadequate network of irrigation facilities in the absence of regular rainfalls. Lang Son has a prolonged dry season, with rain falling only from May 1 to September 20, an inappropriate condition for the cultivation of rice and hill crops.³⁵

34 The official threshold for absolute poverty in Lang son is the one defined by the Ministry of Labour, War Invalids and Social Affairs. It is the income equivalent of 25 kg of rice per month per capita in urban areas, of 20 kg in lowland rural areas, and of 15 kg in upland rural areas. Using the relatively high estimate of 3,000 dong/kg of rice in the province, the poverty threshold in Lang Son's upland areas has thus been set to be the monthly income of 45,000 dong (US \$ 4) per capita.

35 The average annual rainfall in Lang Son is 1,300 millimetres.

The province has been unable to provide the necessary funds to construct enough water storage facilities to compensate for the low rainfall in the region.

Another important factor behind the persistence of poverty is the lack of off-farm employment opportunities. Employment is provided almost exclusively by the family farm, which, because of the small agricultural land base and the long slack season, has relatively low labour requirements. Rates of unemployment and underemployment are thus high. Local industry is limited to a few cement and brick factories in the construction sector, and to sawmills and pulp mills in forestry. Although plans to diversify and augment the industrial base in the province exist, towns continue to lack facilities to process agricultural products.³⁶ Most local crops are transported in raw form to Hanoi for consumption and processing. Two state agricultural farms exist in the district of Huu Lung, one specialized in producing tea, and the other fruit (especially pineapple). There are also seven state forest farms owned by the state and two by the province. However, state farms provide little employment to local people.³⁷

4.2.5 The Nung

Religion and culture. The Nung, the third largest ethnic minority group in northern Vietnam with a language related to Northern Thai, are culturally close to the Zhuang of Southwest China.³⁸ Like the Zhuang, the Nung have been greatly influenced by Chinese culture. Their religious beliefs include ancestor worship, Taoism, Confucianism, and, to a smaller extent, Mahayana Buddhism. Every home has an altar to ancestor spirits which contain religious icons and displays of prayers

36 Only small food processing units exist in Lang Son, mainly to mill and grind crops. There are also facilities for breeding animals.

37 State farms also lease land to farmers for a number of years. In exchange, the contractors are to surrender a percentage of their production to the farm.

38 The Zhuang, with a population of over 16 million, are the largest ethnic minority group in China.

written in Chinese characters on strips of red paper. Every Nung community has one or several sorcerers, or performers of Taoist rites (*thay mo* in the Nung language). These influential characters write and recite prayers and incantations in Nung. In modern times, they continue to hold much ritual and shamanist power over their communities.

The Nung literary and artistic heritage is rich and respected. One of the most popular forms of folk culture is the *sli*, a genre of folk songs in which the Nung extol nature, praise romantic love, and, increasingly, make social comments. The Nung have a strong sense of ethnic identity and they have shown great cultural resilience in their history of political subservience to outsiders.

Traditional economy. Rice is the main staple of the Nung diet, and Nung agriculture is traditionally based on rice cultivation. Given the scarcity of paddy land in the region, however, the Nung traditionally cultivate rice in swiddens as well as paddies and terraced fields. The Nung supplement their diet with a variety of food crops grown in hill plots and gardens around their homes and villages. They are known in Vietnam for their ability to garden efficiently and to manage complex systems of agroforestry. They grow maize, sugar cane, legumes, sweet potatoes, cassava, and vegetables, which they often intercrop with fruit trees, such as banana, persimmon, orange, and anise. The Nung also rear animals (cattle, pigs, and poultry) on their grass lands and fish in flooded paddies and ponds.

During agricultural slack time, they make handicrafts, especially cloth and baskets, and also engage in small-scale production of bricks, tiles, and lumber. A large part of Nung products are used for local consumption, and subsistence and village self-sufficiency are important elements of the Nung village economy. Under the influence of pro-market reforms, however, the trade of cash crops has become an important part of the Nung economy. Consequently, traditional forms of exchange—the barter of products and reciprocal labour exchange—have become, to a certain extent, replaced by monetized forms of exchange.

Settlement and housing. The Nung have lived for centuries in scattered hamlets and villages both called *ban*, like other peoples of the Northern Thai cultural family. The tendency in recent times has been for hamlets and villages to combine and form larger units. Houses tend to be closer together than in the Northern Thai village, especially in the centre, where groups of houses often share a common square to dry crops, make handicrafts, and socialize. Increasingly these squares are becoming sites for trading, used daily by visiting merchants from the towns to sell fish, poultry, and consumer items to villagers. The Nung house is also structurally different from the traditional Northern Thai house. It is generally built, not on stilts, but directly on the ground, and made of clay and bricks. It is also divided into two parts. The front part is the room where people sleep and eat and visitors are entertained. It contains a few beds, a table, and the ancestral altar, which always faces the front door. The back room is the kitchen. Dry crops, tools, and household items are stored in an attic accessible from the front room with a ladder. Animals are kept in a shed adjacent to the house.

Social organization. Nung society is *patrilineal*. The basic unit of Nung society is the nuclear or extended family, headed by the oldest male. Descent is traced through the male line. Land and property are inherited by sons after they marry. The custom of dividing family land among sons causes considerable land fragmentation in the Nung village. The Nung also tend to be *patriarchal*. The head of the household is officially the man, who makes the most important economic decisions affecting the household. Marriage is a Confucian institution which economically and politically favours the man. A Nung woman at marriage offers her reproductive power and labour to her husband and his lineage.³⁹

Cultural resilience. The Nung are deeply committed to their traditions, and the

39 For more information on the Nung, see Dang Nghiem Van et al. 1993, pp. 120-3.

impact of socialism on their traditional institutions has been relatively weak. As this study reveals, the Nung have resisted socialist attempts to collectivize agriculture. Even before *doi moi*, uninterrupted by socialist policies, the family remained the main unit of agricultural production, and family property continued to be passed on to sons after their marriage. The new liberal economic climate has reinforced their commitment to family, lineage, and community.

4.2.6 The Commune of Thuy Hung: Description

The commune of Thuy Hung is in the district of Cao Loc. It is the seat of administration for 12 villages, 10 Nung and 2 Tay (see Figure 4.6). It is located approximately 10 kilometres from Lang Son, on the Highway No 1 to China. The total population in the winter of 1996 was 4,300 (756 households), the result of a steady growth rate of well over 2 percent since the end of the American War.⁴⁰ Population growth is mainly the result of local reproduction. There has been little migration of Kinh, Nung, or other ethnic minority members to the commune, which never was targeted for population relocation projects.⁴¹ With a relatively small land base per capita, the commune has no potential land asset, such as agricultural land or forest reserve, rich enough to attract outsiders.

Land use. Altitudes in the commune range from 300 to 800 meters. Land, as recorded in the commune land registry, belongs to three broad categories: paddy land, barren hill land, and wooded land. The total size of agricultural land is 400 hectares (0.09 hectare per inhabitant) of which 231 hectares are paddy land (0.053

40 In 1993, the population growth rate in the commune was 2.3 percent. By 1996 it had decreased to 2.2 percent largely as the result of campaigns for family planning.

41 As this study reveals, the reverse also holds true. There has not been any significant out-migration from the commune, and seasonal migration is minimal. One reason is that although Lang Son town is relatively close to the commune, it offers only very few employment opportunities for rural workers. Another is that, at slack time in agriculture, many poor families participate in trading operations across the Chinese border through mountain passes near their villages (see Chapter 6).

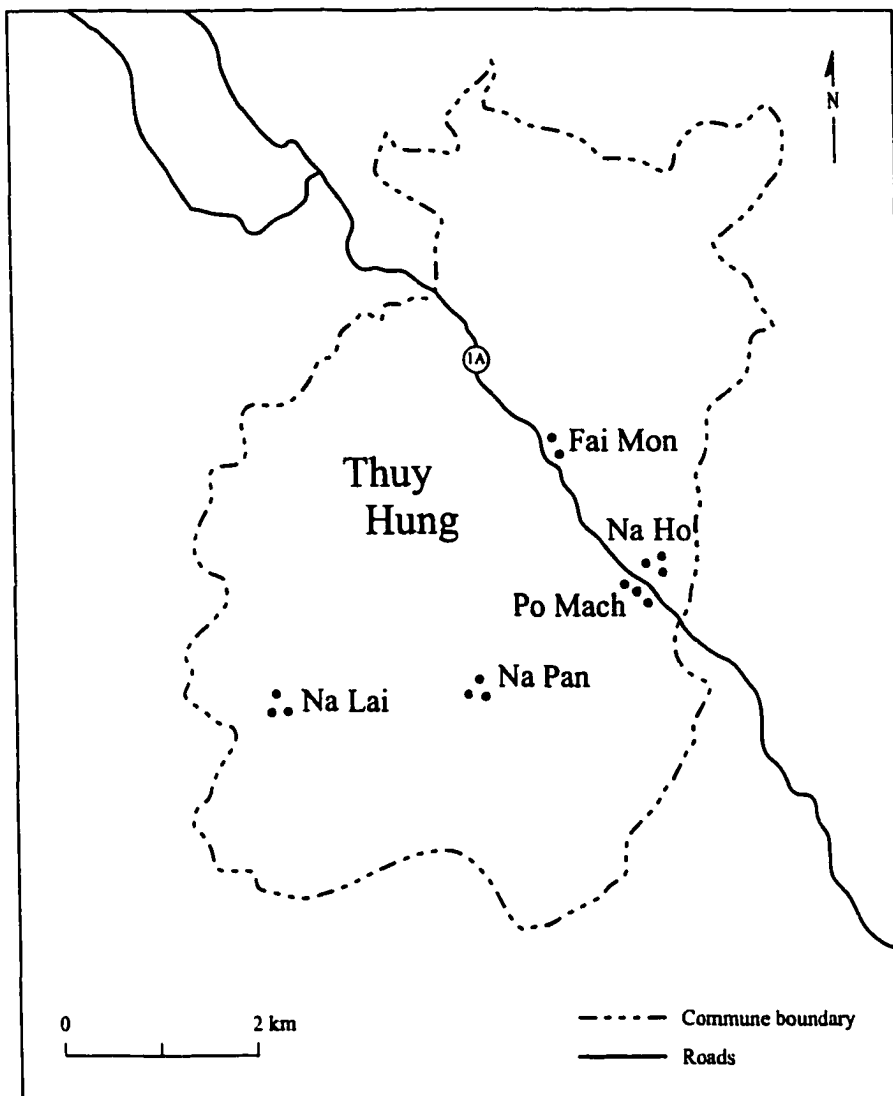


Figure 4.6 Commune of Thuy Hung

hectare per inhabitant), and the rest is hill land. The main crops grown in the paddy fields are rice and sugar cane. On the hills, farmers intermix tuber crops (sweet potatoes, cassava, taro) with beans, vegetables, and fruit trees (anise, persimmon, longan, orange, pear).

Anise, planted generations ago during the French colonial era, is a highly valuable source of income. Unfortunately, many families in villages near the highway destroyed most of their anise trees during the 1960s and 1970s, when there was no market for anise, to plant tobacco. However, in more remote villages, where the incentive to plant tobacco was lower, mature anise trees are still abundant. This is the main cause of income disparities among villages in the commune.

There is no natural forest left in the commune. Hill land, except for private orchards, is generally barren. Much of the deforestation in the commune occurred before the pro-market reforms, when villagers were encouraged to plant tobacco.⁴² The lack of forest cover has caused severe soil erosion and degraded agricultural land in most of the commune. Commune administration cadres hope that the situation will be improved through reforestation. Two reforestation projects are active in the commune. One, promoted under Decree 327, has been implemented so far on a total area of 30 hectares in six villages. Another, of smaller scale, and sponsored by a German development agency exists in one village.

Socioeconomic disparities and poverty. Income disparities have grown considerably within and among villages since the introduction of economic reforms. Officially, 20 percent of the commune's population is classified as poor (see previous section for definition of absolute poverty). According to commune officials, the main reasons for poverty are lack of private investment capital, lack of labour, serious illness, and lack of entrepreneurial spirit or simply laziness. Most families have

⁴² Farming tobacco proved to be extremely damaging to forests because of the large amount of fuelwood needed to dry tobacco leaves.

access to enough land to farm, whether paddy land or hill land, and landlessness is not a problem in the commune. All poor families in any case are eligible for low-interest loans offered by the Hunger Alleviation and Poverty Reduction programme. Many farmers were able to obtain loans, which usually range from 0.5 to 1 million dong to 2.5 million dong.

As will become evident in subsequent chapters this study does not entirely support this interpretation of poverty. By investigating in depth the structural and environmental constraints that restrain farm development, it provides a more comprehensive understanding of the perpetuation of underdevelopment and poverty in the commune.

Infrastructure. The main constraint to agricultural development in the commune is the paucity of reliable irrigation facilities. Most rice plots are rain-fed. Only 40 percent of the paddy fields are supplied with enough irrigation water to support two rice crops annually. The main reasons are the lack of cooperative organization and the low level of local government investment. Construction and maintenance of irrigation canals on village land is a purely private matter, a responsibility of the family. There is no water reservoir in the commune to provide farmers with a reliable supply of irrigation water. Food storage is also a family responsibility, and facilities at village or commune level do not exist. The consequence is that rates of crop spoilage in the commune are high.

Roads, on another hand, are built and repaired by work teams organized by the village's administration. Nevertheless, due to lack of funding and labour resources, the road network is weakly developed. Over half of the villages are only accessible from the highway by a narrow dirt path, often impassable during the rainy season. The situation for electricity distribution is similar, and only six villages in the communes are supplied power with electric lines. In the other villages, only families who live near creeks and own a small generator have electricity.

Distribution problems for chemical inputs also exist in the commune because

of lack of cooperative organization. Families buy fertilizers in Lang Son town for their own use or to resell to other villagers.⁴³ Pest control is also done privately, by households, which buy and spray pesticides on their own initiative. There is no permanent agricultural extension staff in the commune to advise them on pesticide use or instruct them on modern farming technology. Cau Loc district has a total staff of five members who spread their work among the twenty-two communes of the district. It is widely felt in local administration circles that the lack of help from extension workers is an obstacle to local agricultural development.

Education and health. Education services in the commune are limited to three primary schools and one secondary school. Access to education by children in remote villages is made difficult by the fact that schools tend to be located in proximity of the highway. Health services are provided by three local nurses, who are employed by the district government. Doctors are only available in the district town. Family planning is the responsibility of the head of the Women's Association in the commune. The role of this official (who is often a woman but can also be a man) is to educate people on population control and organize access to contraceptives. It must be noted that in these three areas—education, health, and birth control—the service centres are located in villages near the highway, and that remote villages in the commune are least likely to be serviced appropriately.

A detailed description of the individual study villages is presented at the beginning of Chapter six.

43 Urea sells for 2,800 dong a kg in Lang Son town and 3,000 dong a kg in the commune. Phosphate sells for 1,050 dong a kg in Lang Son town and 1,100 dong in the commune.

4.3 Case Study 2: The Thai village of Ban Muang

4.3.1 Setting: the Moc Chau District of Son La province

The province of Son La is divided into ten administrative districts, of which Moc Chau is both the southernmost and closest to Hanoi (see Figure 4.7). It is connected to the capital city by a highway (National Highway 6) first built under the French colonial administration. The highway was destroyed during the American War and then rebuilt with Cuban aid. It is currently being upgraded under the national plan to develop and modernize Vietnam's mountain regions. It is the main trade link for the communities that lie in the region bordering Laos.

The district of Moc Chau is very mountainous. Its range of altitudes varies from 100 meters in the Da river valley to 1,880 meters on the highest peak. Its core is spread mostly over a limestone plateau of average altitude of 800 m. The district is relatively sparsely populated. Its total population of 120,000 is distributed over an area of 2,205 square km. Like its neighbouring districts, but to a lesser extent, it has suffered deforestation in past decades. The forest cover which amounted to more than 40 percent in the 1940s, is now 19 percent of the district area, most of it still in its natural form. The great variation in elevation has generated a wide range of climatic and vegetative realms. Forest types include evergreen humid tropical dense forest in warm low-elevation valleys, deciduous sub-humid tropical forest in dryer parts of the district, and montane forest at higher altitudes (above 1,200 meters).

Apart from Moc Chau town and Moc Chau state farm, the population in the district is entirely rural. The district has 332 villages, which are administered by 24 Communes.⁴⁴ The ethnic composition of the rural population is: Thai (39.5%), Muong (15%), Hmong (10.5), and other smaller groups, such as the Mien. The Kinh (ethnic Vietnamese) are the second largest ethnic group (28.7%) in the district. Most of them came to Moc Chau town in the post-colonial era to work in government

44 The total number of rural households in November 1996 was 10,764.

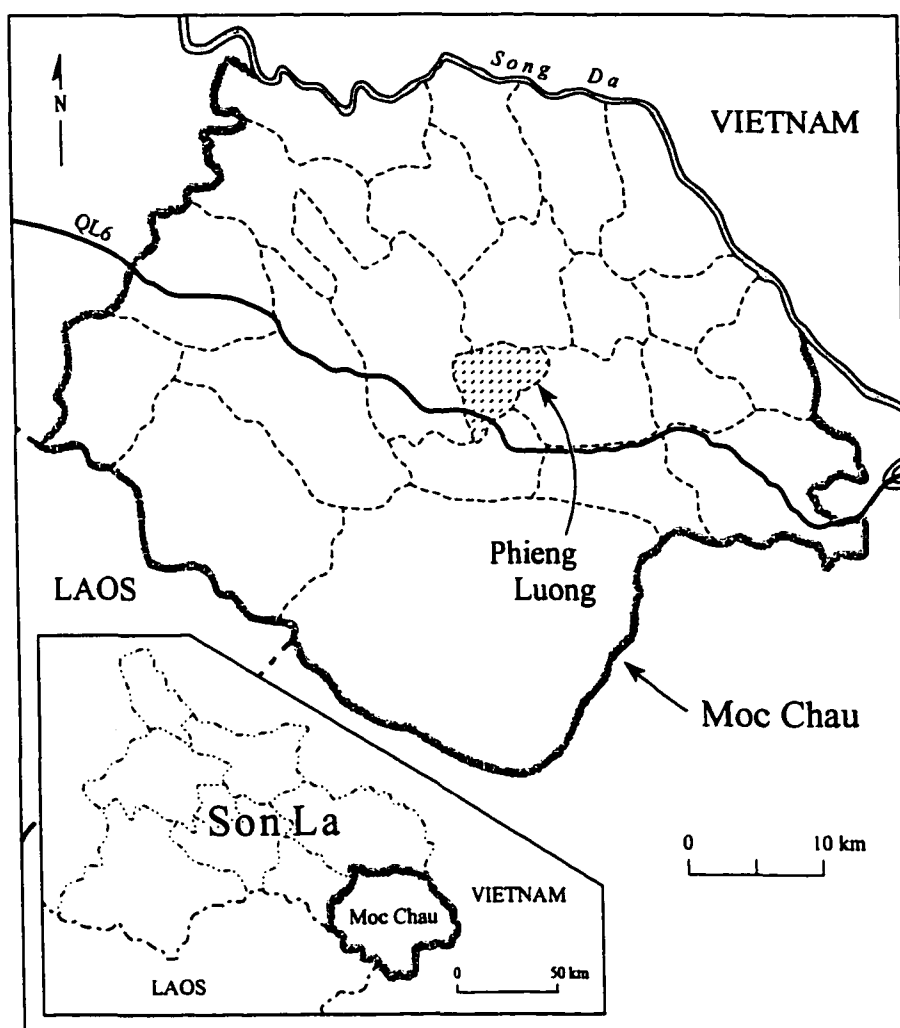


Figure 4.7 Province of Son La, District of Moc Chau and Commune of Phieng Luong

services and trade or in the dairy and tea statefarms built by the socialist government.

4.3.2 Land Use

Son La province has been divided into distinct economic zones for the purpose of land use planning. The commune of Phien Luong is part of the economic zone made up of the area bordering National Highway 6. The provincial government has given the highest priority to the agricultural development of this area and designated it for the maximization of cash crops, in particular, tea, coffee, mulberry, and fruit. Much of the area has been deforested, and, given the high rate of population growth (3.1 percent per annum), slash-and-burn agriculture is actively discouraged by the district authorities.⁴⁵ A ban on this activity was put in place in 1992. According to official sources, it took three years to implement it successfully, but slash-and-burn agriculture has now virtually stopped.

Land use in the area is strictly controlled by government. On the top third of hills and mountains, all land with a slope gradient of over 25 degrees is categorized as land for forestry purposes, on which cultivation of annual crops is officially prohibited. At lower altitudes, due to the growing local need for food production, an agro-forestry model has been put in place in which strips of agricultural land alternate with forested land. In these areas, the government promotes the use of improved varieties of rice and maize.⁴⁶ There has also been an attempt to allocate farming households enough agricultural land (the maximum has been set to 3

45 Son La province has been the site of massive deforestation in past decades. Between 1970 and 1994, the land area under prime forest decreased from 23.6 percent to 9.8 percent (Smith and Tran Thanh Binh 1994: 6).

46 The improved rice varieties promoted in Moc Chau district are hybrid varieties developed in China, with a potential yield of 12,000 to 14,000 kg per hectare in experimental conditions. In practice, yields are between 7,000 and 8,000 kg per hectare. The high-yield maize varieties, such as Bioseed (the result of a joint venture between Vietnam and the USA), or Lai So 7 and Lai So 8 (locally developed) offer potential yields of 15 tons per hectare. In practice, they range from 5 to 6 tons per hectare.

hectares per household) to practice annual crop rotation without having to infringe on the bordering forest land (Smith and Tran Thanh Binh 1994: 7-9).

Agricultural production. The total agricultural area (32,532 ha) has been allocated to annual crops (26,107 ha), perennial crops (3,400 ha), and garden crops (1,687 ha). It also contains grazing pastures (1,189 ha) and ponds and lakes (149 ha). The annual crop area is divided almost equally into cash crops and food crops. Of these the most important are rice, maize, cassava, and potatoes. The main garden crops are vegetables, beans, and peanuts. The district is 80 percent self-sufficient in food production. There are plans to further diversify the agricultural production with commodity trees—tea, mulberry, and fruit. Fruit trees are by far the most common trees planted by farmers in the district.

Land allocation and land tenure. The district started to de-collectivize agriculture and redistribute the land to households in 1989 after the passage of Resolution 10. The implementation of this resolution in the district, however, has been slow. By November 1996, only 22 percent of the total agricultural land area had been distributed to farmers. The rest of the land remained managed by the cooperatives, albeit with much reduced power. In theory, the Land Law (1993) guarantees farmers use rights of 20 years for agricultural land, 50 years for wooded lands, and 20 years for lakes and ponds. Paddy land in Son La province, however, and in Moc Chau district in particular, is scarce, and the province has decided not to grant land use rights certificates to households for paddy land. In Moc Chau district the total area of paddy land is 1,500 ha, that is an average of less than 0.02 ha per rural inhabitant, and less than that in remote areas. The decision not to allocate land use rights reflects the need to adjust land per capita ratios in order to account for population changes caused by natural growth and migration.

Because paddy land is scarce, villages in the district do not have a Second Land Fund, that is an agricultural land reserve in which land is open for bidding to

farmers who require additional land. It is thought that the small amount of paddy land is already too small to provide food security to all farming households.

Reforestation: Decree 327. Son La province has experienced one of the highest deforestation rates in Vietnam since the 1960s.⁴⁷ In an attempt to improve this situation, it has actively promoted the national programme for redeveloping barren lands—Decree 327—to accomplish both reforestation and forest protection. In Moc Chau district, this programme has been implemented in six of the twenty-four communes, including Phien Luong. Of the total budget, 30 percent is specifically allocated for planting trees and the rest for protecting forests. It must be noted here that similar concerns have been about the efficacy of the local implementation of the programme as in Lang Son province (see section 4.2.2).

4.3.3 Physical Infrastructure and Services

Roads. As in most of the province, the road network in Moc Chau district is undeveloped. Twenty of the twenty-four communes can be accessed by a dirt road from the highway, but over 60 percent of the villages do not have a connecting road to the administrative seat of the commune and are thus essentially isolated from the rest of the region. The situation, nevertheless, has been improving since 1992, when economic recovery enabled the provincial development planning authorities to increase their investments in the infrastructure. The goal is that by the year 2000 all the communes in the district will be accessible by four-wheel vehicle, and 300 villages (out of 332) by motorbike. The villages that are likely to remain isolated because of their remoteness and elevation belong all to the Hmong ethnic minority group. It must be noted, however, that all local roads are made of clay and are virtually unusable during the rainy season.

47 The remaining forest cover in Son La is generally estimated to be between 9 and 10 percent. The loss of forest cover has caused considerable soil erosion, loss of biodiversity, droughts and flash floods in the province (Nguyen Trong Chuan 1994/95: 191).

Irrigation and crop storage. No permanent large-scale irrigation work has been put in place by government or development agencies. The provision of water for agriculture has so far been largely the responsibility of People's Committees in communes and villages. Villagers are responsible for the maintenance of dikes and mud canals which are seasonally destroyed by floods during the monsoon rains. Facilities for crop storage are conspicuously lacking. Villagers store their crops in their homes to dry until consumption or marketing. The lack of appropriate facilities for storing and drying crops results in substantial losses through spoiling and pest devastation.⁴⁸

Electricity. Only the two towns in the district and the communes along the highway are served with electricity. Only 10 villages (fewer than 10 percent) have electricity. Provision of electricity to upland villages in the province has been so far given low priority, and the situation is improving very slowly. There are plans to provide electric power in the near future to the villages which are close to the highway.⁴⁹

Agricultural extension. Moc Chau district has a department of agricultural extension which promotes new technology, seeds, and fertilizers to farmers. Its effectiveness, however, is limited by a lack of funding.⁵⁰ There is also a severe shortage of staff. Only 10 extension workers have been assigned to work in the 24 communes, and their access to villages is made difficult by the lack of roads.

48 It is estimated that 13 percent of Vietnam's rice production is lost due to the lack of adequate facilities and technology for storing and drying crops. This is approximately the same amount of rice that is exported annually. Subsidiary food crops (maize, cassava, and potato) are comparatively even higher (Vietnam News 1996e).

49 Electric power is expensive: one kilowatt hour costs between 450 and 600 dong (i.e., on average, approximately 5 cents (US)). Given the low incomes in the region, individual consumption is likely to remain low.

50 The total annual budget for Agricultural Extension in the district is 1 billion Dong (US\$ 10,000).

Chemical inputs. Fertilizers and pesticides in Vietnam are provided to farming communities by the state through district distribution outlets. Most of these chemicals are imported from other Asian countries as Vietnam's production is far too small to satisfy the needs of the farming population.⁵¹ The scarcity of inputs to farmers is also partially due to poor distribution networks and a lack of roads. Consumption of chemical inputs per capita in Moc Chau is small compared to the agricultural areas in the lowlands, and many villages in the district do not use any.⁵²

It is worth noting that pest control, like fertilizing, is an individual responsibility. Farmers use relatively small amounts of pesticides due to high costs and lack of supplies. The district has recently started to implement Integrated Pest Management in the region. So far, six communes have been included in the programme, and the results have been encouraging.

Education and health. Every commune has at least one primary school (grade 1 to 7). Secondary schools only exist in district towns (grade 8 and grade 9). Access to these schools is generally made difficult by the prevalent lack of local roads. This affects especially families who live in remote communities, where rates of early school drop-out tend to be high. Every commune has also a health station which provides drugs and basic medical services to villagers. In addition, a hospital exists in Moc Chau town. Medical staff, however, is generally scarce (the district average is 7 doctors and nurses per 10,000 persons), and health delivery can be said to be poor.

Cooperatives. The cooperatives of the collective era have entirely disappeared. However, a new form of cooperative (*hop tac xa*) has been reinstated, which

51 Vietnam consumes 2.5 million tons of fertilizer annually. It produces 400,000 tonnes.

52 According to Moc Chau district's leader, private farmers in the district consume annually 100 tonnes of urea (9.2 kg per household) and 160 tonnes of phosphate (15 kg per household).

provides purely agricultural functions.⁵³ These include land use planning, implementation of agricultural policy, maintenance of local roads and irrigation canals, and distribution of new seeds and fertilizers. The cooperative also organizes instructional sessions for the agricultural extension staff to demonstrate the use of new technology in the village. The link between cooperative and agricultural extension is generally strong.

The agricultural cooperative is generally considered to be essential for the village development, and all farmers are members.⁵⁴ They elect a cooperative management board, which is made up of a leader (*chu nhien*), a vice-leader (*pho chu nhien*), an accountant (*ke toan*), and a secretary (*bi thu*). The salaries of these officials are drawn from a cooperative fund, for which all households give the cash equivalent of three percent of their grain production.

The province plans to develop the cooperative further and increase its range of functions. These include supplying fertilizer and pesticides to farmers as well as assisting impoverished families by providing food, labour, and credit. It is worth noting, however, that the cooperative does not provide marketing services, and farmers sell their crops privately. Indeed, as in much of southeast Asia, commercialization of agriculture in Vietnam has led to the emergence of the "middleman," an outsider who comes to the village to buy crops.

Credit provision. Similar lending facilities exist as in the province of Son La (see section 4.2.3).

4.3.4 People Migration and Relocation

Little migration occurs among the Thai and other permanently settled farming groups. These groups live from sedentary farming and opportunities for

53 Approximately a third of the villages in Moc Chau district now own an agricultural cooperative.

54 Villagers automatically become cooperative members when they turn 18 years of age.

seasonal employment in urban areas are almost nonexistent. Migration is mostly limited to Hmong farmers who still practise a pioneering form of slash-and-burn agriculture at high elevations.⁵⁵

Many families, however, had to be relocated as the result of the construction of Hoa Binh dam on the Da river. This project started in the 1970s and expanded in several phases during the 1980s, forcing farmers off their productive lands at various times.⁵⁶ Moc Chau has seven communes bordering the Da river from which over 2,000 families had to be relocated to upland areas. Another 200 families from neighbouring districts were relocated to Moc Chau. Most families affected were members of the Thai and Hmong ethnic minorities. They were relocated to higher elevated villages of the same ethnic identity, where they were provided with residential land, hill plots, and wooded land. In some communes, they also received a small amount of paddy land.⁵⁷ Families were also given a one-time compensation payment.⁵⁸ Vietnam's central government and the provincial government also provided the funds to build up the local infrastructure—distribution outlets of seeds and fertilizers, schools, and health stations—to accommodate the newcomers.

There are plans to build a new dam on the upper Da River in the near future, which will cause extensive relocation of farming families in Son La province. However, because that area is far from Moc Chau, the social impact of the

55 It is estimated that in the uppermost areas of the district, 450,000 people—mostly Hmong—migrate seasonally in search of fertile lands.

56 It is estimated that the construction of the Hoa Binh dam displaced 60,000 people in the region (Tyler 1994/95: 65).

57 The decision to allocate paddy land from native inhabitants to newcomers in Moc Chau was made at commune level—by the Commune's People's Committees.

58 A compensation payment was usually between 200 and 300 US\$, enough for a family to buy food for one year and cover the initial investments in farming. The success of these investments would of course depend largely on the suitability of the lands received by farmers in their villages of adoption.

construction of the new dam on the district population is likely to be minimal.

4.3.5 Inequity and Poverty

With commercialization of agriculture, socio-economic disparities among families and communities are increasing steadily. The biggest income gap occurs between Moc Chau town and villages in the district. For social and economic planning, the province of Son La defines absolute poverty as the monthly income per capita of 50,000 dong (approximately US\$ 4.5).⁵⁹ Middle incomes range from 60,000 dong (US\$ 5.5) to 100,000 dong (US\$ 9) per month per capita. Beyond this income range, households are considered to be wealthy. Under this classification scheme, the number of poor households in the district in 1996 was 3,047, that is 35 percent of the total. The number of poor villages (that is, villages with a majority of poor households) was 76, that is 23 percent of the total. Compared to previous years, these numbers indicate a significant progress in poverty reduction; nevertheless, it is clear that poverty remains entrenched in the district.

According to government officials, the main factors behind rural poverty are lack of private capital for investing in agriculture, lack of technical knowledge for employing modern farming methods, and a weak personal ability to farm efficiently. As this study reveals, however, the causes of poverty in the region are more numerous and their relationships are more complex than this explanation would suggest.

4.3.6 State Farms and Rural Industry

Nine small-size to medium-size industrial enterprises operate in Moc Chau town, including a cement factory, a wood processing facility, and a silk reeling factory. The two largest are by far the state farms, the Moc Chau Dairy Company and the Moc Chau Tea Company. These state farms were founded on land appropriated

⁵⁹ This is the equivalent of 20 kg of rice per month per capita (the price of rice in 1996 was 2,500 dong per kg).

by the state at the height of the collective era. These farms have so far exclusively employed Vietnamese-ethnic workers from the lowlands who were sponsored by the state to move to Moc Chau.

Moc Chau Tea State Company. This company started as a state farm run by the military in 1958.⁶⁰ It expanded in successive stages to now cover an area of over 500 hectares. It produces over 3,000 tons of green tea annually and employs 1,300 people involved in all stages of production, from picking to processing. All workers are Vietnamese people who live in Moc Chau. The company does not employ members of the ethnic minorities in the area because they are considered to live too far from the state farm and to have no experience working in tea plantations.⁶¹ As the result of *doi moi*, the farm has reorganized production methods. The tea plantations are now leased to the workers who, by contract, sell their production to the company. The goal of the company reflects the pro-market development ideology which now prevails in Vietnam. Officials interviewed in this study pointed out that the company now seeks to maximize profit rather than provide employment. The company has plans to further expand tea plantations by 100 hectares on land already owned by the company without hiring additional workers.

The company also plans to open the tea processing facilities to outside farmers. So far relatively few households in ethnic minority villages grow tea. These villagers process their tea production themselves and sell it in local markets. The district's agricultural extension service has attempted to promote production of tea in villages. As a result, one Thai village now produces 20 tons of green-leaved tea annually, which the company purchases in order to process. The project was started ten years ago with the goal to replace dry-rice cultivation in the village. A

60 Since the economic reforms, the state farm has become a state company. The new name reflects a reorganization of internal production and accounting.

61 The information presented in this section is the result of interviewing the vice-president of the Moc Chau Tea State Company.

similar project was implemented in a Hmong commune in 1989. However, the model has not spread yet to other villages because of lack of investment capital.

Like state farms, other local industrial enterprises provide limited employment opportunities to the native population of the district. On the whole, their impact on local employment is minimal, and few villagers have moved to towns in search of employment.

4.3.7 The Thai

The Thai, a distinct group of the greater Thai-Lao-Shan cultural family, which spreads over the north of mainland Southeast Asia, from Burma through Thailand and Laos, into Vietnam and China, have been settled in North Vietnam for at least a millennium. They are divided among two main sub-groups—the White Tai and the Black Thai—recognizable from the colour of the Thai women's traditional garb.

The Thai are wet-rice agriculturists. They have over the centuries developed small-scale but complex irrigation systems which have enabled them to grow two crops of rice a year in low-elevation river valleys. They also cultivate corn, sweet potatoes, cassava, and a large variety of legumes, vegetables, and fruit. The Thai live in permanent villages, known in their language as *ban*. Several *ban* form a *muong*, which in traditional times came under the authority of a feudal lord. The traditional village had on average between 40 and 50 houses. In recent years, villages have become considerably larger, often exceeding 100 houses as the result of population growth and in-migration. The traditional Thai house is made of wood and built on stilts. It is the home of a nuclear or extended family.

The Thai system of property inheritance is based on both the male and female lines of ancestry. Both sons and daughters are, in principle, entitled to a share of the family land holding after marriage. The matter is decided by the parents of both spouses' families and it is normally connected to the residence pattern adopted by the children after marriage. The factors taken into consideration are the number of children in each family, their gender, and the size of family land holdings. The

objective is to distribute land and labour (according to number of workers and their gender) equitably among the new families. Traditionally, the Thai also tend to be patrilocal, and a young family often settles down in the house inherited by the man from his parents.⁶² At the same time, a married son performs a *bride service* for a period of time agreed upon at marriage, that is to say the son leaves the parental home to live with his wife's family for a period of up to three years, after which he returns with his wife and children to his parental home.⁶³ When a family has several sons, it is customary for one of the sons to remain with his wife and children in the parental home and for the other married sons and daughters to move out to a new home and farm their portion of land.⁶⁴

The custom of land inheritance has been strongly affected by political events in Vietnam. During the collective era, all agricultural land was taken over by cooperatives and local customs were disregarded. In the early 1990s, this land was redistributed to households as the result of land reform. According to the Land Law passed in 1993, households have exclusive rights to agricultural land for 20 years and to woodland for 50 years. The province of Son La has been reluctant to confirm these rights for paddy land, and considerable insecurity remains regarding land tenure in the province. Nevertheless, the Thai have started again to practice their traditional customs of land inheritance.

In terms of religion, the Thai practice animism and ancestor worship. They

62 The Thai, traditionally, are also patriarchal. Once married and settled with his new family, the man becomes the head of the household. Gender relationships in the Thai family, however, are known to be generally harmonious, and ruled by a spirit of mutual assistance which extends to village society as a whole (Dang Nghiem Van et al. 1993).

63 In modern times, there has been a tendency to reduce this period to less than a year. This may be the result of increased demand for labour in the farming household under commercialized agriculture.

64 Besides fulfilling a bride service, a Thai groom must also compensate his bride's family for removing her permanently from her family home by paying a *bride price*. This means that the man's family incurs most of the costs of the wedding ceremony and banquets (which are given once in each family). These costs can be quite high, usually of the order of a family income for one year. The bride's family will in return offer presents (blankets, pillows, mosquito nets, etc.) to the newly wed.

have not, for the most part, been converted to either Buddhism or Christianity. Their artistic tradition is rich and unique. This is reflected in their folkloric songs, dances, and plays. They possessed a script based on Sanskrit in which legends, customary laws, and moral codes were recorded.⁶⁵ In recent times, however, written Thai has been entirely replaced by Vietnamese. All laws, regulations, and transactions are recorded in Vietnamese. The language of instruction in schools is exclusively Vietnamese. Nevertheless, Thai culture is very much alive. The Thai continue to show an extraordinary capacity to adjust to the changing political situation in Vietnam.

4.3.8 **Ban Muang: Village Description**

Ban Muang is a Thai village in the commune of Phien Luong, which straddles the highway at the centre of the district (see Figure 4.7 and Figure 4.8). The commune contains nine villages, of which three are Thai, five are Dzao (the Vietnamese name for Mien), and one is Muong. Ban Muang is located on a plateau of altitude 1,050 meters, 2 km away from the highway. It has a population of 460 (92 households). Until the late 1960s, the village population was fairly stable, with most inhabitants claiming membership to four lineages (Ha, Vi, Dinh, and Lo). Since the 1970s, however, the village population has grown considerably.⁶⁶ This is due to natural growth, to the relocation of families from Thai villages in the Da River valley (12 families), and to the return of soldiers from wars. The population has also become more ethnically diverse. Ten families are now headed by a Thai man who has married a Muong woman.⁶⁷ Four families belong to Vietnamese teachers employed in the commune. The economy of the village is entirely agricultural.

65 For more information on the Thai, see Dang Nghiem Van et al. (1993).

66 Ban Muang had only 17 households in 1970.

67 The Muong form a large ethnic group which is culturally related to the Kinh. They live mostly in the uplands of Hoa Binh province (Dang Nghiem Van et al. 1993:17-22).

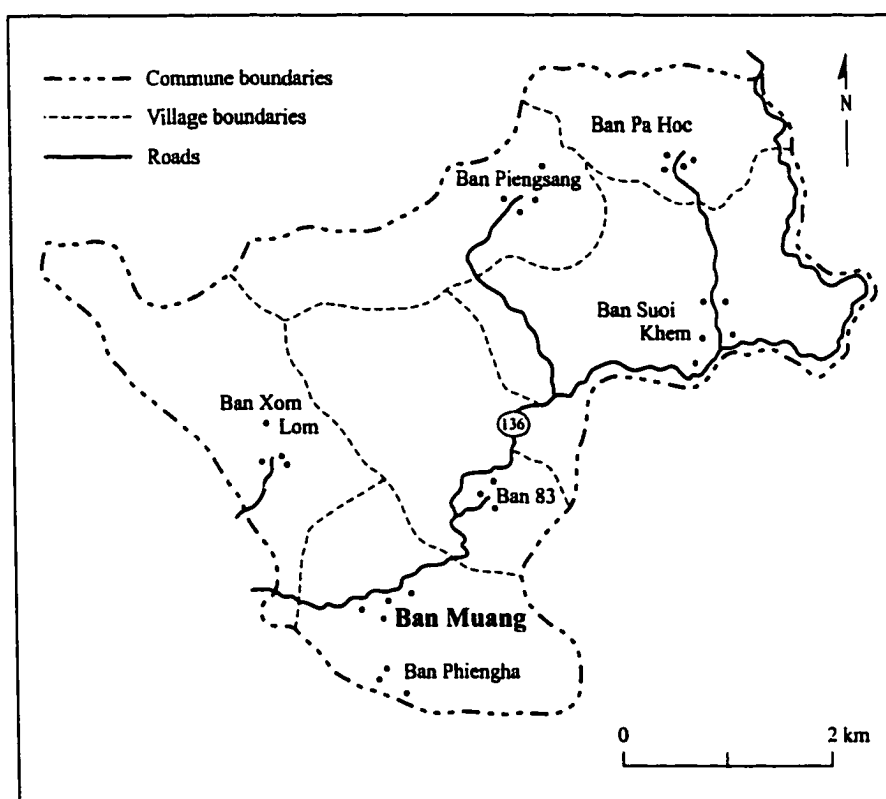


Figure 4.8 Commune of Phieng Luong

Farmers grow a mix of subsistence and cash crops and practice animal husbandry.

