



THE DEVELOPMENT
CRISIS IN VIETNAM'S
MOUNTAINS

NEIL L. JAMIESON

LE TRONG CUC

A. TERRY RAMBO

The mountain areas of Vietnam, which are home to one-third of the nation's people, are in a state of deepening environmental and social crisis. Future decades may well see the uplands suffer widespread environmental disaster and massive human tragedy. Only by recognizing the complex dynamics that drive development, and by fundamentally rethinking development strategy, can the risk of calamity be minimized.



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East-West Center
Publications Program
1777 East-West Road
Honolulu, Hawaii 96848

Telephone: (808) 944-7197

Facsimile: (808) 944-7376

E-mail: ewcbooks@ewc.bitnet



EAST-WEST CENTER

1601 East-West Road

Honolulu, Hawaii 96848

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Neil Jamieson is a senior researcher at Winrock International Institute for Agricultural Development and a senior associate of the Indochina Institute at George Mason University.

Le Trong Cuc is the director of the Center for Natural Resources and Environmental Studies (CRES), Vietnam National University.

A. Terry Rambo is a senior fellow in the Program on Environment, East West Center.

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SUMMARY

The popular image of a Vietnamese landscape is that of a verdant plain checkered by rice paddies. But most of the country is actually hilly and mountainous, and a third of Vietnamese people live in upland areas. Fifty years ago, the lowlands were teeming and the mountains sparsely inhabited. Since then, rapid population growth, driven by both natural increases and national resettlement programs, has brought about drastic changes in the uplands. Poverty, population growth, environmental degradation, social marginalization, and economic dependency are now interacting to create a downward spiral that is currently reaching crisis proportions, both socially and environmentally.

The significance of this crisis is overlooked because current thinking about the uplands is based on a number of popular misconceptions. Among these is the belief that the uplands are remote, empty, and exotic—certainly not central to national development. What happens there, however, has serious ramifications extending to the whole nation, and beyond it to other mountainous regions in Southeast Asia and Southwest China. Environmental degradation, the loss of biological diversity, the deterioration of watersheds, and the marginalization of ethnic minorities are just some of the problems occurring in Vietnam's uplands and throughout this vast mountain region.

Well-intentioned national and international efforts to ameliorate the problems have produced only very modest results. In some cases they have worsened the situation. For despite the enormous changes in the size and nature of Vietnam's upland population, a "lowland" perspective continues to dominate national life. Indeed, the imposition of lowland models upon upland realities is a major determinant of the crisis. When these simplistic and distorted views of mountain life shape development planning, they contribute to the downward spiral in which so many upland people are now caught.

Thus, the spiral cannot be reversed without reform of the underlying structures of knowledge, power, social organization, and economy that control the direction of development. A crucial step is to challenge the conventional wisdom that shapes development models and replace it with new approaches based on observation and analysis. The success or failure of efforts to develop the uplands are critical to the achievement of national development goals. Unless the current downward spiral can be reversed, the future well-being of the whole country is at serious risk.

THE DEEPENING CRISIS IN UPLAND DEVELOPMENT

The mountainous areas of Vietnam are in a state of deepening environmental and social crisis. Unless current trends are reversed, there is a real danger of widespread environmental disaster and massive human tragedy. To minimize the risk of calamity, a more realistic and sophisticated understanding of the nature of development problems in the uplands is required. The problems are most acute and understanding of the crisis is least clear in the Northern Mountain Region, a vast area extending several hundred kilometers from Quang Ninh, Lang Son, and Cao Bang provinces on the northern border with China down to Nghe An Province in the central region. Although this paper focuses primarily on the situation in the northern uplands, most of the analysis is relevant to Vietnam's uplands as a whole. (See maps, pp. 8, 11, and 18.)

Over 40 percent of people in the northern mountains are under 14 years old, and throughout the uplands the population is extraordinarily young. Members of the Dzao ethnic group are shown here.

The signs of crisis are numerous and readily visible. Very rapid population growth, the consequence of both the high birth rates and declining death rates of many minority groups, and the massive in-migration of people from the already overpopulated lowland areas of Vietnam (the "lowlanders"), has placed excessive pressure on an already degraded environment. Over the past 40 years, extensive deforestation has seriously depleted the natural resource base. Biodiversity has plummeted. Rapid population growth is undermining the sustainability of existing agricultural systems because increased food demand has drastically reduced the length of time that fields are allowed to lie fallow (after burning to clear vegetation, as is done in the traditional swidden method of farming). Soil erosion has reduced the fertility of millions of hectares of land. Vast areas of formerly forested land are now classified as wastelands and barren hills and mountains. In the most-damaged areas, landscapes are virtually lunar in appearance.



Restoration of full productivity to these areas will require a very long time, even if further degradation could be instantly stopped, which is unlikely.

It is increasingly difficult for millions of households to meet their basic subsistence needs. Many ethnic minority households in particular suffer from food shortages and nutritional deficiencies. According to virtually all development indicators (e.g., per capita income, life expectancy, educational levels, food security), people in the uplands are much worse off than their lowland compatriots. Moreover, the gap between the two appears to be widening in both relative and absolute terms. These differences are predictable given the initial advantages enjoyed by the lowlands, and they have accompanied rapid development everywhere in the world.