Land use. In paddy fields, farmers plant rice, the main subsistence crop. On hill plots they grow cash crops, of which the most important are edible canna, fruit (especially plum), and maize (which is also a food crop for pigs). The village is deficient in rice production. This is because the total paddy land area is relatively small, 14.3 hectare or 310 square meters per capita, and, given the cool temperatures in the winter, villagers grow only one rice crop a year. Farming production methods are also, to a large extent, still traditional. Although farmers now plant a substantial amount of high-yield varieties of rice and use chemical fertilizers, they have by no means abandoned the use of traditional varieties and manure. Mechanization has not made its way to the village. Ploughing is done with buffaloes, which supply manure to fertilize crops. Threshing—even husking—is often still done by hand. Family paddy fields are fragmented in many plots, probably too small for optimal production.

The unit of production is the family farm. Except for pest control, waged labour is uncommon. Reciprocal labour among neighbours and relatives for ploughing, weeding, harvesting, and other farming operations remains the favourite form of labour exchange.

Land tenure. Paddy land was distributed to farmers in 1989. Every household in the village received an area of paddy land proportional to its size (400 square meters per person) which they could farm for a period of 20 years. There is also a reserve of paddy land (“second land fund”) of 0.5 hectare from which small parcels are given out for short periods of time to newcomers in the village.⁶⁸ In contrast, hill land has not been equally distributed among farmers. Families have automatically gained use rights for a period of 20 years to the hill plots which they reclaimed

⁶⁸ Village authorities also plan to make this land available to farmers for periods of one or two years through a process of bidding.

during the collective era. In addition, they have received 2,000 square meters of wooded land for a period of 50 years. Decree 327, the programme for regreening baren land, is in effect in the village. It requires farmers to protect the trees on their woodlots during the duration of the programme.

It is interesting to note that, although families have received official use-right certificates for residential land (*dat o*), hill plots (*nuong*), and protected woodlots (*vuon ruong*), they have not received use-right certificates for paddy fields.⁶⁹ The situation is similar in the other communes of the district. It exemplifies the reluctance of district authorities to entirely give up control of agricultural land in their areas of purview.

Infrastructure. Characteristically of the region, the village infrastructure is weakly developed. The village streets, full of rocks and holes, are narrow, winding, and uneven. To enter the village one must cross a bridge over a stream too small and weak to carry anything else than a few people at a time. No motorized vehicles, not even motorbikes, can enter the village from the dirt road which connects the village to the highway. The village has few facilities other than a kindergarten and a small health station with a nurse.

And yet, the village enjoys locational and organizational advantages over other, more remote villages in the district. It is close to the highway, where merchants and buyers of agricultural produce come regularly and business opportunities abound. Directly facing the village, on the other side of the dirt road, is the centre of Phieng Luong commune, with an administrative office, a primary school and a medical station. The village has also an agricultural cooperative, which makes important decisions on land use and organizes work teams to maintain local roads and irrigation canals.

69 Each household has received a red book which contains official information about their landholdings; specifically, the size of their agricultural plots and the lease period (except for paddy land).

Environmental constraints. Until 1970, the region surrounding Ban Muang was thickly forested. Villagers report that tall hardwood trees abounded within a short distance of the village, and that sightings of wild animals, such as wild pigs and deer were common. Subsequently, however, the sharp population increase combined with socialist policies of giving the land to people for collective use resulted in rapid deforestation of the area. Shifting cultivation became widely practiced by local farmers. By the time it was officially banned in 1989, only few sparsely distributed pockets of original forest remained.

Deforestation has had a strongly negative impact on local agriculture. The hills around Ban Muang are affected by soil erosion caused by the heavy monsoon rains. Because hills tend to be steep, rains also tend to wash away the fertilizers, especially manure, applied by farmers. As the result of rain action and overuse by farmers, hill soils have become severely depleted of nutrients, and hill plot agriculture is now relatively unproductive. As a result, the department of agricultural extension is encouraging villagers to plant perennial crops, especially fruit trees and tea. The village cooperative is also actively policing the private woodlots protected under Decree 327.

Like hill plots, paddy fields are subject to erosion and loss of fertility. Fed by a local creek and mud canals, the plots lose soil through the constant action of water on mud banks. On another hand, many households have also plots which are too dry to be farmed effectively. Without enough water, the use of chemical inputs has had a damaging effect on the soil quality, and some villagers have noted a decrease in paddy soil fertility in recent years.

4.4 Field Methods

The field methods employed in this study have been developed according to the principles exposed in Chapter 2. They are based on acquiring insider knowledge through in-depth interviewing and participant observation. This reflexive approach recognizes that researchers—through their theoretical pre-suppositions

and presence in the field—influence the research process from its conception to the writing stage. Concerns for the ethical implications of the study permeate the whole research process.

4.4.1 Initial Phase

One important aspect of this research project—both for its motivation and the field methods adopted—is its connection to the research work that I had previously conducted in China. Indeed, my decision to study agrarian change in Vietnam's Northern uplands had been motivated by the research in Southern China which I had undertaken in the context of a Master's degree. Funded by the Canadian International Development Agency (CIDA), I had been four times to Yunnan to study the development of ethnic-minority communities. I had then realized how ethnic minorities were spread across political borders of the region to fill in ecological niches that had ensured their survival over centuries. I had also accumulated considerable experience in fieldwork which I knew would come in handy for further studies.

I took the opportunity in those years of already being in the region to explore the upland regions of Vietnam: a first time in 1993, when I toured the Central Highlands, and a second time, in 1994, when I spent six weeks visiting the Northern uplands. These were very fruitful trips as they enabled me to visit villages of various ethnic affiliations and make initial observations on the development challenges faced by Vietnam's upland communities. I also took advantage of these trips to visit local research institutions and establish linkages which were later to play a major role in the execution of this research survey. My main institutional affiliation became the National Institute for Agricultural Planning and Projection (NIAPP) in Hanoi, where the vice-director, Dr Vu Nang Dung, took interest in my proposed research, which he agreed to sponsor. With his help, I obtained a research visa, local permits to research sites, access to officials in central government, and access to local libraries and other local sources of information. He and his colleagues

would also later prove to be instrumental in solving the logistics of doing fieldwork such as finding appropriate field interpreters and organizing transport to research areas.

Assisted by NIAPP, I visited several areas that could be candidates for the study. One was to become the primary research site: the district of Cao Loc in Lang Son province where commercial agriculture was firmly established as the result of reform. The district is mainly inhabited by the Nung and the Tay peoples, who are culturally related to other peoples of Northern Thai descent, with whom I had become well acquainted during previous visits in China, Laos, and Myanmar. The secondary site, Moc Chau district would be chosen later on similar grounds.

In August 1996, funded by a grant of the International Development Research Centre (IDRC), I flew then to Hanoi to undertake fieldwork in the Northern uplands. Autumn and winter are the ideal seasons to work in the field in northern Vietnam. September and October mark the start of the dry season, when villages are become easily accessible, and typically the pre-harvest months. Rice is maturing fast and the fields at that time require little work other than the occasional water control. Other major crops—sugar in the paddies, maize and fruit in the hills require maintenance, but on the whole, farm activities are relatively low. Interviewing in those months would cause minimal intrusion into farmers' lives. More care not to intrude would have to be given later, at harvest and post-harvest times. Harvests, which, depending on the plots and villages, can occur any time from mid-October to late November are intensive labour operations. They are, however, of relatively short duration, lasting for most families, no more than a week. The post-harvest operations—such as husking, drying, and grinding—being confined around the farm would make farmers easily available for interviewing.

The first days of my stay in Hanoi were spent solving a range of organizational problems, which, without the help of NIAPP, could have lasted months. One was to obtain permits to the research sites. The fact that these turned out to be considerably easier to obtain from Lang Son's provincial authorities than

from Son La's illustrated already the "localism" permeating Vietnam's political hierarchy. Another was to find suitable field interpreters suitable. They had to be fluent in either English or French, the two languages in which we would communicate. The knowledge of the minority language was not a criterion as the vast majority of Nung and Thai in the research areas speak good Vietnamese. They also had to show some interest in working in the uplands, for many ethnic Vietnamese disregard life in mountainous regions as uncomfortable, uncivilized, and unsuitable for lowlanders. Last, but not least, a challenge was to organize efficient transportation from Hanoi to the research sites, and within the sites. Using Vietnam's antiquated and slow public transport system was ruled out for lack of time. NIAPP offered a jeep with chauffeur, which, if relatively costly, would speed up transportation considerably. I was quite surprised that no later than a week after my arrival in Hanoi, I was already in Lang Son town, speaking to officials of all ranks and organizing visits to ethnic-minority villages.

4.4.2 Interviews

Once in the villages, after taking initial contacts with officials and other prominent local figures, I soon proceeded to collecting data. The objective of the field work has been to acquire insider knowledge through in-depth interviewing and participant observation.⁷⁰ For interviewing, I have used a semi-structured questionnaire addressed to farming households and designed to obtain a mix of qualitative and quantitative data (see Appendix A).⁷¹ The first part of the questionnaire is composed in a way to obtain information on household

70 I tried to participate in village life as much as I could without interfering with agricultural production and other important economic and social activities. Thus, I accompanied farmers to the fields and woods, conversing with them, observing their work, and helping them carry tools or even pick fruit when it was appropriate to do so. I also took part in social gatherings—banquets, weddings, dances. At several occasions, I was also invited to take part in official meetings.

71 The data collected from these interviews are presented and interpreted in Chapter 5 and Chapter 6. The numerical data are summarized in statistical form and presented in tables in those chapters.

composition, family sizes, ages, and occupations. This is followed by a tightly structured set of questions, expressed in clearly understandable terms to obtain information directly relevant to the themes researched—size of land holding, crops planted, non-farm activities, investment plans, incomes, and so on. The questionnaire contains then a set of open-ended questions for the discussion of unforeseen topics of interest. The objective of these questions is to lead to problem definition by the respondents themselves. A similar questionnaire has been designed to obtain information from village leaders and local officials. The goal of these interviews has been to collect information on the entire communities—population, natural endowment, cultural practices, economic diversification, development constraints, tax systems, and so on (see Appendix B).

The design of the questionnaires reflects the concepts and concerns built up by reviewing literature on agrarian change in Vietnam and other Asian countries. They were initially constructed to test the hypotheses that could be formed from this review and refined with the help of local researchers. They were then subsequently revised after gathering information during the first acquaintances with the villages of study. This avoided one potential weakness of questionnaire survey research that generally “assumes that enough is known in advance to identify the relevant parts of a system and to prepare questions” (Beebe 1995: 44). I had accumulated experience in interviewing from previous research in China, and I knew that it was best not to be overly committed to specific theoretical constructs and show flexibility in both theory and practice. For example, after first gaining a good understanding of the nature of the non-farm economy, questions could be more effectively focused on the extent of individual participation. More dramatically, once I realized that agricultural cooperatives had never played a substantial role in village development in the Nung commune of Thuy Hung, I dropped the subject entirely.

The initial interviews—and observations—thus played a central role in forming concepts and shaping questions. They also enabled the researchers to become familiar with the use of local terms—terms of respect and endearment;

names of festivities and cultural events, names of local rice varieties, and so on. The language used during the interviews was Vietnamese. The information provided by respondents was translated in English in situ and recorded in the questionnaire forms. Only a few respondents were not entirely fluent in Vietnamese and these had to be interviewed in their native language. The respondents in household interviews were normally the household heads. Sometimes, a spouse or other household member would also take part in the conversation, often providing information on a new theme and broadening the scope of the ensuing conversations considerably. Before each interview, we clearly explained the purpose of the research. At all times, respondents were free to express opinions and to comment on their issues of concern. Most interviews lasted about two hours. Much information provided by respondents could be checked informally by viewing fields, storage facilities, items purchased, and so forth. Much information was also gathered from informal conversations in the fields, on the roads, and at social gatherings in people's homes and communal halls.

4.4.3 Household Selection

The households to be interviewed were chosen by the village leader. I had laid out the criteria for choice carefully—income, economic activity, composition. Since the purpose of the study was to shed light on the processes of agrarian change, I wanted to cover the range of conditions existing in the village and include poor and wealthy, men and women, young and old, ordinary farmers as well as members of People's Committees, and native farmers as well as those who had recently arrived to the community. I also gave special care to represent the range of occupations in the villages of the commune, from family farm enterprises the non-farm, formal and informal activities. In the commune of Thuy Hung, a total of 57 households were interviewed: 10 in Fai Mon, 16 in Na Ho, 19 in Po Mach, and 12 in Na Pan. In Ban Muang, 20 households were interviewed. In each circumstance, we were introduced to various members to establish a good rapport with the

participants.

In general, the villagers showed much openness and willingness to participate in the sessions. No-one refused to participate. The times chosen for interviewing was such that it did not interfere with farm work or other important activities. This was made relatively easy by the fact that harvest times tended to vary according to the communities visited by up to several weeks. It is also worth noting that collecting information that, in many societies, is often considered to be private and sensitive—such as on incomes and taxes—is relatively easy in the Vietnamese village. Reforms towards a market economy are in a relatively early stage, in which there is no income tax—only land taxes—and other fees tend to be the same among families and known to the community. At this time, communal life in the village is still important, and much information belongs to the public domain.

The role of the village leader and local officials during fieldwork should also not be neglected. They were very cooperative and helpful in organizing household interviews and providing information that could clarify the data provided by individual farmers—land management practices in village, customary law on land tenure, frequency and lengths of weddings and festivities in the village, and so forth.

4.4.4 Data Analysis and Validation

Data analysis is a complex, cumulative process that already starts at the interview level. Many answers provided by respondents require to be clarified during the interviews in a process of concept formation that unavoidably leads to further questions (Hainsworth 1999: 8). For example, the most common constraint to farm development identified by farmers has been the “lack of capital.” This generic answer has little explanatory power on its own. For an already relatively wealthy farmer, it may mean a need to develop the local infrastructure—roads, irrigation, storage facilities—to further increase the volume of cash crops and to

improve access to market. In this case, it may be useful to investigate the causes of the current state of the local infrastructure. Is it the result of a general lack of government investment in the region, a misappropriation of local development funds, or a voluntary neglect of the site that is slated for another grand project than agriculture? This was the case of some villages near Lang Son, where the future construction of a national highway in paddy areas precluded investing in the irrigation infrastructure. For a poor farmer, on the other hand, a "lack of capital" may signify his or her inability to obtain the necessary bank loan to develop basic crops. A more satisfactory explanation would include the reasons why the farmer cannot receive the loan or why he or she does not want to apply for one. A simple answer can thus lead to much more complicated questions.

There is also a need to validate data collected, for example, through "triangulation" techniques (see section 2.2.4). These consist in comparing data obtained from different respondents, those given by respondents with official data, and interview data with observations. It is then necessary to interpret discrepancies, and these in most instances lead to further investigation and discussion. In this survey, the sensitive data—incomes, profits, savings, gender issues—were crosschecked during interviews themselves. This was done through direct and indirect questioning as well as observations (crops stored, items purchased, fuelwood availability, and so on). Searching for evidence that did not match the claims of respondents was an important part of validation. For example, the claim by a respondent to be "poor" could not always be taken at face value. He or she may have been hoping for a financial reward from the researchers or special assistance from the community.

The presence of the researcher is likely to generate a systematic bias (Harriss 1993: 143). Incomes, for example, may be systematically under-reported in the hope of generating sympathy and tax relief from the village council (which presumably would be informed of the results of the survey). We sought to eliminate the possibility of such bias by explaining clearly the purpose of the research at the onset

of the interviewing sessions. Validating data thus requires a great deal of reflexivity on the part of the researchers. The aim of triangulation is less to determine whether the data collected are valid than to derive the proper inferences from these data (Lever 1981). The general claim by villagers in the commune of Thuy Hung that government had never helped farmers much in the region, may, of course, have meant that they would like it to do more.

The fieldwork level of data analysis is thus all important in influencing the subsequent stages of analysis, including writing. There is a need for an analytical framework derived from multiple theories (Eyles 1988: 13). It is important to realize that different theoretical perspectives may produce different orders of data, which, in turn, may produce very different conclusions at higher levels of analysis. All would eventually depend on the original interpretations of the data collected at field level.

4.4.5 Ethical Considerations

One principle that ought to permeate research is ethics. Fieldwork not only represents an intrusion in people's lives, its results may have considerable implications for the people studied. This leads to a set of ethical considerations that guide the researcher throughout the study (see section 2.2.6).

Ethical behaviour starts before fieldwork, by establishing a good rapport with host institutions and local government. In both regions studied here we contacted various levels of government—province, district, commune—as much to explain the purpose of the research as to obtain permits. Before starting a new village survey we spent much time with the village leader to discuss the benefits and costs of the survey. One essential condition for selecting a farmer for interview was to obtain his or her informed consent, at least verbally⁷². The broader principle guiding the interviews was to develop collaborative research by treating the subjects

⁷² Informed consent may be defined as the "knowing consent of an individual ... able to exercise power free of choice" (Code of Federal Regulations of US Government, 1990, quoted in Fluehr-Lobban 1994: 5).

of enquiry more as participants than as respondents. "The value of open, collaborative research is that informed consent becomes a natural part of the research project" (Fluehr-Lobban 1994: 8). From the start, it is imperative to reduce the power asymmetry that is inherent to relations between researchers and villagers (Razavi 1993).

The goal is thus to share the experience of field research between fieldworkers and villagers—by exchanging opinions and by participating in joined activities. My field assistant and myself engaged in long conversations with farmers, local officials, agricultural extension officers, school teachers, nurses, and others. We took part in meetings, lunches, dinners, and banquets (which I organized in various occasions to thank the community for participating in the research). The feeling was that we all had something to learn from the research process. The contribution of my field assistants to the dynamics of learning is not to be neglected. By formation, they were agricultural researchers themselves, and I learned from them a great deal about Vietnam's agriculture and Vietnamese society in general. In return, they were exposed to new concepts and foreign views on rural development.

Ethics do not end with fieldwork. As Wilson (1993) points out, disengaging from fieldwork leaves the researcher facing the complex ethical dilemma of producing ideas and publishing accounts likely to captivate audiences while thinking critically about the benefits or costs that may have accrued to the subjects of enquiry (195). When writing the results of the study, it is imperative to present the views of local participants as objectively as possible and make their voices known to the reader. It is also often necessary to respect anonymity and disregard information that could be damaging. My intention has been to continue to interact with the host institution after concluding the field study. Ethics in writing imply sharing results with host institutions, communities researched, and government levels involved. Writing the results of a study is the last but perhaps also the most important aspect of research reciprocity. "The real benefit or harm of most fieldwork comes not from our presence in the community, but from what we communicate afterwards, to

whom, and under what circumstances" (Wax 1995: 330).

More directly, I ended the fieldwork with the hope to convince the host institution that we had done "good work" and to make them receptive to the prospects of further research (by myself or others). As far they were concerned, there were also direct financial benefits from assisting me in the fieldwork. With the earnings made by providing field interpreters and vehicles, they were able to buy a desk computer, a much needed item for development research in an impoverished country like Vietnam.

4.4.6 Challenges and constraints

The field study in the uplands of Northern Vietnam has been a most stimulating experience. As always in past research I found exhilarating to be absorbed in cultures almost entirely different from the one in which I normally live. I learned a great deal about new cultures and, once again, I discovered new aspects of village life in Asia. They were many joys of being in the field—discovering new natural and social settings, interacting with many interesting people, meeting new friends, and conducting interviews in homes permeated with the smell of anise.

The introductory rituals that were obligatory before interviewing a new farmer—greeting each of his or her family members, accepting an introductory tea, answering questions about my professional and private life— enabled me to become acquainted with family life and local cultural norms. I tried to participate as much as I could in village life without compromising the time that I had available for interviewing. I took meals with local families; I accompanied farmers in the mornings to the fields; and I spent evenings in their homes. My goal was to break down social barriers and to reduce the extent to which I was perceived as an outsider. I was able this way to pick up vernacular speech and gain access to information that is outside the scope of questionnaires—household work distribution; rapport between genders and generations; relationships to relatives, neighbours, and officials.

There were, of course, hardships to doing fieldwork. Interviews were generally done in relatively primitive and cramped conditions. Nung houses, especially, tend to be small, and families can be quite large. In poor families, the lack of furniture made the interviewing sessions somewhat uncomfortable. In others, the rituals of food sharing, drinking rice wine, and listening to speeches given by visitors took a heavy toll on my time. The lack of privacy at times also made writing down results and reflecting about the data acquired difficult. For this reason, although I spent some nights in local houses, I chose to stay most of the nights in a guesthouse in a nearby town. The interviewing sessions were long, and they lasted from early in the morning until late at night. The lack of local roads made transportation from village to village difficult. Some villages were only accessible by narrow dirt paths that often became impracticable during heavy rains. In one village, I had to interrupt interviews several days early because a typhoon had made it inaccessible.

Fieldwork also presented me with significant challenges. At first, communication with my interpreter was made difficult by the fact that he was offering his views during the interviews themselves.⁷³ It took some training and some direct questioning ("what did the respondent actually say?") to make his presence sufficiently transparent for an interview to go on. It did not take long, however, until the interpreter became really immersed in the spirit of the research and interviews could proceed fruitfully. In general, the use of an interpreter provided a definite advantage for time management. His role in questioning respondents gave me the time to record information collected in the questionnaire and think of other questions to ask. It also gave me time to check validity of the information provided with other known facts or observations in the house (items

73 My main field interpreter was Le Hung Tuan, a young agricultural researcher employed by NIAPP in Hanoi. He was recommended to me by NIAPP's administration because he spoke good English and had already conducted previous field research in ethnic minority areas. In the few occasions where Tuan could not accompany me, I used Nguyen Ha Hue, another researcher at NIAPP with a similar background.

owns, family work arrangements, child tending, cooking, and so on). Communication could also be difficult with some villagers. The vast majority of the villagers were fluent in Vietnamese, normally the language used for interaction, and thus easy to interview. A few older villagers, however, only spoke the minority language. In this case, we asked a younger family member to serve as an interpreter. Such interviews were thus considerably slower than the others, and some information was undoubtedly lost during the translation processes.

Finally, there were time constraints. Funding and time availability (both of myself and of my assistants) limited the fieldwork to a little less than five months. In Ban Muang, I was also only allowed by the district authorities to stay for a relatively short period of one month, and I had to be accompanied by one or several local officials most of the time. However, due to the cooperativeness of villagers and officials, this turned out to be acceptable for the study of a secondary site. In Thuy Hung, I was given considerably more time and more freedom to conduct my research. This was an important factor in choosing the commune as the primary research site. Despite the constraints on time and the occasional restrictions on research behaviour, the investigation proceeded smoothly and rapidly by local standards. The collection of primary data also did not entirely end with the fieldwork. In later stages of the study I was able to supplement the data collected in the field with other data obtained by interviewing government officials in Hanoi, by interacting with other researchers in the region, and by collecting daily newspaper articles. My colleagues in Hanoi also continued to send me fresh information on new developments in my region of interest as well as on Vietnam's northern uplands in general.

4.5 Summary

This chapter has first outlined the environmental and developmental problems that afflict upland farming communities in North Vietnam and presented an overview of the two study areas in their regional context. The primary case study

focuses on Thuy Hung, a commune of Nung villages in Lang Son, a province bordering China. This is the most encompassing of the two studies, from which generalizations will be drawn to contribute to the development of a theoretical framework for understanding agrarian change in Southeast Asia (see Chapter 7). The secondary case study is Ban Muang, a Thai village in the province of Son La, southwest of Hanoi. This study has been undertaken largely to compare the development process in two distinct regions of North Vietnam. In both cases, farmers have responded to the national programme of pro-market reforms by expanding their plantations of cash crops. As the result, socio-economic disparities within and among villages have increased. Family farms, however, are generally affected by a number of structural and environmental constraints that retard their development. The chapter ends with a description of the field methods adopted to conduct the investigation. These methods are based on acquiring insider knowledge through participant observation and semi-structured, in-depth interviewing.

The following chapter present a detailed analysis of the social and economic transformation experienced by farmers in the commune of Thuy Hung.



Plate 1 *Lang Son town* This provincial capital is on the main highway to China



Plate 2 *Market in Lang Son* Daily markets offer local farmers a chance to participate in the cash economy



Plate 3 *Thuy Hung commune: the Nung village of Na Ho* Most villages in the commune are inhabited by members of the Nung ethnic minority



Plate 4 *A Nung tomb* The Nung practice a mix of ancestor worship and Daoism. These religious objects ward off bad spirits from the village



Plate 5 *A recently married Nung couple* Wedding ceremonies are important social events for the Nung. They last several days—sometimes weeks—and cost large sums of money to the parents of the groom



Plate 6 *Agroforestry in the Nung village* Farmers commonly grow anise and a variety of fruit trees along with rice, maize, tubers, and other crops

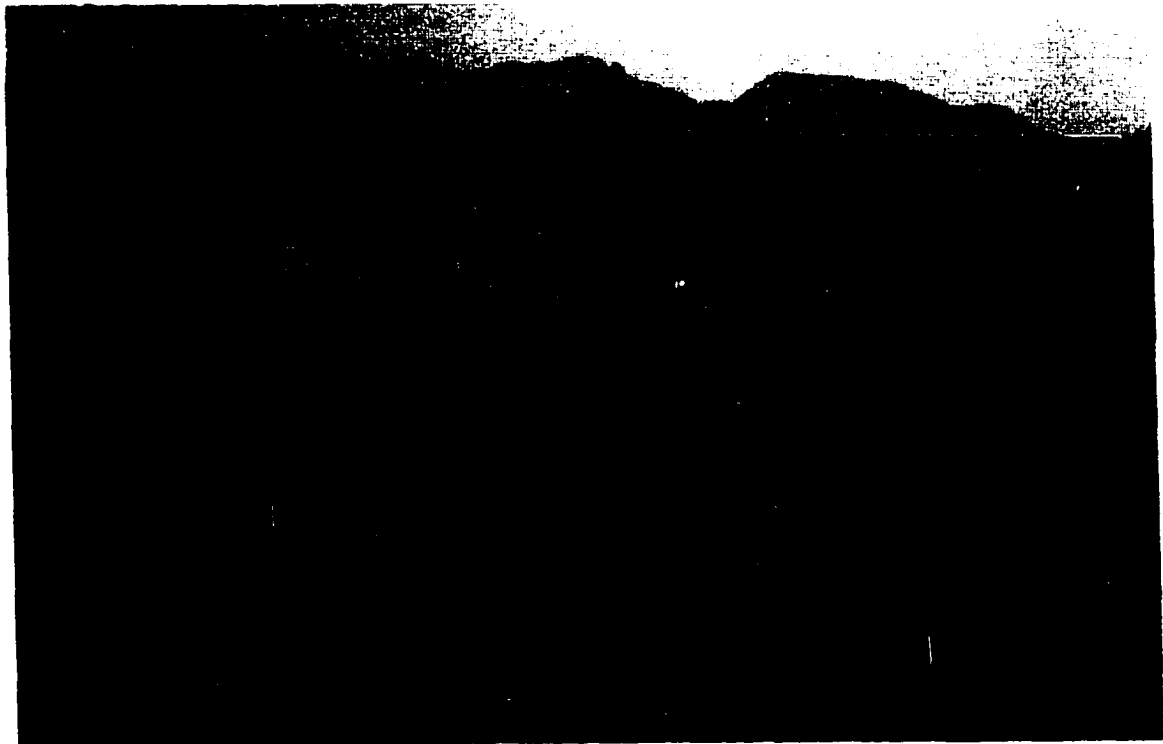


Plate 7 *Deforestation.* The hills around villages have been almost entirely deforested

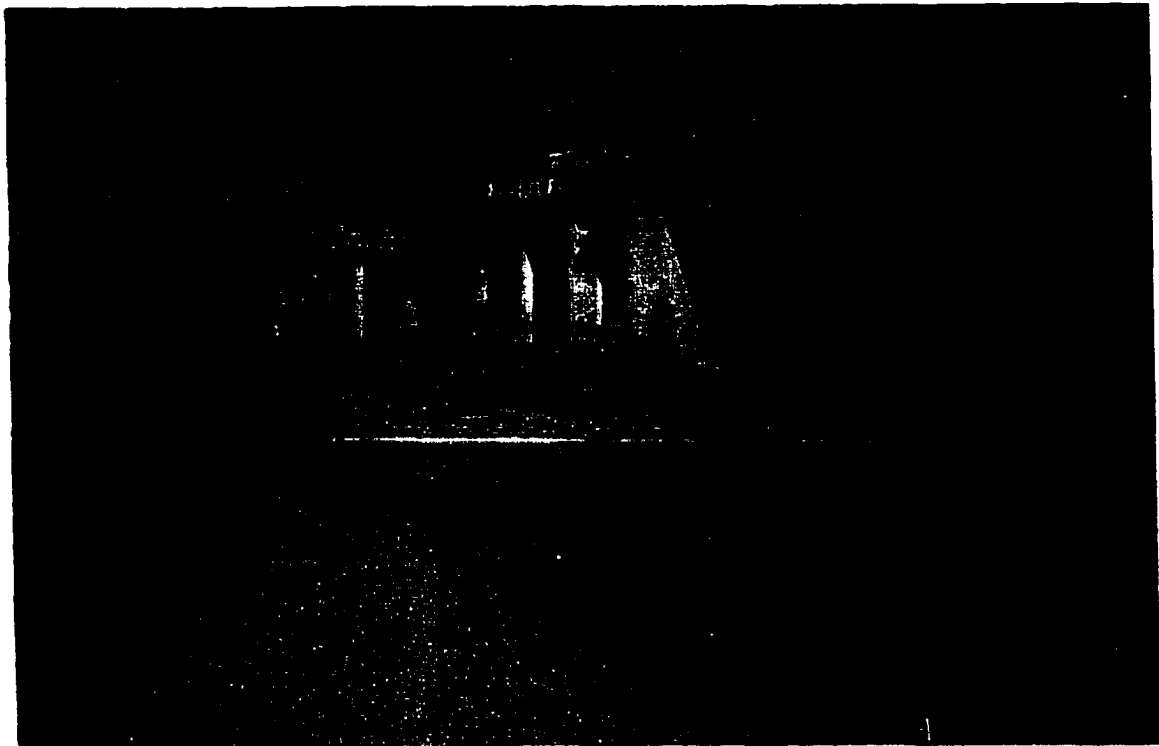


Plate 8 *Drying aniseed* The process takes several days, during which the seeds loose about two-thirds of their weight



Plate 9 *Fuelwood gathered by a family* Farmers often sell fuelwood to earn extra income. This activity contributes to deforestation in the region



Plate 10 *Young woman carrying cassava* Cassava and other tubers are important sources of protein for local families. Cassava, a staple food before *doi moi* , is now mostly fed to farm animals

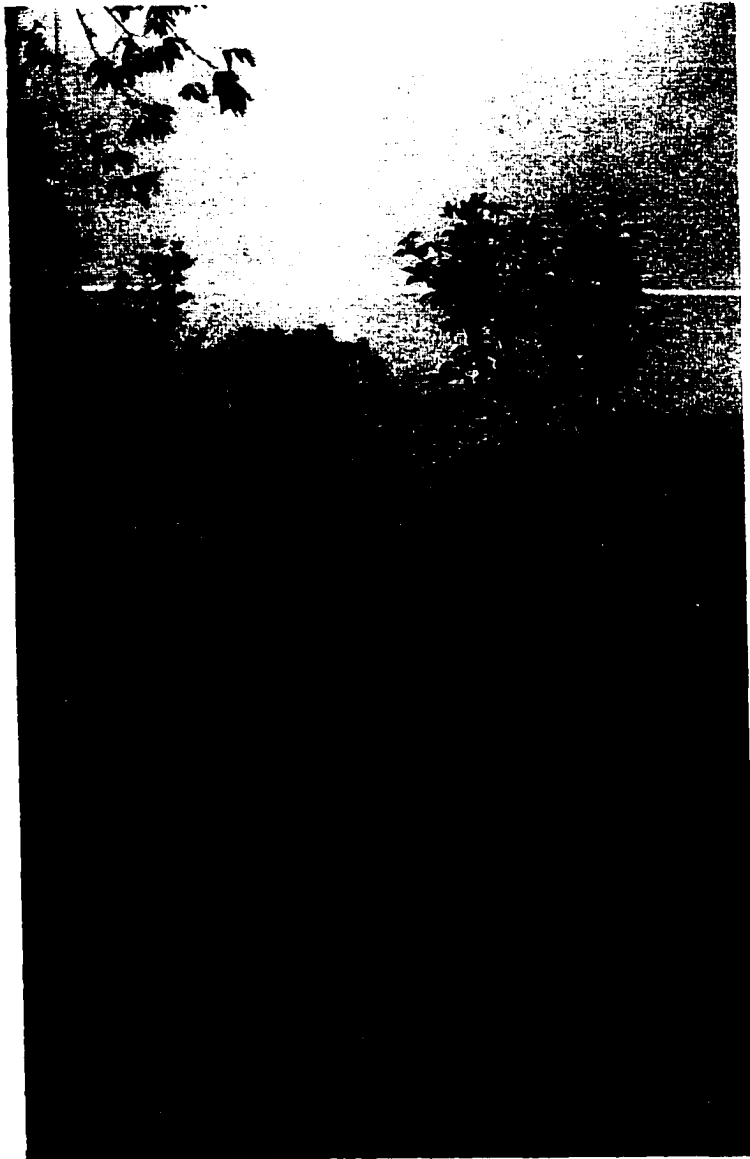


Plate 11 *Nung farmer and recently planted tree* A national programme of afforestation (Programme 327) has been implemented in some of the villages in the commune of Thuy Hung. Under this programme, farmers are entitled to a number of seedlings free of charge. In Thuy Hung these consist mostly of pines, acacias, and arise trees



Plate 12 *Farmers selling aniseed* Families sell their their harvests of aniseed to road-side merchants. Many families stock their harvest in their homes for several months, even years, before selling it in order to obtain the best possible prices



Plate 13 *Merchant in the village* Merchants from lowland areas often visit villages near the highway to sell their products



Plate 14 *Villagers on dirt path* Most upland villages in the region are accessible only through narrow dirt paths which are unsuitable for any form of motorized transportation

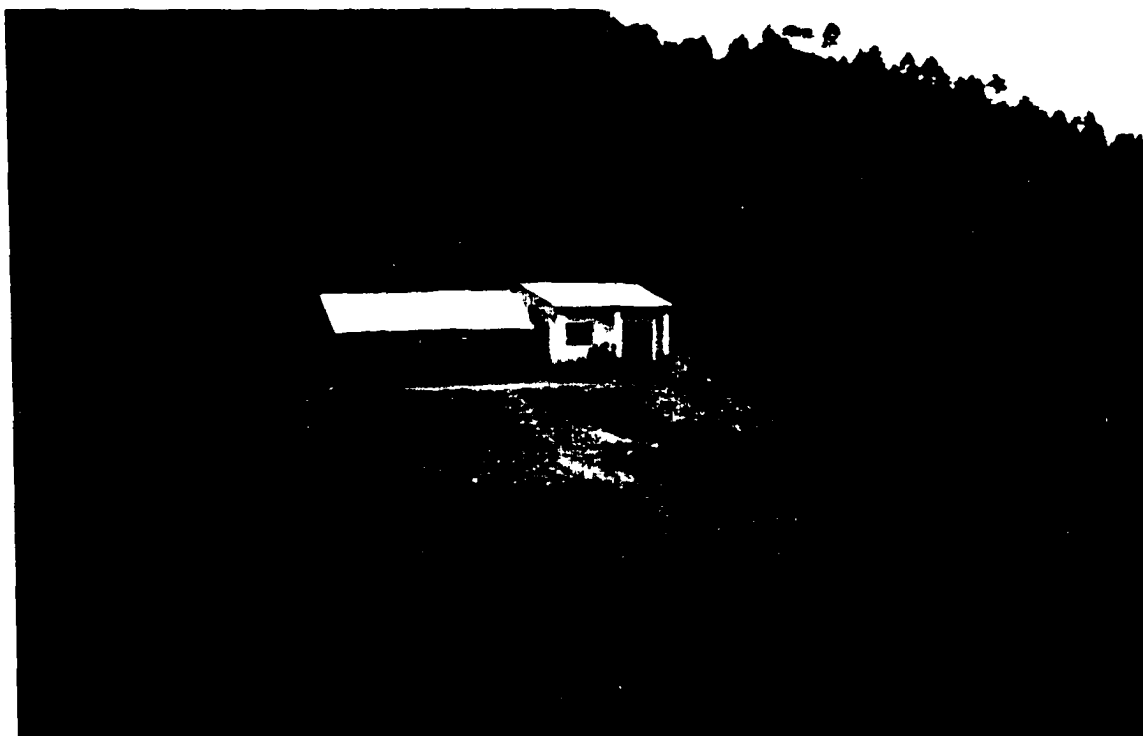


Plate 15 *A school for Nung children* Village schools offer the first few grades of education to local children. Nung families give a high priority to the education of their children. Only the very poor families, usually those where an adult member is gravely ill, keep their children at home for their labour

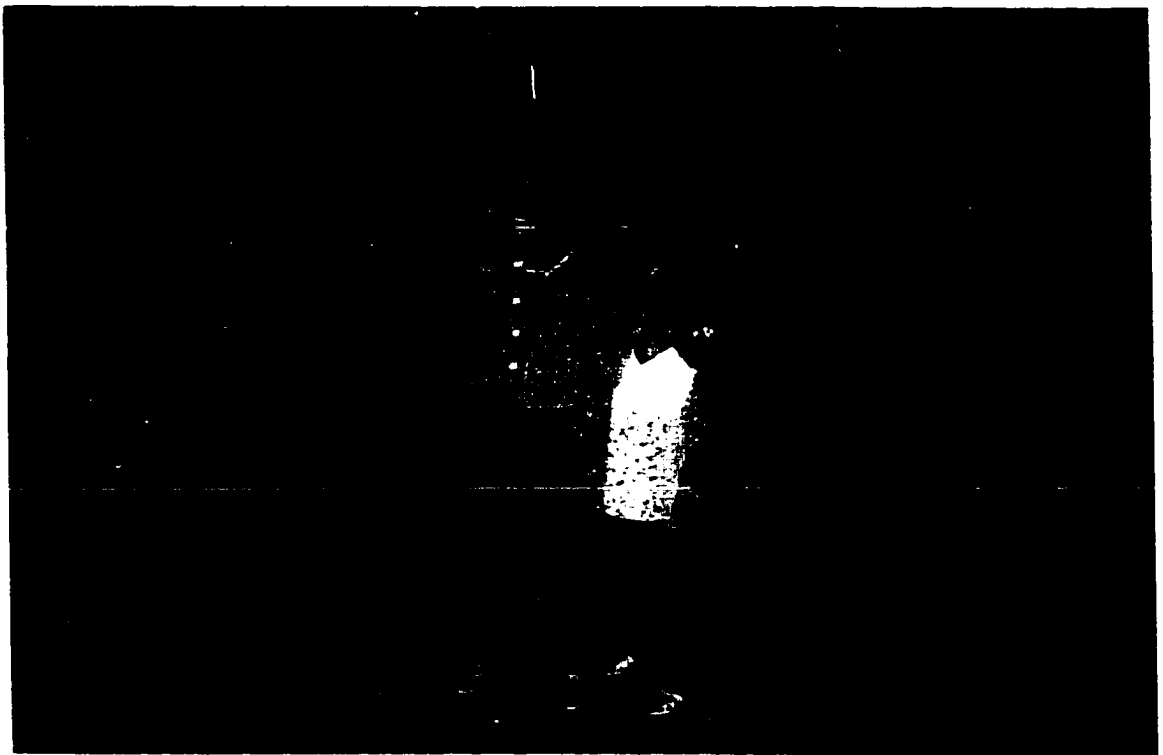


Plate 16 *Inside a Nung home* The Nung house, in contrast with that of the Thai, is built directly on the ground. It is divided in two parts: a large front room, where people dine, entertain guests, pray, and sleep, and a small back room, which serves principally as kitchen. The spiritual heart of the house is the altar to the family ancestors, which exists in every Nung house. The most conspicuous structure in the house, it is built along the front-room wall facing the entrance door

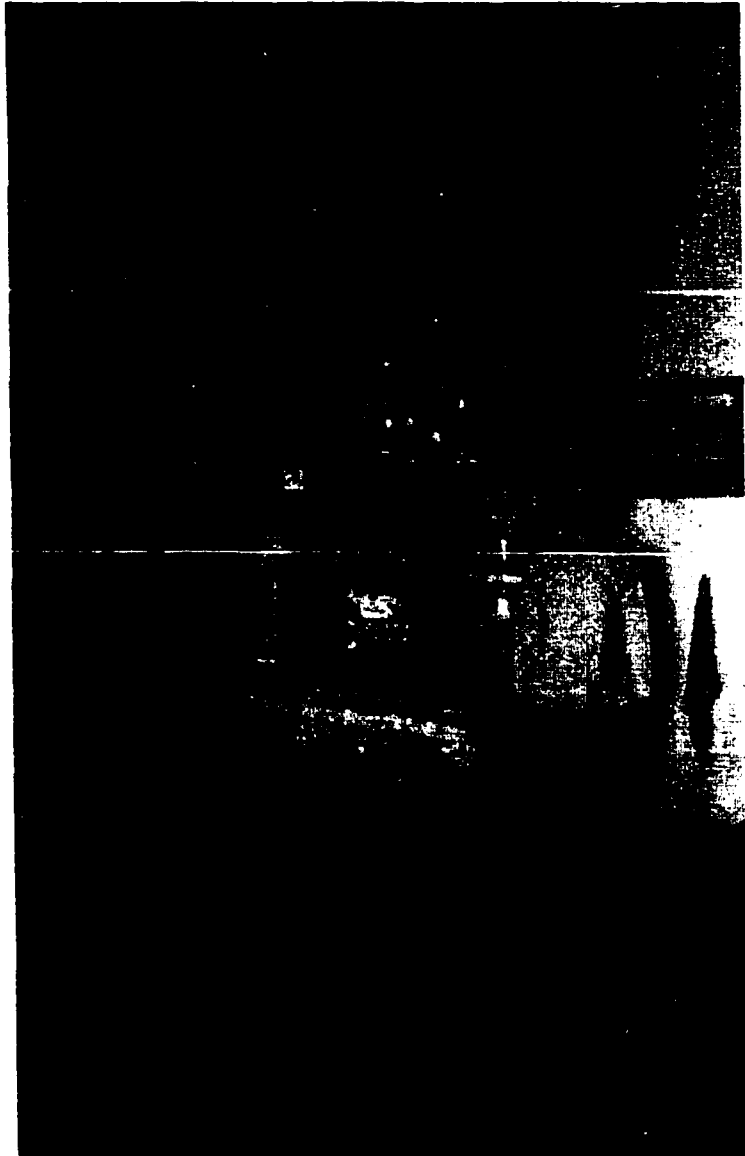


Plate 17 *A female thay mo* The *thay mo* is a person of the Nung community considered to have spiritual powers. Every Nung village has one or several of them, the vast majority of them being males, but occasionally females. The *thay mo* combines the functions of a sorcerer, a shaman, and a Daoist priest. In the market economy, this profession has become relatively well remunerated.



Plate 18 *The China trade* The highway from Lang Son town to China is the economic lifeline of many local residents. Small-scale trading operations across the Chinese border may be the most important informal activities in the region



Plate 19 *The China trade* Local people use all transportation vehicles that they have access to, including bicycles



Plate 20 *The Moc Chau district, North Vietnam's upland region* The district is mostly inhabited by members of ethnic minorities such as the Thai, the Muong, and the Hmong



Plate 21 *The Thai village of Ban Muang* Wet-rice agriculture is the main subsistence activity in the village



Plate 22 *Thai farmer and buffalo* These animals are used for ploughing fields and transporting people and goods. Except for a few motorbikes, there are no motor vehicles in the village



Plate 23 *Thai woman carrying a straw mat* Such mats serve to dry rice, maize, and other crops



Plate 24 *A traditional Thai house* This is the most common house type in the Thai village



Plate 25 *Renovated Thai house* Because of the strength of monsoonal rains in the region, roofs must be rebuilt every few years. This relatively affluent family has chosen to build a clay-tile roof



Plate 26 *Inside a Thai house* Dining with friends and relatives is a frequent social event

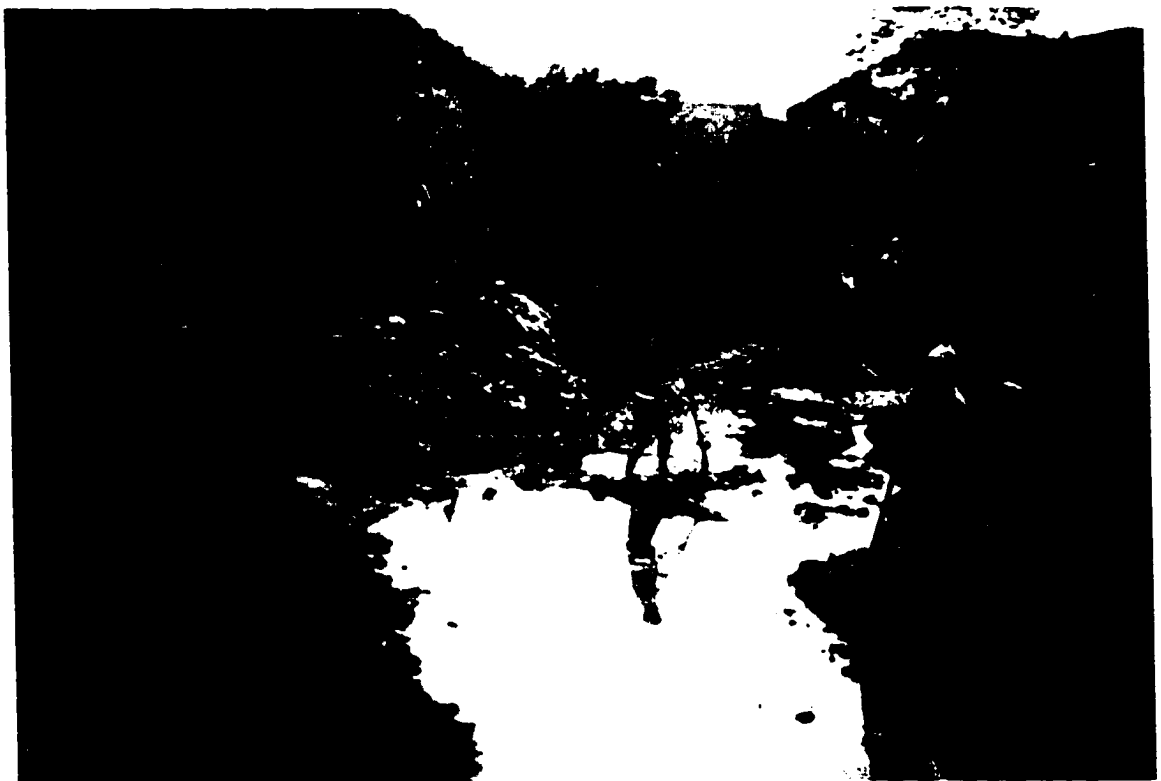


Plate 27 *Workers digging a pond* This is a communal activity in Ban Muang

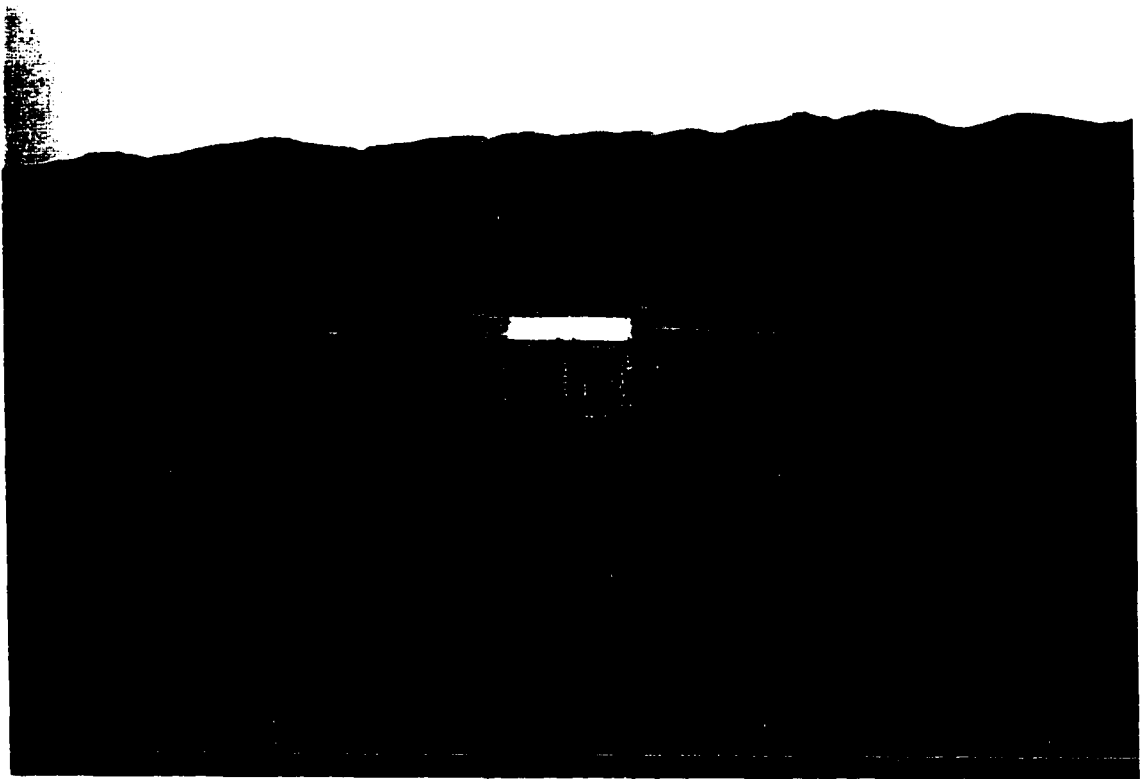


Plate 28 *New home and traditional house* Cash crops have enabled some families to build new homes

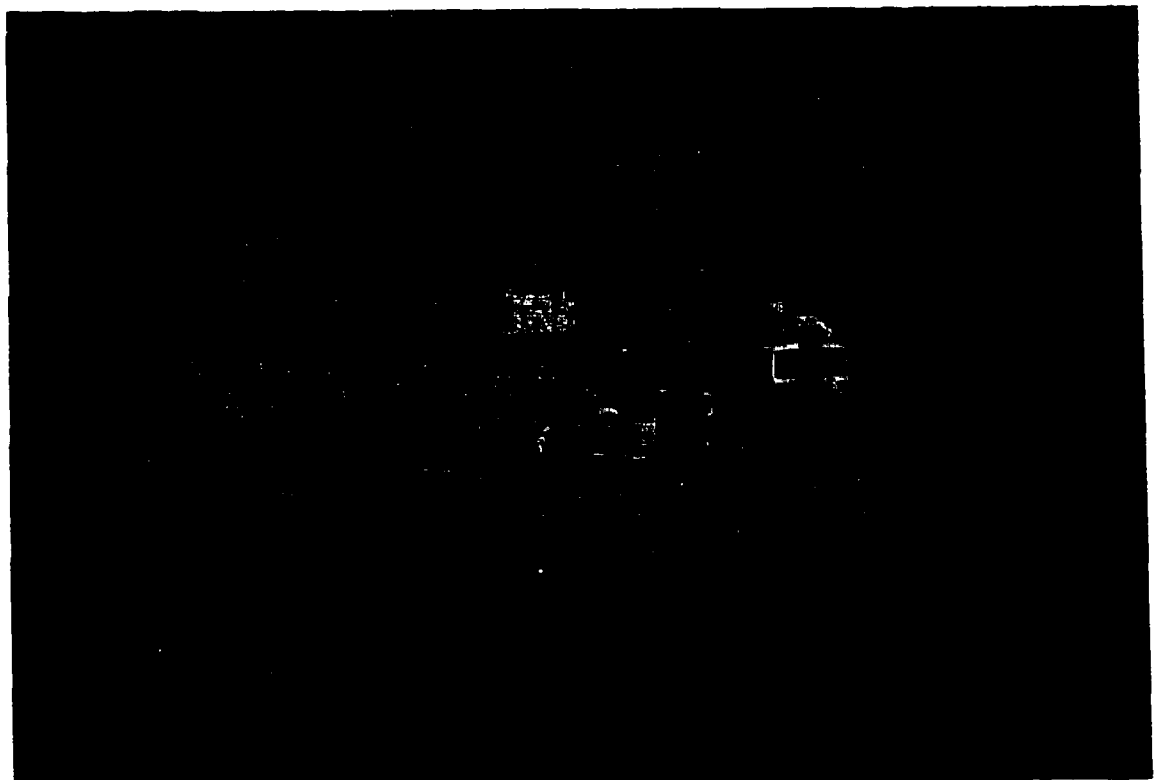


Plate 29 The town of Moc Chau Like other mountain towns, Moc Chau is inhabited mostly by ethnic Vietnamese

Chapter 5

AGRARIAN CHANGE IN THE COMMUNE OF THUY HUNG

"We do not pay attention to land policy. This land has always been ours."

"The government does not help us much. We survive by carrying on our backs Chinese goods across the border."

Nung farmers in the commune of Thuy Hung,
Lang Son province, 1996.

This chapter presents and discusses the results obtained from the analysis of the data collected in the survey of five villages in the Thuy Hung commune. The analysis process is based on an interpretation of these data in the light of the concepts developed in chapter two. The chapter starts with a description of the study villages.

5.1 The Commune of Thuy Hung Commune: Village Selection Process

The commune of Thuy Hung was introduced in its regional context in section 4.2. It is worth expanding here, however, on the developmental elements that are of special importance to this study. The modern history of agricultural development in Thuy Hung commune is characteristic of Lang Son province. Until 1970, agricultural production in each village of the commune was under collective management, whereby villagers pooled together their productive resources—land, labour, and animals—and shared the products of the harvest. The process of agricultural collectivization encountered considerable resistance from the local farmers, and its degree of implementation thus varied from village to village. This is especially true of hill agriculture, which was never successfully collectivized at

any time. According to local authorities, there were seven attempts to collectivize agriculture in the commune (and the province) since 1960—which all eventually failed. The first attempt was initiated in 1960. It lasted only two years as farmers strongly objected to having to relinquish control of their private properties. In the 1960s and 1970s, further attempts to form cooperatives were motivated in part by ideology and, in part, by the need to pool efforts to produce food during the war against the United States. The cooperatives were re-established for the last time in 1980, for a period of two years, in the aftermath of the Chinese invasion.

In 1982, when Contract 100 came into effect in most of North Vietnam, land in Thuy Hung was redistributed to families according to boundaries established during the French colonial rule. This contrasts with the situation in most other northern provinces than Lang Son, where village land was re-allocated to households in equal shares. In addition, families were allowed to keep the hill plots which they had reclaimed for farming during the collective era. Most families had thus eventually increased the size of their holdings of hill land as the result of socialist policies in agriculture. Another distinguishing feature of the region is that no contract system was implemented between farmers and village cooperatives, which were effectively dismantled. Farmers were able to keep the whole of their production, which they could then consume or sell at local markets. In exchange for this economic freedom, they would pay a limited amount of land taxes to the commune administration.¹

In Thuy Hung, farmers are proud to say that all government attempts to regulate agricultural production have been “meaningless.” They were thus relatively unaffected by Contract 100 when it became officially implemented in the province. First, they had held on tenaciously to their family properties even during the heyday of socialist fervour in North Vietnam. Second, markets were already

1 Residents of Thuy Hung are subjected to only two types of taxes—a land tax and a residential tax. The land tax only applies to paddy land. This tax varies from village to village. On average, residents are required to pay 8,000 dong per sao (360 m²) of land cultivated annually. The annual residential tax is 3,000 dong per family.

operating in the 1970s, well before pro-market reforms were implemented in the region.

Land use in the commune is, characteristically of the region, based on paddy rice farming and hill agriculture. In paddy fields, farmers grow rice—the main subsistence crop—and sugar cane—an increasingly popular cash crop. In the hills, they grow a number of subsistence crops and cash crops. These include maize, sweet potatoes, cassava, taro, beans, vegetables; a variety of fruit, such as orange, persimmon, and longan; and anise. Anise, first planted during the French colonial era and replanted in recent years, is the main cash crop in the region, and much of it is exported to China.² Cash crops—especially anise and fruit—are a fast growing component of the village economy. Farmers also rear animals, such as pigs, an important source of food and income, and buffaloes, which they use mostly to plough paddy fields. It is worth noting here that mechanization is a relatively unimportant factor of agricultural production. Farmers limit their use of mechanical devices to threshers and a few husking machines. Tractors, which were used in paddy fields during the collective era have now been replaced by buffaloes.³

Generally local development is constrained by poor physical and service infrastructures. Roads are few and of poor quality; irrigation systems are rudimentary and in constant need of repair; drinking water is in short supply; electricity is only provided to villages near the highway. Only these villages are ever visited by agricultural extension officers. Social services are equally primitive. A few villages have a school that offers the first two grades of primary education. They may also have a small health station, in which a resident nurse delivers first aid and drugs. A member of the commune's people committee visits all young

2 Anise is harvested for its seed, known as aniseed. The oil of aniseed is used in foods, beverages, and medicinal potions.

3 One of the reasons for the withdraw of tractors from agriculture is the cut-off in Soviet aid after the dissolution of the Soviet Union in 1991. Another reason is that the move away from collective agriculture in the 1980s has fragmented the paddy fields into small individual plots, a situation which makes the use of tractors in farming unpractical.

families once a year to advise them on birth control methods⁴. Much of the organization of social life in the village is left to the village leader, who is already overworked with important economic and political functions.

Other constraints on agricultural development in the commune are environmental in nature. In paddy fields, the decreasing land base per capita has prompted local residents to intensify their methods of rice cultivation. In the absence of good drainage systems, chemical fertilizers have polluted local waters and caused some soils to become less fertile. In the hill lands, soils have been dangerously eroded through deforestation. Little natural forest is left in the whole commune, and much of the hill land is now barren. Much deforestation occurred in the past, under the central planning policies of the collective era which allowed farmers to reclaim hill land indiscriminately for farming. These policies encouraged families to cut their trees—including their anise trees since there was no market for anise—to grow tobacco. Much of the deforestation thus occurred before the pro-market reforms were implemented in the commune. Today, deforestation continues to occur due to the growing local demand for fuelwood.

The population in the villages of Thuy Hung is essentially sedentary, and family farms are the main source of employment for villagers. Very few farmers migrate seasonally to towns or other rural areas due to lack of employment opportunities. Urban or rural industries capable of employing farmers—even only for short periods of time—are virtually nonexistent. At the same time, villagers lack the skills necessary to find work in the towns' service industry. The rate of underemployment during the periods of agricultural slack time (winter months) is thus high. Some families grow winter crops, such as potatoes and vegetables for the market. Most, however, are idle in economic terms. The trend has been for villagers to seek to supplement incomes earned in farming by working as porters for in trading operations across the Chinese-Vietnamese border. Many local families

⁴ Villages in Thuy Hung have been the frequent target of family planning campaigns in recent years. The government now distributes contraceptives to families, free of charge.

regard these extra revenues as the main form of income security against agricultural failure.

5.1.1 Description of Study Villages

This study focuses on five of the twelve villages that make up the commune of Thuy Hung. These villages have been chosen in order to investigate the range of characteristics—broadly, the natural endowment and physical and service infrastructure—that enable or restrict farm development in the commune. Three villages are in the main valley in the region and in close proximity to the highway linking Lang Son town to China (Fai Mon, Na Ho, and Po Mach). These villages are relatively well endowed in paddy area. They are surrounded by hills in which farmers practice agroforestry. Because of their proximity to the highway, they are easily accessible for trade. Consequently, cash crops are an increasingly important part of their economy. Two villages (Na Pan and Na Lai) are in the hills several kilometres away from the highway, and they are only accessible from it via a narrow dirt path (see Figure 4.5). These villages have relatively little land suitable for wet-rice agriculture, and hill farming, especially fruit growing, is by far the main economic activity. All five villages belong to the Nung ethnic minority group. As in the rest of the commune, they have experienced a high rate of population growth since the end of the American War.

Fai Mon village. Fai Mon, a small village on the north side of the highway, has a total population of 100 distributed in 20 households. Of these, nineteen are Nung and one is Kinh. The Kinh family was relocated from the Red River Delta in 1960 under a plan sponsored by the federal government to build a new economic zone in Cau Loc district⁵. It was given agricultural land to farm in the village. In most cases,

5 The migration of lowlanders to villages in the Thuy Hung commune during the collective era under resettlement policies has been minimal because of the region's lack of potential for agricultural development other than tree crops (for which there was no market before the introduction of economic reforms in the region).

new families are started by local men who bring in wives from other Nung villages in the region⁶. Fai Mon's population has increased from 40 to 100 since 1960, largely as the result of natural births. According to the village leader, population control policies have had little effect because of "old thinking," in that local people are too shy to use contraceptives. At the same time, local authorities have been reluctant to impose fines and penalties on families that have more than two children in order "not to interfere with Nung culture."

Fai Mon's agricultural area consists of 150 sao (5.5 hectares) of paddy land and 50 hectares of hill land. Paddy fields are used to grow rice for consumption and, increasingly, sugar, which they sell for income. Of the hill land area, half has been planted and the other half is bare. The main hill crops are potato, cassava, maize, and perennial crops, including fruit and anise. There are also two ponds of approximately one sao in size, which are owned privately. No natural forest remains in the village area. Fai Mon is linked to the highway by a short dirt road which is wide enough to enable access to carts hauled by animals, but is too steep and rough for motorized vehicles. A few narrow paths lead from the village to the paddy fields and hill plots. Irrigation facilities are rudimentary: a few mud canals bring in water from a mountain creek to the paddies. Drinking water is available to villagers through a number of public wells, which, like roads and irrigation canals are built and maintained by local work teams organized by the village leader. A persistent lack of investment capital in the village affects the state of the physical infrastructure as much as it limits the possibilities for families to diversify their household economies.

Na Ho village. Na Ho is a village of average size for the region. It has 363 inhabitants in 52 households, of which 45 are Nung, 6 are mixed Nung-Tay, and 1 is Kinh. In the mixed Nung-Tay households, a local man or woman brought in a

⁶ A family can also be started by a Nung woman who brings in a husband from another Nung village, but it is far less common. According to local respondents, this is "not in line with Nung tradition."

spouse from a Tay village in the region⁷. The Kinh family was relocated from the lowlands to the village in 1965 to work in farming. Although government-sponsored relocation programmes have been discontinued in the region, the population of Na Ho, like the one of Fai Mon, continues to grow as villagers tend to ignore family planning regulations.

Na Ho's total paddy land area is 350 sao (12.6 hectares), of which 250 sao are irrigated during the dry season and thus produce two crops of rice per year. The remaining 100 sao produce only one crop a year (summer crop). The total hill land area in the village is 200 hectares, of which a quarter is barren, and the rest is planted with similar crops as in Fai Mon. The trend has been to diversify agricultural production and to develop sugar cane, fruit, and anise as the main cash crops. The village has no natural forest, but, of the 50 barren hectares of hill land, 9 have been replanted with anise, fruit, and timber trees under Decree 327 (see section 4.2.2). Ten households are currently participating in the reforestation programme, which was first implemented in hill land areas closest to the highway. The trees most commonly planted under this programme are timber and fuelwood trees from the pine and acacia families, anise, and a variety of fruit trees. The objectives of the programme are to increase local self-sufficiency in fuelwood and timber and to promote farmer participation in the market economy by increasing the local production of perennial crops.

Na Ho's infrastructure is as rudimentary as Fai Mon's. Roads are of poor quality, and they must be repaired at least once a year after the rainy season. Families often encroach on the road space for expanding their rice crops and building water conducts to irrigate their fields. Irrigation facilities are generally lacking. During the collective era, a water reservoir had been built on land that was formerly privately owned and had been seized by the commune's cooperative. This reservoir supplied local farms with a reliable flow of water throughout the year. In 1985, the former owners of the estate destroyed the reservoir in order to reform the

7 Four local women brought in a Tay husband, and two local men a Tay wife.

land. Since then, water supplies to individual families have drastically worsened, and many paddy fields are too dry in the winter season for growing a crop of spring rice. Local authorities, however, have so far been unable to convince other families to give up a portion of their land to build another reservoir. Drinking water is also in short supply. Few streams are easily accessible from the village, and public wells produce little water during the dry season. The village has no collective crop storage facility, and farmers store their crops in their homes. It has no distribution centre for fertilizers or pesticides, which households must buy privately.

One component of the local infrastructure, however, has substantially improved in recent years: the electricity distribution network. As the result of an electrification campaign, power lines now service every home in the village. Not surprisingly, electricity has generated changes in lifestyles. Villagers have developed consumer attitudes as they now like to purchase radios and television sets. They have also become increasingly socially active, and they report spending considerable more time visiting neighbours and friends at night. Electric power is also slowly making its way into agricultural processing, and a few families have invested in electrical husking machines. By far, however, agricultural processing in the village continues to be done manually.

Po Mach village. Po Mach, on the southern side of the highway, has a population of 325 in 65 households. Of these, 61 are purely Nung, and 4 are Nung-Kinh mixed. Although Po Mach's population has increased steadily since the mid 1970s, there has been some success in lowering the reproduction rate in recent years, and the annual growth rate is now 2.0 percent compared to 2.3 percent in 1993.

Po Mach is relatively land rich. The village has a total paddy area of 650 sao (25 hectares) and a hill land area of 30 hectares. The productivity of its paddy fields, however, is limited by a general lack of irrigation water as only one third of the total area (8 hectares) can support two crops annually. Similarly, half of the hill land area is barren and, therefore, not used for agriculture. The other half has been mostly

replanted with anise, fruit, and fuelwood trees under Decree 327. Farmers in Po Mach have largely stopped growing annual crops in hill plots, which they have almost entirely devoted to tree plantations.

The farming of anise and fruit, the rearing of pigs, and porter work across the border are the main sources of income in the village. The commercialization of the local economy has caused socio-economic disparities to increase considerably in recent years. As in neighbouring villages, poorly developed physical, economic, and social service infrastructures represent the main constraints to farm development. One problem that especially affects Po Mach's farmers is the lack of buffaloes. Many buffaloes were killed in the early 1980s during the war with China, of which many survivors were then wiped out by diseases. At the time of the survey, there were only 48 buffaloes in the village, that is approximately two for three families.

Another, potentially more serious, obstacle to local development is the on-going deterioration of environmental conditions. Local farmers point to a worsening degradation of paddy soil in recent years. The main reason is that farmers now use considerably more chemical fertilizers than in the past because their loss of buffaloes since the China War has resulted in shortages of manure. The environmental situation on the hills has become worse too, largely as a result of deforestation. Hill slopes in Po Mach are relatively steep, and soils continue to be washed down during the rainy season due to the lack of vegetative cover. The hope is that the trees recently planted under Decree 327 will slow down the erosion process. The new trees should also help reverse the deforestation caused by fuelwood collection. The problems of environmental degradation in the hills are not unique to Po Mach. As it has been pointed out earlier, all villages in Thuy Hung are, to a varying degree, affected by deforestation.

Na Pan village. Na Pan is a village located in the hills, 5 km south of the highway. It is of average size, with a population of 331 in 46 households, all purely Nung except for 3, in which a Nung man married a Kinh woman. Characteristically of the

commune, Na Pan experienced a steady population until 1994, when reproduction rates started to stabilize—a sign that the family control programmes recently implemented in the region are starting to produce results. As in the rest of the commune, however, Na Pan's population has already grown enough to create a dearth of paddy land, and the village is deficient in rice production. The total paddy area is only 300 sao (10.7 hectares), that is 0.032 hectare per inhabitant, the lowest ratio per capita of the five villages investigated. Fortunately, 2/3 of the paddy area produce two crops a year, thanks to a relatively abundant supply of water.

In terms of hill land, Na Pan is considerably better endowed. In fact, the village stands out from the others studied here by its amount of hill land that is still covered with mature trees. The total village hill land area is 100 hectares. Of these, 30 percent contain anise trees that are over 50 years old, and 20 percent fruit trees and other trees planted before the collective era. The remaining half is mostly barren. Because of their remoteness from the highway, Na Pan's tree plantations escaped much of the destruction experienced by other villages during the collective era. Local farmers generally did not deforest their environment to plant tobacco in part because it would have been unprofitable to do so, considering the low market prices of tobacco and the high labour cost of transporting it to markets. Nevertheless, some deforestation occurred, mostly as the result of fuelwood collection.

Anise is by far the main cash crop in Na Pan, and it is the main source of economic disparities in the village. The wealthiest families in the village are those that, having maintained their properties and kept large numbers of mature anise trees during the collective era, are now able to collect considerable incomes by selling anise. The poorest families on the other hand have not inherited hill land from their ancestors. Like those who live in the other villages of the commune, they receive little financial help from the government or the village community. To survive, they work as porters for traders who operate across the China-Vietnam border.

The physical infrastructure—irrigation facilities, roads, electric power lines—is markedly undeveloped in Na Pan. The lack of irrigation facilities does not restrict family farming: there is little need for complex irrigation works because the narrow valleys containing the paddy fields are relatively well supplied with creeks. The lack of roads, however, considerably restricts village access and thus hampers farm development. Na Pan is linked to the highway only by narrow mud paths. This makes the transportation of goods difficult even by buffaloes, and goods must be carried to and from markets on peoples' backs. Interestingly, the lack of road access has not prevented farmers from adopting a limited form of mechanization for agricultural processing, and five households in the village now own diesel-powered husking machines. Nevertheless, as in other villages of the region, farmers continue to process agricultural products mostly by hand, and labour remains a far more important factor of production than mechanization. The third component of physical infrastructure—electric power distribution lines—simply do not exist in Na Pan. Fortunately, most families live close enough to creeks to generate power using small privately owned generators.

Na Pan's social and economic service infrastructure is also generally deficient. There is a shortage of agricultural extension services as few members of the agricultural extension staff ever visit the village. The village leader has attempted to supplement this deficiency by advising individual families on agricultural matters. The village leader has many other responsibilities, which include organizing teams to work on public projects, help implementing family planning policy, and mediating disputes among farmers⁸. Generally overworked, this official often complains that "village leaders have to do everything in Na Pan." Health services are the responsibility of a resident nurse, who also advises families on birth control. Schooling facilities are limited to three classrooms in which resident teachers offer the first three grades of formal education.

⁸ Occasionally, the commune police visits the village to help resolve conflicts between farmers and investigate crimes. Common crimes include theft of property and gambling activities.

Environmentally, Na Pan fares better than the villages surveyed in the valley. Soils in paddy fields have retained their fertility thanks to a relatively low use of chemical fertilizers and a steady water supply. Soils on the hill slopes are relatively uneroded as they remain protected by the still abundant vegetative cover. Trees are plentiful and households have easy access to fuelwood. Clean drinking water is available to everyone all year round.

These two factors—relatively unspoiled natural endowment but weak transport and service infrastructure—characterize the villages in remote, hilly locations of the commune. Farmers in those villages face a common set of developmental dilemmas. On the one hand, they have access to relatively fertile and uneroded soils and own a large number of fruit trees, factors that favour the development of the farm economy. On the other hand, the lack of roads and services, such as agricultural extension and formal credit institutions, limit their opportunities for crop diversification and participation in national markets.

Na Lai village. Na Lai is even more isolated than Na Pan. Located another 5 km south from Na Pan, it is only accessible from it via one narrow mud path. Of the five villages studied, it is the most elevated (600 meters above sea level). Its population of 350 (52 households) is entirely Nung. Na Lai residents are considerably better endowed in land than other villagers. The total paddy land area is 21 hectares (twice as much per capita as in most other villages), of which the half produce two crops annually. Consequently, the village is self-sufficient in rice production. The village agricultural hill land area is over 200 hectares. This land was never collectivized and families have inherited ancestral hill land that has not been unaffected by collective production policy. Family hill plots are thus rich in trees, especially in anise trees, which average over 500 per family. Not surprisingly, anise farming is by far the most important source of income in the village. Another significant source of revenue is fuelwood collection. Thus many farmers sell fuelwood gathered on their properties in other villages of the commune. Marketing

opportunities for anise, fruit, and fuelwood, however, are severely limited by the lack of roads.

Summary. The villages chosen for the study represent the range of environmental and developmental conditions in the commune of Thuy Hung, and, to a large extent, in the province of Lang Son. By investigating the agrarian transformation processes that are occurring in those villages, this study sheds light on the process of rural development in the region.

5.2 Land Distribution and Land Tenure

Because agriculture in Thuy Hung was never successfully collectivized, farmers have been relatively unaffected by land reforms, and Nung customs of land inheritance have continued to prevail over official policies. The Nung are patrilineal. According to their tradition, sons inherit the family land holdings, which the parents distribute among them after each one has been married. If a family has no son, each daughter inherits a portion of the land, which officially becomes the property of her husband. The property thus becomes attached to the husband's name, who is officially the head of the household, and through whom lineage descent is reckoned in Nung society. The Nung traditional land inheritance system is thus a process that both promotes the division of family land among sons and enables its reconsolidation through marriage⁹.

5.2.1 Implementation of the 1993 Land Law

By granting families the right to inherit and use the land for extended periods of time, the 1993 Land law has tacitly endorsed the Nung land inheritance system (see section 3.5). In 1989, soon after the drafting of Contract 10 effectively ended

9 If families reproduce themselves at replacement level, the Nung land inheritance system produces a situation in which, on average, family plot areas remain the same over time. With population growth, however, this system reduces the size of family plots over time, to create a situation which Geertz (1963) termed "agricultural involution".

collectivism in Vietnam (see section 3.3), Lang Son's land management authorities had already prompted communes to redistribute land to families according to local customary rule. In 1993, they began to issue land use certificates for each category of land to legitimize the new land property scheme. There are three official categories of land in the province: paddy land, agricultural hill land, and woodland. Households receive land use rights for a period of twenty years for paddy land and fifty years for agricultural hill land and woodland.

For paddy land, each household in Thuy Hung has received a Certificate of Land Use Rights (*giay chung nhan quyen su dung dat*), in the form of a "red book," containing the number and size of the plots, as well as their lease period¹⁰. To determine the borders of household property, land management authorities relied on maps which were drawn during the French administrative era (before 1954). The pattern of family landholding existing now in the commune is thus similar to the one that was in place before Vietnam became independent. Land boundaries, however, are already in flux as the result of parcelling and consolidation processes, which have been permitted under the 1993 Land Law. One factor, and so far the most important one, is the Nung land inheritance system by which family land property continues to be parcelled out among sons after marriage. Another is the commercial transfer of property rights, which the 1993 Land Law now allows. Commercial land transfers already occurred before the land reforms. In theory, all land sales were banned by the Vietnamese government from 1954 to 1993. In practice, however, they occurred relatively frequently, although they were not reported to authorities, and new boundaries were maintained by villagers through "word of mouth" agreement¹¹. Since 1993, land sales (more precisely, the transfer of use rights for the period of an official lease) have become legal. All land transfers are now recorded in the Province's Land Management Department. Land transfers

10 Informally the Certificate of Land Use Rights is known as the "paddy book" (*so na*).

11 Of course, disputes regarding land boundaries among villagers were common, and they often extended to neighbouring villages.

normally occur within villages, whereby relatively wealthy local families acquire paddy land in order to become self-sufficient in rice production. Typically, they will sell their plots of worst quality and buy more productive ones with the profits generated from the sales of cash crops.

For hill land, use rights are recorded in a "green book," officially called "*ho so quyen quan ly va sung dung rung va dat trong run*" (literally: "certificate granting management rights and land use rights to wooded land and land for reforestation"). District authorities started issuing these certificates in 1994. The process of distributing hill land, however, has proved to be more complicated than for paddy land, and, according to local officials, it will not be completed before the end of 1999. Like paddy land, ownership of hill land already existed under the French administration, when family land holdings were mapped out and recorded in the District Land Registry. During the brief periods of collective agriculture, however, families reclaimed wooded lands for farming in a process that was largely unrecorded. Thus, although families have now access to larger plots of hill land than they had during the colonial era, the precise boundaries of their land holdings are unknown.

Most families have now access to a number plots (usually between three and five) that are scattered over several hills. This is inefficient in terms of accessing the land, policing it, and protecting it from grazing animals. To improve this situation, the commune authorities intend to redistribute hill land and consolidate family property on single hills. The precise boundaries of family hill plots are to be negotiated between both land use planners and local farmers. Families are then responsible for marking the boundaries of their plots¹². The main difficulty in redistributing village hill land is that considerable discrepancies in land holding currently exist among families. Since farmers grow cash crops on their hill plots, the disparities in sizes of family land holdings have generated considerable inequity

¹² Families usually delimit their plots with ditches rather than fences. Ditches, however, are rarely deep enough to keep cattle at bay, and grazing animals tend to inflict considerable damage on young trees and hill crops.

in family incomes. The dilemma faced by local land management authorities is that to officially recognize the current boundaries and sizes of family holdings would serve to reinforce the income disparities that are now forming in village society as the result of commercialization of agriculture.

Woodland is also in the process of being allocated to families. Like agricultural land, family holdings of woodland before and during the colonial era were passed on to children (normally sons) after their marriage. During the brief periods of collectivism that were subsequently imposed by the socialist state on Lang Son's agriculture, villagers in Thuy Hung also laid claim to woodland which was traditionally communal property. The process of officially allocating woodland to families has been, therefore, as problematic as for agricultural hill land. It has required extensive negotiations between farmers and local authorities, in which the village leader acts as a mediator. Like for agricultural land, the important considerations in allocating woodland to families are (1) the boundaries of family property that existed before 1954, (2) the amount reclaimed by individual families from that date until 1993 (when the Land Law came into effect), and (3) whether other families dispute their claims.

It should be added here that, in reality, little woodland is left in the commune, and that there is thus little practical distinction between such land and agricultural hill land. Most land categorized as "woodland", in fact, carries few trees. Instead, this land should be seen as land which is candidate for reforestation under Decree 327, which, by now, has been implemented in half of the commune's villages.

5.2.2 Land Tenure and Land Inheritance: the Nung Viewpoint

Throughout history, the main factor influencing the pattern of land holdings in the commune of Thuy Hung is that the Nung have continued to hold onto their traditional land inheritance rules. In their view, land has always belonged to families, regardless of the current political system in place in Vietnam. They were

able to maintain this tradition without major difficulty under the French colonial administration, which granted Vietnam's ethnic minority groups considerable autonomy in cultural and economic matters. In the new state, the Nung have consistently resisted attempts by the Vietnamese authorities to interfere with their traditional inheritance system and to control land use in the commune¹³. The Nung viewpoint according to Na Pan's village leader is that "red books and green books are meaningless" and that "land boundaries are recorded in the Nung people's minds." In other words, the concept of land use rights defined by the 1993 Land Law has served to do little more than confirm the land claims of local families.

Traditional rules of land inheritance largely govern the dynamics of land division and consolidation among the Nung. Land is distributed equally among the sons after they have all married and built a new home, except for the youngest son who continues to live in the parental home with his wife and children and his parents. Family land is thus normally divided and distributed among sons generation after generation, and sons raise their families with the products of the land which they inherited. Wives may or may not bring in land of their own. Nung women normally only inherit land from their parents when they have no brother. In this case, if they are of the same village as their husbands, women will add their lands to those of their husbands, a process which helps reconsolidating land in Nung society. However, when a woman marries a man from another village (a frequent occurrence), no land transfer is possible, and the woman usually will leave her village and move to her husband's home. The reverse situation, whereby the woman brings in a husband from another village is less common. It usually occurs when the woman has access to considerably more agricultural land than her husband. In this case, she and her husband normally receive a portion of

13 I would like to emphasize here that communist rule in Vietnam has been relatively mindful of ethnic minority rights, at least, when compared to China. Attempts by government authorities to collectivize agriculture in Vietnam's northern mountains, for example, were often only half-hearted, and abandoned in face of resistance by the ethnic minority peoples. By contrast, in China, Mao's Red Guards proved to be ruthless in suppressing ethnic minorities' rights and repressing their cultural traditions (Hsieh 1989; Henin and Flaherty 1994; Henin 1996).

her parents' holdings of paddy land¹⁴.

One potentially powerful agent of change in the distribution of family land holdings in the Nung village is that under the pro-market reforms in agriculture land has become progressively commoditized. According to the 1993 Land Law, farmers can now legally sell or buy land—more accurately the land use rights in effect for the duration of the lease that applies to the category of land involved in the transfer. These commercial land transactions, however, are still relatively rare (only four of the fifty-seven households surveyed in Thuy Hung reported having sold or bought land use rights).

The traditional system of land inheritance among the Nung thus continues to be the main force behind transfers of agricultural land (and, to some extent, woodland) in the village. For the Nung, the new system of land use rights in Vietnam confirms the validity of private land transactions which farmers have conducted within and among villages for generations. In theory, according to the Land Law, land transfers are only valid for the duration of the lease, after which local governments regain the right to reallocate the land to families within the community. It is difficult to project at the moment what will happen to family land when the current leases expire. In theory, land is to be redistributed to local families by land management authorities. However, the current leases of twenty years for paddy fields and fifty years for hill plots represent long periods of time, considering the volatile nature of land policy in Vietnam. By that time, land may have become entirely privatized in Vietnam. The Nung, in any case, have so far resisted all policies that interfere with their traditional views of land allocation. They are thus likely to resist further attempts by the state to redistribute land in their communities.

If the Nung worry little about official land policy, they are very concerned

14 There is a tendency to keep the land within the lineage. Thus, when a woman who has brothers brings in a husband from another village, she usually receives only a small portion of paddy land from her parents. She receives no part of the family hill land, which is entirely divided among her brothers.

about the decreasing land base per capita caused by population growth in the region. The dearth of paddy land in Thuy Hung has forced people to leave the region permanently. Thus, in Po Mach, one complete household in 1995 migrated to the country's central mountains because of lack of land. The male head of this household, who had five brothers, had inherited too little land from his parents to live by farming in the village. This had been the first instance of spontaneous migration recorded in Po Mach. There are reasons to believe that such instances of out-migration will continue to occur in the future. Although the region's population is now growing slower than in the past, many families continue to desire raising more than two children because they need their labour for farming while population control policies tend to be only loosely implemented in most of the province's districts. The narrowing land base per capita combined with the lack of off-farm employment opportunities in the region may indeed increasingly motivate the departure of farming families from the region for years to come.