Inequalities are also increasing within and among upland regions, and among different

sectors of the upland population. For example, gender inequalities appear to be worsening as many families devote scarce cash to educating sons while daughters are kept at home to provide labor for household-operated farms.

Most serious of all, cultural and social dislocations of various kinds over many years may have impaired the capacity for adaptive change that is demanded by a rapidly changing context. Overstressed people and communities are short of the psychological resources and social capital (expressed through trust and reciprocity) required to initiate positive changes. Apathy and self-destructive behavior (alcoholism, drug addiction) are indicators of this phenomenon; enlistment in nativistic movements, such as the millenarian cults currently flourishing among the Hmong of the northwestern mountains, is another. Such indicators suggest that communities are deprived of some of the human resources they

It is increasingly difficult for millions of households to meet their basic subsistence needs

The Common Problems of Mountain Communities Around the World

Development problems in mountain areas are not, of course, unique to Vietnam. It is sobering to realize that one could readily substitute the names of a host of Asian countries for that of Vietnam throughout this text and the account would remain valid without having to alter its contents to any marked extent. Nepal, India's northeastern frontier regions, mountainous Burma and Thailand, Tibet, and the mountain areas of Yunnan Province in southwestern China, are all upland areas that have encountered similar problems of development and appear caught in their own downward spirals. Nor is the problem unique to the developing countries of Asia. Appalachia, the large mountain region in the southeastern United States, remains a byword for rural poverty, despite having been targeted for more than 30 years by massive government development projects and the expenditure of billions of dollars of development assistance funds. Vast

areas of the American West, especially those incorporated in the reservations of American Indian tribes, are in an even worse state. The appalling conditions there are a disgrace to the world's richest nation, but countless government projects have failed to significantly improve the health, education, and living standards of the reservation inhabitants. Vietnam policymakers must recognize that their problems of upland development are neither unique nor caused solely by their own shortcomings, and that the difficulties they have encountered in effecting positive change in the lives of minority peoples are widely shared with other countries, including the United States. This understanding should help them move toward a more realistic appraisal of the possibilities of upland development, and provide them with an opportunity to learn from the experience of others. Perhaps they can avoid some of the traps and impasses encountered by development initiatives in other upland regions.

need to meet the challenges of rapid change.

In the face of these growing problems, the Communist Party and the Government of Vietnam, assisted by numerous foreign development organizations and nongovernmental organizations (NGOs), have given and are giving a high priority to upland development. Despite stringent budgetary constraints, the government has committed very significant financial resources to improve upland living conditions and regreen barren hills. The central treasury also heavily subsidizes administrative, educational, and health services in upland provinces. A number of projects have successfully piloted innovative approaches to upland development. [See box on "The Policy Context for Upland Development In Vietnam" on p.6.]

But the very modest results are far less than the level of investment should have produced, and they are far less than the situation demands. Many factors have contributed to this situation—difficult terrain, lack of infrastructure, corruption, excessively cumbersome bureaucratic procedures, etc.—but development planning based on misconceptions and misinformation about the uplands is the main cause of the crisis. Development planning is too often based on a simplistic and distorted view of conditions of life in the mountains: ecological, economic, social, and cultural. Many of the largest and most important upland development programs have been based upon false assumptions, stereotypes, and wishful thinking. Fundamental reorientation is required in research, planning, implementation, and monitoring of upland development.

THE SIGNIFICANCE OF THE UPLANDS FOR VIETNAM'S NATIONAL DEVELOPMENT

Few people appreciate the importance of the mountains to Vietnam's future. Their attention is focused on the cities, especially Ho Chi Minh City, and to a lesser extent the Red

River and Mekong deltas, where growth is rapid and progress evident even to the casual observer. Why should anyone worry about what is happening or failing to happen in the hills and mountains, a little-known region commonly thought of as having only minor significance for the nation's economic development? The answer is that the uplands are much more important than is generally recognized; what happens there matters not just locally but has ramifications extending to the nation as a whole, indeed to the whole mountain region of mainland Southeast Asia and Southwest China.¹ The spread of environmental degradation and the related loss of biodiversity; the growth in crossborder trade of all kinds, including that of endangered plant and animal species; the deterioration of upland watersheds that must supply growing populations in both lowlands and uplands—these are but some of the problems common to the uplands of all the countries that comprise this vast mountain region.

Fundamental Misconceptions

The critical significance of Vietnam's uplands is overlooked because current thinking about this region is based on a number of fundamental misconceptions. The first of these misconceptions is that Vietnam is basically a lowland country. In fact, until 40 or 50 years ago few ethnic Vietnamese lived at higher elevations. The result is that history, literature, and popular culture reflect a lowland perspective. Foreigners received the same misleading impression of a lowland country from wartime television images of troops advancing across seemingly endless rice paddies. Thus the Vietnamese state and modern mass media have both unwittingly conveyed the impression that upland development is not worthy of serious attention. In reality, almost three-fourths of Vietnam is covered by hills and mountains. Few lowlanders have had the opportunity to travel widely in the uplands. Most perceive the uplands as remote and exotic, and not part of their central concerns with development.