5.3 Land Use

Already during the French colonial era, the Nung practiced a mix of subsistence and commercial agriculture. Subsistence agriculture was based on wet rice in paddy fields and tubers and vegetables in hill plots. Commercial crops consisted of a few perennial crops, especially anise and fruit. Cash crops lost much of their importance under the collectivization policies that were imposed by Vietnam's Communist government until the 1980s. Since *doi moi*, however, the popularity of cash crops among local farmers has increased to the point that they now dominate the household economy.

Nung agriculture today can be described in terms of three main components. One is based on wet rice, which continues to be the main subsistence crop in the region. The second component consists of a number of cash crops, mainly sugar in paddy fields and anise as well as fruit in hill plots. Anise farming is by far the most lucrative operation in the commune. The third main component of household

farming is animal husbandry. Farmers raise livestock, buffaloes, oxen, and pigs whose meat they consume or sell. Like cash crops, animal husbandry, especially pig rearing, has assumed much importance for the household economy. Many families rely on these commercial activities to generate the cash income needed to purchase the rice that they are often unable to produce in sufficient quantities to satisfy their consumption needs.

5.3.1 Paddy Rice

Thanks to its moderate range of elevations (350 metres to 800 metres above sea level), Thuy Hung' agricultural land is exposed to temperatures that are warm enough to grow two rice crops a year. Spring rice (the rice grown during the dry season) is planted in nursery beds at the end of February, transplanted thirty days later, and harvested at the end of July. Summer rice (the rice grown during the wet season) is first planted at the end of July, transplanted at the end of August, and harvested at the end of November. Winters, however, are too cold to attempt a third rice crop, and farmers usually cultivate potatoes or winter vegetables from December to February. One serious limitation to rice farming in the commune is the lack of reliable water supply during the dry season. In reality, only slightly over half of the paddy land in the village is irrigated well enough to grow two crops of rice per year.

The cultivation of wet rice, traditionally the main agricultural activity among the Nung, has lost some of its importance in the increasingly commoditized rural economy. Nevertheless, as the principal source of food production, it continues to play a central role in village life. To a large extent, rice farming remains a traditional activity. Farmers still plant local varieties, fertilize their fields with manure, and plough their fields with buffaloes. The fact that paddy fields in Thuy Hung are divided in many small plots may represent a situation that suits traditional, labour-intensive methods of farming better than modern ones based on mechanization (see Table 5.1 and Table 5.2). In fact, tractors, which Russian

Table 5.1

Size of Family Land Holdings in the Commune of Thuy Hung

Land use type *	Area (hectares)			
	Per household		Per capita	
	Average	Range	Average	Range
Paddy fields	0.35	0.07 — 1.07	0.05	0.01 — 0.15
Hill plots	3.02	0 — 20	0.44	0.0 — 2.50

*1996 data; sample size: n=57

Table 5.2

Size of Family Rice Land Holdings in the Commune of Thuy Hung

Paddy land *	Average	Range
Number of plots	12.7	1 — 31
Two-crop area (ha)	0.19	0 — 1.0
One-crop area (ha)	0.16	0 — 1.1

* Sample size: n= 57

agricultural advisers had introduced during the government's last attempt to collectivize agriculture in the early 1980s have been now replaced by draught animals. One reason for this return to apparently more primitive methods of farming is economic: the withdrawal of tractors from paddy fields coincides with the end of Soviet aid in the region. The main reason, however, is likely to be that

buffaloes are more appropriate than motorized equipment for the farming of the small plots that make up family property¹⁵.

The persistence of traditional methods in rice farming is reflected in the division of labour between genders and the labour exchange relations agreed upon by villagers. Men and women tend to share agricultural tasks according to a fixed pattern established over the centuries. Ploughing is entirely done by men. This activity lasts about a month for each rice crop, that is from the time rice seedlings have been planted in the nursery beds until they are transplanted. On the other hand, transplanting, which takes about ten days, is done exclusively by women. Weeding the plantations is then the responsibility of both men and women. The first weeding occurs twenty days after seedlings have been transplanted, and lasts from seven to ten days. Subsequent weeding occurs in intervals of fifteen days. Of all the tasks associated with rice farming, the weeding of planted fields is the most labour-intensive, and often requires the help of other villagers. Villagers in fact practice various forms of reciprocal exchange of labour for all tasks of wet rice agriculture. Thus a family often helps out and receives help from relatives, neighbours, and friends for harvesting fields, digging ponds, ploughing fields, or even financing farm investments (see section 5.4.3).

The fact that traditional farming remains popular in Thuy Hung does not entail that local farmers have resisted all attempts to modernize their methods of farming. On the contrary, many families have adopted modern rice varieties (MRVs), which they plant along with traditional ones, enabling them to grow two crops of rice per year in fields which are sufficiently irrigated during the spring¹⁶. They grow local rice varieties, known locally as *bao thai*, exclusively during the rainy season (summer). The yield potential of these varieties is 120 kilograms per

15 It is possible that, with rising affluence, farmers in the future will purchase rotovators, small tractors which are especially designed for small plot farming.

16 In the north of Vietnam over 100,000 species of hybrid paddy seeds are now used (Dang Duc Dam 1995: 60).

sao (3.3 tonnes per hectare). During both the rainy season and the dry season they also cultivate a modern rice variety known as CR203, which has a yield potential of 230 kilograms per sao (6.5 tonnes per hectare) in the spring and 220 kilograms per sao (6.1 tonnes per hectare) in the summer. During both seasons, farmers also grow glutinous rice—a relatively low-yield (2.8 tonnes per hectare) but very popular traditional variety among the Nung which they reserve for festivals and special occasions. Another aspect of modernization in rice farming is that farmers now use chemical fertilizers (urea and phosphate) besides the manure of their animals. They also protect their crops chemically by spraying pesticides.

Rice Productivity and food requirement needs

Rice productivity in the commune is representative of Vietnam's northern provinces. By growing two crops annually, the average household produces 1.88 tonnes of rice per year, that is 5.20 tonnes per hectare, or 270 kilograms per capita (see Table 5.3). In comparison, the annual average food production per capita (paddy equivalent) from 1993 to 1995 for the northern provinces was 287 kilograms; for the whole of Vietnam, it was 361 kilograms (Nguyen Sinh Cuc 1995: 104). The productivity of rice farming varies considerably among households, a fact that can be largely explained in terms of factors of production. To assess this, a correlation analysis was undertaken (see Table 5.6). The most important variables are the amount of land per capita and the availability of irrigation water. The annual household rice production is, not surprisingly, strongly correlated to the size of the area of paddy land owned by the household, especially to the area of paddy land that is irrigated well enough to produce two crops of rice per year (correlation factor = 0.81). The next important variable is the amount of chemical fertilizers applied to fields (the correlation factor is 0.64 for urea and 0.60 for phosphate). Farmers in Thuy Hung make high use of chemical inputs (over 300 kilograms of both urea and phosphate per hectare), which is, by Southeast Asian standards, rather high. This is a sign that, in order to meet their food requirements, they are willing to supplement

their lack of paddy land by intensifying their production methods (see Table 5.4)¹⁷. Other factors of importance are the number of adult workers in the household, the number of buffaloes owned, and the amount of organic fertilizer used in paddy fields (see Table 5.6).

Farmer interviews confirmed the relative importance of these factors. Of the 57 respondents, 60 percent were concerned about not having enough irrigable paddy land to cultivate. At the same time, 40 percent complained about lacking capital to purchase chemical fertilizers, and 40 percent reported lacking labour (especially for harvesting tree crops). The lack of paddy land and irrigation water are thus the major obstacles to improving rice production. Largely because of these constraints, only 40 percent of the households are self-sufficient in rice production. Thus the average household in the commune only produces enough rice to feed all its members during 9.5 months a year (see Table 5.5).

Households react to rice shortages in a variety of ways. In Fai Mon, for example, one family of eight produce enough rice to feed themselves during six months each year. This is an extended family made up of the head of the household (aged 46), his wife, his youngest son's family (this son, his wife, and their two little children), and his parents. They farm 3 sao of paddy land (1,080 m²), which were allocated to his youngest son at the occasion of his marriage. There were three sons in the family, each of whom received one-third of the family property, far too little to satisfy the food requirements of their families. The main cause of food deficiency in this household is thus an acute shortage of paddy land. To make up for its chronic food deficiency, the family purchases rice with the income earned by selling perennial crops—anise and fruit—and pigs.

A second example is provided by a two-generation household in Na Ho which produces enough rice to feed itself for only two months per year. The family of eight farms 4 sao of paddy land (1440 m²), inherited by the male head of the

17 By comparison, the application rates of chemical fertilizer in Indonesia are of the order of 100 kilograms per hectare and in Thailand of 70 kilograms (Rigg 1991: p. 34).

Table 5.3

Rice Yields in Thuy Hung

Rice yield, 1995 (kg) *	Average	Range	Coef. of Variation
Per household	1,830	200 — 5,740	0.68
Per hectare	5,200	140 — 9,800	0.39
Per capita	270	30 — 940	0.63

*Sample size: n=57

Table 5.4

Use of Chemical Fertilizers in Thuy Hung

Amount of fertilizer, 1995 (kg) *	Urea		Phosphate	
	Average	Range	Average	Range
Per household	107	8 — 464	115	0 — 870
Per hectare	309.4	10 — 952	302.12	0 — 1,120

*Sample size: n=57

Table 5.5

Household Self-sufficiency in Rice Production in Thuy Hung

	Average	Range
Number of months of self-sufficiency per year *	9.54	3 — 12
Rice purchased per year (kg) *	195	0 — 720

* Estimated values for the years 1995 and 1996; sample size: n = 57

household. The man (age 50) lives with his wife, his daughter, and his son's family (the son, the son's wife, and three young children). Their paddy fields produce only one crop of rice per year due to lack of irrigation water. Their total annual yield of 200 kilograms is merely enough to feed the family for two months. These people have no farm income that they could use to purchase rice because their hill plots are too dry to plant cash crops and all the fruit and anise trees planted under the French administration have been cut down for fuelwood. To survive, they had to turn to the informal sector of the off-farm economy to earn cash income. Thus several members work as porters in border trading operations. The money earned in this fashion, however, is not sufficient to buy rice to satisfy the family's daily food requirements all year long, and they must often borrow rice from relatives.

In a third example of food production deficiency, a six-member household in Po Mach farms 2 sao of paddy land (760 m²), producing enough rice to feed itself for only two months each year. For this household too, food production is dangerously constrained by a lack of paddy land. This family has access to particularly little land because the head of the household is an ethnic Vietnamese man who married a Nung woman in Po Mach after retiring from the army in 1980. Since the man was landless and homeless at the time, the young family received a small portion of the

woman's family paddy land as well as her parental home. The family must buy 630 kilograms of rice a year to feed themselves. They too earn an income by working outside agriculture. The man operates a taxi for villagers with the motorcycle that he brought back from the army, and both he and his wife work as porters for traders. Their ambition is to develop their small farm by investing in pig-rearing. However, they lack the start-up capital, and they are not eligible for a bank loan. This family reports often "going hungry" during the year.

These three households represent extreme examples of not being able to meet food requirements because of lack of paddy land to farm. In reality, the majority of households that are not self-sufficient in rice production only need to buy rice two or three months a year. Nevertheless, the general shortage of paddy land in the commune is becoming worse as the population continues to grow. The situation is particularly serious in the villages lying along the road to China, where a new highway is being built through the best rice-growing area in the region. Na Ho alone will lose 30 percent of its total area of paddy land upon completion of the project. Many families are already affected by land shrinkage and they fear that food shortages will become very serious in the near future. Given the lack of non-farm employment in the region, their most effective survival strategy is likely to be to invest in cash crops. The growing markets for food products in rural Vietnam since *doi moi* offer a wide range of opportunities for families to improve income security by diversifying their crops and developing their farm enterprises.

5.3.2 Cash Crops

Less than a decade after the initiation of pro-market reforms in Vietnam's agriculture, cash crops may already have become the most important element of the household economy in the region. In Thuy Hung, farmers grow a variety of crops which they sell on local markets. In paddy fields, they grow potatoes and sugar along with rice. They plant potatoes in winter, which they rotate with rice on small portions of their paddy fields. Sugar, on another hand, is grown all year round in

increasingly large portions of the family fields. Sugar is especially becoming more popular in the villages near the highway where market opportunities are abundant. In Na Ho, for example, two-thirds of the households grow sugar on about 10 percent of their paddy fields (see Table 5.7). Sugar is attractive to farmers because it tends to be resilient to the frequent winter droughts in the region. The district's agricultural extension department now urges villagers to grow sugar on their least well irrigated paddy plots. In Na Pan and Na Lai, however, the lack of roads and transport by vehicle continues to discourage farmers to invest in sugar.

In hill plots, farmers grow a number of annual and perennial crops. Annual crops include maize, cassava, taro, and a variety of legumes and leaf vegetables. These crops are usually consumed rather than sold. Perennial crops mainly consist of anise and fruit trees (citrus, persimmon, longan, and others). Farmers grow these crops almost exclusively for their sale value, and these are the most important cash crops in the commune. Mature fruit trees and anise trees in Thuy Hung are less abundant than they were before Vietnam's independence. During the French colonial administration, most families in Thuy Hung had relatively large orchards. After Vietnam's liberation, however, the Communist government imposed economic policies of central planning on rural areas which led to the destruction of the region's forests and orchards. Thus, since there were only few opportunities to market anise and fruit, farmers cut most of their trees to satisfy their needs of fuelwood and lumber. The problem worsened rapidly due to continuous population growth in the commune. Another factor in the destruction of local trees has been the local impact of wars, especially the war of resistance against the Chinese invasion, where large numbers of trees were cut down by the Vietnamese army to build fortifications. Nevertheless, many families today still own relatively large numbers of fruit and anise trees.

By far, the most common tree is anise. The average household in Thuy Hung owns more than 100 trees, producing over 600 kilograms of green anise each year. Household ownership of trees, however, is very unequally distributed in the

Table 5.6

Relative Importance of Factors of Production in Rice Farming in Thuy Hung

Pearson's Correlation Coefficient Between Household Rice Yields and Factors of Production *						
Paddy area	Double cropping	Urea	Phosphate	Family labour	Buffaloes	Organic fertilizer
0.81	0.81	0.64	0.60	0.42	0.36	0.28

* Sample size: n = 57

Table 5.7

Crop Production by Households in Na Ho

Crop *	Area planted (m ²)		Output, 1995 (kilograms)	
	Average	Range	Average	Range
Rice	3,340	1,440 — 10,800	1,585	200 — 4,200
Potato	302	0 — 1,440	197	0 — 1,600
Sugar	316	0 — 720	2,000	0 — 6,000

* Sample size: n = 57

commune. Of the families surveyed in the commune, one-third did not have any producing trees. On another hand, two families had over 1,500 trees. Family ownership of anise trees varies considerably from village to village (see Table 5.8).

In Na Pan, the village that is the most endowed in trees, the average household owns 417 anise trees, that is approximately 4 times the commune average and 50 times as many as in Po Mach. Not surprisingly, household aniseed production in Na Pan is much higher than in the other villages¹⁸ (see Table. 5.9).

After anise, the most common varieties of mature trees are citrus, persimmon, and longan. The fruit of these trees are less important cash crops than aniseed. Nevertheless, their sales represent significant contributions to household incomes. Like anise, fruit trees are unevenly distributed among families. Unlike anise, however, no family owns very large numbers of mature producing fruit trees as the monoculture of anise tended to dominate the local farming economy during the French colonial era. However, increasingly aware of the potential benefits of tree farming, villagers are now planting large numbers of commercial trees. They prefer to plant anise, of which the seed is easy to store, and for which market opportunities continue to improve. Nevertheless, they also strive to diversify their production by investing in a variety of fruit, including longan, persimmon, citrus, pear, and plum (see Table 5.10). In all villages of the commune, even in those already well endowed with mature trees, farmers show much enthusiasm for planting trees. In Na Pan, for example, where families have inherited considerably more anise trees than in the rest of the commune, farmers have planted half as many more trees than in Po Mach, the village with the fewest mature trees (see Table 5.11).

Besides the lure of markets, two factors directly motivate farmers to invest in orchards. One is the 1993 Land Law, under which most families have officially received a 50-year lease of their plots. The investment security provided by this

18 Of course, the household production of aniseed is not only a function of the number of mature trees owned by households. Another factor is the quality of the tree. A healthy mature tree produces 100 kilograms of green anise (about 30 kilograms in the dried form) in an average year. Some households, however, have many trees that are so old that they have passed the peak of their capacity. Another factor is the lack of labour. Many households experience severe labour shortages during the harvesting period, and thus are unable to harvest all their production. In fact, in Na Pan, the two households owning the largest numbers of trees, 1500 and 2000 respectively, harvested only 1,000 kilograms and 1,500 kilograms of dried anise (see Table 5.9).

Table 5.8

Household Production of Tree Crops in Thuy Hung

Crop *	Number of trees owned by households, 1996			Output, 1995 (kilograms) ¹	
	Average	Coefficient of variation	Range	Average	Range
Aniseed	106	3.17	0 — 2,000	629	0 — 4,500
Citrus	18	2.78	0 — 300	121	0 — 1,000
Persimmon	2.7	2.82	0 — 70	49	0 — 800
Longan	1.2	3.88	0 — 20	57	0 — 800
Plum, pear, olive, ...	1.3	3.17	0 — 20	—	—

* Sample size: n = 57

¹ Green aniseed (undried)

Table 5.9

Household Production of Aniseed in Po Mach and Na Pan

Village	Number of anise trees owned by households, 1996			Output, 1995 (kg) ¹		
	Average	Coef. of variation	Range	Average	Coef. of variation	Range
Po Mach (n=19)	8.4	1.5	0 — 50	226.3	1.48	0 — 1000
Na Pan (n=12)	417	1.56	0 — 2000	1421	0.98	0 — 4500

¹ green aniseed (undried)

Table 5.10

Trees Planted by Households in Thuy Hung

Tree type	Number of trees planted, 1996		
	Average	Range	Coef. of variation
Anise	118	0 — 1000	1.6
Others	29	0 — 400	2.47

Table 5.11

Anise Trees Planted in Po Mach and Na Pan

Village	Number of trees planted, 1996		
	Average	Range	Coef. of variation
Po Mach (n = 19)	108	0 — 800	1.73
Na Pan (n = 12)	169	0 — 1000	1.77

relatively long lease period has encouraged families to increase the size of their fruit plantations. The Land Law, however, has had only a limited influence on the people's decisions to plant trees. Many had already planted fruit trees in the late 1980s, well before receiving an official title to land. One local farmer commented during fieldwork that the reason for doing so is that "this land has always belonged to his family." He pointed out that his decision to plant fruit reflected market

conditions rather than state policy. Like many other farmers, he felt that land policy was "meaningless" in this region.

Another factor is the national reforestation programme promoted under Decree 327, which was recently implemented in two of the five villages surveyed—Na Ho and Po Mach. As emphasized in section 4.3.2, Decree 327 represents an attempt to regreen barren lands by promoting household farming. In Thuy Hung, the first objective of the programme has been to reforest some of the hills with pulp, fuelwood, and timber trees. A second objective has been to encourage agricultural diversification by handing out seedlings of anise and fruit trees to farmers who have agreed to participate in the programme. In practice, however, the distribution of seedlings has been largely limited to non-fruit trees, and many participants have not received any seedling at all. On the whole, in both Na Ho and Na Pan, only half of the seedlings planted by local farmers were part of provided under Decree 327. The rest was privately purchased by the households themselves. Clearly the main factor motivating farmers to invest in tree farming has been the prospect of raising their incomes by marketing tree crops rather than government sponsored rural development initiatives. The programme of pro-market reforms implemented in rural areas since *doi moi* has been the main force of change in Vietnam's upland agriculture.

Constraints to orchard development

Villagers in thuy Hung have made much effort to invest in tree farming. Nevertheless, the potential for orchard development is limited by several factors that are beyond their control. The main problem is that top soils are generally too dry to be fertile as the result of the long annual dry season (usually from October to May). It is difficult to build irrigation systems in the hills because of lack of brooks

and creeks. The absence of sufficient forest cover and vegetation in the region inhibits the potential for water source development. Anise is better adapted to such environmental conditions than fruit trees. Nevertheless, hill land is often too dry even for growing anise. This is almost always the case of hill tops. Thus, although households have relatively large holdings of hill land (see Table 5.1), much of this land is unsuitable for fruit production. In addition, much of the land has been planted with timber trees under Decree 327, which further reduces the land suitable for growing anise and fruit.

Several other problems plague orchard development in Thuy Hung. One is the high mortality of seedlings due to grazing animals. Families do not fence their plots, in part because it is not customary to do so, and in part because lumber is scarce in the region. Another is that farmers have little access to fertilizers and pesticides. These, when they are available, are relatively expensive, and many families choose not to use them. Lack of capital is thus an important constraint to family orchard development. It may be argued that these are not entirely necessary, that chemical fertilizers can be replaced by manure and pesticides by natural methods of pest control. Manure, however, is not easily transported to hill plots, which tend to be scattered and far from the villages, where it is collected. The issue of natural methods of pest control is also controversial. Although organic tree farming may be appealing from the environmental viewpoint, it is associated with high risks in terms of tree survival. Thus most farmers would prefer to buy pesticides. The lack of family labour is another obstacle to successful tree farming. Trees must be fertilized, pruned, tended during grazing, and harvested. Many households must limit the size of their plantations because they lack labour. Thus in villages well endowed with mature trees, such as Na Pan, many anise trees remain unharvested at the end of the summer.

Finally, the fact that anise is more profitable than fruit acts as a disincentive to crop diversification. Farmers generally prefer planting anise than fruit even though the production cycle is such that production can be quite low in some years. Thus,

in Na Pan, families reported harvesting in 1994 and 1995 only one-fifth of what they would normally collect in other years. This affects relatively little the households that own large numbers of productive trees because they are able to provide for lean years by storing dried aniseed for several years before selling it. On another hand, the households that own few mature anise trees are vulnerable to these production cycles. Nevertheless, even these farmers have tended to cope by planting young anise trees rather than fruit¹⁹. Anise remains by far their preferred crops because of its market price and of its storability.

5.3.3 Animal Rearing

As in most upland villages of northern Vietnam, families in Thuy Hung rear buffaloes, pigs, chicken, ducks, and fish (see Table 5.12).

Buffaloes play an important role in farming by serving as draught animals. Most households have one or two buffaloes which they employ principally to plough fields, and the meat of which they sell to local butchers when the animals are too old to work efficiently. The few households that do not own buffaloes are forced to borrow some from friends and relatives to plough their paddy fields before planting rice. The importance of buffaloes as a factor of agricultural production reflects the fact that there are no tractors or other mechanized vehicles to assist farmers in the pre-harvest phase of rice cultivation. Mechanization only makes a significant contribution to local agriculture in the post-harvest operations, such as threshing and grinding.

Households usually have also one or two pigs, which they rear in order to sell pork on local markets. A serious impediment to pig rearing in the commune is that

19 According to local farmers, it takes about ten years for an anise tree to produce a significant amount of seed in this region. After growing for 30 or 40 years, the productivity of an anise tree peaks to about 100 kilograms of green aniseed. This production level remains the same for twenty years, after which it declines steadily.

Table 5.12

Household Animal Husbandry in Thuy Hung

Animal type *	Number of animals owned by households, 1996		
	Average	Range	Coef. of Variation
Buffaloes and cows	1.7	0 — 6	0.81
Pigs	1.1	0 — 3	0.83
Chicken	7	0 — 30	1.21

* Sample size: n= 57

Table 5.13

Afforestation: Trees Planted by Households Under Decree 327

Village	Average number of trees planted per household, 1996	
	Anise and fruit	Pines and acacias
Na Ho (n = 16)	45	375
Po Mach (n = 19)	75	331

many animals die each year as a result of disease, parasite, and poisoning²⁰. On average, farmers lose as many pigs each year as they can keep. It is common for

20 In much of Vietnam's mountainous provinces, farmers lose pigs to disease (such as "pig seals"), parasites (tape worms), and poisoning in the fields. In the latter case, pigs are unintended victims of poison set by farmers to kill mice and rats.

some families to lose all their pigs several years in a row. This represents a severe loss of capital investment for farmers. Farmers also raise poultry, chicken and ducks, largely for consumption. A few farmers also raise fish in temporary ponds that they built in the paddy fields. Because few ponds are able to carry large numbers of fish, pond owners normally consume their production. Those who are able to achieve a fish surplus barter or sell their production locally.

5.3.4 Afforestation

Characteristically of the region, much of the hill land in the commune of commune has been deforested through shifting agriculture, fuelwood collection, and, along the highway, tobacco farming (see section 4.2.2). The cultivation of tobacco has caused much deforestation because it requires considerable amounts of fuelwood to dry the tobacco leaves. Because of its ecological unsustainability, it has now virtually disappeared in the district²¹. The collection of fuelwood, however, continues to be practiced on a large scale by local families, mostly to produce fuel for cooking. It is currently the main cause of deforestation in the region.

In an attempt to develop the mostly barren hill land, local authorities have implemented the regreening programme provided by Decree 327 in a number of villages in the commune, two of which have been surveyed here: Na Ho and Po Mach. The programme was first introduced to Thuy Hung in 1994, shortly after local authorities started to hand out land certificates to families. A local state forest farm was commissioned to supply seedlings to farmers, while the provincial Afforestation Programme Management Unit provided chemical inputs, free of charge during the first year of planting. As a result, in Na Ho, of the 50 hectares of hill land, 9 hectares have been so far replanted with trees. In Po Mach, which has 30 hectares of hill land, 9 hectares were replanted with trees in 1994, one hectare in 1995, and the area being reforested continues to expand, although slowly.

21 Tobacco was grown in Thuy Hung from 1968 to 1984. It was then abandoned because of low profitability. Farmers had only one customer: a state-farm, which purchased dried tobacco at artificially low prices.

By far the main species of trees provided under Decree 327 in Thuy Hung are members of the pine and acacia families, although there has been some efforts to provide seedlings of anise and fruit trees to help local farmers establish commercial orchards on their properties²² (see Table 5.13). The programme recognizes that farmers do own the trees planted, which they will be able to harvest once they have matured. The specific objectives are to encourage farmers to tap pines for oil, which they can then sell to private companies for export; to prune acacias for fuelwood; and to cut a limited number of pines and acacias to produce timber for construction. For their efforts in planting and managing the tree plantations, farmers are to receive monetary payments in proportion to the total area replanted²³.

Little is known so far about the precise impact of the programme's implementation in the commune. Nevertheless, only two years after the start of the afforestation programme, it has been observed that tree mortality is relatively high due to lack of irrigation water, forest fires, pest outbreaks, and grazing by buffaloes. Thus, in 1995, one household in Po Mach planted 400 pines and 400 acacias. By the end of 1996, it had lost 50 percent of these trees to grazing alone. Another household, in Na Ho, had lost all of their 600 pines and 700 acacias to fire.

One important factor influencing the life of seedlings is the farmers' previous experience in managing tree plantations. One farmer, who used to work in a state forest farm before land was redistributed to households, has achieved a very high rate of survival and fast growth by judiciously diversifying the species planted and applying high rates of fertilizers and pesticides. Some of his trees—anise, olive, persimmon, star fruit, plum, and pine—have grown by an average of one metre a year since the planting date. Others—mostly varieties of acacias—have grown by four metres. This experience highlights the importance of technological knowledge

22 The most common species are *acacia auriculijorumis* (*keo la tram* in Vietnamese) and *pinus khasya* (*po mu* in Vietnamese).

23 Farmers in Po Mach receive 80,000 dong per planted hectare twice a year for three years in a row, provided the majority of their seedlings have survived.

and access to chemical inputs in afforestation programmes. Indeed, one of the main obstacles to the successful implementation of Decree 327 in Thuy Hung is the lack of extension services for tree farming.

5.4 Analysis of Household Income

Pro-market reforms have encouraged farmers in Thuy Hung to invest in cash crops. For most households, aniseed, fruit, and sugar have become the main sources of agricultural income. However, due largely to structural constraints such as lack of land, labour, and investment capital, many households have been unable to survive on agricultural income alone. The unavailability of off-farm employment has motivated them to participate in the informal sector of the economy. Many farmers today supplement their agricultural incomes by working as porters for traders who operate across the border with China. For the poorest households, this may be the most effective survival strategy.

5.4.1 Agricultural Income

The main components of agricultural income are presented in Table 5.14. Anise is the most profitable crop, accounting for over half of the total agricultural income. Fruit, sugar, and pigs are the next sources of income, each accounting for approximately 10 percent of the average agricultural income.

Anise is a consistent source of household income in the commune. Of the households surveyed, 70 percent earned incomes by selling anise on the national market²⁴. Nevertheless, its importance as a source of income varies from village to village. In Po Mach, where most of the anise trees planted during the colonial era have been destroyed, only 50 percent of the households today still derive an income from anise sales. On the other hand, in the relatively remote village of Na Pan, where anise trees are still abundant, households depend almost exclusively on anise for income (see Table 5.16). There, the only families without income from anise

24 Villagers sell anise to itinerant merchants on roadside markets.

Table 5.14

Household Agricultural Income in Thuy Hung

Source of income *	Annual income / expenses (million dong)		
	Average	Range	Coefficient of variation
Anise	2.85	0 — 18	1.54
Fruit	0.48	0 — 7.4	2.64
Sugar	0.47	0 — 4.0	2.13
Potatoes, maize	0.19	0 — 2.5	2.79
Pig rearing	0.51	0 — 5.2	1.77
Gross agricultural income	4.97	0 — 21	1.05
Agricultural expenses	0.93	0 — 4	0.9
Net agricultural income	4.38	0 — 19	1.08

* Estimated values for 1996; sample size: n = 57

Table 5.15

Household Agricultural Income in Na Ho

Source of income, 1996 (n = 57)	Annual income (million dong)		
	Average	Range	Coefficient of variation
Anise	3.57	0 — 15	1.33
Fruit	1.03	0 — 7.4	1.91
Sugar	0.59	0 — 3	1.57
Potatoes, maize	0.10	0 — 1.6	3.82
Pig rearing	0.46	0 — 1.2	0.38
Gross agricultural income	6.33	0 — 21	1.01

Table 5.16

Household Agricultural Income in Na Pan

Source of income, 1996*	Annual income (million dong)		
	Average	Range	Coefficient of variation
Anise	4.59	0 — 18	0.86
Fruit	0.0	---	---
Sugar	0.0	---	---
Potatoes, maize	0.19	0 — 1.8	2.75
Pig rearing	0.15	0 — 1.2	0.38
Gross agricultural income	4.93	0 — 18	1.08

* Sample size: n = 57

sales are those which do not own any hill plots, usually because the male household head originates from another village.

Anise is a popular cash crop not only because of its high market value, but also because it can be stored easily. Its seed is relatively compact and can be stored in home-made wicker containers for several years without losing much quality. Because of its high oil content, aniseed is largely spared from mice and other rodents. Farmers therefore commonly store it in their homes and wait for market prices to be high enough before selling it. The price of dried aniseed varies considerably from year to year. According to local farmers, the price of a kilogram of dried aniseed fluctuated between 7000 dong a kilogram in 1990, 35000 dong in 1993, and 20000 dong in 1996. Since aniseed is largely sold to exporters, its price is

determined by world demand and the quantity of global and local supply²⁵. In Lang Son province, anise production has been cyclical, with bumper crops in 1993 and 1996, and low production in 1994 and 1995. The main factors influencing the production cycle appear to be the quantity and timing of rainfall in the region. Because aniseed can be stored for years before selling, however, its production cycle does not diminish its importance as a reliable source of income over time.

The cultivation of fruit—longan, persimmon, and citrus—also makes an important contribution to household income. In the market economy, the demand for fresh fruit in urban areas is strong and relatively steady. In 1996, longan sold for 3,000 dong a kilogram; persimmon for 5,000 dong; and citrus for 2,000 dong. In 1995, a year when harvests were generally low due to poor weather, prices were almost twice as high. The importance of fruit as a component of income, however, varies from village to village. It is especially high in villages where anise orchards were substantially destroyed in the past, thanks to recent efforts by farmers to invest in fruit. Thus, in Na Ho, over 70 percent of households sell fruit for income (see Table 5.15). By contrast, in villages where anise trees have been better preserved, fruit sales contribute relatively little to household income. Thus, in Po Mach, only 20 percent of the households have commercial fruit trees, and in Na Pan, families do not have any (see Table 5.16). Fruit crops are likely to assume more importance in a few years, when recently planted fruit trees have matured. Nevertheless, it is clear that anise will remain the most important cash crop because of its high export value.

Sugar is a growing source of cash for farmers in villages near the highway. It is an increasingly popular alternative crop to rice for two main reasons. First it is more resilient to drought than rice. Villagers, therefore, plant sugar in the driest plots of their paddy fields. Second, it generates much higher cash revenues than

25 Not all farmers sell aniseed in dried form. Those who lack drying facilities, sell it green. Green, undried aniseed sells for about a third or a quarter of the price of the dried one, the price differential corresponding to the loss of weight in the drying process. Farmers usually sell undried aniseed when their harvests have been particularly bountiful.

rice. One sugar cane sells locally for 1,000 dong. One sao of land (360 m²) produces an average of 1,500 canes, that is the potential income of 1.5 million dong. By contrast, a good summer harvest of rice generates 150 kilogram of husked rice per planted sao of paddy land. At 2,000 dong a kilogram, this represents only an income potential of 300,000 dong per sao of planted rice. There are, however, constraints on growing sugar. First, because of its bulk, planting sugar only makes sense in villages with good access to highways or marketing facilities. It is relatively unprofitable in isolated villages like Na Pan. Another constraint is that growing sugar requires high rates of inputs—labour, fertilizer (manure), and pesticides—which, in many households, are in short supply.

The third important source of farm income is pig rearing (see Table 5.14). In all villages, farmers rear pigs with the purpose of selling meat as the demand for pork is high and stable throughout the year. Nevertheless, the potential for improving incomes by rearing pigs is limited by the high rate of disease in the region's pig population (see section 5.3.2).

5.4.2 Non-agricultural Income

In the face of insecurity of farming, villagers have engaged in various informal economic activities. Of these, the most popular one is to carry goods for traders who operate across the national border with China and to sell fuelwood locally. Others, of minor importance for the population at large, are specialized service activities in the village.

Porter work. The most lucrative activity, by far, has been for villagers to work as porters in trading operations across Vietnam's northern border with China, adding almost 2 million dong (\$180) to the average annual household income (see Table 5.17). The trade of consumer products from China (cigarettes, alcohol, clothes,

Table 5.17

Household Off-farm Income in Thuy Hung

Source of income, 1996 *	Annual income (million dong)		
	Average	Range	Coefficient of variation
Porter work in border trade	1.88	0 — 18	1.80
Fuelwood collection	0.18	0 — 3	3.31
Other activities	0.38	0 — 13.5	4.88

* Sample size: n = 57

Table 5.18

Total Annual Income in Thuy Hung

Annual income, 1996 (million dong) *	Average	Range	Coefficient of variation
Per household	7.0	1 — 22	0.78
Per capita	1.03	0.11 — 3.8	0.79

* Sample size: n = 57

electronic equipment, etc.) is a reliable source of employment throughout the year²⁶. Over half of the households in the commune have one or several members who work as porters for importers at least several months a year. Often husband and wife, accompanied by one or several children, will toil for ten to twelve hours a day, carrying heavy goods on their backs over the hills that separate Vietnam from China. The work is hard and at times dangerous as the border region is infested with bandits. The daily wages—anywhere from 5,000 dong to 25,000 dong—are only somewhat higher than those of farm workers (see Table 5.19). This activity is nonetheless popular because of lack of alternative forms of employment. There is no rural industry in the region, and employment opportunities in farming are scarce because reciprocal exchange among relatives, neighbours, and friends remain more popular than wage labour.

Usually, farmers work as porters during periods of low agricultural activity (slack time). These are the rice growing periods (April—May for spring rice and July—August for autumn rice) and the winter (December—February)²⁷. The trade of goods across the national border is so intensive that employment opportunities abound. The average family in Thuy Hung has two or three members working in such operations. The larger families often have as many as five or six. In Na Pan, for example, a nine-member household has had five members working as porters two months a year for several years in a row. By doing so, they earn 5 million dong a year, that is approximately the same as their total farming income. Another example is provided by a family of seven in Na Ho, in which the husband and wife work with a son and a daughter 300 days a year, earning a total income of 18 million dong. This is considerably more than the 4 million dongs earned annually by

26 Trading between China and Vietnam takes many forms, including contraband. Vietnam is plagued by chronic shortages of consumer goods, due to the lack of indigenous industry. The demand for imported goods, especially cheap goods produced in China, is thus high. This stimulates smuggling activities across the border with China.

27 March is a month of intensive labour in agriculture. This is when farmers plant sugar and then transplant the spring rice seedlings.

growing sugar and fruit, and rearing pigs. Similarly, in an extended family of thirteen, five adult sons and teen-aged sons each work 25 days a month, earning a total of 15 million dong per year. By contrast, they derive virtually no agricultural income for lack of resources, especially land. The family has access to only one sao (360 m²) of hill land, which does not bear any mature fruit or anise tree. With the income earned in porter work, however, they have now planted 40 anise trees in their plots, which they hope to harvest in a few years.

The trend has been for households to reinvest some of the profits made by working for border traders into their farms. The hard-earned incomes enable them to enhance and diversify their agricultural production, especially by cultivating cash crops. Porter work thus indirectly benefits local agriculture by providing much needed capital for investment. At the same time, however, the danger exists that this type of activity diverts too much labour from farming. Many farmers work as porters for several days or weeks in row, all year round, at times when fields must be ploughed, irrigated, and weeded. Porter work may impinge on family farming even when it is done only during the agricultural slack time (winter). This period is an important part of the agricultural cycle and village life in general. This is the time when tools must be repaired, roads maintained, irrigation ditches built, and festivals held. Because of its labour requirements, porter work may thus have an effect on family farming that is not unambiguously positive. What is clear, however, is that both non-farm work and farm work are closely intertwined processes of social and economic transformation in the commune.

Fuelwood collection. Another popular form of informal non-farm work is fuelwood collection. In every village of the commune, even in those where families have lost most of their trees, farmers scour the hills, cutting bushes or tree branches and gleaning dead wood from the ground, which they consume and sell to fellow villagers or to passers-by on the highway. Wood collectors—both men and women—range over a wide area in and around their villages, and both on public

and private property. They usually gather two bundles of fuelwood a day, which they sell for 5,000 to 10,000 dong a piece. In Po Mach, for example, the head of a household of six and his wife gather fuelwood for 30 days a year, which they sell for a total income of 300,000 dong. In another family, the male head alone spends 60 days a year searching the hills around the village for fuelwood. He normally finds four bundles a day which he sells at 5,000 dong a piece earning a total annual income of 1.2 million dong. The same man accompanied of his wife also work for border traders for 90 days a year. Another example is provided by the family of seven in Na Pan, in which a middle-aged woman and one of her teen-aged daughters collect fuelwood for 100 days a year, earning an annual income of 2 million dong, close to half of their total farm income.

Collecting and marketing fuelwood is a popular business activity for Thuy Hung residents. However, it is far less lucrative than working for border traders (see Table 5.17). At the same time, the growing scarcity of wood in the region casts a doubt over its long-term reliability as a source of household income. There is a real danger that until electricity or other forms of energy are made available to households for cooking food, families will continue to deforest their surroundings to produce fuelwood. Fortunately, market prices for fuelwood increasingly reflect the scarcity of wood resources in the region, with the effect of encouraging local residents to optimize the use of fuelwood and conserve it when they can. One can also hope that if afforestation under Decree 327 is successfully implemented in the region, a limited form of fuelwood collection will be ecologically sustainable in the future.

Specialized informal activities. In each village, a few households specialize in a non-farm economic activity such as operating a motorbike-taxi; running a food stall, making and repairing clothes, and so on (see Table 5.19). In Fai Mon, for example, the male head of a household of four earns an extra 0.5 million dong a year by transporting villagers on his motorbike. The same man—who is also a key official

in the village's administrative committee—also earns an extra 3 million dong by carrying goods for border traders. His total income earned from these two activities (3.5 million dong) thus almost matches his farm income (4 million dong). In Po Mach, a woman earns 9 million dong per year by sewing and mending clothes. Her husband earns 4.5 million dong by catching birds and selling them in Lang Son town. Together, these revenues are about three times as high as their farm income.

Two traditionally important professions in Nung society have, in the market economy, become highly monetized: the combined activity of shamanism, sorcerism, and Taoism, and the practice of traditional medicine.

Of these, the first stands out as a distinctive feature of Nung society. The sorcerer / shaman / Taoist priest (*thay mo*) is in high demand for his supernatural talents. Every village in the commune has at least one, two, or three *thay mos*. These highly esteemed characters are called in at funerals, weddings, and at homes in which lives a seriously ill person, where they recite incantations to ward off bad spirits, invoke supernatural powers, and practice shamanism. *Thay mos* in the traditional past offered their services in exchange for local goods and services. Now they practice their skills for monetary returns²⁸. *Thai mos* are usually men, but they can also be women. Female *thay mos* usually specialize in treating illness by practicing shamanism. Only rarely do they exercise ritual functions in public events such as weddings and funerals. In Po Mach, a sorceress reported earning approximately 300,000 dong a year by treating sick people. She is the head of a seriously impoverished household with two teenaged children. She revealed that her son fell gravely ill in 1995 and that,

28 At funerals and weddings, *thay mos* charge daily fees that are in the order of 30,000 dong (slightly less than \$3). Their fees for treating illness are usually smaller.

Table 5.19

Daily Income Earned in Off-farm Activities in Thuy Hung

Activity	Daily income (dong)
Porter for border traders	15,000 — 25,000
Fuelwood collection	10,000 — 20,000
Motorbike taxi	20,000 — 25,000
Food stall	6,000 — 10,000
Garment making and repairing	15,000 — 25,000
Bird catching	20,000 — 30,000
Sorcerer / Taoist priest	30,000
Practitioner of traditional medicine	30,000
Agricultural worker (ploughing, harvesting)	10,000 — 15,000

her skills having failed to improve his condition, she had had to borrow 5 million dong to have him treated in a provincial hospital. She hopes to be able to reimburse her debt in a few years by practicing her skills on an increasing number of patients in thuy Hung. Male *thay mos*, on another hand, are especially active in public rituals. In Fai Mon, a male *thay mo* reported practicing his profession at about 100 public occasions each year, for a total revenue of 3 million dong. He reported having little time left for treating private patients.

Traditional medicine has also become a very profitable business operation. In Fai Mon, a 27-year old man in a household of ten practices traditional Chinese medicine. He has inherited the skills of his father, who is still alive but is now too old to work. The man uses the family home to store traditional medicines and treat patients. He estimates the income earned by doing so to be well over 3 million dong annually, a welcome addition to the 7 million dong earned by farming.

Conclusion. Informal economic activities make a significant contribution to household income. Thus, while the average household income derived from agriculture is 4.38 million dong (\$400), the average total annual income is 7 million dong (\$635) (see Table 5.14 and Table 5.18). This substantial increase in household income is largely the result of employment in border trade operations.

Specialized economic activities have had so far relatively little effect on the incomes of the village population at large. *Thay mos* and traditional doctors are privileged individuals, who have inherited their skills from their parents (often their fathers). Few other villagers—if any—can realistically hope to improve their incomes by taking up such occupations. The possibilities for earning extra income through other specialized activities have also been so far limited. Some enterprising villagers have been able to diversify their economic activities by taxiing people, selling packaged foods, and offering other services needed by the local community. On the whole, however, porter work and, to a smaller extent fuelwood collection, are the only non-farm activities that have a wide appeal, offering poor villagers a real chance for improving their economic situation without initial capital investment (see Table 5.17). These survival strategies enable them to reinvest profits in farming—to buy fertilizers, new rice seeds, piglets, and so on. Carrying goods for border traders is hard and poorly paid. However, villagers justify taking part in it by pointing out that they have presently no other way to survive. Their agricultural incomes are low due to lack of access to factors of production and they do not have the skills or education levels required to be hired in the urban formal sector. Porter work is thus realistically the only significant source of income outside farming that is open to villagers. In any case, most villagers reinvest the profits earned in these and other off-farm activities into their farms. By far, investing in farming represents the best hope for villagers to improve their incomes.

5.4.3 Wage Labour and Reciprocal Labour Exchange

The pro-market reforms introduced under *doi moi* have led to a rural household economy that has become increasingly diversified. Farmers now grow a mix of subsistence and cash crops, and they derive incomes by working in the informal non-farm sector. The flow of cash for labour services has thus made a definite appearance in the village economy. At the same time, traditional arrangements of reciprocal labour exchange remain widely popular. All farmers in the commune exchange labour services in agriculture and construction with lineage members, neighbours, and friends. Farmers help each other for ploughing paddy fields, transplanting rice, weeding fields, harvesting crops, building terraces and ponds, repairing homes, and so on. Under such reciprocal arrangements no-one is paid in cash or kind, but everyone keeps track of the help that they provide or receive. The aim is to reciprocate so that equity and fairness prevail in the long term. In most villages, these arrangements prevail over wage labour.

This is the case in Fai Mon, Na Ho, and Po Mach, villages where cash cropping is still weakly developed. In those villages, relatively few farmers hire others for farming. Thus, in Na Ho, a farmer, his wife, and his sister are hired for a few days a year by a family living in a neighbouring village to help harvesting rice. Their daily wage is 15,000 dong each, amounting to an additional annual income of 0.5 million dong. In Po Mach, in a family of ten, an unmarried son and a teen-aged daughter work in a similar situation, earning a total amount of 100,000 dong annually. Such occurrences are rare. There are few hiring opportunities in these villages because cash cropping is still relatively undeveloped.

In Na Pan, on the other hand, where aniseed production exceeds the capacity of local labour to harvest it, families commonly hire workers from neighbouring villages for harvesting aniseed and assisting in other farming operations. Thus fifty percent of the households surveyed in Na Pan hire workers, mostly from other villages, to harvest aniseed, plough fields, repair irrigation canals, harvest rice, and so on. Three examples are presented here to illustrate the situation. The first

example is provided by a family of eight, including four adults and four teenaged sons, which owns a large number of anise trees on 4 hectares of land. They hire six workers for ten days in the late summer of each year to harvest the trees, whom they pay each 12,000 dong a day in addition to feeding them. This family is able this way to harvest 1,400 kilogram of green anise, from the sales of which it earns 10 million dong²⁹. In a second example, a family of six, including four productive adults, has 5 hectares of hill land with many mature olive and anise trees. For lack of labour, the family has decided not to harvest olives. Olives sell for 2,000 dong a kilogram on the market, considerably less than undried anise, which they are able to sell for between 3,000 and 6,000 dong a kilogram in a good year. The family employs workers in various agricultural tasks. They hire two workers for five days each year to harvest rice and two workers for ten days to pick anise. Their expenses on wages are 10,000 dong per worker for a total of 300,000 dong a year. By contrast, their revenues from anise sales were 3.5 million dong in 1996. The use of wage labour to harvest anise has thus enabled them to achieve a considerable profit. During the slack agricultural period, when workers are often idle on the farm, two daughters also work for 90 days in porter work and 100 days to collect fuelwood, bringing in an extra annual income of 3.5 million dong. Finally, a family of seven, including five children, own an orchard of 60 mature anise trees on 1.7 hectare of hill land and enough paddy land to be self-sufficient in rice production. In a somewhat reverse situation of other families in the commune, they use family labour to cultivate cash crops and hire workers to farm rice. Thus only members of the family harvest anise and other crops, but they hire workers to plough the fields (26 man days per year for a total of 400,000 dong). The family earns 3.4 million dong a year by selling aniseed, potatoes, and pork.

It is thus clear that as the result of commercialization of agriculture, wage labour relations have started to emerge in Na Pan. The village has a chronic

29 They sold their harvest of aniseed in dried form (400 kilogram of dried aniseed at 25,000 dong/kilogram).

shortage of labour because of its endowment in productive anise trees. At harvest time, half of the households in the village hire workers from outside the local community to harvest trees. Nevertheless, almost every family in the village also exchanges labour services with neighbours, friends, and relatives, and reciprocal labour exchange arrangements remain important components of the household economy. Most farmers help others in all tasks of farming according to traditional conventions of division of labour. Typically, men from several households plough fields together; women transplant rice; children—often accompanied by their parents—weed out fields, harvest rice, pick anise, and transport goods to the market. Labour exchange in the village thus even applies to picking anise, a very labour intensive activity over a short period of time. Families owning large orchards employ up to six or eight workers from other local families, whom they do not pay in cash, but feed during the harvest, and help later on in their own farming operations. A few households also reward helpers with a portion of the harvest, typically 30 or 40 kilogram of green anise, which they may sell.

To summarize, the principle of reciprocity generally continues to dominate labour exchange arrangements in most villages in the commune of Thuy Hung. Nevertheless, in Na Pan, a village well endowed in mature anise trees and where the cultivation of aniseed as a cash crop is particularly well developed, wage labour relations are now common.

5.4.4 Investment goals

The liberal economic climate created by *doi moi* has had a strong influence on farmers' investment priorities, and households are firmly intent to take advantage of the new marketing opportunities to intensify and diversify their farm business operations. Efforts to develop commercial farming are usually limited to one or two types of activity. Thus eighty percent of farming households have at least one commercial goal while forty percent had two. Twelve percent of families do not have any investment goal at all because of lack of land, investment capital, and

labour (see Table 5.20). According to this survey, the main investment priorities are to plant anise together with fruit (38 percent), to plant only anise (26 percent), and to rear pigs (12 percent) (see Table 5.20). It is interesting that in Na Pan, where anise monoculture is prevalent, the farmers' first priority is to invest further in anise plantations. One reason is that many trees planted by previous generations are now dying or becoming unproductive and thus need to be replaced. Another reason is that many anise farmers, encouraged by their success, are lured by the prospect of further increasing their incomes by planting more anise. The main constraint acting on family orchard development is the lack of investment capital. Because of their difficulty in obtaining bank loans (see section 5.5.2), many farmers purchase seedlings, fertilizers, and pesticides with the income earned from porter work and other informal activities.

5.5 Differentiation, Poverty, and Indebtedness

Pro-market reforms have had a profound effect on the socio-economic status of Nung farmers. Three important aspects of the transformation are examined in this section: the extent to which socio-economic disparities have grown as the result of commercialization of the local economy; the changes in poverty rates; and the private debt situation.

5.5.1 Differentiation and Poverty

Income data in the villages investigated in this study confirm the results of large-scale provincial and national surveys: the commercialization of the rural economy has generated socio-economic disparities among villagers while poverty has remained entrenched in a disadvantaged sector of the population. When asked whether their incomes had increased in the past three years, 25 percent of the households answered affirmatively; 4 percent negatively; and 50 percent reported no change (see Table 5.21). It is worth noting, however, that only 5 percent of the

Table 5.20

Farmer Investment Priorities in Thuy Hung

First investment priority (n = 57)	Percentage of households surveyed
Anise or fruit	38
Anise only	26
Pig rearing	12
Other (buffaloes, cash crops)	4
None	12
Undecided	8
Second investment priority (n = 57)	Percentage of households surveyed
Anise or fruit	12
Pig rearing	12
Other	4
None	60
Undecided	12

Table 5.21

Change in Household Income from 1994 to 1996

Income change (n = 57)	Percentage of households surveyed
Considerable increase	5
Modest increase	20
Same	50
Decrease	4
Unsure	21

households reported a considerable income increase. These results confirm the national findings that disparities within rural areas of North Vietnam are only growing relatively slowly. According to official estimates, the gap between regions, especially between rural and urban areas, is increasing much faster than within the rural areas themselves.

A more problematic issue is poverty. Poverty is a complex phenomenon, the extent of which in rural areas is generally difficult to estimate with accuracy. Official statisticians in Lang Son province estimate poverty according to the hunger poverty line defined by the Ministry of Labour, War Invalids and Social Affairs (MOLISA)—the income equivalent of 15 kilograms of rice per month per capita in upland areas, 20 kilograms in lowland rural areas, and 25 kilograms in urban areas³⁰. For 1995, they calculated that the rate of absolute poverty in Lang Son's rural areas was 21.15 percent and 10 percent in urban areas. This study, however, shows that these numbers tend to underestimate the extent of poverty in rural areas. Using the average price of 2,500 dong per kilogram of rice purchased, the absolute poverty threshold described above corresponds to an annual income per capita of 450,000 dong (\$41).³¹ Thus even by using only MOLISA's minimal official definition of absolute poverty, close to 30 percent of Thuy Hung's residents live in absolute poverty³². Other indicators confirm that rural poverty in Thuy Hung is,

30 This minimal definition of absolute poverty at best approximates the necessary daily calorific requirements. It leaves out basic needs such as shelter and clothing as well as all services required for life development—education, health care, entertainment, and so on.

31 In 1994 and 1995, the price of rice in the Langson region fluctuated between 2,000 dong and 3,000 dong.

32 This number is obtained by comparing the income data collected in this study to the poverty threshold calculated here.

Other independent studies confirm that rural poverty in Vietnam is widespread. The World Bank defines the *basic needs poverty line* as the income needed to secure the minimum daily calorie intake of 2,100 per capita and a range ("basket") of non-food service needs, such as education, health

indeed, widespread. Over 15 percent of the households surveyed reported having borrowed money from relatives specifically to purchase food and medicine (see section 5.5.2)³³. Only a third of the households have access to basic agricultural machinery such as mechanical threshers and huskers (see Table 5.22). In addition, few households own consumer items such as radio sets, television sets, motorbikes, and even bicycles.

Poverty thus seems more common in Thuy Hung than official numbers suggest. And yet the situation is likely to be even worse in many other communes of the province. The residents of Thuy Hung are by no means disadvantaged in comparison to those of other parts of the province. Their land resources are relatively abundant, and, because of the commune's proximity to Lang Son town and the highway to China, they have daily opportunities to market crops. In addition, trading operations across the Chinese border provide local workers with significant non-farm income. One thus concludes that although a significant number of households in Lang Son's rural areas have improved their incomes in recent years, poverty remains widespread.

An analysis of the causes of poverty reveals factors which operate at both village and household levels. A village-level explanation points to a general shortage of paddy land; a lack of productive commercial trees; a weakly developed transport, irrigation, and service infrastructure; a lack of investment capital; and a paucity of employment opportunities in the non-farm sector (see section 5.6). There are, however, also individual circumstances that contribute to poverty such as lack of labour, incapacitation due to illness or injury, poor work morale, and reluctance to participate in demanding and poorly paid trading operations. To fully understand poverty, it is necessary to investigate the individual situation of each

care, travel, and cultural expenses. In 1995, the annual income needed to provide the basic individual needs ("minimum basket") was estimated to be VND1.1 million (US\$100 equivalent). The World Bank thus estimated that 51% of Vietnam's people lived in poverty (Hainsworth, 1999: 2).

33 See Table 5.23 and Table 5.25: 30 percent of households who borrow money from relatives (47 percent of all households) do so specifically to purchase food and medicine.

household. The following examples illustrate the situation.

In Na Ho, an extended family of eleven, earn a total annual income of only 1.4 million dong (approximately \$11 per capita in 1996). This family own 10 sao (3600 m²) of relatively well irrigated paddy land, on which they grow rice and sugar. They also own 2 hectares of hill land, mostly barren, which carry a number of mature fruit trees—50 old anise, 10 persimmon, and 10 citrus. The family derive their living mostly from farming, and they are able to feed themselves for 10 months per year from their rice harvest. They earn their modest income by selling sugar cane and the fruit of their trees to merchants from Lang Son town. However, they cannot survive without borrowing a significant amount of food and money from relatives. They do not own any radio, television, bicycle, or other consumer items. Although their house is serviced by electric power lines, they can hardly afford lighting a bulb at night. They attribute their unfortunate situation to their lack of productive fruit trees and their inability to find employment in the non-farm sector. So far, they have been reluctant to participate in porter work because they need their adult workers for subsistence farming and also because they fear being exploited by the traders for whom they would operate.

In Po Mach, a family of seven— the household head and his wife (both 59 years old); one married son (22 years old), his wife and their two young children; and a teenaged son— barely survive on a yearly income of 0.8 million dong (\$10 per capita). They earn their low income by selling the fruit of a few productive trees (10 anise, 2 longan, and 3 persimmon) which they inherited from their ancestors. They are almost self-sufficient in rice production, which they harvest from their 10 sao of paddy land. Like other impoverished families, they attribute their plight to the lack of adequate employment opportunities in the non-farm sector. Both parents are too old to carry goods across the Chinese border, and neither of the two young adults is willing to leave the farm to work for traders whom they find generally 'demanding and exploitive'. Rather, they decided to concentrate their efforts on developing their family farms. Their long-term investment goal is to raise aniseed production. To

achieve this, they planted 100 seedlings of anise, which they received in 1995 under Decree 327. For the short term, they borrowed one million dong from the Hunger Alleviation and Poverty Reduction Fund for two years at a monthly interest rate of 1.2 percent to invest in rice farming and pig rearing (see section 5.5.2).

A final example is given by a family of seven consisting of two middle-aged parents and their five children, four of whom are still at school. Their annual net income is 1.0 million dong (\$13 per capita), obtained mostly by raising and selling piglets. They farm 12 sao of paddy land (0.43 hectare), producing enough rice to feed themselves and their two or three pigs all year round. Most of the farm work is done by the woman and her oldest children. The man has been unable to work for over one year because of a severe illness. He received modern medical treatment in Lang Son town, where he was hospitalized for several months, for which he incurred a debt of 10 million dong, mostly owed to relatives. The man also lost his mother in 1995, the funeral of whom—always a major social event for the Nung—added another 2 million dong to the debt. The man was seriously considering working as a porter for border traders after recovering from his illness. When interviewed, he reported: 'I am neither a bricklayer nor a carpenter, and the only way for me to earn cash is by carrying goods for traders; I have no other choice.' He was unsure, however, whether he would ever earn enough by doing so to reimburse his debts.

These examples are extreme cases of poverty. Most poor households may harbour the hope to eventually improve their economic situation through cash cropping.

To summarize, under commercialization of agriculture, the income gap between households in Thuy Hung has been growing slowly. At the same time, at least half of the households have reported no income increase in the past years, and, using the minimal official definition of absolute poverty (the income equivalent of 15 kilograms of rice per month), the rate of absolute poverty in the commune of Thuy Hung has remained relatively stationary (at least 30 percent). The most

common structural causes of poverty are a lack of productive resources (land, investment capital, and labour), a weak physical and service infrastructure, a paucity of non-farm employment opportunities, and a lack of personal health insurance.

5.5.2 Indebtedness: Borrowing from Banks and Relatives.

Many households have incurred debts for a variety of reasons: to invest in farming, to repair or build a home, to pay hospital bills, or to finance weddings and funerals. They have done so by borrowing money from formal and informal sources of credit.

The only formal source of credit open to villagers is the Agricultural Bank, which has implemented a number of lending programmes, of which the most important one is the Hunger Alleviation and Poverty Reduction Fund (*quy xoa doi giam ngheo*) to help farmers invest in agriculture. Under this programme poor households may receive a limited amount of credit—the largest loan granted in the commune is 2.5 million dong (\$220)—at the monthly interest of 1.2 percent for a period of two years. Families that are not considered to live in poverty may borrow from the same fund at an interest about twice as high. So far, no special, interest-free loans have been made available to farmers who participate in the regreening programme Decree 327.

Borrowing from the bank to invest in farming is not popular, even through the Hunger Alleviation and Poverty Reduction Fund. For many villagers, the reduced monthly interest of 1.2 percent is still too high, and those who have a loan are worried about not being able to meet the term payments. Of the 58 households surveyed in this study, 21 percent had contracted a bank loan to invest in farming, especially pig rearing. These loans varied in size from 0.5 to 2 million dong (0.73 million dong on average). Another five percent had attempted to obtain a loan but failed because they had no collateral. However, 30 percent of the people surveyed deliberately chose not to apply for a bank loan, although they were short of investment capital, for fear of defaulting on the payments (see Table 5.23).

Most commonly, farmers borrow money from relatives. Of the households surveyed in this study, 47 percent had received a loan from a lineage member. These private loans were, on average, considerably larger than bank loans (see Table 5.24). These loans were intended to purchase food and medicines, build houses, pay for hospital costs, organize weddings and funerals, and, in some cases, invest into farming (see Table 5.25). Thus, in Na Ho, a family of four, which produces enough rice to feed themselves only for seven months a year, has borrowed 0.5 million dong from relatives to buy rice. A family of five has borrowed 2 million dong to build a new house and 1 million dong to pay for the treatment of an elderly's broken arm.

Health expenses are the most important cause of indebtedness among households. In 1996, loans to finance health costs in Thuy Hung averaged 6.4 million dong, reaching as much as 15 million dong (see Table 5.25). In Po Mach, a family borrowed 2.5 million dong to finance a son's operation; another family borrowed 15 million dong for hospitalizing a son for several months.

Another major factor of indebtedness is the need to finance weddings, especially those of sons. In Na Ho, for example, a family of seven, including four sons, borrowed 4 million dong for the wedding of the second son. 'It is expensive to have sons in Nung society' exclaimed the father of the four sons during an interview. He added that besides the wedding costs, all sons need a house of their own. In his case, he would have to borrow considerable amounts of money from relatives to build homes for his sons.

A less common reason to borrow money from relatives is for investing in the family farm. Of the farmers interviewed in this study, a few have borrowed a small sum of money to buy piglets, a buffalo, or fertilizer. In a rather unusual circumstance, a family of thirteen purchased 0.5 hectares of hill land containing 40 mature anise trees—the only transfer of property rights recorded in the survey. This shows that the effects of commercialization on family farming in the region have started to extend themselves to land transfers, although, so far, only at a small scale.

Table 5.22

Consumer Items and Machinery Owned by Households in Thuy Hung

Item owned *	Percentage of households surveyed
Radio set	17
Television set	8
Bicycle	17
Motorcycle	4
Sewing machine	10
Thresher or husker	32

* Sample size: n = 57

Table 5.23

Source of Loans Contracted by Households in Thuy Hung

Household borrowing status, 1996 *	Percentage of households surveyed
Bank loan	21
Application for a bank loan rejected	5
Never applied for a bank loan	30
Loan from relatives	47

* Sample size: n = 57

Table 5.24

Size of Loans Contracted by Households in Thuy Hung

Source of borrowing, 1996 *	Loan size (million dong)	
	Average loan	Range
Bank loan	0.73	0 — 2
Loan from relatives	3.4	0 — 15

* Sample size: n = 57

Table 5.25

Common Motives for Borrowing Money from Relatives in Thuy Hung

Motive for borrowing *	Proportion of loans (%)	Average loan (million dong)	Highest loan (million dong)
Medical treatment	23	6.4	15
Weddings and funerals	23	2.7	4
Buy food and medicines	30	1.2	2
Invest in family farm	9	1.1	2

* Sample size: n = 57

5.6 Constraints to Development

Villagers identify a number of structural constraints to the development of

their farms and to the improvement of quality of life in the region (see Table 5.26). They have been grouped here in several categories: factors of production (capital and land); physical infrastructure (irrigation facilities and roads); and social services (health and family planning).

5.6.1 Access to Formal Credit

The complaint most commonly expressed by local farmers is the lack of access to affordable credit (30 percent). The issue of credit and indebtedness has been investigated in section 5.5.2, where it has been emphasized that formal credit institutions are relatively unpopular among farmers. In their views, bank loans should be more affordable, obtainable for longer periods of time, and easier to qualify for. About a third of the population surveyed feel excluded from the formal credit system, largely because of their inability to reimburse loans on the terms imposed by lending institutions (see Table 5.23).

5.6.2 Agricultural Land: Quantity and Quality

After lack of credit, the most common complaint expressed by Thuy Hung farmers is the general shortage of paddy land (15 percent). The distribution of paddy land among households has been examined in section 5.3.1, where it has been shown that only 40 percent of the households in the commune are self-sufficient in rice production. Many of the other households (45 percent) are able to supplement their subsistence crops by purchasing food with the income earned from commercial farming and informal non-farm activities. To a large extent, investments in cash crops have weakened the importance of rice in family farming (see section 5.4.1). Nevertheless, the fact that farmers point to the lack of paddy land as their second most important problem shows that rice production remains an essential component of the household economy.

In view of the growing importance of fruit and anise crops for the household economy, it is not surprising that the size of family hill plots and especially their

quality of soil are also important matters of concern. Most families have relatively large hill land holdings (3 hectares on average; see Table 5.1), and thus few complain about having too little hill land to develop orchards. The problem, however, is that, unlike for paddy land, a few families do not have any hill plot at all, and these families have little hope to escape poverty. The reason for this situation is invariably that a man from outside the village community married a local woman. In this case, according to Nung tradition, he and his wife only received a portion of paddy land from her parents but no hill land (see section 5.2). Although these families are keen to farm hill land, there is no agricultural land reserve from which they could obtain even a small plot. Leasing hill land privately is also rarely an option: first, land-rich families are reluctant to part of hill land that carries productive trees, and second, renting barren land to grow trees is economically unattractive because of the relatively slow process of growing fruit trees.

At the same time, families who own hill land frequently complain about poor soil quality. Deforestation in past decades has taken its toll on soil quality. Soils on hill tops, especially, are generally too dry to plant fruit trees or anise. This affects particularly small land holders, who, for the obvious reason that they own little land, are less likely to have some land of good quality. Without outside intervention, this situation could worsen in future years as family land continues to become parcelled through traditional inheritance. Fortunately, there is a strong possibility that the afforestation programmes in place in the region (especially Decree 327) will help improve the soil quality in the long term. Thus, in terms of environmental quality, it is clear that the government is an important agent of change, especially through its role in promoting reforestation and forest conservation.

5.6.3 Physical Infrastructure: Irrigation Water and Roads

Farmers also blame the deficient local infrastructure—the local irrigation system and the road network—for slowing down farm development. These

Table 5.26

Constraints to Family Farm Development Identified by Thuy Hung Inhabitants

Limiting factor (according to respondents) *	Percentage of households surveyed
Access to credit	30
Amount of paddy land	15
Amount of hill land	10
Soil quality in hill land	10
Labour	9
Roads and access to markets	9
Irrigation water	6
Veterinary services	5
Technical services	3
None	9
Unknown	12

* Sample size: n = 57

services, which were provided free of charge by the cooperative during the successive periods of collective farming in the region, have suffered from a general lack of government investment after *doi moi*.

There is no doubt that Thuy Hung's irrigation system is inadequate for growing rice efficiently. Because no water reservoir and permanent irrigation canals exists in the commune, the majority of family paddy fields are rain-fed rather than permanently irrigated. According to the commune leader, only 40 percent of Thuy Hung's total rice growing area is irrigated well enough to produce a second rice crop, that is a crop during the dry season (spring rice). The situation, of course, varies from village to village. In the villages of study, 55 percent of the paddy fields

produce two crops of rice a year. Po Mach is representative of the commune in that only 40 percent of its paddy area produces spring rice. On the other hand, Na Pan, which is well supplied by water from mountain streams, is able to produce spring rice on 75 percent of its land area.

Because of the general lack of irrigation infrastructure, the distribution of irrigation water is essentially a family responsibility. Individual farmers build irrigation ditches to bring water from streams and canals to their fields. Unlike regions where village cooperatives exist, no village in Thuy Hung has assembled work teams to build up or maintain the irrigation infrastructure, which, according to villagers, was more extensive and better organized during the brief periods of collective agriculture. In Na Ho, for example, one reservoir (0.42 hectare) was built in the 1960s on confiscated family property to supply water to local farmers during the dry season. This reservoir was destroyed in 1985, after the collective system had officially been abandoned, by farmers who reclaimed access to their family property. Most farmers thus feel that the local water supply has deteriorated considerably since the collective era in Vietnam. The leader of Na Ho commented during my field study that "one definite advantage of collective farming is that water supplies are much more reliable."

And yet, there is no plan to build a new reservoir locally. As the result of the 1993 Land Law, virtually all land has been re-allocated to families for private use. Not surprisingly, none of these families is willing to give up some of its land to satisfy the water needs of the community. The opinion of local authorities is that the solution to irrigation problems now lies beyond the capacity of community planners. To be effective, irrigation systems would have to be designed and implemented at district or province levels. The planning authorities at these levels recognize the deficiencies of the existing irrigation facilities. In turn, they point out that the central government will have to intervene actively and help provide the necessary resources (capital, labour, and expertise) to expand the public irrigation system in Vietnam's northern provinces.

The lack of roads is locally perceived as perhaps an even more serious obstacle to farm development in the commune. Approximately 10 percent of the farmers interviewed in this study reported not being able to sell their crops because of poor access to markets. This has discouraged them from further investing in cash crops, especially fruit crops, or harvesting their crops entirely. Unlike irrigation facilities, local roads are built and maintained by work teams organized by commune and village leaders. Several factors conspire to make this task difficult to implement successfully. They include village remoteness from the main highway, unfavourable hilly terrain, lack of construction equipment and supplies, lack of labour, and torrential rains during the wet season. Roads, which are typically unpaved, are built and repaired entirely through manual labour, using the simplest tools—shovels and picks—owned by the farmers themselves. These operations represent a serious drain on local labour reserves. Roads need constant repair, especially during the rainy season. Villages that have good access during the dry season become seasonally cut off from the others under the impact of heavy monsoonal rains.

Provincial planning authorities acknowledge the seriousness of the transport problem in Lang Son's rural areas. They estimate that only 70 percent of the communes can be reached during the rainy season. They recognize that road building cannot be left entirely to the communes themselves, and that the construction of effective transport networks will require their active participation. Nevertheless, they point out that no system of taxation has been put in place to provide the resources needed to upgrade the local physical infrastructure. Their hope is to receive soon more direct assistance from the central government, which has recently earmarked a large budget for developing the infrastructure of the northern mountains.

5.6.4 Agricultural Extension and Veterinary Services

The Nung, throughout history, have rarely relied on government for their

economic development. Compared to most other ethnic groups in Northern Vietnam, Nung farmers tend to be strongly individualistic. Thus before *doi moi* they vehemently resisted the repeated efforts by the socialist national government to collectivize their agriculture. In Thuy Hung today, very few Nung favour a reestablishment of the totalitarian-minded cooperatives of the past. Nevertheless, under pressures of modernization, many would welcome increased government services to the community, such as agricultural extension, health, and education, perhaps in the form of a new type of cooperative.

Farmers often comment on the inadequacy of extension services in farming. Extension officers rarely visit villages, especially those that are far away from towns. Po Mach, which lies in the valley, is visited twice annually by one member of the district's agricultural extension department to bring new seeds to farmers and to advise village administration staff members on new rice technology. Na Pan, on another hand, which is perched on the hills, does not receive any visitors from the agricultural extension department. All advising on agricultural matters is done by the village leader, who himself receives instructions during meetings with officials in the commune head office. "Government employees do not like to walk very far away from their cars", commented a resident of Na Pan. Na Pan's leader himself complains that "village leaders have to do everything", and he suspects that they are not well qualified to do extension work.

And yet, farmers are in desperate need of technical advice as they lack expertise in fertilizing fields, growing trees on hill slopes, and implementing land conservation techniques. In afforestation, the few farmers who have achieved high seedling survival rates are those who gained substantial skills in the past by working in tree farms owned by the state. The others have been afflicted by high seedling death rates—often as high as thirty percent annually. Similarly very little technical knowledge on soil conservation techniques has been disseminated to local inhabitants, and soils on hill slopes continue to deteriorate as the result of erosion, intensive use, and grazing by buffaloes.

Nowhere, however, is the need for expert services felt more acutely than in pig rearing. As pointed out in section 5.4.1, pig rearing is an important source of income for farming families. At the same time, however, the pig death rate is high. Each year, farmers lose as many pigs to disease, parasites, and poisoning as they manage to keep (see section 5.3.3). Nevertheless, veterinary services in the commune are virtually nonexistent. The relatively few trained veterinarians in the district, who are mostly ethnic Vietnamese, live in towns and have large rural areas to service. Like extension workers, they are not keen on visiting remote villages. In addition, their fees are out of reach of the poorer farming families. And yet, without improving access to veterinary services, the viability of pig rearing as part of the household economy is seriously threatened.

Nung farming has reached a turning point. Dominated by traditional practices, it is under great pressure of change from the commercial economy. Nung farmers are well aware that they will have to improve their knowledge of modern farming in order to participate successfully in the reformed economy. The paucity of agricultural extension services available to them is thus a serious obstacle to their development.

5.6.5 Education Services

Another obstacle to Nung development is the lack of access to education. School facilities in the commune of Thuy Hung are limited. They consist of three primary schools, offering instruction to students from grade 1 to grade 5, and one secondary school (grade 6 to 9). These schools offer traditional academic subjects such as Vietnamese, mathematics, natural sciences, morals, arts, physical education, music, and so on. In all subjects, instruction is provided exclusively in Vietnamese. Ratios of pupils to teachers tend to be high, although not excessively so. In December 1996, there were 25 teachers (1 Kinh, 1 Nung, and 23 Tay) for a total of 797

pupils, divided into 25 classes³⁴. The ages of pupils in Thuy Hung's primary schools range from six to fifteen. This is a wider range than for Vietnam's lowland Kinh population, where pupils in primary schools are usually between six and eleven years old. In mountainous regions, however, children often repeat the same grades several years in a row as they often miss school days to help out on the family farm. The situation is similar in secondary schools. Secondary-school students in the Kinh population are usually between twelve and fifteen years old. Among the Nung, they are commonly as old as eighteen.

While Kinh children are required by law to attend school until the age sixteen, schooling is not compulsory in mountainous areas, where parents have the right to take their children out of the school system at their convenience. In the years that followed the implementation of *doi moi* (until the early 1990s), the school dropout rate was very high as many farmers, in their attempt to participate in the market economy, kept their children at home to help with farm work. It was the teachers' responsibility to encourage parents to send their children to school every day. Since 1992, the situation has changed considerably for several reasons. First, in early 1993, a major nation-wide education campaign was implemented to educate parents on the need to give their children access to formal education. Second, salaries of teachers in upland areas were also increased in order to motivate them to improve the quality of their work and not to seek to be relocated to the lowlands³⁵. Third, and importantly, as the result of economic growth, household incomes in upland areas have improved. Most families are now able to pay for school fees, school uniforms, and school supplies. They are also increasingly willing to dispense with their children's help in farm work in order to promote their education.

This study confirms these trends. It has been found that, while 60 percent of

34 Although the population of Cao Loc district is predominantly ethnic Nung, very few school teachers are actually Nung, due to their generally low levels of education.

35 Teacher salaries in mountainous regions are now 20 percent higher than in the lowlands. Since April 1993, these salaries have been set to 330,000 dong per month (that is, approximately \$30 in 1996).

the population that is older than 16 received only two or three grades of education due to early drop-out, younger children, on another hand, frequent school regularly. At the time of the survey, only 13 percent of school-age children (younger than 16) were out of school, regardless of gender. The rate of adult re-entry (mature students) was 4 percent. In the past, children dropped out of school early because parents needed their work for subsistence farming and also because local schools were destroyed during the local wars, especially the 1979 War with China, in which many schools in the region were entirely demolished³⁶. Today, the much improved economic climate and the normalized political relations with China have resulted in a situation where education is much more accessible to the general population. The families who withdraw their children early from the school system do so mainly for the reasons that they need their labour for farming; that they are too poor to pay for the costs of their education (at least 30 percent of the Nung are locked in poverty cycles; see section 5.5.1); or that they need to keep children at home to attend to injured or sick family members.

One important aspect of change in the reformed economy is the increased cost of education. Students today have to pay for annual tuition fees, which vary according to age group. In theory, primary education is free as primary schools are entirely subsidized by the government. In practice, schools levy fees to increase their budgets. These fees vary from 40,000 to 50,000 dong per child, depending on the school in the commune. Tuition fees in secondary schools vary from 27,000 dong to 40,000 dong annually. In the villages surveyed in this study, the average family spends 84,700 dong on school fees each year, that is 1.2 percent of the average household income. School costs thus normally account for a relatively small portion of the annual household income, and most households are able to finance the education of their children, at least at the primary stage.

Nevertheless, for poor families, the impact of schooling costs on financial

³⁶ In 1979, China invaded parts of Northern Vietnam, destroying much of its infrastructure and industry.

resources may be severe. In Po Mach, for example, a family of seven has four children at school, one at the secondary level and three at the primary level. Their annual education costs are 200,000 dong, that is 20 percent of its net income. The family earns a net annual income of 1,000,000 dong entirely by rearing pigs. They are self-sufficient in rice production, but are unable to grow cash crops. Their 0.56 hectare of hill land on the top of a hill is entirely barren, and the soil is too dry for tree farming. Their poverty, however, is largely due to illness. The male head of the household has been ill and unable to work for over one year, and medical treatment costs have been as high as 10 million dong, an expense which they financed with their savings and loans from relatives. While all children are still at school, the father fears having soon to withdraw the older one and have him work as a porter for border traders in order to increase the family income. In another family, of six members, the older of four children, a sixteen-year old girl, had to leave school at the age of thirteen first because her family could not afford keeping her there, and second, because they needed her labour for rice farming. The family's net annual income is 3.0 million dong, earned entirely from non-farm activities. The head of the household is a former Kinh soldier who married a Nung woman in Po Mach and received only a small amount of paddy land to grow rice for subsistence. The man runs a motorbike taxi service and works as porter for border traders. His wife and the sixteen-year old daughter are in charge of much of the family's rice production.

Most other impoverished families are in a similar situation. They keep their children at school as long as they can afford doing so. Only when an unusual circumstance, such as sickness or death of a family member, puts the family budget under severe strain or when a child's labour is desperately needed to help with farm work, do they withdraw the child from school at an early age. It is clear that national education campaigns and changing perceptions of needs in a modernizing society have made the rural population increasingly aware of the need for formal education.

5.6.6 Health and Family Planning

In many of North Vietnam's upland villages, the inadequacy of health services hinders the development of quality of life and helps perpetuating poverty. Health services in rural Vietnam's villages are usually provided by nurses. Their functions are to deliver first aid and primary health care, free of charge. The constraints to this system are that too few nurses are hired to serve the rural population adequately and that nurse services tend to be confined to villages that are the most accessible by roads. Thus, in Thuy Hung, three nurses are employed by the district government to serve all 4,300 inhabitants of the commune. These nurses reside in villages near the highway, where most of the commune population resides. Relatively remote upland villages, like Na Lai in this study, have no resident nurse. Consequently, their inhabitants have poor access to health services.

Similarly, doctors and hospitals are only available in towns. There are very few doctors outside the district capital, and there is only one small hospital for the district. The main provincial hospital, located in Lang Son town, handles most of higher level surgical operations and intensive care in the province. Hospital services are expensive and beyond the means of most villagers. As has been emphasized in section 5.5.2, modern medical treatment is the single largest cause of indebtedness in rural areas. Over one-third of the households surveyed in this study reported having incurred a substantial debt in recent years for treating illness or injury³⁷. Not surprisingly, most villagers consult practitioners of Chinese medicine before having recourse to modern medicine. The demise of the collective system in upland areas has led to a resurgence in popularity of traditional medicine—along with sorcery and shamanism—which, in the commercial

37 As in many upland regions of Southeast Asia and the developing world, a common disease in Thuy Hung is goitre.

Injuries are often work related. Several villagers reported having broken a limb as a result of a fall while picking anise; one villager being stabbed with a knife in a dispute with a trader; and a family having lost a member who was electrocuted while repairing a home generator.

Table 5.27

Number of Children per Family in Thuy Hung

Average *	Range	Coefficient of variation
3.84	1 - 9	0.42

* 1996 data; sample size: n = 57

economy, have become attractive sources of income for their practitioners (see section 5.4.2).

Family planning in the commune is organized by the People's Committee. One committee member is in charge of birth control for the whole commune. He or she visits each village once a month to distribute contraceptives to families, free of charge. Village leaders explain family planning policy to villagers and ensure that births are reported to the commune's administration. This is a relatively new responsibility for the village leader. Although Thuy Hung's population grew rapidly during the past three decades, family planning has only been implemented since 1993. The official policy is to limit the number of children to two per family. It is too soon to determine whether population control policies in the commune are being successful. Village leaders often report finding it hard to persuade married couples to content themselves with having only two children (see Table 5.27).

The villagers' resistance to birth control stems from economic factors and cultural attitudes. Some parents report needing the labour of their children in the family farm and other private economic enterprises. Others claim the right to hold on to their traditional custom to raise relatively large families to ensure the continuation of the family line. However, two factors are now influencing families towards implementing birth control. First, a change of values and priorities is

clearly discernable in the younger population, and, under the influence of modernization, recently married couples are generally in favour of respecting population control policies. Second, resources for implementing population control, such as advising staff and contraceptives, are becoming widely more available, thanks to government efforts to control the size of the population in upland areas. Realizing the need to relieve the upland regions' fragile ecosystems of population pressure, Vietnam's central government has made population control an integral part of its upland development programme.

5.7 Summary

This chapter has presented the findings on the impact of pro-market reforms on Nung villages in the commune of Thuy Hung, a semi-mountainous area in Vietnam's northern province of Lang Son. The Nung, who successfully resisted government attempts to collectivize their agriculture before *doi moi*, continue to practice traditional rules of land inheritance, whereby family property is divided among sons after marriage. The Nung practice a mix of subsistence agriculture based on wet rice and commercial agriculture. The main cash crops are tree crops, especially aniseed, a crop that became widely accepted by Nung farmers during the French colonial era. In the reformed economy, aniseed represent the most important source of income in the commune. A relatively large number of households, however, destroyed most of their anise trees during the years of central planning that preceded *doi moi*, and they have turned to the informal sector of the local economy to survive. The most popular off-farm activity for villagers is to work as porters for traders who operate across the Chinese border. Villagers reinvest much of the profits generated in such operations into their farms, especially orchards. A number of structural constraints act on economic and social development in Thuy Hung. Obstacles to farm development include lack of access to investment capital and land, a deteriorating environmental quality, a lack of irrigation facilities and roads, and a paucity of agricultural extension services.

Obstacles to human development include a generally poor access to education and health services. The following chapter presents the situation in Ban Muang, a Thai village in Son La, a province that borders Laos.