Development planning based on misconceptions and misinformation is the main cause of the crisis

The Policy Context for Upland Development in Vietnam

Over the past decade Vietnam has displayed a remarkable rate of economic growth. Efforts to stimulate economic development in the context of a market economy with a socialist orientation have included Directive 100 in 1981, the overall policy of renovation (*doi moi*) set forth at the Communist Party Congress in 1986, Decision 10 in 1988, and the 1993 land law. Agricultural production has increased so much that Vietnam has moved from the brink of famine to become the second largest rice-exporting country. A continuing series of institutional reforms has opened up many sectors of the society while maintaining its basic stability.

A Special Emphasis Under the slogan "the mountain areas must be developed simultaneously with the lowlands," the uplands have received special attention during this surge of national development. Numerous laws and directives have been issued with the aim of facilitating the development of the uplands and especially of improving the lives of the ethnic minority peoples who reside there. As early as 1968, Resolution 38 established the Fixed Cultivation and Permanent Settlement Program to assist upland ethnic minorities believed to be migratory shifting cultivators to build new and better lives. This has now evolved into the Department of Fixed Cultivation and Permanent Settlement and Development of New Economic Zones within the Ministry of Agriculture and Rural Development. The program is heavily funded to promote development in poor and remote upland areas.

In 1992, Decision 327 set forth a set of policies to regreen the uplands. Subsequently, Decision 556 in 1995 refocused the program on the restoration and protection of natural forests and specified the rural household as the key actor. Large sums have flowed into the upland provinces from the central treasury under the 327 program. Meanwhile, Instruction 525, issued by the Office of the Prime Minister in 1993, set forth an overall strategy for the accelerated development of ethnic minorities and upland areas. This strategy emphasized the modernization of agriculture, the strengthening of educational systems, the development of infrastructure, and the provision of safe water throughout the uplands.

Concern For Minorities The Socialist Republic of Vietnam clearly places a high priority on upland devel-

opment. The Party and the government have demonstrated great concern for the welfare of ethnic minorities for many years. This special emphasis on upland development has deep historical roots in the Resistance War period, when the Vietnamese liberation forces had their secure bases in the mountains of the Viet Bac and relied heavily on the support of the ethnic minorities. Since 1954, ethnic minorities have been granted numerous rights and privileges in Vietnam that have not been available to minorities in many other countries.

First of all, they have been granted full rights of citizenship. Article 5 of the Constitution guarantees each ethnic group the right to use its own language and system of writing, to preserve its ethnic identity, and to promote its own positive customs, habits, traditions, and culture. The Constitution also mandates preferential treatment for ethnic minorities in terms of education (Article 36) and health care (Article 39).

Ethnic minorities also receive heavily subsidized access to basic commodities such as kerosene and cooking oil. The government subsidizes distribution of iodized salt in upland areas where iodine deficiency makes goiter a major health problem. All upland provinces, and most districts, have special boarding schools to provide education to ethnic minority children from isolated areas.

The record shows that both within the National Assembly and in many provincial and district People's Committees, ethnic minorities have been represented to a degree that exceeds the percentage of minority people in the general population. Within the National Assembly, Article 94 of the Constitution mandates the formation of a Nationalities Council. This council studies and makes proposals to the National Assembly on issues concerning ethnic minorities, and supervises and controls the implementation of policies on ethnic minorities as well as the execution of programs and plans for socioeconomic development of the highlands and regions inhabited by ethnic minorities.

Special oversight Beyond this, within the executive branch of the government, under the Office of the Prime Minister, a ministerial-level Committee for Ethnic Minorities and Mountainous Areas (CEMMA) was created in 1993 to monitor and supervise the implementation of all government programs directed toward or affecting ethnic minorities.

Fifty-one ethnic groups live in the uplands, and many provinces are home to more than a dozen distinct groups

A second misconception is that the uplands are sparsely inhabited, indeed virtually empty, and thus are socially and economically unimportant. In fact, the uplands contain some 24 million people, or one-third of the national population. The population of the Vietnamese uplands is larger than the total population of Australia or the combined populations of Laos and Cambodia; in fact more people live in Vietnam's uplands than in all of the Scandinavian countries (Denmark, Norway, Sweden, and Finland) combined.

A third misconception is that the uplands are remote marginal areas where events have little impact on the national welfare. In fact, the Vietnamese uplands are of immense ecological, economic, and political importance to the nation as a whole. Indeed, few regions of comparable importance are so complex or so poorly understood. The strategic significance of the uplands has not diminished in the years since the Viet Minh (the anti-French resistance fighters) won the struggle for national liberation at Dien Bien Phu in the northwestern mountains in 1954. A 1979 border war with China, an exchange of gunfire between the two countries in 1992, and continued sensitivity along the border all serve as reminders of the region's enduring strategic importance. The area also contains natural resources of great significance to the national economy. The Hoa Binh hydropower project in the uplands, for example, is the main source of electricity for the nation today. What happens in upland watersheds determines the supply of water for human consumption and agriculture in the lowlands. The uplands are also exceptionally rich in biological and cultural diversity. The Vietnamese uplands are home to 51 different eth-

nic groups from three major language families. The Kinh¹ have the largest population of any group in the uplands today (and constitute fully 85 percent of Vietnam's entire population). The 50 minority groups range in size from only a few hundred people (e.g., the Chut, the Ruc) to more than a million (the Tay). Many provinces have a dozen or more distinct groups within their boundaries. Lai Chau Province alone has some 20 different groups residing within its borders. This remarkable cultural diversity is matched by a remarkably high degree of environmental diversity, with great variations in climate, soil, vegetation, and wildlife within and among regions.