Chapter 6

TRANSFORMATION OF BAN MUANG VILLAGE

This chapter presents and discusses the results obtained from the analysis of data collected in the survey of Ban Muang. The analysis process follows a similar pattern as for the main case study, the commune of Thuy Hung, presented in Chapter 5. The aim of this second case study is to compare the process of agrarian change in two distinct upland regions.

6.1 Land Distribution and Land Tenure

As in Thuy Hung, the agricultural reforms of the 1980s have dramatically transformed agricultural production (and village life) in Ban Muang. In 1989 the implementation of the household contract (Contract 10) effectively ended collectivism, which (here in contrast to Thuy Hung) had been the overwhelmingly dominant form of agricultural production in the region for several decades. As in pre-revolutionary times, the family farm had once again become the main unit of agricultural production.

Soon after 1989, all village land was redistributed to families for private farming. Land in Ban Muang consists of several categories: residential land (*dat o*), paddy land (*na*), hill plots (*nuong*), and protected woodlots (*vuon ruong*). As the result of Contract 10, every family in the village was given access to land in each of these categories for private use. A family thus received a fixed portion of residential land, that is a parcel of 400 m² surrounding the family home. This land usually contains a garden and a small orchard. It is now considered to be private land, for permanent use by the family. Each family also received a portion of the village

paddy land commensurate to its size. The village agricultural area is composed of 14.3 hectares of paddy land and 18 hectares of hill land. Every registered resident of the village (including children) thus became entitled to 400 m² of paddy land for a period of 15 years. In 1993, following the passage of the Land Law, the lease period was extended to 20 years. Thus, as a result of land reform, the average family in Ban Muang had received three or four plots of paddy land with a total area that was intended to satisfy its food consumption needs at the time of the land distribution.

Since 1989, however, the distribution of paddy land per capita among households has become considerably less equitable, and relatively few families have now the necessary land base to produce enough rice for their own consumption. One important reason is the high rate of natural population growth in the village, which exceeds the combined rates of mortality and out-migration. Until a few years ago, families in Ban Muang were not subjected to family planning regulations, and families tended to have at least three or four children. A second reason is that a significant number of people have returned or migrated to Ban Muang in recent years, adding to the numbers of its already naturally swelling population. These are returning soldiers, retired cadres, strangers who married in the village, or families who were relocated from the flooded valleys of the Da River. These people received no land or very little of it, and their families suffer from a severe shortage of paddy land. Village authorities have set a "second land fund" (0.5 hectare) to address the short-term needs of families with insufficient land.¹ This land reserve, however, is far too small, and its soil of too poor quality, to adequately provide for the needs of all the land-poor families in the village. Aware of the growing inequity in family landholding in the province, government authorities have been reluctant to issue the land-use right certificates to which households are entitled according to the 1993

¹ Village authorities often allocate small parcels of the second land fund to newcomers in the village for short periods (usually one or two years), providing them a form of much needed—if generally insufficient—relief of stress related to food insecurity. Recently, however, they have been also been leasing out parcels of this land to relatively well-endowed farmers for similar periods through a process of bidding.

Land Law (see section 2.5). In defiance to this law, they have retained the right to redistribute paddy land among households when they judge it fit to do so.²

Families also received a portion of the village hill agricultural area. Unlike paddy land, hill land was not equally redistributed to resident households. After 1989, families automatically gained use rights to the hill plots which they had reclaimed during the collective era for a period of 20 years. Some families thus received a substantial amount of hill for private farming (see Table 6.1). Because hill land is more abundant than paddy land in the village, and because it is mainly used for crops other than rice—the main staple food in the region—its unequal distribution among local households is considered to be a less sensitive issue, and the province has now granted certificates to families to confirm their rights to use hill plots.

All resident families also gained access to woodlots. Wooded land, that is what remained of it after three decades of collective exploitation, was divided among families and allocated to them for a period of 50 years. The goal was to allocate to each family one or two plots of wooded land with a total area proportional to the family size (2,000 m² per family member at the time of distribution). The exact amount received by each family, however, depended on the density of trees and the steepness of the terrain. Thus the largest family woodlots tended to contain few mature trees and to be located on steep slopes.

In 1996, district authorities issued land use certificates (*giay Chung Nhan Quyen su dung dat*) to households. Every household in the village received a red booklet in which their landholdings were described. Specifically, the booklet contains the size and lease duration of their residential land, hill land, and woodlots. Conspicuously absent from the booklet, however, are the use rights to

² One concern is the need to relocate families displaced by the future construction of dams. The construction of a new large dam on the upper Da River in the next few years will displace thousands of families. These will have to be relocated in villages where agricultural land has already been allocated to native households for farming. No precise relocation programme has been conceived yet, but it is likely that many villages in the province will be affected, possibly including Ban Muang.

paddy land. Considerable disparities in holdings of land exist for all three categories of land, regardless of the concerned attempts by local authorities to improve the situation (see Table 6.1). New families in which children were born after the land reform in the village have a lower-than-average ratio of land per capita. The households with the least agricultural land are usually those headed by people who moved recently to the village—people who were relocated after construction of the dam on the Da River, returned soldiers, and retired government workers.³ A few families have relatively large holdings of paddy land, but comparatively small holdings of hill land, largely because they did not have enough labour to reclaim hill land for farming during the collective era. These land disparities may be the main factor fuelling the growth of economic differentiation in the village.

6.2 Land Use

While the household contract has afforded farmers considerable freedom to make economic decisions, the 1993 Land Law has granted them long-term security of access to land. Together, these reforms have encouraged farmers to invest their resources into their farms. The majority of families in Ban Muang now grow cash crops for the local and urban markets. These crops have to a certain extent

³ It is useful to present here the experience of two families which arrived to Ban Muang relatively recently.

One family of eight moved to Ban Muang from the Da River valley in 1992. Upon arrival, and because they were relocated according to a government plan, they received 500 m² from the village paddy land reserve, an area much too small for growing enough rice to feed the whole family. They were, however, also able to reclaim 2,000 m² of hill land, to which they now officially have land use rights. The village also allocated them 1.4 hectare of bush land, which they are to protect as stipulated by Decree 327.

Another family moved back to the village in 1992. The man was originally from this village and had been a military officer for 15 years. His wife was a school worker who retired early. In principle, the family was not entitled to any land in the village because it had already been distributed. However, some paddy land (400 m²) became available when a local family migrated south. They were also able to reclaim some hill land (1000 m²). They received no woodlot from the village administration.

These two families are far from having enough paddy rice to feed themselves. It seems that their best chance to survive in the long term, barring the possibility of finding employment outside the village, lies in investing productively in hill farming.

diminished the importance of wet rice, the mainstay of the traditional Thai rural economy. Agricultural land use in Ban Muang is thus now based on a mix of subsistence crops (mostly rice) and cash crops. The most important of these cash crops are grown on hill plots. They include edible canna, fruit (especially plum), and maize. Woodlots, protected under Decree 327, are carefully managed by families and used only for fuelwood.

6.2.1 Paddy Rice

The cultivation of paddy rice has long been the main economic activity in Ban Muang. In traditional times as well as in the colonial era, rice was not only the main production crop but also the main taxation item in the landlord-peasant relationships which were at the root of the political system established in the region.⁴ Soon after Vietnam's independence, its importance became heightened by pro-collective policies that encouraged the monoculture of rice at the expense of other crops. In the commercialized economy, the importance of rice cultivation has been somewhat diminished by the rise in popularity of cash crops. Nevertheless, it remains central to the family farm economy, and it continues to dominate the agricultural cycle in the village.

Due to the relatively high elevation and usually cold temperature in the winter, families grow only one crop of rice annually. They first plant it in nursery beds at the start of the rainy season, in late May or early June, transplant it one month later, and finally harvest it one month after the end of the rainy season, usually in mid-October. Men and women contribute to rice farming according to a division of labour established over the centuries. Men build dikes, repair irrigation canals, and plough fields. Women plant seeds and transplant the seedlings. Men and women together weed the fields and harvest the crop. Everyone in the family helps out, including young children, who look after the grazing buffaloes. Harvesting is often a communal activity, a matter of reciprocity, involving lineage

⁴ For an analysis of the peasant economy in Vietnam during the colonial era, see Scott (1976).

members and neighbours. Lineage reciprocity extends to other tasks. Relatives often help each other for ploughing and weeding fields as well as for building houses and digging ponds.

As in Thuy Hung, farmers in Ban Muang practice a mix of modern and traditional methods of rice farming (see section 5.3.1). Thus farmers plant high-yield rice varieties along with local ones and fertilize their fields with chemical and organic fertilizers.⁵ They process their harvests with mechanical threshers and husking machines while they plough their fields with buffaloes. They both hire agricultural workers and reciprocate labour services with other villagers in various tasks of agriculture. Modernization has had a profound influence on agricultural production, and rice yields have increased considerably since the end of the collective era. The average yield of 5,300 kilogram per hectare for the summer crop reflects the widespread use of modern rice varieties with relatively high inputs of chemical fertilizers (see Table 6.2 and Table 6.3).

At the same time, considerable disparities in rice productivity exist among households. Similar trends exist for the productivity per hectare of cultivated land as for the productivity per capita (see Table 6.2). Farmers explain these variations in terms of availability of agricultural land and labour, soil quality, access to irrigation water, and availability of capital to purchase fertilizers.⁶ They identify land and

⁵ The most popular high-yield rice variety in northern Vietnam is CR203, which has a yield potential of 8 tonnes per hectare and a growing period of 115 days. Local varieties have a lower yield potential and a longer growing period. One popular local variety, *bao thai* has a yield potential of 5 tonnes per hectare and a growing period of 160 days. In practice, however, both improved and local varieties produce significantly less. A well managed crop of CR203 will normally yield 6 tonnes per hectare, and one of *bao thai* 3 tonnes per hectare.

⁶ It is interesting to compare rice productivity in Ban Muang and Thuy Hung. In both cases, the average household produces approximately the same amount of rice per hectare (5,300 kilograms), although in Ban Muang, it grows only one crop of rice per year and uses considerably less fertilizers than in Thuy Hung (see Table 5.3, Table 5.4, Table 6.2, and Table 6.3). The most likely explanation rests on the lack of irrigation water in Thuy Hung. First, only half of the plots in Thuy Hung carry two crops a year due to lack of water. Second, the lack of water in Thuy Hung also weakens the soil productivity, thus preventing the efficient use of fertilizers.

Table 6.1

Size of Family Land Holdings in Ban Muang

Land use type, 1996 *	Area (hectares)			
	Per household		Per capita	
	Range	Average	Range	Average
Paddy fields	0.04 — 0.36	0.18	0.007 — 0.04	0.03
Hill plots	0.09 — 1.2	0.39	0.017 — 0.2	0.05
Woodlots	0 — 3.2	1.98	0 — 0.42	0.3

* Sample size: n = 20

Table 6.2

Rice Yields in Ban Muang

Rice yield (kilogram), 1995 *	Average	Range	Coefficient of variation
Per household	1,060	250 — 3,600	0.95
Per hectare	5,300	2,080 — 12,860	0.60
Per capita	160	47 — 514	0.78

* Sample size: n = 20

Table 6.3

Use of Chemical Fertilizers for Wet-Rice Farming in Ban Muang

Amount of fertilizer (kilogram), 1995 *	Urea		Phosphate	
	Average	Range	Average	Range
Per household	27	0 — 200	11	0 — 100
Per hectare	164	0 — 1,000	59	0 — 500

* Sample size: n = 20

Table 6.4

Household Self-sufficiency in Rice Production in Ban Muang

	Average	Range
Number of months per year *	9.5	3 — 12

* Estimated values for the years 1995 and 1996; sample size: n = 20

Table 6.5

Use of Chemical Fertilizers in Hill Farming in Ban Muang

Fertilizer type, 1995	Amount of fertilizer (kilogram)	
	Average	Range
Urea	84	0 — 60
Phosphate	0	n. a.

* Sample size: n = 20

labour as the two most important factors of rice production. This is supported by the finding that families that have an adequate land base and a high proportion of young adults in good health tend to achieve high yields of rice, even by using relatively small amounts of chemical fertilizer. In fact, 40 percent of the households surveyed in this study fertilized their fields with only manure, and one of these achieved the highest yield in the village. Without denying the importance of capital to purchase modern seeds and chemical fertilizers, the fact that the average family in the village is not self-sufficient in rice production can be largely explained in terms of availability of land and labour (see Table 6.4). Some of the most rice-deficient families belong to newcomers to the village, who usually have very little to farm.⁷ Others are single-parent households with several young children to feed, who, although they may have enough land to farm, lack adult workers to farm

⁷ Of the twenty families surveyed, only two reported a rice surplus. On another hand, three families produced enough rice to feed themselves for only three months a year. Of these, two were headed by a female, of which the husband had died a few years ago as the result of war injury and poisoning (agent orange). The third family had been relocated to the village after the Da River dam was built.

efficiently.

Whatever the reason, families that do not produce enough rice to feed themselves must either borrow rice from more affluent relatives or purchase imported rice on the market.⁸ Given the general deficiency in local rice production (see Table 6.4), however, many families have no alternative to buying rice with money earned by selling cash crops, and it is clear that cash crops play an increasingly important role in the development of the household economy in Ban Muang.⁹

6.2.2 Hill Crops

During the collective era, families reclaimed hill land to plant mostly dry rice and maize, the grain crops which nourished villagers and their animals. Encouraged by policies that gave people free access to forest land, they cleared entire hills around the villages of their trees, using the wood for fuel and construction. In 1989, one year after Contract 10 reestablished the family farm as the main unit of agricultural production in Vietnam, families in Ban Muang were officially given the rights to farm the land which they had previously reclaimed. Under the influence of the market economy, they then increasingly concentrated their efforts on growing cash crops at the expense of rice.

The main annual cash crops are maize, of both the glutinous and nonglutinous form, and edible canna (*phrynium parvillorum*), which farmers intercrop in small plots with dry rice, and, to a lesser extent, cassava and sweet potatoes, on a large portion of their hill land.¹⁰ Maize and edible canna are planted

⁸ Much of the rice sold in Vietnam's markets is produced in the highly productive Mekong delta.

⁹ Note that unlike in Thuy Hung, where rice is the only significant staple food, people in Ban Muang also consume significant amounts of maize.

¹⁰ Edible canna is used to make various types of noodles, in particular glass noodle. It is ground in the village and sold in powder form to noodle factories in valley towns.

Table 6.6

Household Cash Crop Production in Ban Muang

Crop, 1996 *	Output (kilogram)		
	Average	Range	Coefficient of variation
Maize	2,220	500 — 7,000	0.86
Edible canna	2,345	0 — 15,000	1.45

* Sample size: n = 20

Table 6.7

Household Plum Production in Ban Muang

	Average	Range	Coefficient of variation
Number of plum trees owned, 1996 *	60	4 — 300	1.2
Yield (kg), 1996	386	0 — 1,300	1.57

* Sample size: n = 20

at the same time (in March) but harvested at different times (maize in July, canna in

November).¹¹ Dry rice is planted in late May or early June and harvested in October. Plots of maize, canna, and dry rice are rotated from year to year in order to preserve soil nutrients. While the use of fertilizer for hill farming was low during the collective era, it has increased substantially with the rebirth of family farming. Now, on average, farmers use about half as much fertilizer in hill farming as in wet rice farming (see Table 6.3 and Table 6.5). Most households invest similar efforts in farming maize and canna, and the average yields of both crops are about the same (see Table 6.6).

Fruit crops play an increasingly important role in the village economy. Families in Ban Muang grow fruit trees in home gardens and small orchards interspersed with plots of maize, canna, and other crops on the hills. The most popular fruit tree is the plum tree. Since 1992, when the cooperative started to encourage farmers to invest in fruit trees, plum trees have become the fastest growing component of the household economy. Typically, a family planted 20 to 40 trees between 1992 and 1993 on the advice of the cooperative and agricultural extension department, then again 20 to 40 in 1995 or 1996, when it became fully aware of the market value of plums (see Table 6.7). These trees are still young, and they have not reached the peak of their productive years; and yet they already represent an important source of income for over a third of the families in the village. Plum trees are not the only commercial tree planted in the village, and families also grow bamboo, apricots, persimmons, and oranges.¹² Plums, however, are by far, the most popular fruit in the village, representing over 90 percent of the farming household investment in perennial crops.

¹¹ Maize is grown mostly for pig feed, in nonglutinous form. Hybrid varieties are preferred over local varieties because of their higher yields (typically 10 tonnes per hectare) and faster growing period (4 months).

¹² The popularity of orchards in Ban Muang has in fact stimulated local bamboo production for fencing.

6.2.3 Animal Rearing

The economic importance of animal husbandry, a traditional activity in Ban Muang, has substantially increased in the market economy (see section 6.3.1). The average family now rears two or three buffaloes, two or three pigs, and a few chickens and ducks, the meat of which they consume or sell on local markets (see Table 6.8). Buffaloes, in the absence of mechanization in village life, are used extensively to plough fields, build roads and dikes, and haul goods and equipment. Their meat is an important source of both protein and income for villagers. It is consumed at banquets and sold to butchers in the village and town markets.¹³ Buffaloes and cows are fed stubble and left to graze in uncultivated fields on hills, along the roads, and in paddy fields after harvest. Pigs are raised for both consuming and selling. For most households, it is the second highest source of cash income, after maize. Pig raising is a lucrative operation, but it is also a risky one. Mortality among pigs is high, and most households loose at least one pig a year due to disease or poisoning in the fields.¹⁴ Farming households also raise chicken and ducks, mostly for private consumption. Several families in the village have also built a pond in which they raise fish. Fish farming, however, has not been commercialized yet, and fish pond owners consume most of the fish that they produce.

6.3 Analysis of Household Income

As in Thuy Hung, pro-market reforms in Ban Muang have stimulated farmers to develop their family farm enterprises. In the absence of off-farm employment opportunities, villagers derive their incomes largely from selling crops

¹³ One characteristic of meat consumption in the village is that meat must be consumed at the time of slaughtering because of lack of refrigeration facilities. Animals are thus slaughtered for banquets rather than personal consumption or for sale to butchers, who must sell almost immediately. Compared to grain crops, meat is a very dynamic item of commercial transaction.

¹⁴ One common disease among pigs is commonly known as "pig seals" or "haemorrhage fever" (*binh dong day lan*).

Table 6.8

Household Animal Husbandry in Ban Muang

Animal type	Number of animals owned by households		
	Average	Range	Coefficient of variation
Buffaloes and cows	2.5	0 — 7	0.73
Pigs	2.5	0 — 12	1.28
Chicken and ducks	3	0 — 15	1.35

and meat products. The most profitable operation in the future is likely to be the cultivation of fruit trees in family hill plots. The commercialization of agriculture has raised income levels in the village. At the same time, it has generated economic disparities among local households.

6.3.1 Agricultural Income

The agricultural components of household incomes in Ban Muang are given in Table 6.9. The most profitable farming operations have been so far to grow maize and edible canna, and to rear pigs and buffaloes.¹⁵

¹⁵ In November 1996, the market prices of agricultural products in Ban Muang were as follows:

<u>Agricultural outputs</u>	<u>Price (Dong)</u>	<u>Agricultural inputs</u>	<u>Price (Dong)</u>
maize	1,300 / kilogram	rice seeds	4,000 to 7,000 / kilogram
canna	500 / kilogram	maize seeds	8,000 to 24,000 / kilogram
plums	2,000 / kilogram	urea	3,300 / kilogram
pork	21,000 / kilogram	phosphate	1,000 / kilogram

Maize is the most popular hill crop in Ban Muang, and it is grown virtually by every household in the village. Its popularity stems from the fact that it is both an important consumption item and cash crop. Sales of maize generate the highest and most consistent household income in Ban muang. The importance of maize in the household economy is reinforced by the fact that it is the main food of pigs, a growing source of income for local farmers.

Edible canna is also a popular cash crop. For most farmers, it represents a reliable, although lower source of income than maize. Of the households surveyed, only one does not cultivate canna. This is a family that has been relocated to the village from the Da River region as the result of dam building, and has chosen to grow dry rice instead of canna in the hill plots because of lack of paddy land. On the other hand, the household with the highest agricultural income in this survey (30 million dong or \$2,700 annually) earns 6 million dong (\$545) each year by selling canna. The household owes its wealth to its unusual endowment in labour resources and land holdings. Thus four adult family members cultivate maize, canna, and cassava on much of the family hill land plots (1.4 hectare).

The differential productivity of maize and canna among households—and thus the disparities in household incomes—can be largely explained in terms of availability of land and labour. At the same time, productivity is influenced by the levels of chemical inputs and the farming methods employed by farmers. The most efficient farmers make a judicious use of rotational cropping techniques (maize, canna, and dry rice or cassava) which restore the soil of nutrients that the cultivation of maize cultivation tends to deplete.¹⁶

Pig rearing is the second highest source of household income in Ban Muang. It is largely dependent on the farmers' ability to grow animal feed—especially

pig (alive)	11,000 / kilogram	piglet	18,000 / kilogram
cow or buffalo	1.5 million (whole)		

¹⁶ The highest income family in the survey rotates hill crops from year to year and applies high levels of fertilizer. In 1996, it used a total of 400 kilogram of urea on 14,000 m² of hill land.

maize—through hill farming. The wealthiest family in Ban Muang generates half of its income by selling pigs (24 pigs in 1996), which are fed on maize, cassava, and sweet potatoes cultivated in hill plots. However, successful family enterprises in pig rearing are rare. Pig rearing in Ban Muang is hampered by the fact that it is a high-risk activity. First, it depends on a steady supply of food, of which many local families are deficient. Second, and perhaps more importantly, it is susceptible to diseases, which tend to kill a large number of pigs each year. It was found in this study that over 80 percent of the households lose one or several pigs a year to diseases.¹⁷ Because of these two constraints, pig rearing in Ban Muang is not as popular as it could be considering that the demand for pork in the region tends to be high at all times.

Sales of buffaloes and cows also generate significant incomes in the village. Most families own at least one piece of livestock, which they sell every few years to generate extra cash income. Farmers, however, rarely raise cattle with the direct intention to sell their meat. They buy and raise buffaloes primarily for their labour in farming. They sell them at special occasions such as for financing the construction of a house or a pond and paying for hospital costs.

None of these farming activities—planting perennial cash crops and raising animals—has the potential to significantly improve the economic situation of households in Ban Muang due to the lack of agricultural fields and grazing pastures in the village. Investing in orchards, on another hand, may represent the most realistic opportunity for improving incomes in the future. In a few years, plum trees are likely to become the largest source of wealth for most households. For those who planted plum trees before 1992, when the village cooperative advised them to do so, plum sales are already the second highest source of income (1.62 million dong on average). One family, which started planting plum trees in 1988, is already earning an annual income of 6.5 million dong (\$545) by selling plums.

¹⁷ One family lost all its pigs (six) in 1996, which was by far their highest agricultural investment in that year.

Future prospects for improving incomes by selling fruit will, of course, depend on market development in the region.¹⁸ Given the steady growth of the urban population in Vietnam and the real improvements in its purchasing power in recent years, the demand for fruit is likely to continue to increase at a brisk pace. As in Thuy Hung, managing orchards in Ban Muang may soon become the most profitable economic activity for farming families.

6.3.2 Non-agricultural Income

Employment opportunities outside agriculture are limited to a few government services. Villagers who draw an income from other sources than agriculture (about 20 percent) are typically cadres, local government employees, and pensioned war veterans. The average annual income for these people at the time of the survey was 2.14 million dong, roughly a third of the average net agricultural income in the village. One family, which moved to Ban Muang a few years ago, had three times as much pension income as agricultural income.¹⁹ On the whole, however, these sources of revenue make relatively little contribution to the average household income in Ban Muang.

In contrast to Thuy Hung, where Nung farmers are engaged in an array of legal and semi-legal small-scale off-farm business activities, the informal sector of the village economy is almost entirely undeveloped (see section 5.4.2). Villagers so far have not been able to take advantage of *doi moi* to develop private commercial operations outside farming because opportunities to do so are generally scarce in the region. First, unlike in Thuy Hung, forest protection under Decree 327 is strictly

¹⁸ The integration of markets in Vietnam and the region surrounding it—especially Southern China—is likely to be a catalyst for fruit production in the upland regions of Northern Vietnam. The growing affluence in the region and the opening of new trade routes across borders is already stimulating demand for fruit on a large scale.

¹⁹ The head of this family is a retired military officer who was born in Ban Muang; his wife is a retired high-school teacher who used to work in an urban area. They moved back to Ban Muang to start a family farm and, at the same time, to raise their four children in a rural environment.

enforced in Ban Muang, and sales of fuelwood are illegal. Second the village remoteness from national borders rules out participation in border trade. At the same time, as in Thuy Hung, very few villagers migrate to towns in order to find work during the agricultural slack time (December to April). The main reason is that employment opportunities in towns are scarce due to the general lack of rural enterprises and industry in the region. Another reason is that the rules prohibiting rural inhabitants to migrate to towns are strictly adhered to by district authorities. Vietnam's communist system has long discouraged migration to towns and cities, and the implementation of pro-market reforms in rural areas has so far not been accompanied with a substantial increase in labour mobility.

6.3.3 Income Disparities and Poverty

The distribution of total household income in Ban Muang is summarized in Table 6.10. The data indicate that considerable income variations exist among households, and thus that a process of economic differentiation is under way. By comparing these data with those of Table 6.9, one concludes that for the majority of households, agriculture represents by far the largest source of income. Agricultural production, therefore, is at the root of differentiation in the village.

The analysis of the income data collected for the individual households also reveals that, at the time of the survey, approximately 30 percent of the villagers lived in absolute poverty.²⁰ In contrast, 40 percent of families had incomes that were twice as high as the poverty threshold, of which two families (10 percent) were very wealthy by village standards. Other indicators of wealth confirmed this wealth distribution in the village. Most households that were found in this study to be

²⁰ Poverty is estimated here using the official threshold of absolute poverty accepted in Son La province, that is 50,000 dong / capita / month (see section 4.3.5). My finding that 30 percent of Ban Muang's population lives in poverty is in agreement with official figures for Moc Chau district (35 percent). In this survey, it was also found that half of the poor households—15 percent of the village population—live in extreme poverty, with very few possessions of any kind and little food to eat.

Table 6.9

Household Agricultural Income in Ban Muang

Source of income	Annual income (million dong), 1996 *		
	Average	Range	Coefficient of variation
Maize	2.09	0 — 7.8	1.07
Edible canna	1.08	0 — 6.0	1.27
Plums	0.73	0 — 5.5	1.83
Pigs	1.41	0 — 15	2.35
Buffaloes and cows	0.97	0 — 4.5	1.88
Gross income	6.64	0 — 30	1.03
Net income	6.05	0 — 28	1.06

* Sample size: n = 20

Table 6.10

Total Annual Income in Ban Muang

Total income (million dong), 1996	Average	Range	Coefficient of variation
Per household	6.9	0.0 — 28	0.95
Per capita	1.01	0.0 — 2.8	0.73

living above poverty level had been able to save money. The purpose of these savings was primarily to invest in housing, farming, and child education. They also had electricity in their homes and owned a number of consumer items which included at least a portable radio set or a television set. Over half of these also owned a motorbike. Three of the richest families in the village had one electrical machine to husk and mill rice. On the other hand, poor households had no savings and very few possessions.

There are reasons to believe that, as in Thuy Hung, poverty in Ban Muang is entrenched in a disadvantaged sector of the population. Of the households surveyed, all that were found to live in poverty declared to have experienced no improvement in their economic situation during the three years that preceded the survey. Their incomes had stagnated or decreased over the years, and they were significantly deficient in food production, especially rice. By contrast, the families that were relatively healthy reported earning progressively higher incomes over the past few years. The causes of poverty are numerous. As in Thuy Hung, a multitude of variables are at play that include indebtedness due to health costs and lack of production factors—land, labour, and capital (see section 5.5.1). A vicious circle of poverty is in effect in the village, inhibiting the chances of economic improvement for the farming households that are disadvantaged in terms of factors of agricultural production.

Without outside intervention, it seems that the best hope for these households to escape poverty lies in the productivity of their orchards. Stimulated by the development of markets in the region, poor households have followed the trend to invest their resources—however meagre—into fruit crops. Many have planted significant numbers of plum trees (typically thirty or forty), which should be in full production by 1998 or 1999. If the regional market for fruit remains good, plum sales may raise the incomes of poor households substantially in the near

future.

6.3.4 Taxes and Fees

The tax structure in Ban Muang is more developed than in Thuy Hung due to the existence of the cooperative and the relatively large presence of local government. In Ban Muang, as in other villages of Moc Chau district, families are subjected to a number of charges which tend to uniformly reduce their incomes and thus have a particular strong impact on the economic situation of poor households. These consist of a residential tax (*thue nha dat*), an agricultural tax (*thuy nong nghiep*), a Cooperative Fund contribution (*qui hop tai xa*), and a Natural Resource Fund tax (*thue tai nguyen*). For each household, the monetary values of the first three of these charges is calculated as a price equivalent of paddy rice production.²¹ The residential tax is the price equivalent of 8 kilogram of paddy rice per 100 m² of residential area. The agricultural tax is set at 10 percent of the estimated household production of paddy rice, which is calculated according to the size of the paddy area farmed by the family as well as the quality of its soil. The Cooperative Fund contribution varies from year to year; it is usually between 10 and 15 percent of the family production of paddy rice. The Natural Resource Fund fee is a flat fee of 20,000 dong per family per year.

The average charges per household in 1996 are summarized in Table 6.11. On average, households spend 3.5 percent of their total income on taxes and fees determined by various levels of government. In addition, they are subjected annually to a Cooperative Duty (*lao dong cong ich*) which must be served with labour or paid in cash. In 1996, this duty was set to three days of labour per

²¹ In 1996, taxes were determined using the rice price of 1,600 dong per kilogram. Individual taxes given in Table 6.11 have been estimated using the average rice production found in this survey. The agricultural tax was estimated as the cash equivalent of 10 percent of the average household rice production in Ban Muang, and the Cooperative Fund as 12 percent of it.

Table 6.11

Household Taxes and Fees in Ban Muang

Source	Average (dong) *
Residential	51,200
Agricultural	77,500
Natural Resource Fund	20,000
Cooperative Fund	93,000
Total	241,700

* Estimates for 1996; sample size: n = 20

household annually or a lump sum of 25,000 dong.²² It must be noted here that the tax structure in effect in Ban Muang in reality represents a property tax rather than an income tax. This is not surprising considering the difficulty of quantifying the flow of cash transactions in rural Vietnam's peasant economy.

6.4 Thai Culture in the Market Economy

The implementation of pro-market reforms in Ban Muang has had a profound impact on agricultural production. As in Thuy Hung, a rather paradoxical phenomenon is that, with the ending of the collective system of production, there has been a revival of traditional agriculture. The two main aspects of this revival are examined in this section: the Thai custom of land inheritance and the one of

²² The Cooperative Duty is only applicable if the household head is under the age limit (50 years for a man and 45 years for a woman).

reciprocal labour exchange and mutual assistance among households. Another consequence of reform is that, while commercialization has had little impact on land distribution in Ban Muang, waged labour relations have begun to emerge in some areas of the traditional economy.

6.4.1 Land Inheritance

Under the collective system of agricultural production that prevailed in the region before *doi moi*, the Thai customary rules of land inheritance were ignored.²³ Now that, as the result of reform, land has been re-allocated to families, these rules once again determine land inheritance in the village (see section 4.3.2). In the Thai system of inheritance, both sons and daughters normally receive land from their parents after marriage. The matter is decided by the parents of the two families involved in the marriage, who take into consideration the quantity of land available to both families. The practice became influenced by the process of land distribution established by local government in 1989 in that, in the years following the land reform, families attempted to allocate a fixed portion of paddy land (400 m²) to each inheritor. As the result of subsequent population growth in the village, however, families have now already considerably less land per capita than in 1989, and they pass on smaller parcels of paddy land to children at marriage. The result is a trend towards parcelling of land, which applies not only to paddy fields, but also to agricultural hill land and wooded land.

If traditional land inheritance rules tend to foster the parcelling of family land holdings over time, the present official land tenure system makes land consolidation possible under the forces of commercialization. Thus, in theory, local farmers have land use rights to agricultural plots for periods of time that are specific to each category of land (15 years for paddy fields, 20 years for agricultural hill plots, and 50 years for woodlots; see section 6.1). According to the 1993 Land law, these use

²³ During the French colonial era the Thai system of land inheritance, along with other customs, was actively respected. This changed in 1956 when land came under collective management.

rights can be sold, bought, and transferred, again, for the same specific periods of time (see section 3.5). Land transfers in the village, however, are very uncommon largely because land, especially good agricultural land, is scarce. Although many families complain about not having enough land to farm, very few are able to lease extra land for farming.²⁴ Another obstacle to land transfers in Ban Muang is that local authorities have not formerly recognized the 15-year lease period established by the Land Law for paddy land, the allocation of which they continue to control (see section 6.1).

The conclusion is that, less than ten years after land reform, it is too early to detect any trend towards land consolidation through market mechanisms in Ban Muang. Whether this situation will change in the near future is uncertain. As in other rural areas, it will likely depend on future policy on land property rights, the subject of a debate which continues to rage among Vietnam's policy makers. It will also depend on the capacity of the future non-farm sector to employ farmers, who may thus sell or lease their lands to larger farm enterprises. This in turn will depend on rural development policy, especially on the ability of government to promote the growth of rural industry in the region.

6.4.2 Division of Labour and Reciprocity

As in Thuy Hung, the implementation of the national programme of economic renovation (*doi moi*) in Ban Muang has reinstated the household as the fundamental economic unit and, indirectly, initiated a return to traditional methods of agricultural production. Within the farming household, economic planning and agricultural tasks are once again performed according to traditional rules of division of labour. In the paddy fields, men focus on the heavy preparatory work: they build the bunds, repair the irrigation canals, and plough the soil. While men also help women plant the rice seeds, women exclusively transplant the

²⁴ A third of the families surveyed reported that they did not have enough land to farm. However, only one of these had been able to obtain extra paddy land from relatives to grow rice.

seedlings, and do most of the weeding. Men, women, and children together harvest and husk the rice. Children look after the grazing buffaloes. In the hill plantations, a similar division of labour is established. Men concentrate their efforts on clearing plots of bushes and building and maintaining terraces, and women on planting and reaping the crops. The whole family harvests fruit trees and collects fuelwood. In practice, the boundaries in the division of labour in family farming are often blurred, and roles assumed by family members often overlap. The important tasks of planning and managing the farm, however, are assumed by men, who also control the family budget.

Reciprocal labour exchange, and mutual assistance among farmers have also resumed their importance in village life. Harvesting, for example, is once again a communal activity in which friends, neighbours, and relatives, including lineage members from other villages, take part. As in Thuy Hung, lineage solidarity plays an especially important role in the social and economic life of Ban Muang. In each lineage, members who live in neighbouring villages help one other harvest paddy rice, plough fields, and build traditional houses and ponds. Importantly they often assist relatives who are in dire need of cash. Illness represents a severe strain on family budget due to lack of formal collective insurance in the village. Most families in that situation have no other recourse than borrowing money from relatives to pay for medical treatment and buy drugs.²⁵ Relatives also help finance activities which are costly and often beyond the immediate means of a family. Repairing a house or building a new one, engaging in a new farming activity, or starting a business often represents a large financial investment for a family. So does organizing a wedding ceremony. Weddings are expensive social events in which banquets are organized for large numbers of friends and relations in the

²⁵ Ban Muang has one form of collective insurance, even though it is of limited extent: the cooperative. When a farmer becomes temporary ill and thus cannot work for a few days, or even a few weeks, the cooperative leader will often assign a worker to help the afflicted family proceed with its agricultural work.

village community.²⁶ The wedding of a son can cost almost a whole year's family income, an expense that most villagers cannot afford without borrowing money from relatives for a few years.

As in Thuy Hung, the end of collective farming in Ban Muang has led to a return to reciprocal labour exchange and lineage solidarity (see section 5.4.3). At the same time, the implementation of pro-market reforms have stimulated the emergence of waged labour relations. Most households now hire specialists to spray pesticides on their crops.²⁷ Many also hire workers to help weed out their paddies. Waged labour has also made an appearance in activities that were traditionally performed using reciprocal labour exchange, such as house building and pond digging. Wages paid by employers are determined by both the availability of workers in the village and their degree of specialization. Sprayers receive a fixed amount of 25,000 dong per day. Weeders—who are always females—receive anywhere from 5,000 dong to 20,000 dong per day, depending largely on the generosity of the employer.²⁸ Low wages, however, are more common than high ones, and female weeders can be said to be generally exploited in Ban Muang. Masons are better paid than weeders as they tend to receive wages suited to specialized work. The growth of differential waged labour is thus a direct consequence of the commercialization of agriculture in Ban Muang.

²⁶ Wedding ceremonies are especially expensive for the parents of the man who is to be married. The cost estimates in 1996 were 5 to 6 million dong for the man's family and 2 to 3 million dong for the woman's family. In the past, the man's family incurred all the costs of the wedding. Now, in the commercial economy, the woman's family also contributes to the costs.

It is also worth noting that the length of the *bride service*, that is the time spent by the man in the home of his fiancée's parents before marriage has also been shortened from an average of three years to one year (see section 4.3.2).

²⁷ The average household expense for spraying crops in Ban Muang in 1996 was 200,000 dong. This amount included the cost of hiring workers and buying pesticides.

²⁸ Of the households surveyed in this study, five employed females to weed out their paddy fields. Of these, three paid their workers 5,000 dong per day and two paid 20,000 dong. The number of labour days per season was 16 on average. One household employed 10 workers for three days each growing season.

6.5 Agricultural Services: the Role of the Cooperative

The village cooperative (*hop tac xa*) has radically changed since the collective era, when it had considerable political power and directed virtually every aspect of village life. In contrast to Thuy Hung, however, where the cooperative was dismantled as a result of *doi moi*, the cooperative in Ban Muang continues to play a central role in agricultural development. In the reformed rural economy, its main functions are to assist villagers in farming. The cooperative includes all the villagers of working age. Thus every man and woman in Ban Muang automatically becomes a cooperative member at the age of eighteen. It is run by a management board elected by the village population that is made up of a leader (*chu nhien*), a vice-leader (*pho chu nhien*), an accountant (*ke toan*), and a secretary (*bi thu*).²⁹ In theory, any villager can apply to be a member of the cooperative management board. In practice, however, members are often affiliated with Vietnam's Communist Party, and thus the cooperative continues to exercise a certain political influence on the village. Nevertheless, the cooperative is esteemed by villagers for its role in guiding the village's economic development.

One function is land-use management. The cooperative surveys village land resources and distributes them to families. As pointed out earlier, most of the village land was allocated to families in 1989 during the implementation of Contract 10. However, the district has not provided households with use-right certificates for paddy land, and the cooperative in Ban Muang retains the right to redistribute village paddy land to newcomers, such as people who were relocated from other regions. The cooperative also advises farmers on which crops to plant and how to make the best use of their plots given present market and environmental conditions. Importantly, the cooperative implements government policy on land use. In Ban Muang, it is the cooperative that introduced the household contract system, the 1993 Land Law, and subsequent reforms. It is now also responsible for

²⁹ The cooperative management board members are elected for a period of one year.

implementing government development projects such as the national reforestation programme Decree 327.³⁰

The cooperative serves a number of other important management functions. It forms work teams to maintain roads and irrigation canals in the village; coordinates planting and irrigation schedules; protects private plantations from grazing animals and thieves; and organizes instructional sessions in the village for the Agricultural Extension Department. The cooperative has organized a form of collective insurance in the village by assisting disadvantaged households in a number of ways. It provides single-parent families with labour for ploughing fields, harvesting crops, and repairing houses; it recommends poor farmers for bank loans; it even gives out small loans at no interest to poor families that are afflicted by severe illness.

Villagers value the services currently offered by the cooperative, and many favour expanding its range of functions in local development. They would like the cooperative to be more active in building up the local infrastructure, especially roads and irrigation canals; in providing more extensive instruction on new farming technologies; in offering seeds, fertilizers, and pesticides at wholesale prices at the beginning of the season; and in building public wells to supply clean drinking water. According to some farmers, the cooperative also ought to provide marketing services.³¹ Presently, all local products are sold by farmers individually to outside merchants, who visit the village regularly. The only market information available to villagers is thus determined by these contacts with private business interests. The lack of consistent market information hinders optimal crop planning in Ban Muang.

Not all farmers, however, support these suggestions. One objection is the cost

³⁰ Family woodlots in Ban Muang are now policed by the cooperative.

³¹ Agricultural inputs—seeds, chemical fertilizers, and pesticides—are so far purchased by families directly from merchants in roadside markets (at market prices).

of running the cooperative. Each year, households hand in a membership fee equivalent to three percent of their production of rice and maize in cash. These fees are put into a Cooperative Fund (*quy hop tac xa*), which serves to pay for salaries and capital expenditures.³² Expanding the functions of the cooperative would require increasing fees, an expense which may be well beyond the means of the poorer families. Another objection stems from the advocates of private farming, who fear a return to the collective management system of land resources that prevailed in the region before *doi moi*. The precise role of the cooperative in village development has become a matter of debate between villagers and government authorities. It must be said, however, that opponents of an expanded role for the cooperative in Ban Muang are few. So far, villagers see the cooperative as a useful institution which could play a greater role in local development and help integrate family farms in the national market economy.

6.6 Constraints to Development

Farmers and agricultural planners in Ban Muang identify a number of constraints to farm development. These constraints can be grouped in the same broad categories as in Thuy Hung—physical and environmental constraints (access to land and land quality), access to investment capital (credit), physical infrastructure (irrigation and roads), and social services (education and health).

6.6.1 Physical and Environmental Constraints: Access to Land

The main concern in Ban Muang is the lack of paddy land.³³ As pointed out

³² Salaries of the cooperative board members tend to be low even for rural standards in the region. The cooperative leader receives 58,000 dong (\$ 5.5) a month, and the other members of the board a little less. Board members, especially the cooperative leader, often complain about working too hard and not being paid appropriately.

³³ Farmers in ban Muang rank the shortage of paddy land as the first obstacle to the development of the family farm. In Thuy Hug, on the other hand, farmers consider it to be the second obstacle, after lack of affordable credit (see section 5.6). This is not surprising because the average size of the family paddy holding in Ban Muang is only half of the size of the one in Thuy Hung (see Table 5.1 and Table

in section 6.1, the paucity of paddy land in the village is the result of steady population growth. This growth reflects the facts that population control policies have been only weakly enforced in the village and that families from other villages in the region have been relocated to Ban Muang by government authorities. Thus, largely because of lack of land, most families in Ban Muang do not grow enough rice to feed themselves all year round. Their response to the shortages of local rice has characteristically been to grow a variety of crops—a mix of subsistence crops and cash crops—in hill plots.

Regardless of the amount of agricultural land—paddy and hill land—available to them, villagers also identify a series of environmental factors—especially declining soil quality and loss of top soil through erosion—as direct threats to the productivity of their plots. The situation is particularly serious for hill agriculture. Environmental deterioration in the hills occurred on a large scale during the collective era, when families were given free access to forests to reclaim land for agricultural production. Through slash-and-burn methods of farming, the fast growing population deforested the area and overexploited the soil.³⁴ The situation today reflects a growing stress on hill soils. Many families in Ban Muang, who obtained use rights to the reclaimed land as the result of the 1993 Land Law, complain that the soils of their hill plots are becoming less fertile and that soil loss through erosion is high. Heavy summer rains are especially detrimental to hill agriculture as they tend to carry soils and fertilizers down the slopes, which lack vegetative cover to retain them. Similar problems also exist in paddy fields, and many farmers increase fertilizer consumption from year to year to maintain steady production levels.

Complaints about deteriorating environmental conditions extend beyond agriculture. One concern relates to the survival of the native flora and fauna in the

6.1).

³⁴ According to the village leader of Ban Muang, the practice of slash-and-burn agriculture on village hills ended in 1989.

region. Villagers point out that the process of deforestation has been accompanied by a decrease in plant and animal life in the region.³⁵ Thus, it has become increasingly difficult to find wild herbs and medicinal plants in the commune's wooded areas. Game has become so scarce that villagers have virtually given up hunting. Another concern is the availability of fuelwood, an indispensable fuel in the village. Some families find it difficult to collect enough fuelwood from their woodlots to satisfy their daily needs and must burn stubble to cook their food. The most serious immediate concern is the lack of access to clean drinking water. The village does not have a public well, and villagers collect drinking water from the streams, which have become increasingly dirty as the result of soil erosion and contaminated by chemical fertilizers and manure.

There are reasons to believe that the changes in land tenure since 1993, however, will help farmers solve some of these environmental problems in coming years. As the result of the implementation of the 1993 Land Law, households in Ban Muang have received leases of twenty years for hill plots and fifty years for woodlots. This has encouraged them to invest in perennial crops, such as fruit trees and bamboo. Planting such trees makes good economic and ecological sense. The trees are likely to both provide farmers with a better income and help stabilize the soils on hill slopes. The decision to implement Decree 327 in Ban Muang has also encouraged villagers to manage their woodlots in a more sustainable manner than in the past, and some already report easier access to fuelwood sources than a few years ago.³⁶

35 Farmers reported that the region around Ban Muang was thickly forested until approximately 1970, when slash-and-burn agriculture in the region became widespread. Until then wildlife was abundant, and wild pigs and deer represented an important source of protein for villagers.

36 The greening programme Decree 327 was implemented in Ban Muang in 1994. Households were then given the use of woodlots for a period of 50 years, during which they are required to manage their woods in an ecologically sustainable fashion. For a number of years (so far unspecified), they are not allowed to cut or damage any standing trees; their only right is to use dead wood and branches for firewood. Meanwhile they are obliged to replant the previously thinned areas and to police the woods. Any contravention of these obligations is punishable with fines, imprisonment, and loss of

Planting fruit trees is an ecologically friendly alternative to intensifying the production of annual crops in Ban Muang to generate more income. Given the limited land base in Ban Muang, increasing or even only maintaining present rates of annual crop production in paddy fields and hill plots would require additional intensification of farming practices, which in turn could result in further environmental degradation. In the future, however, the viability of tree crops will depend on the continued strength of markets for fruit and the ability of local farmers to access these markets.

6.6.2 Access to Formal Credit

As in Thuy Hung, farmers in Ban Muang often complain about the paucity of affordable credit available to them for investing into their family farms. Three main formal sources of credit exist in the village: the Agricultural Bank, the Farmers' Association, and the Women's Association. Two special funds are made available to farmers through the Agricultural Bank: the Fund for Hunger Alleviation and Poverty Reduction (*quy xoa doi giam ngheo*), which provides loans at the monthly rate of 1.2 percent for a period of three years, and the Fund for War Invalids (*quy cho cai doi tuong chinh sach*), which provides small loans to war invalids at a low interest (0.9 percent per month). In practice, however, local farmers have been reluctant to contract bank loans, whose terms they consider to be essentially unattractive.

Of the twenty households surveyed, five had taken a bank loan, three to invest in pig and calf rearing, one to build a house, and one to pay for hospital costs. The loans for animal rearing were provided by the Hunger Alleviation and Poverty Reduction Fund, and they ranged from 0.5 to 1 million dong. The loan for building a new house came from both the Hunger Alleviation and Poverty Reduction Fund and the Fund for War Invalids. The loan for hospital treatment (300,000 dong) was provided to the mother of a sick child by the Women's Association at the monthly

access to woodlots.

interest of 2.5 percent for three years. Another two households had applied for a loan but were refused it on the ground that they did not qualify for any of the special funds and lacked the necessary collateral to obtain a regular loan.

None of the other households that were interviewed desired a formal loan mostly because they were dissatisfied with the terms of lending. The most frequent grievances about the existing lending schemes were that the interest rates were too high, that the loans granted were too small, and that the lending periods were too short. Short lending periods were found to be especially inappropriate for investing in fruit trees, where the returns on investment take at least four years. In principle, for investing in fruit trees, special long-term loans should be made available to farmers in villages where Decree 327 is in effect, but this is not the case in Ban Muang. Most villagers have thus no other recourse than borrowing from relatives. As in most ethnic minority areas in the upland regions an extensive network of informal credit has developed in Ban Muang.

6.6.3 Infrastructural Constraints: Irrigation and Roads

Villagers also commonly point out to the lack of irrigation facilities and roads as obstacles to the development of their farms. They often blame their inability to grow enough rice to feed their families on the lack of irrigation facilities in the village. Family plots tend to be far from water sources and some of them are too dry to grow rice. Canals feeding water from creeks into paddies are made of mud and crumble easily in heavy rains. Importantly, there is no water reservoir in the region to provide water security during droughts or to enable farmers to grow a winter crop.

The state of roads is equally undeveloped. The village is close to the highway, and linked to it by a fairly solid dirt road. In this respect, Ban Muang is in a privileged situation compared to most other villages in the district, which are often inaccessible from the highway during the rainy season. Within Ban Muang, however, roads are few and of poor quality, thus considerably limiting the

possibilities for transportation by vehicle. No motorized vehicles, not even motorcycles can negotiate the narrow, slippery mud roads. Goods must be either carried on people's backs or hauled by animals. The lack of village roads explains to an extent why motorization has not had an impact on village life.

The basic state of the irrigation canals and roads reflects the lack of government investment. Both irrigation canals and roads are built and maintained by local workers commissioned by the village cooperative. Upgrading these networks would require considerable financial assistance from higher government. However, Moc Chau district's modest budget for infrastructural improvements is entirely earmarked for district roads and other projects outside the village scope. Given the narrow tax base in the district, this situation is unlikely to change in the near future. The best hope may lie in the form of intervention by the central government, which has recently stated its intention to allocate special funds to develop the general infrastructure of the upland regions.

6.6.4 Social Services: Education and Health

Social reforms under *doi moi* in Vietnam's rural areas have tended to lag behind economic reforms. In Ban Muang—as in Thuy Hung—two aspects of human development have been somewhat neglected by the reform process—education and health. During the collective era, education and health were provided to villagers free of charge by the cooperative. Access to these services, which are now provided by the district government, often represent a heavy load on the family budget.

Education is available to Ban Muang's children through the village kindergarten, the commune's primary school, and one district secondary schools in Moc Chau town. While children speak Thai at home, all school education is provided in Vietnamese by teachers who may be Thai (and trained in lowland cities) or ethnic Vietnamese. The dual objective of this language policy in education is to prepare children for higher schooling and to integrate minorities in Vietnamese

society. It can be argued that a limited amount of schooling in the Thai language would benefit villagers if not directly economically, then at least socially and culturally, by helping them reinforce their mutual ties. It is clear, however, that in the postcolonial era, the priorities of Vietnam's government have been to strengthen the state and develop a sense of national identity among its citizens at the expense of cultural diversity.

In economic terms, access to formal education can be costly for many families in Ban Muang. The annual fee per child is 40,000 dong for primary education, and 50,000 dong for secondary education. To these costs must be added at least 25,000 dong for books and stationary, plus food, clothes, as well as the opportunity costs of not being available to work in the family farm. The average family in Ban Muang has two children at school, and its direct cash expenses on education are about 2 percent of its annual income. The poorer families, however, spend almost 10 percent of their annual incomes for schooling (see Table 6.12). Without help, these families often can not afford to enrol their children in schools. There is no official source of funding to assist these families, but local schools tend to be sympathetic to their plight, and it is not rare for them to cancel these families' debts at the end of each fiscal year. Ironically, post-secondary education can be more affordable than primary and secondary education because of the central government's policy to waive tuition fees for members of upland ethnic minorities in vocational schools and colleges. The government especially encourages ethnic minority members to study to become school teachers, for which it offers additional help in the form of scholarships. In any case, costs do not deter Ban Muang's families to provide their children with elementary education. Early dropout is relatively rare, and most children stay at school until at least the age of thirteen or fourteen.

Two serious structural constraints, however, act on the schooling system in Ban Muang, limiting the local families' ability to provide their children with an

Table 6.12

Family size and Education Costs in Ban Muang

	Average *	Range	Coefficient of variation
Number of children per family	3.2	2 — 6	0.33
Number of children at school	2.06	0 — 4	0.93
Expenses (% of household income)	2.05	0.0 — 9.8	1.51

* Sample size: n = 20

adequate education. First, there is clearly a lack of school buildings in the commune. Classrooms are few, and thus class sizes are usually too high for effective teaching. Second, there is a severe lack of school teachers. As in many upland regions in the north of Vietnam, teachers in Ban Muang often complain about only receiving low salaries for their heavy teaching loads. Those who were not born in the region, especially the ethnic Vietnamese, often seek to be relocated to more prosperous areas, usually in the lowlands.

Health services in Ban Muang are similarly underfunded. Villagers have access to medical care mainly through the services of the village nurse and the commune pharmacist. Doctors are only available in the district hospital. The main factor restricting access to health services, however, is economic in nature. There is no health insurance scheme in Ban Muang, and households must shoulder health expenses with their own budgets. Hospital costs, especially, are high, and beyond the means of many families. Of the households surveyed, 15 percent spend over 10 percent of their annual incomes on hospital costs. One family had to spend the equivalent of several years' income in order to pay for hospital treatment of a seriously ill member. To meet these expenses, this family had to borrow a large sum

of money from the Hunger Alleviation and Poverty Reduction Fund and sell most of their possessions. This family has become one of the poorest in the village. As in Thuy Hung, the absence of collective health insurance in Ban Muang may be the most important cause of severe poverty.

Education and health care are two important elements of quality of life, and the lack of services in these two areas constrains development in Ban Muang. Ban Muang's situation is far from being unique. Government authorities are being increasingly aware of the general constraints on human development in Vietnam's uplands, and there is hope that the situation will improve in the future. In the winter 1996, the central government announced an ambitious plan to develop the northern upland region. The plan includes budgetary provisions for improving its public services, including schools and village infirmaries (VNN 1996g). The State Bank of Vietnam (SBV) also announced that it would increase loans to the poor and lower the monthly interest rates (VNN 1996h). It remains to be seen whether these plans will be effectively implemented. As in other areas of development, bureaucracy and corruption, so endemic in Vietnamese society, tend to hinder progress. Real improvements in the delivery of social services may have to wait for deeper-reaching reforms in Vietnamese society.

6.7 Summary

This chapter has summarized the findings on the transformation of the Thai village of Ban Muang, a village in the Laos bordering province of Son La, under *doi moi*. The national programme of economic renovation has influenced development in Ban Muang in a similar fashion as in Thuy Hung. Agricultural and forest land have been distributed among households for private use. Market forces have influenced cropping patterns in Ban Muang in a way that households have developed a mixed economy with two components, one based on subsistence and the other on cash income. For subsistence, farmers grow rice in paddy fields. For income they grow commercial crops, especially maize, edible canna, and fruit on

hill plots. This dualism of agricultural production in Ban Muang has extended itself to labour exchange arrangements, and hiring labour is practiced along with mutual help. Since the reforms, income levels have generally improved, but disparities among families have become marked, and poverty entrenched. Income disparities and poverty are to a large extent linked to differential access to farm land and investment capital. In order to reduce inequalities in land holdings, Ban Muang's government, unlike Thuy Hung's, has retained the right to redistribute paddy land among families before the expiration of the leases specified by the 1993 Land Law. Constraints to development in Ban Muang are of a similar nature as in Thuy Hung. They include poorly developed roads and irrigation systems; lack of clean drinking water; and poor access to credit, education, and health. The following chapter summarizes the findings of the study and presents the theoretical implications for the development of upland minority populations in the North of Vietnam.

Chapter 7

DISCUSSION AND CONCLUSIONS

This research has focused on important issues of agrarian change in the uplands of Vietnam as the result of modernization. The modernization paradigm adopted here is the transition from a centrally planned economy to a market socialist economy. Thus, as a result of *doi moi*, the Vietnamese government has introduced a series of pro-market reforms and land reforms in agriculture aimed at commercializing the rural economy. The consequences of these reforms for the upland farming communities have been profound. Modernization and commercialization of agriculture have transformed the economic and social life in the uplands. A number of questions have been raised. Broadly stated, they concern the ability of the ethnic minorities to successfully participate in the reformed economy considering the geographical disadvantage posed by the remoteness of their upland regions and the political weakness inherent to their minority status. Specifically, these questions address the process of social and economic differentiation within rural areas, the constraints acting on the development of the household economy, and the extent of state intervention necessary to make the reform programme effective.

Two case studies have been carried out—one of a Nung commune (Thuy Hung) in Lang Son province, near the northern border of Vietnam with China, and one of a Thai village (Ban Muang) in Son La province, near Laos. The Nung and the Thai are subsistence farmers with a traditional focus on wet-rice agriculture and hill farming. Both groups have experienced considerable population growth since the reunification of the country in 1975 and, simultaneously, their land resources have declined and been degraded. Many of the families are now unable to produce enough rice to satisfy their nutritional requirements. Because of their proximity to important highways, both the Nung and the Thai have invested in cash crops in

order to participate in trade. The cash economy has made significant inroads into their villages. It has changed their modes of economic production and traditional institutions of resource distribution. It has affected their lifestyles and transformed their status hierarchies.

To investigate the nature of this transformation, an interpretive research methodology has been adopted based on ethnographical fieldwork. Essentially, insider knowledge has been acquired through interaction, observation, and interviewing, and the collected data have been interpreted in the light of the existing theoretical framework on agrarian change in Vietnam (see chapter 3). The aim has been to contribute to the existing theoretical body on the effects of modernization and commercialization of the ethnic minorities who live in the mountain regions of the reforming command economies of Southeast Asia and China.

A central concept to this study is the peasantry (see section 2.1). The view that emerges from this study is that the traditional model of the peasant village as a closed, inward-oriented community with production methods based on subsistence farming (cf. Geertz 1963; Scott 1976; Chandler 1987) is no longer adequate in the modern economy. Instead, it emphasizes that the forces of modernization, commercialization, and government administration exert a powerful influence on farmer behaviour. To a certain degree, my theoretical standpoint supports Elson's view (1997) that the concept of the peasant needs to be redefined in the light of the profound changes that are now affecting Southeast Asia's rural areas. Thus, (1) peasants increasingly orient the bulk of their production for the market; (2) they make extensive use of modern intensive farming technology; (3) their economies critically depend on off-farm work outside the village; and (4) they live in administrative villages that are oriented "upward and outward," that is towards government and external markets, rather than directly towards the communities that they contain.

At the same time, though, it is shown here that the village in the uplands of

Vietnam retains important characteristics of the traditional Southeast Asian peasantry (see section 2.1). Thus subsistence rice farming remains central to economic life, and, to a large degree, it continues to dictate the rhythms of village life. While wage employment has made significant inroads in agriculture, cooperative and household labour retain considerable importance. Informal economic activities in the village remain more important sources of household income than off-farm work in the urban sector. Although the partial commercialization of the village economy has led to a redistribution of gender roles in economic activities and generally favoured men in terms of access to wage labour, traditional divisions of labour in agriculture remain largely in application. There is no doubt that modern-day peasants are “thoroughly enmeshed in larger, regional and global economies” (Elson 1997: 240). In the uplands, however, their cultural resilience in lifestyle, social organization, and production methods continue to shape destinies to an extent that peasant activities remain difficult to categorize in conventional economic terms. This study explores the complex influences of cultural tradition and market forces on farming production methods and village life in Vietnam’s upland regions.

7.1 Transformation of Farming

Agricultural Production

As the research literature unambiguously shows, market reforms have radically transformed agricultural production in Vietnam (see Chapter Three). This study highlights the changes in upland farming. The passage of Resolution 10 in 1988 (the Household Contract) has seen the re-emergence of the family farm as the principal mode of agricultural production. With the 1993 Land Law, land has been officially allocated to households for farming for extended periods: 20 years for paddy land; at least 20 years for agricultural hill land; and 50 years for wooded land. In return for the new economic freedom, farmers are subjected to a number of taxes,

especially land taxes¹.

The provincial governments in Lang Son and Son La have implemented Hanoi's liberal reforms with a different enthusiasm. District authorities in Lang Son province have been more than eager to follow Hanoi's new directives. In Thuy Hung, they have officially redistributed paddy land to Nung families according to traditional rights rather than on an equitable basis, and they have issued 50-year old leases for agricultural hill land. Son La's district authorities, on another hand, have somewhat resisted Hanoi's push to re-establish family farming. In Ban Muang, they have given Thai farmers only 20-year long leases for agricultural hill land, and they have been reluctant to issue formal use-right certificates for paddy land, which by 1996, most households were still lacking. They retain the right to allocate some of the village land to newcomers. These differences in behaviour can be explained through political and cultural considerations. In Lang Son, the Nung and other ethnic minorities, who had systematically resisted the collectivist policies of the past, have now taken advantage of *doi moi* to increase their economic and social independence from the state. In Son La, on the other hand, land management authorities have been relatively conservative in implementing liberal economic reforms. One reason is that local people, who showed much devotedness to the Communist Party in its drive to collectivize Vietnam's agriculture in the years that followed the country's liberation from the French, continue to remain faithful to egalitarianism principles. Another reason is that local authorities perceive the need to redistribute land periodically among farming families to accommodate the rapid demographic changes in the region.

One finding of this study is that regardless of provincial policy, the inhabitants of Thuy Hung and Ban Muang have overwhelmingly embraced economic reform and invested in cash crops, which have displaced some of the

1 Tax systems in the two regions investigated differ considerably. The tax system in Thuy Hung is very undeveloped. Thus families are subjected only to two annual taxes—a land tax and a residential tax (see section 5.1). By contrast, due to the existence of the village cooperative, an extensive system of taxes applies to the residents of Ban Muang (see section 6.3.4).

traditional crops.² Thus, in paddy fields, farmers in Thuy Hung now grow sugar along with rice, a purely subsistence crop, for the national market. The majority of cash crops, however, are grown on family hill plots, which are less limited in size than paddy plots. The most important of these crops are tree crops—aniseed and a variety of fruit, including longan, persimmon, and citrus. In Ban Muang, farmers grow a mix of annual crops, especially maize and edible cana, and perennial crops, mostly plums, to generate income. The contribution of tree crops to the farm economy is growing from year to year as farmers in both regions invest considerable resources into expanding their orchards. This confirms the increasingly observed trend for commercial tree crops to supplement the declining subsistence economy in the impoverished and environmentally degraded upland regions of tropical Asia (Kummer et al. 1994; Hoang Xuan Ty 1995; Henin 1995; Henin 1996; Rigg 1997: 254-8).

Animal husbandry is another important component of the Nung and Thai economies. Farmers rear water buffaloes, pigs, and, to a lesser extent, fowl. Buffaloes are plough animals, an essential element of wet-rice farming. Pigs are grown essentially for business. In both Thuy Hung and Ban Muang, pork sales make a significant contribution to annual income. Fowl, on another hand, are reared mostly for family consumption.

On the whole, this study shows that, under commercialization, subsistence agriculture coexists with commercial farming, although its relative importance for the household economy has been progressively declining. This view is supported by case studies in other upland regions of Asia (McKay 1994/95; Henin 1996; Tungittiplakorn 1998). This dualism is reflected in the labour arrangements prevailing in the village. Reciprocal labour exchange and mutual assistance among farmers retain their traditional popularity. The rise of the commercial economy, however, has stimulated the emergence of wage labour relations. Families hire

² A similar transformation has been observed in much of highland Southeast Asia (Cooper 1984; Suthi 1989; Lewis 1992; Crystal 1995; Tungittiplakorn 1998).

rural workers to assist on the farm in a variety of operations, such as fruit picking, paddy weeding, house building, and pond digging. They also hire specialists to spray pesticides on their crops.

Households, Kinship Networks, and Cooperatives

Commercialization of agriculture in Southeast Asia has often been accompanied with a complete transformation of village institutions³. In Vietnam, market reforms have caused the fall of the agricultural cooperative, replacing it by the family farm as the main unit of production (Chu Van Lam 1993; Le Cao Doan 1995). At the same time the household structure has assumed the most important distributional functions in the village economy. Among both the Nung and the Thai, the most common type of households (close to 60 percent) is the extended family, usually composed of two generations. The other common types are the nuclear family unit consisting of two parents and their children and the family unit headed by a single parent, usually female-headed households. Regardless of the type of household, food and budget are most often shared by all members. Tasks are distributed among members often as in the traditional past, according to gender lines and age groups. In rice agriculture, for example, men plough fields, women weed out the fields and transplant the rice; both men and women harvest the rice, often in cooperation with neighbours and relatives. The older members carry out light work in agriculture and household tasks, such as cooking, minding the children, and feeding yard animals. Men and women, adults and children, take part in other, non-farm, activities.

An important result of this study is that, with the demise of the cooperative as an administrative unit, other village institutions are now playing a greater role in resource and service allocation in the village. One is the kinship network. For both

3 The importance of village institutions for the village economy is emphasized in much of the literature on agrarian change in Southeast Asia (see Geertz 1963; Scott 1976; Walker 1992; Taylor and Adleman 1996).

the Nung and the Thai, the kinship network has again become central to their lives⁴. Relatives help one another in agricultural tasks, infrastructural maintenance, and financing. Because of unfavourable loan terms, villagers are reluctant to borrow money from banking institutions to invest into their farms. They prefer, instead, to borrow from relatives. Kinship networks provide almost fifty percent of all loans in the village. Others are political organizations, all closely connected to the Communist Party—mainly the Commune Fatherland Front Committee and the Women's Association. These institutions have no significant impact on village life other than to emphasize the links between polity and government in Vietnam's rural communities⁵.

The agricultural cooperative has not entirely disappeared from the Vietnamese countryside. It has survived in some regions, albeit with much less political power than in the collective era, and with functions that are largely oriented towards providing assistance to farmers. Much research, in fact, points out that it could play an important role in Vietnam's rural development (Le Trong Cuc and Sikhor 1996). In Thuy Hung, as in the rest of Lang Son province, cooperatives do not exist. Cooperatives were never popular in the region, not even during the collective era when local ethnic minorities resisted government efforts to control them. They were thus never fully implemented and they vanished soon as the result of *doi moi*. Cooperatives, on the other hand, have been preserved in Son La province, including Ban Muang. Although they have lost their administrative and political power, they retain important social and economic functions, including land-use planning, agricultural advising, and infrastructural management. In Ban

4 In a study of cash crop development among the Hmong in Northern Thailand, Tungitti-plakorn (1998) also found that, in the commercial economy, kinship solidarity (in the form of clan cooperation) was of central importance to Hmong farmers.

5 Interestingly, there are no religious institutions other than the *thay mo*. Unlike many other groups of the Thai-Lao-Shan cultural family in the north of Southeast Asia, which usually practice Buddhism, the Nung of Thuy Hung and the Thai of Ban Muang do not have temples. Their main religion is ancestor worship, a religious practice that does not require communal affiliation.

Muang, as in other neighbouring villages, the role of cooperatives in development has become a matter of local debate, with most villagers in favour of augmenting their social and economies duties towards the community.

Land Tenure.

The Land Law has radically transformed the land tenure system in the Vietnamese countryside. It not only guarantees households the right to access land for extended periods of time; it also gives them the right to exchange, transfer, rent, mortgage, and inherit land use rights (see Chapter Three). This study highlights the fact that for the upland ethnic minorities, this law has led to a revival of traditional customs of land inheritance. Thus the Nung, who are strictly patrilineal, distribute their properties among their sons. The Thai, on the other hand, divide their land holdings among both their sons and daughters after marriage. In both cases, family land is thus parcelled out among inheritors, a process that, under continuous local population growth, could lead to agricultural involution. The decreasing land base per capita has indeed begun to cause some families to migrate to the Central Highlands, where land is more abundant.

Land consolidation is in theory possible because, under the Land Law, land-use rights can be sold, bought, and transferred for the duration of the lease. In practice, however, good agricultural land is so scarce that land transfers in the village occur only rarely. Another reason is that in the absence of permanent alternatives to farming, villagers tend to hold on to their properties, reinvesting earnings from informal activities into their farms. This study thus confirms the tendency observed throughout much of Southeast Asia for marginal farmers to keep their properties and to re-invest off-farm earnings into their farms (White 1991; Hart 1994). This implies that landlessness is a far less common phenomenon than Marxian-based differentiation theory would imply (Bray 1986). In the two village studies presented here, the few cases of landlessness are limited to outsiders who moved to the villages after formerly collective land had been allocated to

farming households. Less than ten years after the land reforms, it is, of course, too early to rule out the possibility of land accumulation in the region. Nevertheless, as repeatedly emphasized throughout this work, in the absence of reliable forms of employment outside farming, farming—and especially tree farming—is the best chance for uplanders to improve their livelihoods.

7.2 Farm Development Constraints

Much research on farm development in Asia points out that many structural factors effectively prevent farmers to participate successfully in modern, commercialized agriculture (Fforde and Sènèque 1995: 124-30; Barker et al. 1985: 215-31). This is especially true of remote upland areas, which are, by nature geographically disadvantaged in terms of road access, and too remote from centres of political and economic power to attract appropriate levels of government investment. This study shows that a number of constraints hampers farm development in Vietnam's highlands. These are a lack of access to essential factors of production—investment capital and fertile land—a deficient irrigation and transport infrastructure, and a lack of extension and social services, especially in health and education.

The most common concern is the lack of capital to invest in agricultural production. Farmers distrust the formal credit system which, they say, provides loans at unfavourable terms. They prefer instead to borrow money from relatives, who generally show more flexibility in lending agreements. Another concern is the lack of paddy land as rice agriculture, in spite of the growing popularity of cash crops, remains an important part of the household economy. Regarding hill land, farmers usually complain less about the size of their holdings than of their soil quality. Much hill land has been deforested and it has now become too dry to be productive. Landlessness in the village is generally not an issue of concern except for newcomers and families headed by a parent who comes from another village.

Another common problem is the weak infrastructure. The irrigation and

local transport infrastructure have suffered since the end of the collective era. All agricultural land has been redistributed to families, which have reclaimed much of the land that was previously used for storing water for the community. Families are now directly responsible for digging wells and building irrigation canals to water their crops. The general paucity of irrigation water retards household agricultural production. In contrast, road maintenance is carried out by village work teams. Because these teams do not have the necessary equipment and supplies, however, roads are usually in a poor state, and their maintenance represents a serious strain on local labour reserves.

Farm development is also hindered by a general scarcity of services. Agricultural extension is inadequate as few specialists are willing to visit remote villages. Farmers tend to lack expertise in making use of modern seeds and chemical fertilizers, maintaining orchards on steep slopes, and conserving hill soils. Veterinary services are almost non-existent; and, as a consequence, farmers lose many of their pigs to disease.

In the social realm, families have access to very few services and facilities, which retards their progress in improving their quality of life. Education is limited to the first few grades of schooling. Classes tend to be overcrowded with students who repeat the same levels of instruction several years in a row. Teachers for upland areas have been difficult to find: low salaries and rugged living conditions deter teachers from seeking employment opportunities in remote mountain areas. Health delivery in the village is generally limited to nursing services. Very few villages, however, have resident nurses. Villagers have no access to health insurance. Those who have to consult doctors and be hospitalized, do so at their own costs. Health costs are the most important cause of household indebtedness in the village.

Uplanders realize the importance of government institutions and assistance programmes for the development of their communities. In the regions surveyed in this study, families make a priority of sending children to schools, often at a high

short-term economic cost. As the interviews conducted in this study point out, they would like the state to improve schooling and medical services; to provide them credit at favourable terms; to send them agricultural extension specialists on a regular basis; and to increase spending on infrastructural improvement. They also favour organizing local cooperatives that are oriented towards the people's needs rather than those of the state. They want greater input in local development planning.

Environmental Degradation

Environmental degradation because of its potentially long-term effects may be the most serious obstacle to the development of the family farm. In much of upland Southeast Asia, population growth, ecologically unsustainable agricultural practices, commercial logging, and misguided development policy combine to cause severe deforestation, soil erosion, water pollution, and loss of biodiversity (Cooper 1984, De Koninck 1993, Rigg 1991, Dearden 1995). Environmental degradation in upland areas, is intimately linked to poverty: it is both a symptom and a cause of poverty (Blaikie 1985, World Bank 1995, Hainsworth 1999). In the case of Vietnam, as has been demonstrated here, it is also the result of resource mismanagement during the collective era. This study confirms that central planning policies in socialist economies were highly deleterious to the natural environment (World Bank 1996). Several factors contributed to the destruction of local trees: (1) the absence of markets for tree crops, such as fruit and aniseed; (2) the treatment of forest as communal property (the tragedy of the commons); and (3) the imposition of prices for agricultural products which did not reflect the resource scarcity in the region. As a case in point, in Thuy Hung, the lack of markets for fruit and anise before *doi moi* incited farmers to grow tobacco for the national market⁶. In the absence of tobacco processing plants, farmers cut the local trees to make fuelwood for

⁶ Growing tobacco was an important component of rural development strategy before *doi moi* because tobacco was considered to be an essential consumer product in urban areas and because it was relatively easily stored and distributed throughout the nation.

drying tobacco, a process which eventually led to the destruction of orchards and forests in the region.

In contrast, as the World Bank (1996) points out, the liberalization of markets and the adoption of prices that reflect the availability of energy and natural resources promote a generally more efficient use of resources (33). Thus, had the price of tobacco reflected the scarcity of fuelwood, the national demand for tobacco would undoubtedly have been weaker—and the process of deforestation in the uplands of North Vietnam slower. More importantly, had markets been encouraged for other crops, especially tree crops, farmers might have been more mindful of their wood resources. This phenomenon has already been observed in this study, which shows that, having secured land-use rights and gained a better access to markets, farmers are now replanting commercial trees on their properties. They are further stimulated to do so by government-sponsored afforestation programmes that aim for farmer participation in fruit markets.

In a study on the impact of economic reform on the ecology of the Midlands of Northern Vietnam, Rambo and Le Tronc Cuc (1996) conclude:

Perhaps the most important consequence of Resolution 10 was the conversion of the large area of hill lands from a common property resource into private property ... Unquestionably this has led to dramatic improvement in the management of these lands.

(Rambo and Le Trong Cuc 1996: 122)

Nevertheless, the authors warn about the negative effects of the privatization of hill land. They point out that, first, the current distribution of hill land is highly inequitable, and, second, that:

Households that did not obtain control over hill slope lands no longer have access to resources such as firewood and fodder that were formerly freely available to them from the lands of the cooperative.

(Rambo and Le Trong Cuc 1996: 122)

This study extends the validity of those findings to the upland regions. The size of family hill land holdings in Thuy Hung ranges from none to twenty hectares. Many families have more land than they can efficiently use, given their limited labour and capital resources. On another hand, a few families—invariably headed by a village outsider—have no access to hill slopes. Inequality in holdings of hill land is likely to become an increasingly important source of income disparity in the village.

I argue, however, that it is less the quantity of hill land available to households than its quality which determines the profitability of their cash crops. One aspect of quality is the number of productive anise and fruit trees that survived on family property throughout the collective era. Another is the fertility of hill soil, especially its ability to retain moisture during the prolonged winter season. The quality of hill soil determines the survival rate of the seedlings planted under the national afforestation effort, and it is known to be directly linked to the amount of vegetation cover. In Vietnam, both deforestation and declining quality of soil are to a large extent results of past collective policy.

7.3 Economic Diversification and Structural Change

Structural change in the form of the growth of non-farm economic activities has become an increasingly important component of rural development in Southeast Asia. In an insightful historical analysis of structural change in Java's rural areas, White (1991) conceptualizes Java's farmers as three relatively distinct socio-economic classes: (1) a large class of marginal farmers and landless peasants; (2) a middle group of small farm owners; and (3) a relatively small class of privileged, large-farm owners. Regardless of their classes, all farmers are generally involved in non-farm activities, albeit for different reasons. Marginal farmers work in the non-farm sector as a strategy of sheer survival. Middle-class farmers do it in order to provide security against agricultural failures (against bad weather, low output prices, and so forth). Wealthier farmers invest a part of their agricultural surpluses in non-farm activities that provide higher returns than agriculture (White 1991: 65). Other

studies confirm the growing popularity of non-farm work in Southeast Asia's rural areas for all classes of farmers (De Koninck 1992, Koppel and Hawkins 1994, Rigg 1997, Elson 1997).

In Vietnam, only ten years after *doi moi*, although disparities in the farming population are emerging throughout the countryside (Ngo Vinh Long 1993), social classes in the village are still relatively difficult to conceptualize. Regardless of their social and economic status, however, very few farmers are engaged in economically attractive off-farm activities. The main reason, as stressed throughout this study, is that very few employment opportunities exist outside the farm sector. The formal sector of the regional economy is virtually closed to rural workers. There is no rural industry in the district. Town enterprises have had, so far, little appeal for villagers, considering their relative lack of specialized skills and low levels of education. There has been, therefore, only very little temporary migration to towns. Migration from the village has occurred in the form of permanent migration to other uplands areas of Vietnam, especially the Central Mountains—the last frontier in the country.

In this study, employment in off-farm activities has been almost exclusively confined to the informal sector of the economy. In both the Nung and Thai village, a few families have undertaken small-scale enterprises—a motorbike taxi service, a food and beverage stall, a haberdashery, or a tailor shop. Among the Nung, two traditionally important practitioners have monetized their services—the shaman/sorcerer/ Taoist priest (*thay mo*) and the practitioner of traditional medicine. These activities, normally the preserve of males, are considerable sources of personal income. In Thuy Hung, many farmers (men and women) also earn an extra income by working as porters for traders who operate across the Chinese border. The popularity of informal activities among the Nung is not surprising considering their tradition of resistance against all forms of outside authority. On the whole, however, non-farm activities in Thuy Hung represent only a relatively small part of household income. This study thus highlights the fact that in Vietnam's uplands, the village economy remains largely agricultural.

One serious obstacle to upland development in Vietnam is the conspicuous lack of rural enterprises. The reasons for this situation can be partially found in the country's short and tumultuous modern history. During the final stages of the independence war, the French colonizers destroyed most of their factories before withdrawing from Vietnam. The long war against the United States and the ten-year embargo after Vietnam's invasion of Cambodia then impoverished the country so much that it had little money to invest in rural industries. At the same time, in the North, the brief 1979 Chinese invasion destroyed much of the remaining physical infrastructure. Subsequently, a lack of policy focus on upland areas left the area destitute in industries. State farms were established in various parts of the uplands, but their activities were geared towards the production needs of the country at large. Moc Chau, for example, has two major state farms (which recently acquired the status of government corporations), a dairy farm and a tea farm, but they employ very few local residents. This is unlike the situation in China, where rural industry plays an important role in promoting upland development (Croll 1994; Henin 1996).

Rigg (1997) emphasizes the importance of the non-farm sector for development in Southeast Asia:

The sources of rural poverty, and certainly the antidotes to rural poverty, are not to be found in agriculture, and perhaps not even in the countryside.

(Rigg 1997: 277)

This study shows the importance of cash crops to raise household incomes in upland villages. Yet it also emphasizes that growing crops alone is insufficient to lift disadvantaged households from poverty. Many of these survive by taking part in the informal sector of the economy. There is thus a need to develop the non-farm sector of the economy in order to provide villagers with reliable employment in industry and services (Croll 1994, Simpson 1994, Dang Phong 1995, Rigg 1997). Hainsworth (1999: 48) insists that "there is a two-way dependence: industrial growth

can help 'pull up' agricultural incomes, but an industrial 'big push' depends on agriculture being able to supply the cheap food, materials, foreign exchange, tax revenues, etc." In a similar line, there is a need for development policy to integrate rural and urban areas. Although urban development tends to generate regional disparities, it also benefits the countryside. First, it stimulates agricultural production in regions that are close to and far from towns. Vietnam's increasingly affluent urban consumers demand agricultural products that are more diversified and thus likely to be produced as much in upland as in lowland regions. With increased levels of investment in upland areas and pricing policies that reflect the need of both producers and consumers, development and modernization can benefit both rural and urban dwellers. At the same time, the diversification of employment in urban areas provides a welcome source of income for rural workers in the slack agricultural time, who are likely to reinvest their profits into their family farms. It follows that theories of rural neglect through urban bias may become increasingly irrelevant to the development discourse (Rigg 1997: 278).

Nevertheless, a real danger exists that an increased policy focus on industry at the expense of agriculture results in weakening agricultural production. Lee (1994) points out that although township enterprises in the Chinese countryside have brought jobs and higher incomes, they also have led to a general disinvestment in agriculture and stagnation in production. Hill (1995) insists that China since the mid-1980s has experienced a decisive shift in economy from countryside to cities, where employment opportunities in industry and services have multiplied. Eventually, and sooner than later, Vietnam is bound to follow the same trend (Hill 1995: 189).

7.4 Socio-economic Differentiation

Much research on agrarian change in Southeast Asia shows that socio-economic differentiation is almost unavoidably generated by commercial agriculture, whereby owners of relatively large farms often command enough

surpluses to dominate access to the means of agricultural production—land, capital, labour, transport, and so forth (Eder 1993, Dearden 1995, Dang Phong 1995, Tungittiaplakorn 1998). For these wealthier farmers, a dynamic process of accumulation is at play through which they gain access to the product of other workers' labour, based on their differential control over production resources (White 1989). A small village elite often forms with many economic benefits and increasing political power, linking the majority of villagers with state and markets (Turton 1989). Within village society other classes of middle, poor, and landless farmers may emerge. Class categories, however, are rarely clear-cut as complex and often conflicting processes of differentiation influence social and economic relations in the village (see Chapter 2)

In Vietnam, research on the social consequences of *doi moi* in agriculture highlights a process of differentiation, albeit in an infancy stage. Dang Phong (1995) reports that differentiation in rural Vietnam has been accompanied with significant land concentration. In the southern provinces and some central provinces, a market for land use rights has developed. Wealthier farmers have accumulated land resources in their desire to expand production. Poorer farmers, increasingly attracted to the service sectors of urban areas, have sold their land use rights to wealthier farmers in order to finance changes of profession. (Dang Phong 1995: 167-76). Ngo Vinh Long (1993) remarks that differentiation in Vietnam has been particularly marked in lowland areas, where the market economy is more developed, and especially in areas near urban centres, where income disparities have become considerable (order of forty to one) (189).

Regarding differentiation in Vietnam's uplands, Dao The Tuan (1995) summarizes the findings of several national surveys: by 1992, economic differentiation had increased significantly in all of Vietnam's economic regions except in the mountainous regions, where poverty remained widespread (144-6). He attributes the causes of this phenomenon to the low level of participation of upland farmers in the market economy. Kerkvliet and Porter (1995) comment that the slow

progress of upland agriculture, far from being unique to Vietnam, has been observed in all of Southeast Asia. Green Revolution technologies and market reforms have been primarily designed for areas endowed with the most favourable physical and social infrastructure (18).