In every respect, the uplands are much more important to Vietnam's overall situation than is commonly recognized. The success or failure of efforts to develop this area will be of critical significance to achievement of national development goals. Indeed, unless the current downward spiral can be stemmed, the future well-being of the whole country is at serious risk with potentially serious repercussions for the entire region.

UNDERSTANDING THE DEVELOPMENT PROCESS

Discussions of upland development in Vietnam² tend to focus on describing current problems rather than on how the pace and direction of development are determined. Examining problems from a sectoral standpoint is typical: deforestation, poverty, gender inequity, and so on are examined individually. (Solutions tend to be defined in equally narrow terms. Thus, the response to deforestation is to establish tree planting campaigns and the strategy to alleviate poverty is based on creation of microcredit programs.) These problems are important, of course, but they are merely symptoms of underlying forces, interacting in complex ways, that collectively shape development trends in the uplands.

¹Officially, all citizens of Vietnam are referred to as being Vietnamese. Members of the majority ethnic group, called "ethnic Vietnamese" or "lowland Vietnamese" in Western publications, are referred to by citizens of Vietnam as "Viet" or, most commonly, "Kinh" (people of the capital). In this paper the term "Kinh" is used.



Poor ethnic minority people are plagued by many treatable diseases. With traditional health practitioners and medicinal plants increasingly difficult to find, most people turn to the local medical clinic. But modern health care and medicines are prohibitively expensive. Shown here: a clinic's supply cabinet.



To provide a missing context to the narrow, sectoral approach, two additional levels of analysis are needed. The first of these deals with a downward spiral, the result of the interaction of multiple factors (e.g., population pressure, resource depletion, poverty) that form a self-amplifying system in which a worsening of any one variable generates a worsening of the others. Such systems are notorious for running out of control as dangerous trends worsen at faster and faster rates. It is this downward spiral, rather than any of the individual sectoral problems, that defines the nature of the crisis in the uplands.

The second analytic level focuses on the underlying structures (e.g., knowledge, including worldview; power; social organization; and the economy) that ultimately shape the process of development. The downward spiral and the underlying institutional structures have combined to produce the current unfavorable development situation in the uplands of Vietnam. If ignored in planning and analysis, both will inexorably deepen and extend the crisis in coming decades.

CAUGHT IN A DOWNWARD SPIRAL

The Vietnamese uplands are caught in a downward spiral that promises to accelerate over the next 20 years. Five elements act as driving forces of this spiral: 1) population growth; 2) environmental degradation; 3) poverty; 4) social, cultural, and economic marginalization; and 5) dependence on nonlocal systems. The first three elements have been linked in mutually amplifying ways for decades. Population levels are already extremely high, in many areas exceeding sustainable carrying capacity with existing technology. There are simply too many people trying to wrest a living from fragile environments with limited agricultural potential. Natural resources are seriously depleted and continue to be destroyed at alarming rates. Poverty (and its constant companions: hunger and malnutrition, sickness, social problems) is widespread and is proving to be difficult to reduce, let alone eradicate. The final two elements of this system—social, cultural, and economic marginalization, and dependence on nonlocal systems—have become more significant in recent years. They are already interacting with the first three elements and threaten to have even more profound and negative effects in coming decades.

Population Growth

"Too many people, too little land" is a phrase that aptly describes the situation in Vietnam today.¹⁰ Some parts of the lowlands are among the most densely populated parts of Asia. In the uplands, densities are lower but the population has grown rapidly since national independence. Birth rates among many of the area's ethnic minorities are well above the national average. The extension of public health services into even the remotest mountain areas, an effort in which Vietnamese can take legitimate pride, has dramatically lowered mortality rates. The combination of higher birth rates and lower mortality has made annual rates of growth exceeding 3 percent not uncommon in highland communities.

Out-migration, the safety valve for overcrowding in other countries, is not a realistic option for upland peoples

The growth of the local population has been greatly augmented by programs to resettle lowlanders into the uplands. More than four million, and perhaps as many as five million, people have moved from the lowlands to upland areas since 1954. The northern uplands alone experienced an increase in population of more than 300 percent between 1960 and 1984, the result of natural local population growth and a massive government program to resettle people from the overcrowded Red River Delta. More recently, the main flow of migration has been to the Central Highlands, particularly Lam Dong and Dac Lac provinces.

Despite the lingering illusion on the part of some planners that the uplands are still sparsely populated, the current average density of about 75 persons per square kilometer is very high when viewed in terms of the very limited amount of arable land. The Vietnamese government has recently acknowledged that migration to the Central Highlands is contributing to loss of forests and to serious environmental degradation there, and has promised to try to stop further relocations to the area.

Population growth is a problem because of the scarcity of arable land in the uplands. Only a tiny fraction of agricultural land is suitable for wet-rice cultivation, the only sustainable high-yielding system of cereal production in Vietnam. More than half the surface area of the Northern Mountain Region has slopes of over 20 degrees. There are less than 1,000 square meters of agricultural land per capita (an area twice that size is needed to meet minimal food needs) in the 11 northern upland provinces, and even less than that in the northern central uplands of Thanh Hoa and Nghe An provinces. Population density is either rapidly approaching or has already surpassed the carrying capacity of the land in large parts of the uplands.

Moreover, despite strong government support for family planning in recent years, and the rapid acceptance of birth control by many

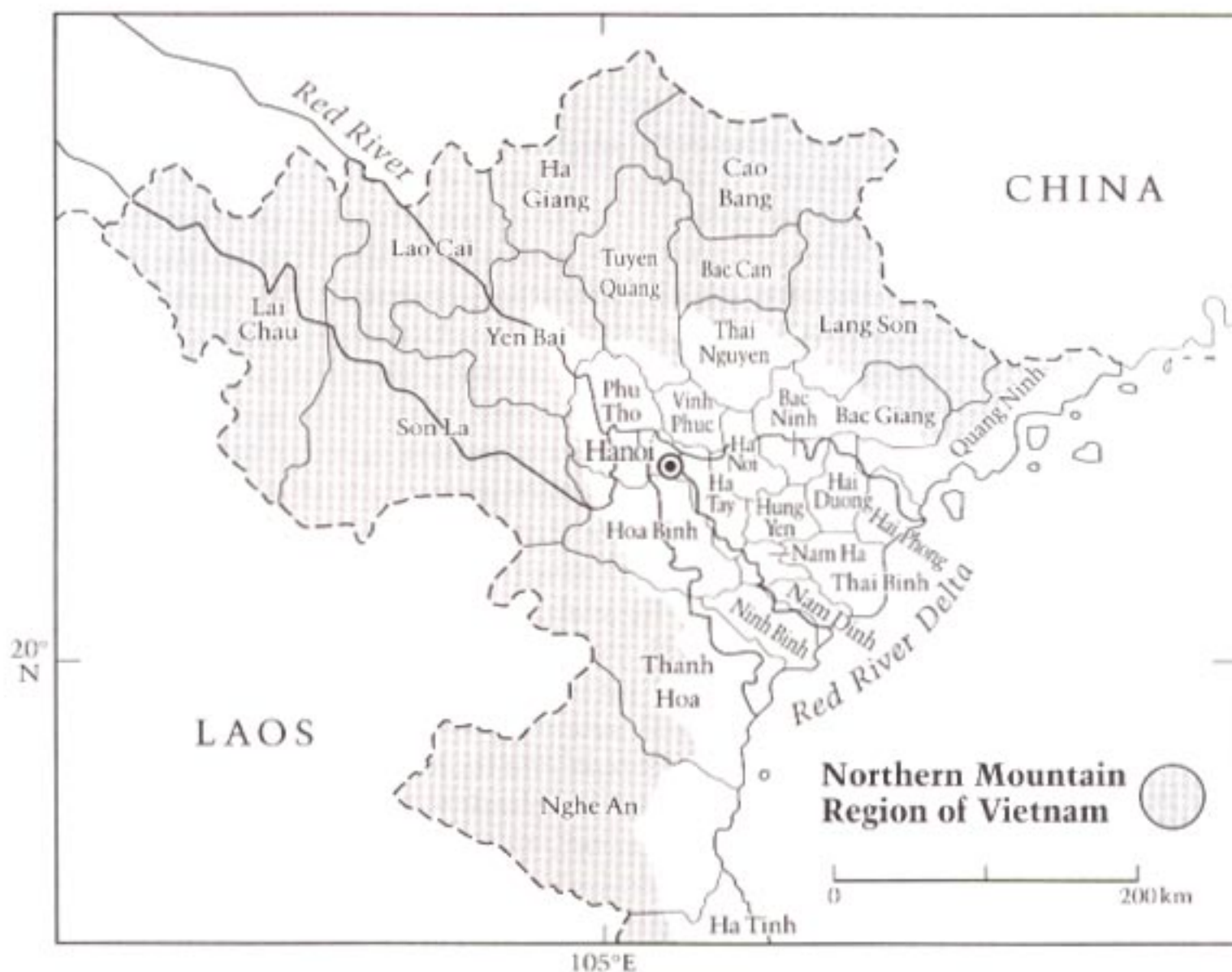
women, the current high rate of population growth will not decline in the near future. This reflects the fact that the upland population is an extraordinarily young one. Well over 40 percent of the population in the northern uplands is under 14 years old. Only about 6 percent is over 60. A continued high rate of population growth is built into the system for several more decades regardless of how vigorously family planning is promoted. The population will almost certainly double again in little more than 20 years.