In a somewhat contrasting position, the view developed here is that a process of differentiation has already set its roots firmly in the soils of Vietnam's uplands largely as the result of commercial agriculture. This is in line with the work of Cooper (1984) on the Hmong economy in Northern Thailand, which highlights a process of "rigid class division" derived from land ownership in permanent agriculture (as opposition to swidden agriculture) and general resource scarcity, in which the poor are increasingly dependent on those who own land and control the economy for sheer survival (194-8). The differentiation process observed in this study is much less dramatic. Nevertheless, several indicators point to the emergence of differentiation in access to means of agricultural production. First, considerable income disparities of income per capita already exist due to a large extent to variability in farm production. Thus annual incomes per capita in Thuy Hung range from \$10 to \$ 345, largely as the result of anise and fruit farming (see Table 5.18). Second, a growing number of households with large orchards employ workers to assist in their operations for fixed (and low) daily wages. These include not only fruit pickers in their cash crop operations but also weeders and rice planters in rice farming. Third, a small, but seemingly growing, number of farming households are gaining access to the land use rights of others to expand their farming operations. Fourth, there are signs that inequity between genders is beginning to rise as the result of wage labour.

Women

The transformation of labour relations between genders as the result of market reform in agriculture has, in recent years, deservedly become the subject of intense research focus. Koppel and James (1994) have stressed that development in

Southeast Asia has weakened the role of both community and household. It has placed considerably greater responsibility on women first, in their capacity to earn income, and, second, in terms of unpaid family labour (284). The main factors at play are (1) declining incomes in activities that are traditionally the preserve of women and (2) institutional change that favour male labour (including diversification of activities by men) (284). Tungittioplakorn (1998), however, remarks that the consequences of commercial agriculture for rural women development are complex. Thus on the one hand, cash crop production has accelerated the gap between men and women. On the other hand, women, by becoming active in marketing crops, have improved their earnings (243-5).

In Vietnam, Tran Thi Van Anh and Nguyen Manh Huan (1995) point out that the policy to issue land licences to heads of households has disadvantaged women. The most important decisions in agriculture are now increasingly made by men, and agricultural extension services are also increasingly directed towards men. As a result, inequity between genders in Vietnam's countryside is rising (207-12). This study indicates that liberal policies in agricultural may, indeed, have disadvantaged women and accentuated the socio-economic gap between genders. With the growth of wage labour, the trend has been for men to specialize in more lucrative operations than women. Workers hired to weed paddies and harvesting, for example, are almost always females. Their wages are considerably lower than those of masons, carpenters, pesticide sprayers, and other characteristically male specialist workers. Among the Nung, *thay mos* and traditional doctors, professionals who are normally men, derive daily wages that are significantly higher than those earned by women in other informal activities—food vending, garment repair, and so forth.

Local institutions also reinforce the differential access to resources and power according to genders. Through banks, extension services, and the commune People's Committee, men—the heads of households—have privileged access to investment capital, information on technology and markets, and decision power in

the community. In all villages visited in this study, the village leader and the members of the commune People's Committee—who hold real political power—were always men. Other factors, however, moderate the impact of the institutional bias in rural development. Socialist policies continue to influence development planning in Vietnam's countryside. The Women's Association issues loans to females, especially to women who head households. Education policy reflect a concerned attempt to improve the education levels and skills of females. Kerkvliet and Porter (1995) report that by 1990, literacy among women in Vietnam was nearly the same as literacy among men (15). This is also been found to be the case in the villages studied here, where as many girls as boys are at school.

Environment

Another important concern is the impact of differentiation on the ecological sustainability of natural resource practices. Dearden (1995) comments that, in Northern Thailand, "development has promoted social differentiation, leading to an overexploitation of resources that had previously served the common good" (118). McKay (1994/95) notes that development in the Philippines's swidden agricultural communities has promoted a greater male influence on local resource use and a decrease of swidden land and female management. This has resulted in considerable deforestation with serious implications for biodiversity (150). In Vietnam, on the other hand, the impact of commercial policies on agriculture has—so far—been, to a certain extent, positive for the natural environment. Thus, Rambo and Le Trong Cuc (1996) conclude, from the results of a major field study conducted in Vietnam's midlands, that market reforms have led to "the regreening of barren hilltops and the replacement of eroding cassava fields with tea and other perennials" (125).

This study tends to support this assertion. On the one hand, it indicates that differentiation in the uplands has an adverse effect on the natural environment. In all villages visited, many marginal farmers over-cultivate their lands, causing soil

nutrient loss and soil erosion. Many poor farmers also deplete local wood resources by collecting fuelwood as a business activity. On the other hand, much deforestation in the region was already caused during the collective era, when local forest were made freely available to local farmers for agriculture. Market reforms have worked in the opposite direction, stimulating farmers to invest in orchards and other tree plantations. The prospect of earning income from tree crops, which has caused income disparities among villagers to increase, has also stimulated the regreening of local barren lands. Thus paradoxically, if commercialization of agriculture in some countries has led upland farmers to ecologically ruinous farming practices (Cooper 1984; Hefner 1990; Dearden 1995), market reforms in Vietnam may have had, so far, the opposite effect.

Market reforms, however, from their very nature, have not reversed the loss of biodiversity that has affected Vietnam's uplands for over half-a-century. Sutthi (1989) and Dearden (1995) emphasize that the main negative impact of commercial agriculture and development in Southeast Asia's uplands has been to weaken traditional systems of resource management and thus to contribute to a severe loss of genetic diversity in the local flora and fauna. They argue that the strengthening of the biophysical environment should be a key component of development planning in the highlands. The danger, indeed, does exist that the expansion of crops in Vietnam's uplands—which has so far been largely limited to barren areas—will soon affect the few remaining natural forests. This challenge will have to be met through government intervention in the form of poverty relief, promotion of social forestry, and increased focus on forest conservation.

Intra-regional Disparities

This study shows that socio-economic differentiation within Vietnam's upland villages is on the rise, with serious implications for poverty, gender relations, and the local ecology. However, much evidence from the research literature points towards a faster growing gap between lowland and upland regions

as a whole. Both government-sponsored and independent research show that the main effect of modernization in Vietnam has been the rapid growth of the gap in socio-economic conditions between rural and urban areas (Nguyen Sin Cuc 1995). This phenomenon can be understood in the context of system theory, which emphasizes the imbalance in political and economic power between core and periphery. Lipton's theory (1977) states that at the heart of inequality in the Third World is the massive imbalance in investment capital and cash revenue between city and countryside. Remote upland areas are especially at a disadvantage. The fact that the average annual income per capita in both Thuy Hung and Ban Muang is about the third of the national average points to a low level of local participation in the national economy.

Conclusion

In conclusion, this study shows that while a process of differentiation in Vietnam's uplands is on the way, its thrust is moderated by local culture and socialist policies. Thus, in both regions of study, access to land is still largely dictated by customary law rather than commercial processes. At the same time, redistributive policies are in effect to provide paddy land to destitute families. Access to labour in farm development may be increasingly dependent on the ability of villagers to pay wages, but reciprocal labour exchange arrangements continue to dominate in the village. Similarly, although access to capital is easier for the wealthier farmers who make up the village elite, the role of kinship networks in providing loans to villagers is considerable. At the same time, a number of special funds have been put in place in order to assist impoverished farmers⁷. Finally, differential access to wages exists according to genders, but the household generally remains a stable and cohesive social unit with important redistribution functions.

⁷ The main funds are the Hunger Alleviation and Poverty Reduction Fund, the Women Union's Fund, and the War Veteran Fund.

7.5 Poverty

While the implementation of pro-market reforms in agriculture has generated income disparities among farming households, absolute poverty remains entrenched in disadvantaged sectors of the village population. Poverty is a complex phenomenon, the definition of which always involves a social judgment. The World Bank (1996) identifies several components to poverty: an *absolute* component, which represents the inability of an individual to obtain a given quantity of foods and services; a *relative* one by which the level of wealth of an individual is significantly lower than the level of wealth of others; and a *subjective* one in which the level of wealth obtained by an individual does not meet his or her expectations (67). The process of socio-economic differentiation may in the end generate all these three components of poverty. In a study of rural poverty in India, Rahnema (1992) concludes that poverty is too often perceived as an expression of modernity—as a lack of material possessions and a lack of participation in development (172). Instead, poverty—like wealth—is a cultural concept that can only be understood in terms of aspirations of a people and ethics to which the individual subscribes (170). It follows that if poverty is difficult to define, it is also difficult to measure. Poverty not only contains dimensions which are unquantifiable, but for those dimensions that can be theoretically measured, data may be difficult to collect or subjective to individual interpretation.

Focusing on absolute poverty, the analysis presented in this work shows that in both Thuy Hung and Ban Muang approximately a third of the households live in absolute poverty⁸. Poor household are locked in a vicious cycle of poverty and environmental degradation, in which the lack of productive resources such as land, irrigation water, and fertilizer combine with the farmers' need to feed their growing families to produce an ever deteriorating situation. This study indicates that, in

⁸ The indicator of absolute poverty used in this study is the national poverty line defined by the Ministry of Labour, War Invalids, and Social Affairs (MOLISA). This Ministry defines absolute poverty in rural areas as the inability to consume 20 kg of food per month per capita in the lowlands and midlands, and 15 kg in the uplands. In urban areas, it is 25 kg.

order to escape poverty, many upland farmers have adopted basic survival strategies, such as borrowing food and investment capital from relatives or temporarily working in the informal sector of the economy. Indebtedness due to health costs is a major cause of poverty, further weakening people's ability to invest into their family farms. Disease or injury can impoverish families to an almost irreversible situation. No insurance scheme is provided by the government to protect households from health failure.

These results are consistent with other findings on inequality and poverty in the transitional economies of Asia. The World Bank (1996) reports that pro-market reform in China and Vietnam have generated a rise in inequality and even a temporary increase in poverty in disadvantaged sectors of the population. According to the World Bank, this is an unavoidable outcome of liberalization policy (144). In the end, however, these two countries have reduced their average rates of absolute poverty through rapid growth and policy favouring agriculture (70). China, between 1978 and 1985, achieved a 24 % general decrease in poverty, and Vietnam, between 1985 and 1993, a 20 % decrease (69).

General findings on rural poverty in Vietnam highlight the importance of markets in rural development. They support the view held by Fforde and Sèneque (1996) that the state's most valuable contribution to Vietnam's rural development has been to free up the rural economy, promote trade, and grant families greater autonomy. These authors contend that:

The positive forces of market, once unleashed, lead to greater diversification and a reduction in poverty levels. They also result in social differentiation that is in essence positive, in that it is not at root a process leading to impoverishment and the creation of a landless group, but essentially to more efficient resource allocation.

(Fforde and Sèneque 1995: 98)

At the same time, regarding the role of government in development, the authors contend that "rural development policy (aside from sectoral reform and

relevant aspects of economy wide policies) will not be relevant" (Fforde and S  n  que 1995: 133). Contrary to this position, however, this study emphasizes the need for government intervention in the local economy. As Kerkvliet and Porter (1995) emphasize, "economic growth, while a necessary condition, is not a sufficient one for the eradication of poverty" (13). In both China and Vietnam, poverty remains entrenched in economically disadvantaged areas. In China, most of the poor (9 % of the rural population) are concentrated in resource-deficient, upland regions of interior provinces, which are mostly populated by ethnic minorities. In those regions, entire communities are severely impoverished. The main reason is that upland farmers live by cultivating soils that are ecologically fragile and that have become degraded as the result of overuse. As the World Bank (1996) remarks: 'The poor are often both the perpetrators and the victims of upland destruction' (71). The Bank also points out that despite this tragic situation, the provision of social services has stagnated in China's poorest regions (71).

This study shows that this is also true of Vietnam. Upland farming communities are often trapped in a vicious cycle of deterioration in environmental conditions and growing poverty, from which they could only escape with outside help, especially in the form of government investment into the social and physical infrastructure of the upland regions. Gaiha (1998), in a thorough analysis of poverty in rural India, remarks that:

In summary, while agricultural growth undoubtedly makes a difference, a substantial reduction in poverty is feasible if and only if barriers to acquisition of physical and human capital, and to their remunerated use, are eliminated.

(Gaiha 1998: 288)

Hainsworth (1999) emphasizes that the key to poverty alleviation is to improve enabling environments for human development choices.⁹

⁹ Hainsworth (1999: 25) remarks that the most effective way to improve enabling environments for human development choice may be to increase literacy and disseminate *information* of every kind. This includes not only information of an economic and technical nature—cropping systems, agricultural

The most general condition constraining ability of families in poverty to make decisions that might lead them out of poverty is their lack of security of all kinds—food security, income security, social security, and security of mind in facing a very uncertain future ... Their desperate situations restrict freedom of choice, and they are forced to make what would not be the best choices to improve family income had it not been for this need to be careful. *All improvements to an enabling environment that reduce vulnerability thus help to emancipate human development choice, allowing poverty families to make better use of resources to hand.*

(Hainsworth 1999: 25)

This study outlines several enabling environments that are important for human development choice in the uplands. One is a farm environment free of development constraints, which gives farmers access to capital, technology, roads, irrigation, and other components of the physical and service infrastructure needed for rural development. A second is an economic sector that facilitates the search of employment in the off-farm sector, both in rural and urban areas. A third is a social enabling environment that provides health care, education, old age security, and support for destitute widows and disabled persons. A fourth is political as it concerns the ability of local people to influence development planning and reform.

7.6 **Modernity**

As the result of *doi moi*, modernization and commercialization of agriculture are now the main forces of change in Vietnam's rural areas. The long-standing debate in the research literature on agrarian change has been whether modernization in the end benefits or burdens peasant societies.¹⁰ The proponents of modernization—the developmentalists—argue that the benefits of modern

prices, off-farm employment opportunities—but also information regarding life development—health care, nutrition, labour laws, human rights, etc.

¹⁰ A comprehensive review of the development literature is presented by Andrew Webster, *Introduction to the Sociology of Development* (London: MacMillan, 1990).

agriculture eventually 'trickle down' to all segments of the population (Parsons 1951; Rostow 1960; Bauer 1984; Lal 1985). In this paradigm, the real obstacle to family farm development is the conservatism of the peasantry, their reluctance to innovate and participate in the reformed economy. Critics of modernization theory—the post-developmentalists—on the other hand, argue that this conservatism is justified considering the precarious situation of small holders (Ellis 1988, Todaro 1994: 304-9). As Webster (1990) remarks:

While such conservatism may exist it is more likely that it reflects the insecurity of the rural producer, who is more vulnerable than the higher social classes to disease, death, adverse weather, fluctuating income from produce, and last but not least, exploitation by the political and social system that ultimately makes the peasants' land holding so uncertain.

(Webster 1990: 60)

In their view thus, modernization primarily serves to reinforce inequalities of power and social class. It represents the interests of the national and international elites and upper classes that have imposed a division of labour in society to exploit the poor. Critiques of modernization go further. Berthoud (1992) contends that the propensity of the modernist political economy to replace all other forms of transactions threatens the viability of many social systems (85).

Most writers on agrarian change in Southeast Asia subscribe to one of these two theoretical bends. Others, on the other hand, claim that the issue of whether modernization benefits rural producers is no longer relevant: 'The modernization ethic, broadly defined, has been internalized by most people in Southeast Asia' (Rigg 1997: 280). The results of this transformation of values and attitudes have been generally positive. All indicators show that, at least until the start of the economic crisis of the late 1990s, development had led to real improvements in incomes and quality of life in Southeast Asia (Rigg 1997: 279-80). Vietnam, like the growth economies of Asia, "may be making the transition from shared poverty to unequal prosperity" (104)

The findings of this study generally support this view. They highlight the fact that Vietnam's uplanders suffer from a lack of development rather than too fast a pace of modernization. Farmers are eager to participate in the reformed economy, in which the national markets for food products have opened new opportunities for crop development. They strive to improve their standards of living and yearn to acquire goods and amenities that will make their lives more pleasant¹¹. At the same time, it is emphasized here that not all upland farmers can participate successfully in the modern, reformed economy. The "trickle-down" phenomenon of neo-classical economics is hampered by severe structural constraints to farm development which affect the community as a whole and especially the poorest within the community. These constraints reflect a lack of policy focus on rural areas rather than changes in production methods and markets. The need for reform and modernization in Vietnam's rural areas is consistent with the increasingly common argument in the research literature that at the root of the current economic crisis in Southeast Asia is indeed a lack of change—in fiscal policy, in bureaucratic efficiency, in environmental legislation.

7.7 State and Society

The political control of rural life in the context of state building has replaced many of the social institutions that organized village society in traditional times. French colonial authorities, although they had left Vietnam's ethnic minorities with considerable autonomy in political matters, had already subsumed traditional institutions to their own administrative structures (Duiker 1995: 9). After liberation (1954 for the North), the Communist regime progressively replaced indigenous institutions by cooperative administration. *Doi moi* eventually brought down the cooperative administration system, and replaced it by a tightly controlled government hierarchy of administrative power. At the base of the system is the

11 Many of the villagers who have participated in this study have openly expressed those views during the interviews.

people's committee (*uy ban nhan dan*), which exists at all levels of government. At the lowest level of the hierarchy, the commune's people's committee has considerable control power over village life.

To understand the political nature of change in Vietnam's rural communities, however, it is also necessary to realize the 'localism' that permeates the national administrative structure. At all levels of the administrative hierarchy—province, district, and commune—governments exhibit considerable differences, not only in governing styles, but also in their implementation of national decrees and laws. These differences are evident in our two provinces of focus. Lang Son's provincial government hierarchy offers a significant level of autonomy to their people. The Nung and other local minorities have been able to conserve much of their tradition. As a case in point, land has now been redistributed to families according to lineage tradition. The land distribution among families today thus reflects the situation that existed during the French administration. At the same time, cultural institutions such as shamanism and ritual Taoism, that were tolerated in Lang Son even during Vietnam's era of rigid social controls under communist ideology, now flourish as important institutions for social stability and sources of income for their practitioners. Son La's government structures, on the other hand, have been relatively authoritarian and conservative in implementing Hanoi's policies. In Ban Muang, for example, district authorities have implemented land reforms and redistributed paddy land more or less equitably among local families. They have been, however, reluctant to issue them the long-term land-use rights guaranteed by the 1993 Land Law. District and commune peoples' committees also tend to be in favour of increasing the administrative power of local cooperatives in the region at the expense of farming families.

The persistence of traditional institutions in upland communities reflects the people's determination to take control of their destiny. Their response to the lack of government assistance in upland areas has been characteristically one of self-help.

Fforde and Sènèque remark that:

Underlying the political economy of the rural areas is the tendency for farmers to go it alone, setting up their own autonomous organizations in juxtaposition to official bodies.

(Fforde and Sènèque 1995: 131)

In the reformed economy, Nung and Thai farmers rely substantially on traditional associations, especially kinship networks, as much for gaining access to credit, labour, and other resources necessary for farm development as for moral support.

Most political observers have noted the general pragmatism that thus characterizes Vietnam's governance¹². This pragmatism has enabled regions and communities to retain considerable autonomy in administrative and cultural affairs. Nevertheless, as emphasized in this study, the one-party political system enables the central government to exercise a considerable paternalistic influence on the country's development through its top-down hierarchical structures of administration. In Son La, many ethnic minority communities are now being displaced by the building and expansion of dams on the Da river. These dams are largely intended to produce electricity for Vietnam's industrial urban centres and for export to neighbouring countries. The provincial opposition to formalizing long-term tenural rights on paddy land stems, in part, from the need of the commune authorities to allocate land to families that lost their lands along the river banks. There is much evidence that compensation schemes for people displacement are far from adequate and that local villagers have been entirely left out of the planning process. In that respect, the situation in Lang Son is very similar. Many families in the commune of Thuy Hung are losing their paddy lands to the construction of a new highway linking Vietnam's cities to China. Here, the authoritarianism of the

¹² The pragmatic aspect of Vietnamese politics was one of the main points made in the seminar 'Vietnam Under Stress: The party-State Duopoly Meets Regional Reality' given on September 29, 1998, by Professor Bill Nielsen at the Centre for Asia-Pacific Initiatives of the University of Victoria, Canada.

central government may be felt even more strongly than in Son La. Local inhabitants have not only not been consulted on the impact of the process, but no firm compensation programme has been offered them, and they have no legal recourse for appealing expropriation schemes.

One of the weak points of Vietnam's political system thus, even after *doi moi*, is the lack of provision for local input in development planning. In agreement with several noted political observers, I argue that, to be successful in improving people's quality of life, reform will require a more thorough transformation of the economic, social, and political system than what it has achieved so far (Jamieson 1991; Turley 1993; Hiebert 1994b; Brugger and Reglar 1994; McKerras 1994; Fawcett 1995). As the World Bank (1996) has indicated: "for transition to succeed it must transcend economic engineering, restructure the institutional basis of the social system, and develop civil society" (4). One essential component of reform is institutional change. Under socialist doctrine, "such institutions as the education system, youth and labour organization, the organization and supervision of work in firms and on the farms, and the availability of information to the public were carefully cultivated to serve the process of bureaucratic allocation and the broader objectives of central planning" (3).

To be sure, as Kerkvliet (1995) points out, there is much evidence that Vietnamese authorities can accommodate pressures coming from outside the state apparatus and its own organizations (67). The author remarks that:

Perhaps by far the most important actions, cumulatively anyway, occur in the vast in-between terrain of "everyday politics," where people work out, come to terms with, and contest norms and rules regarding authority over, production of, and allocation of goods, services, and other important resources. Sometimes such politics shade into the formal, state sanctioned forms of participation, and sometimes they tilt the other way into unauthorized, illegal activities.

(Kerkvliet 1995: 67)

A well documented example of successful non-confrontational everyday form of

resistance by Vietnamese peasants has been the bending of the state to local pressures for abandoning collectivism and institutionalizing the right of farming households to use the land according to their will and manage their private economies. Everyday politics here led to substantial land reform and economic liberalization. This study shows that the state has also bowed to the ethnic minorities' demand that it respect customary law on land inheritance and living arrangements after marriage and that it recognize their associational rights¹³.

The state has also been generally tolerant of informal activities, the array of forms of untaxed self-employment that have flourished in upland villages since *doi moi*. Officially, it has also expressed serious concerns about the contraband operations that thrive across Vietnam's long and porous borders with China, Laos, and Cambodia, and in which many lowlanders and uplanders participate. In Vietnam, like everywhere in the world, smuggling is illegal. Yet it is often tolerated by local and provincial authorities. These diverging interests—the need of the state to control and tax economic activities and the need of uplanders to secure a source of income outside agriculture—can only be reconciled by creating reliable forms of formal employment. This will require the state to invest in mountain areas to develop the infrastructure and rural enterprises. These, as shown by China's experience, are very important components of rural development (Selden 1993: 244).

To conclude, much research literature on upland development in Vietnam has depicted the state's attitude towards ethnic minorities as one of contempt and

13 It is appropriate to emphasize the importance of customary law in the traditional Vietnamese—and, indeed, Southeast Asian—village. According to McCloud (1995: 49):

Customary law encompassed all of the rules, customs, and beliefs that defined acceptable behaviour within the village. It constituted the single most important control over village members, governing the family, fields, and virtually all aspects of village life.

On the general nature of the relations between the state and the village in Vietnam, McCloud (1995: 49) comments that:

There is a Vietnamese saying that the law of the emperor yields to the customs of the village.

With this background, the bending of the authoritarian, Marxist-Leninist state of Vietnam to demands of villagers, can be more easily understood.

neglect. Rambo (1995) highlights the tendency by Vietnam's government to devalue indigenous knowledge on the ground that the Marxist model of unilineal cultural evolution assigns upland minority groups a "primitive or backward status" (xx). Writing on ethnic minority adaptation in the Central Highlands, Hickey (1993) remarks that Hanoi's relations with ethnic minorities are fraught with nationalism and ethnocentrism¹⁴. In the name of socialism, official policy since 1975 has been to assimilate mountain dwellers in Vietnamese society. While large number of lowlanders have been moved into mountain regions to 'develop' new economic zones, the uplanders are blamed for deforesting their environment through swidden-farming and failing to adapt to modern society requirements.

In the name of "sedentarization" and "transition to socialism," highlanders in large numbers have been forced to leave their houses and villages to move into Vietnamese-style settlements. Highlanders' religious prescriptions are scorned as "superstitious" and their rites of passage as "backward." Given what the ethnographies have to tell us, Communist policy casts a shadow not only on the highland world but also on the mountain environment and the ultimate fate of Vietnamese settlers.

(Hickey 1993: xxxiv)

In a somewhat less scalding way, Rambo, Nguyen, and Jamieson (1993) comment that:

There is a strong tendency to impose uniform development policies throughout the country without taking into account environmental and cultural diversity.

(Rambo, Nguyen, and Jamieson 1993: 5)

My thesis in that regard is that the growing importance of liberal economic

¹⁴ Ethnocentric policies in development are, of course, not limited to Vietnam. Much research on development and ethnic minority integration in Southeast Asia and China highlights similar tendencies of top-down, hierarchical, exploitive, and even repressive government intervention in upland ethnic-minority areas. Interesting case studies are provided by Sutlive (1978), McKinnon and Vienne (1989), Rigg (1991: 57-108), Peluso (1992), and McKerras (1994), among many others. For a general discussion of ethnic politics in Southeast Asia, see Brown (1994).

ideology in Vietnam has led to a retreat of the state from investing in mountain regions. As in most other countries of Southeast Asia, upland ethnic minorities in Vietnam are thus increasingly victims of neglect, rather than forced assimilation policy. Raw market forces have led to a general improvement in their standards of living and a greater diversity in their farming opportunities. Subsistence production, popular as it was in the past, is becoming increasingly inadequate considering the highly degraded state of the country's upland environment. The new focus on cash crops, especially tree crops, is a more effective—and more ecologically sustainable—family farm development strategy.

Nevertheless, as has been shown throughout this study, upland farmers suffer from a lack of government assistance in farm development and a lack of opportunities outside the agricultural sector. There is a need to create rural industries and develop the service sector of the village economy. There is a need to adopt a comprehensive approach to development and to stimulate the growth of both the farm and non-farm sectors of the rural economy while considering rural-urban linkages in regional development policy.

It is also imperative to develop social services. Villagers need better access to schools and clinics. They require low-interest credit to invest in their farm enterprises. Above all they deserve a comprehensive insurance scheme to protect them from crop failure and health decline. Unreliable agricultural incomes and unexpected health expenses are the major causes of rural poverty, and, therefore, environmental degradation. As Dickenson et al. (1996) insist:

Real rural development involves more than agricultural productivity. It implies a commitment to the effective provision of a wide range of social services: housing, schools, health centres, electricity, sanitation, water supply. It is the failure to bring effective improvements in this area which is the most important aspect of the crisis now affecting many rural areas of the Third World. Rural development may be more broadly defined as the effort to increase social justice and to improve the quality of rural life in such a way as not to threaten the ecological basis for subsistence.

(Dickenson et al. 1996: 150-1)

Real rural development thus is essentially the outcome of a democratic process. The main condition for its success may be that farmers gain greater political representation in the national government hierarchy and more autonomy in local development affairs. The call is for state intervention, but on demand, rather than on imposition.

7.8 Vietnam in Regional Context

To end this discussion, it is worth examining the rural development challenges faced by Vietnam in comparison to its neighbours—China, Laos and other Southeast Asian nations. China, especially, shares with Vietnam a good deal of contemporary development history. After several decades of central economic planning, both countries have reversed their policies of collective agricultural production and given greater sway to liberal economic forces. China's national market reform programme preceded Vietnam's by about ten years, but both nations followed the common path of dismantling the rural cooperative and re-establishing the family farm as the main unit of agricultural production. Both governments implemented similar land reforms: instead of private land ownership, they gave to farming families land use rights for relatively long periods of time. As in much of Southeast Asia, reform in Vietnam and China has led to intensification of agriculture, increased production, and diversification of the farm economy from subsistence crops to cash crops.

In Vietnam and China, although private ownership of land does not theoretically exist, market forces on land use rights, agricultural inputs, and technology have generated considerable disparities within regions. Like in other countries of Southeast Asia, a small but growing proportion of village households are tenants and wage labourers, a reflection of socio-economic differentiation. This is especially true of lowland areas near urban centres, where commercialization has had a deep-reaching influence on village life (Ngo Vinh Long 1993; Kerkvliet and Porter 1995). As emphasized earlier in this study, differentiation is also occurring in

Vietnam's uplands, albeit with an intensity that is moderated by local culture and socialist policies. A very similar situation exists in China's upland areas (Henin 1996).¹⁵ Regarding poverty, similar trends have been observed in Vietnam, China, and most Southeast Asian countries, whereby poverty remains entrenched in disadvantaged groups of the upland population.¹⁶ For those, fiscal restraints and austerity measures imposed by governments under liberalization policies have led to a decrease in provision of social services and infrastructure and, consequently, lower levels of education and health than before the reforms. In China and Southeast Asian countries, pro-market reforms have also generated considerable disparities among regions. While resource-rich regions have generally benefited from commercial agriculture, entire upland ethnic minority communities continue to be afflicted by poverty (Unger and Xiong 1990; Kerkvliet 1995; Rambo 1995).

One aspect of development differs significantly between Vietnam and China: economic diversification as the result of liberal reforms has not generated the same intensity of structural change in Vietnam as it has in China, where village and township enterprises have flourished (Selden 1993; Croll 1994). And yet, Vietnam needs this industry to generate employment and to improve agricultural production. Vietnam, through its proximity to China and its good maritime links to other Asian markets, has opportunities in trade that many rural producers have not yet been able to exploit. Trade has the potential to stimulate the production of cash crops in all Vietnam's regions, including mountainous regions, where border trade with China is already significant (Dang Phong 1995:169-176). For the Nung

15 In both Vietnam and China, a number of policies are in place to promote growth and redistribute wealth among rural families. These include: periodic redistribution of land to farming families; continued investment of central government into local infrastructure and social services (although relative levels of investment decreased compared to the collective era); organization of community labour by local administration systems; reforestation programmes that involve the local population; in some regions, the promotion of agricultural cooperatives; and, in China: the establishment of rural industry to employ local workers.

16 See for example the Human Development Report 1994 produced by UNDP. An interesting comparison of the poverty situation in various Southeast Asian countries and China is provided by Kerkvliet and Porter (1995).

farmers studied here, exports of aniseed and fruit are a growing source of income. The lack of processing industry in the region (including drying and packaging), however, is a severe constraint to local growth.

Another difference between Vietnam and China is the nature of upland development policy. China has no overall policy in upland development. The goal of its upland development programmes is essentially limited to reducing land degradation processes. Environmental problems in the uplands are mostly defined as "soil erosion and desertification" (Hill 1995: 180). In comparison, Vietnam has a more comprehensive and open policy (180). Vietnam's Integrated Rural Development Programme (which began in 1992, and of which Decree 327 is an important component) links ecological restoration to farm development. In the uplands, the goal is to reforest barren hills with trees that benefit ethnic-minority farmers.

Vietnam, however—like China—conceptualizes upland development as the need to incorporate minority peoples into the national polity by controlling them politically (McKerras 1994; Hill 1995). This is achieved by means of a highly hierarchical administrative structure in rural areas. The commune in Vietnam and the administrative village in China have largely replaced the traditional village as units of social and political organization. The breakdown of traditional institutions in China and Southeast Asia has caused an organizational crisis in the village and resulted into a loss of community cohesion (Unger and Xiong: 1990; Vandergeest 1993). At the same time, government attempts to sedentarize shifting cultivators and resettle lowlanders to the uplands have further destabilized ethnic-minority communities and led to conflicts between uplanders and lowlanders (Hill 1995; Henin 1995; Henin 1996).

Commercial agriculture has also often resulted in the invasion of upland territories traditionally held by ethnic minorities. Thus, in Indonesia, the expansion of coffee plantations has displaced large numbers of highland farmers (Crystal 1995). The main reason is that uplanders do not hold title to land. The Indonesian

government has assumed entire control of mountain land—land that is theoretically suitable to cash-crop production. It only grants tenure certificates to households for irrigated rice fields (171-2). The situation is similar in the Philippines, where upland settlement by lowland migrants has led to the displacement, and in some cases, extinction of entire native communities as well as wholesale deforestation. The reason here too is the failure of government and settlers to recognize customary land ownership (Rigg 1991: 70-4). Similar examples abound in the research literature. According to Ireson (1995), the lack of recognition of indigenous title to forest land in Laos has encouraged commercial logging and deprived entire upland communities of their livelihoods. In Thailand, Rigg (1991) notes that, until 1990, only 50 percent of Thailand's farmers had officially received land ownership rights (50). The land tenure situation, however, has since then improved considerably as the result of land reform (Charasdamrong 1994).

In Vietnam, as this work and other studies show (see for example Nguyen Van Thang 1995), government-sponsored migration of lowlanders, mining operation, state-farms, and dam building projects have also displaced many uplanders from their traditional grounds. Yet, perhaps more than any other region of Southeast Asia, Vietnam has the key solutions at hand to both property conflicts and ecological restoration. For almost half-a-century, Vietnam has experimented with radically different systems of land tenure and social organization, having transformed it from a feudal-colonial system of land-holdings to, first, a Marxist-inspired collective one, and then to private ownership system of land use rights. These rights are now entrenched in the constitution and increasingly enforced by local administrative authorities throughout the nation.

This study shows that the benefits of this recent transformation have already become clearly observable. Vietnam's characteristic mix of market reforms and socialist-inspired redistribution of farm land to households has given upland minority peoples a genuine hope to improve their livelihoods by participating in the reformed economy. The long-term test for the effectiveness of the reforms will

be whether the government honours its commitment to respect the local people's titles to land over time and to assist them in gaining access to other factors of production, such as capital, infrastructure, and services. There is little doubt, as well, that for reform to be effective, Vietnam's central government will have to further devolve administrative power to low-level governments and local communities. After years of revolution, war, and totalitarian control, Vietnam's contemporary social and political transformation may soon inspire other Southeast Asian nations in their bid to undertake the necessary reforms to promote people-friendly, sustainable development in their upland regions.

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APPENDIX A

HOUSEHOLD QUESTIONNAIRE

Village _____ Date _____

Township _____

Personal Data

Sex: _____

Age: _____

Marital status : _____

Number of children: _____

Household composition:

A. Household economy*Agricultural Land*

Number of plots _____

	<u>agricultural use</u>	<u>plot size (sao)</u>	<u>distance (km)</u>
(1)	_____	_____	_____
(2)	_____	_____	_____

(3)	_____	_____	_____
(4)	_____	_____	_____
(5)	_____	_____	_____
(6)	_____	_____	_____
(7)	_____	_____	_____
(8)	_____	_____	_____

Land leased: _____ sao _____ plots

Source: _____ Rent: _____ dong

Would you need more agricultural land? (yes / no)

For which use? Why?

Crop yields

Crop	Season	Yield (kg)		Fertil.(kg)
		1996	1995	1996

Chemical fertilizers

Have you been using more fertilizer ? (Why?)

Do you apply organic fertilizers (manure)?

Crop rotation (cycle):

(1) annual	(2) biannual	(3) other	_____
rice		no harvests	_____
other crop:	_____	no harvests	_____

Other crop rotations?

Agricultural Income

Rice

Annual consumption:	_____ kg	
Sold to the government:	_____ kg	(_____ dong / kg)
Sold on the free market:	_____ kg	(_____ dong / kg)
Last year's rice income (1995):	_____ dong	
Expected rice income (1996):	_____ dong	

Other cash crops

Crop	Consumed (kg)	Sold (kg)	1995 income (dong)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

_____	_____	_____	_____
_____	_____	_____	_____

Agricultural expenses

Fertilizer: _____ dong Price per kg: _____ dong

Other inputs: _____ dong

Sources: _____

Other expenses:

_____	dong
_____	dong
_____	dong

Total household agricultural income (1995): _____ dong

Total agricultural expenses (1995): _____ dong

Family member participation in agriculture

husband	_____
wife	_____
children	_____
parents	_____
others	_____

Tasks remunerated _____

Income sources other than agriculture

Activity	house member	perm./seas.	place	income (dong)
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Are you working increasingly outside the farm? (why?)

Savings and investment

Savings: _____ dong

Purpose of saving:

B Social development*Education*

	Literacy	schooling	Children at school	Tuition (dong)
husband	_____	_____	No 1: _____	_____
wife	_____	_____	No 2: _____	_____
parents	_____	_____	No 3: _____	_____

Health

Family member chronically ill: _____

Under treatment (specify)? _____

Household monthly expenses: _____ dong

Use traditional medicines (Y/N)? _____

Reason: _____

Do you describe yourself as poor, average, or wealthy? (why?)

What are your expectations (income, purchases, investment)?

C. Farm constraints

1. Technical constraints

Soil quality: _____

Access to (specify problems) _____

Irrigation (reservoir, canals): _____

Modern rice varieties: _____

Chemical fertilizers: _____

Pesticides: _____

Herbicides: _____

Market, wholesaler: _____

2. Socio-economic constraints

Credit

Amount: _____ dong Lender: _____ Interest: _____

Reason: _____

Have you been refused a loan (explain)? _____

Taxes and fees

Nature (specify)	Amount (dong)	Nature (specify)	Amount (dong)
Land tax	_____	Water (irrig.)	_____
Electricity	_____		_____
_____	_____	_____	_____
_____	_____	_____	_____

Workteam membership (Cooperative)

Function (specify)	No days (yearly)	Comments
<u>Road maintenance</u>	_____	_____
<u>Irrigation</u>	_____	_____
<u>Soil stabilization</u>	_____	_____
_____	_____	_____
_____	_____	_____

3. Environmental Constraints

Fuelwood

Sources:

- (1) _____
 (2) _____

Sufficient? (Explain)

Water

source sufficient (explain)?

drinking _____
 irrigation _____

D. Socialist Transformation

Have land reforms been beneficial to you and your family? (explain how)

Do you hire labourers? (y/n) _____

Operation	Number	Time period	Wage given
_____	_____	_____	_____
_____	_____	_____	_____

Do you work for wages? (y/n) _____

Operation	Employer	Time period	Wage received
_____	_____	_____	_____
_____	_____	_____	_____

Are you renting out land? (y/n) _____

No of plots	Size	Time period	Rent (dong)
_____	_____	_____	_____

Contract conditions:

Relationship to cooperative

Do you obtain help from cooperative? (y/n) _____

In which form?

Are the services provided by the collective appropriate?

Is your economic situation than before the reforms?

Leadership

How important are the leader's functions for the community?

Local government

Is the government sensitive to local concerns?

Do you desire more reforms? (Explain)

E. Traditional life*Barter*

Do you swap goods (food, supplies, others)? (Explain)

Reciprocity

Do you help others with your labour? (Explain)

Do you receive help from others (labour, credit)? (Explain)

Describe the role of family members in farming

Describe the role of husband, wife, elders, and children in household tasks

Do you participate in cultural activities? (Specify)

Comments

APPENDIX B

VILLAGE-LEADER QUESTIONNAIRE

Village _____

Date: _____

Township _____

Personal Data

Sex: _____ Age: _____

Describe household (origin; children, parents, etc.):

How many years have you been village leader?

A. Village Characteristics

Population _____

Number of households _____

Indigenous: _____

Others (describe): _____

Total agricultural land _____ hectares

Total forested land _____ hectares

Ponds _____ hectares

Describe the population growth rate in recent years:

Reasons:

B. Land Allocation Process**1. Residential**

Year of allocation: _____ Area per family: _____

2. Paddy land _____ sao

Year of allocation: _____ Lease _____ years

Area allocated per person _____ sao

3. Hill agricultural land _____ sao

Year of allocation: _____ Lease _____ years

4. Woodlands _____ sao

Allocation process (describe):

Do families in village contract land to other farmers?

Describe contracting arrangements.

Can a newcomer acquire land in village? (explain how)

Are there land shortages in the village?

Inheritance

Does a child receive land at marriage? (Explain: first son, second son, daughter, etc.)

Describe living arrangements:

C. Agricultural production

Main crops grown in village (annual, perennial):

Subsistence:

Cash crops:

Where are crops sold and to whom?

Has village production increased in recent years (intensification)?

Has crop diversification occurred? (explain)

Have crop sales increased?

Describe use of village woodlands (community use; cash revenue).

D. Economic diversification

Sources of non-farm employment in the village:

Sources of non-farm employment in the region (industry, service):

Describe patterns of urban migration (permanent, seasonal):

Rate of unemployment in village:

Is unemployment growing? (explain why)

E. Socioeconomic disparities

Describe social classes (rich, middle-income, and poor households).

Criterion used?

Is the socio-economic gap increasing? (Why?)

Describe schemes of assistance for the poor (credit, food, resources)?

F. State farms and rural industry

Is there a state farm nearby?

Describe functions (farming, forestry, others):

Describe relationship to villagers (employment, assistance).

Conflicts over resources (land, forest, water, others)?

Are there industries in the region?

Do they provide employment for villagers?

G. Development constraints

State of irrigation facilities

State of roads

Crop storage facilities

Marketing facilities

Electricity

Chemical fertilizer provision

Pest control

Weed control

Credit to farmers

Extension services

Taxes and fees

H. Community services and cooperative

Health facilities (doctor, nurse)

Schools

Family planning (explain policy)

Church or temple (functions)

Agricultural cooperative
Functions:

Changing relevance for village development:

Irrigation maintenance

Road maintenance

I. Environmental constraints

Soil quality

Deforestation

Sources of fuelwood:

Irrigation water

Drinking water

J. Village leadership

Describe village committee

Describe functions of village leader

K. Problems facing community

L. Relationship between community and government