A safety valve for overcrowded populations in other countries is out-migration: some individuals and families simply leave to seek a better life elsewhere. In Vietnam this is not a realistic option. The government resettled lowlanders into the uplands to solve existing overcrowding problems in the lowlands. Underemployment and unemployment are extensive throughout Vietnam, and an uplander moving into the lowlands will be competing for scarce jobs against people who have better educations and stronger social networks.

Environmental Degradation

Fifty years ago dense forests covered most of the uplands. But forest cover has dropped to less than 20 percent in most of the northern mountains, falling to 10 percent in most of the northwest. Most remaining forests are of poor quality with only a low volume of valuable timber. Species of high economic value are becoming rare. The rate of reforestation cannot keep up with the rate of cutting.

Land degradation is widespread. Throughout the uplands, erosion and leaching of nutrients have reduced soil quality. Yields in swidden fields have declined to as low as 400 to 600 kilograms of rice per hectare (compared to the six or seven tons now frequently achieved in the Red River Delta). As a result of population pressure and loss of forest land, the fallow period in swidden farming is steadily declining. In many places fields are cultivated for three or four years, then



The price for a bear's gallbladder, an anteater's tail, or some snakes can equal a year's income

allowed to lie fallow for the same period when a rest of 10 to 15 years is needed to fully restore productivity. Decreased soil fertility and increased weed competition are the consequences of a shortened fallow period. The result is that farmers, primarily women, must work longer and harder for ever-decreasing yields. In favored locations, farmers have begun spontaneously to diversify and intensify production.¹⁹ But in vast areas of the northern mountains, few economically viable and environmentally sustainable alternatives to swidden farming exist, so people continue with it despite the low returns.

Biodiversity is also being reduced. Many species of plants and animals are disappearing or becoming scarce. Overexploitation and loss of habitat contribute to this trend. Hunting, gathering, and fishing have provided important supplementary sources of nutrition and income for many upland people, but

can no longer meet the needs of growing numbers.

Given the levels of poverty and the depletion of resources, a growing and largely illegal border trade with China poses a significant threat to the environment. The Chinese market for agricultural and forest products—especially certain plants and animals for medicinal purposes or consumption as exotic food—appears insatiable. The price for a bear's gall bladder, an anteater's tail, or certain snakes can equal a year's income for an upland household. The flow of such resources across the border to China may be the principal cause of species loss in the northern mountains today. Effective government control of this trade is virtually impossible.

Numerous other forms of environmental degradation are taking place. Small-scale mining activities pollute local water sources with arsenic and mercury. Dam construction

that provides mainly energy and flood protection to the lowlands submerges precious wet-rice fields. Grossly inefficient factories and processing industries create local water and air pollution.

Poverty

In 1994, when the national average per capita GDP of Vietnam was US\$260, it was \$150 in the northwestern mountains and \$70 in the Central Highlands. In vast portions of the uplands, especially the higher mountains, average per capita cash income is under US\$50. Thirty-four percent of households in the northern uplands and more than 60 percent in the Central Highlands were classed as poor or very poor with incomes of less than 50,000 dong (US\$4.50) per person per month; these compare with 27 percent of households nationally and only 19 percent in the Red River Delta. In the northern uplands and Central Highlands, 56 percent of households were seriously malnourished (consuming under 1,500 kcals/person/day when 2,200 to 2,500 are necessary), compared to just 17 percent in the Red River Delta.⁷ But such statistics fail to capture the full extent of rural poverty in the uplands. Poverty is characterized not only by low incomes, but also by lack of access to basic services such as medical care, education, information, and entertainment. Though no reliable statistics are available, there is no question that the people of the uplands receive fewer and poorer-quality essential services than do the inhabitants of the lowlands.

Of course, the situation is not universally grim. Some provinces—those nearest big cities and with the best transportation—have much higher incomes than others. People living along major highways have higher incomes and better access to goods and services than those in remote areas. Kinh are on average doing much better than ethnic minorities, and some minority groups (Tay, Muong) do much better than others (Hmong, Dao). But even the most-well-off upland areas tend

to be worse off than average regions in the lowlands.

This is not the full extent of the problem. Many upland people are starting to see themselves as poor and backward. They feel inferior to lowlanders, to foreigners, even to some other minority groups. Lacking money, lacking food, lacking access to natural resources and public services (education, health care, information), they are in danger of losing their most precious resources of all: self-confidence and self-respect. It is not just that they lack cash and access to some of the good things in life. After all, the uplands have always been economically worse off than the lowlands. The problem is that, increasingly, the people are self-consciously feeling themselves to be poor.

Integration into Nonlocal Systems and the Problems of Dependency

Until recently upland communities, although not completely isolated and always engaged in some trade, were in many respects autonomous. Decisions about resource management were largely in the hands of villagers themselves. Knowledge was essentially “local knowledge” and, as has been observed in other cultures, the local (“little”) traditions were more important than any national (“great”) tradition. (See box on “The Need to Put Indigenous Knowledge Back to Work” on pp.14–15.) Certainly the larger world impinged on upland communities in the form of invading armies and eruptions of banditry (as in the case of the Black Flag and Yellow Flag irregulars who caused turmoil in the northern mountains in the latter part of the 19th century). But these interventions were episodic and usually of short duration. The French made a more sustained effort to establish control over the uplands, but in most areas their presence was limited; they preferred indirect rule through native chieftains. Colonial taxes and demands for corvée labor (work provided for little or no remuneration) placed a growing burden on upland people,

Instructions flow steadily from the government to the people; ideas from the people flow back to a much lesser degree

but intrusion of external forces into day-to-day life remained limited. In the years since Ho Chi Minh founded the Democratic Republic of Vietnam in 1945, however, upland communities have become increasingly integrated into wider politico-administrative, economic, and cultural systems. The uplands are now rapidly becoming more deeply enmeshed in larger economic, social, and cultural systems in which the locus of authority is not local.

Politico-Administrative Sphere Every village, no matter how remote, has its people's committee, its Party cell, its women's associa-

tion, and other mass organizations, all tightly linked into higher-level organizational structures that extend upward through the district to the province to Hanoi. This complex administrative apparatus transmits a stream of instructions from the central government to the people. It transmits the ideas of the people back to Hanoi to a much lesser degree.

This administrative system plays an important role in guiding the livelihood activities of upland villagers. Although often implemented by local organs such as people's committees or cooperatives, control over natural resources (e.g., allocation of land, permission



Increasing demand for food crops combined with overworked soils force farmers into less and less suitable areas. One result is the near vertical farm shown here. (Note the bamboo pipe at bottom, an ingenious device for moving water for irrigation or home use.)

The Need to Put Indigenous Knowledge Back to Work

Indigenous knowledge, also sometimes referred to as traditional or local knowledge, is often neglected when development plans are made. Both planners and technicians tend to pay attention to modern technologies that have often been introduced from other places rather than to indigenous knowledge, which is considered primitive. The result is an erosion of traditional knowledge and the loss of an invaluable resource for humane and sustainable development.

Local knowledge systems in upland Vietnam are rich and varied, the product of localized climates and terrains and diverse ethnic communities. The diversity in local physical conditions has led to a variety of farming systems. Farmers use a wide range of animal breeds, plant cultivars, and special technologies for the sloping terrain. At the same time, communities have developed distinct ways of organizing around the needs of their agricultural and forestry activities.

Lessons Learned Recognizing the value of indigenous knowledge, Vietnam's Research Center for Forest Ecology and the Environment has begun a project aimed at both promoting the use of local knowledge among extension workers and collecting information that can be used to make future upland development efforts more successful. As the Center has already documented, when local knowledge is left out of the planning process, everyone suffers. Some examples follow.

Developing a cinnamon plantation In the high-mountain area of Quang Nam Province, the minority K'ho people have been cultivating cinnamon for sale to China and Japan for generations. During the 1980s, the provincial and district authorities, wishing to develop the cinnamon industry, had many thousands of acres of forest cleared so that cinnamon trees could be planted in their place. After 10 years, the project has failed. The reason is that State farms did not pay attention to the local experts. The K'ho, unlike the State farms, never planted cinnamon trees below 800 meters in elevation or in a large area. Instead, they planted at higher elevations and always in patches within dense

tropical forests to ensure the humidity required by their crop.

Growing anise trees The frontier province of Lang Son and its Tay people have long been famous for an export crop of star anise, a spice. During the 1970s, a number of national projects established thousands of hectares of anise plantations, but the results have been poor. Meanwhile, the Tay continue to run healthy, wealth-producing gardens of anise trees. The Tay, it turns out, know how to select sites for plantations based on many soil features, including color. But modern specialists never asked them for advice.

Growing rapid-yield rice A new rice that could be harvested every 120 days was introduced to the Ba Na people of the Central Highlands. The villagers recognized the benefits of the greatly increased yield and the much-reduced need for maintenance. Yet, at the end of the trial, no households continued to grow the new rice. The reason, as extension workers eventually learned, was that the new rice required work at the time of a traditional festival. Local customs play a very important role in the lives of uplanders, and technical change is unsuccessful when it conflicts with tradition.

Cultivating exotic trees For more than 30 years, national and international support to regreen denuded hillsides has focused on the planting of exotic trees. Eucalyptus, acacia, and tropical pines have all been planted, chosen in part because of their drought-resistance but also because "experts" knew so little about indigenous trees. The eucalyptus, which was used very widely, has been destroyed by fungi and furthermore failed to counter soil erosion on hill slopes. In recent years regreening results have improved because more forest land has been allocated to farmers who know which indigenous trees to use under what conditions.

The Erosion of Indigenous Knowledge Four events have had significant effects on indigenous knowledge and on respect for that knowledge.

The resistance and liberation wars From 1945 to 1975, thousands of men and women moved

Though the government's anise plantations failed, while the Tay's thrived, no one bothered to ask why

from the uplands to the lowlands for national defense. When they returned home, they brought with them new ideas and methods. These have intermingled with and altered traditional knowledge.

Migration of lowland farmers to the uplands

The government's program of migration, in particular from the northern provinces to the Central Highlands, created a denser population with an increased number of different ethnic groups living in the same area. The resulting exposure to new forms of knowledge has affected traditional local knowledge, in a process of continual learning and readjustment by local farmers.

The creation of collectives When the Democratic Republic of Vietnam turned family farms over to the management of collectives, local farmers in both the lowlands and the uplands were unable to use their own knowledge of how best to manage resources. Traditional information was no longer passed down from generation to generation. After only a decade of collectivization, indigenous knowledge had suffered, stopped developing, and become lost to the new generation of farmers. At the same time, it is possible that some of the technologies or products introduced by collectivization may have had some positive impacts.

The move to a market economy Population growth is the driving force behind the move to a cash economy, since people must now buy what they have insufficient land to grow. The demands of the market have resulted in the development of some cash crops (coffee, tea, sugar cane). But the price has been the loss of a number of indigenous plant and tree species, as well as farming practices that maintained both the people and the land. The length of time that fields lie fallow has been cut by two-thirds, and swidden fields have colonized higher and higher mountain slopes, always with decreasing yields. High-quality, disease- and pest-resistant rice and corn cultivars with low fertilizer needs but also low yields, have been abandoned. The production of commodities and the need for new high-yield plants have caused many valuable plant cultivars and animal breeds to be left behind and then forgotten and lost.¹⁰⁰

to cut trees) must now conform to policies and guidelines laid down by the central government. This means that the cutting of forests and the hunting and gathering of wild plants and animals—activities formerly regulated by custom and traditional village institutions—are now subject to national laws.

Economic Sphere Households and villages are increasingly involved in and dependent on the world beyond their experience. They buy manufactured cloth and cover their roofs with tile instead of thatch. They must purchase plastic raincoats, flashlight batteries, cooking oil, fish sauce, monosodium glutamate, even rice. Most upland households are constantly short of cash. Families with young children can scarcely afford school supplies or tuition fees, let alone pay their taxes. And while traditional medical resources have declined, modern health care and medicines are prohibitively expensive.

Many upland provinces are heavily dependent on government funds to maintain the existing system of administration. Lai Chau Province, for example, gets at least 80 percent of its budget from the central treasury. Routine administrative expenditures from central funds, special development assistance projects, salaries of government officials and military officers, pensions paid to veterans and retired cadre (State and Party workers), add up to a massive cash influx to remote provinces, but little of it reaches the majority of villagers, especially ethnic minority households in areas where the average per capita income may be under US\$50 per year.

Cultural Sphere Local knowledge is increasingly considered secondary, and often inferior, to national culture as processed and distributed by the mass media. Traditional ethnic dress, for example, is being replaced by modern lowland styles at a rapid and accelerating rate. This process of integration into a larger cultural system, although having potentially liberating aspects, decreases local control over information flow, weakens local symbols of identity, and converts upland people from producers to consumers of culture.

Their lack of fluency in the national language and low level of literacy put them at a gross disadvantage within the new, larger cultural system.

Dependency, Not Partnership This growing integration into extralocal systems is not in itself necessarily undesirable. Many people in the uplands are eager participants in this process and believe themselves to be its beneficiaries. Population growth, although threatening the environment, is partly a result of reduced mortality—a benefit of the extension of national public health services into the uplands. People want more of such services, not less. The ability to meet the needs of an increased upland population is also dependent on introduction of new production technologies (including those for processing) and expansion of opportunities for trade with other regions. If deprived of grain from the lowlands, the nutrition of upland people would be much worse than it already is, and the degradation of the environment accelerated. Integration into extralocal systems is negative, however, to the extent that the relationship is one of dependency rather than partnership. Unfortunately, as experience in upland areas everywhere in the world demonstrates, dependency is the most common outcome when control over resources and the direction of development passes out of the hands of local people. Dependency on external forces will accelerate the process of marginalization already taking place.

Social, Cultural, and Economic Marginalization

Many upland groups are not only poor, undernourished, and burdened by poor health. They are also poorly educated, especially the women. They lack adequate access to many different kinds of goods and services. They are underrepresented in the government civil service and private enterprise. And they are victimized by negative stereotypes that portray them as backward, superstitious, and conservative.

Literacy rates are fairly high for some groups (Kinh, Tay, Muong), but remain dismally low for most. These rates do not seem to be rising; indeed, they are actually falling for some minority groups, especially those in remote highland areas. In many of these areas the literacy rate for females is in the single digits.

The percentage of ethnic minority workers in government jobs is low, and it is not rising. Few extension workers, school teachers, office managers or clerks, bank officials, policemen, health care providers, or others who provide public services and serve as “gatekeepers” come from ethnic minority groups or can speak minority languages.

Schools do not provide most students who pass through them with skills or information that will be useful in daily life. They learn little about agriculture, forestry, public health, nutrition, the environment, or any genuine multiculturalism. Nor do they learn much in the way of analytical skills, problem solving, or critical thinking that can provide local solutions to local problems.

The essence of marginalization for uplanders is that they are taught—in schools, mass media, and daily social life—to judge themselves by lowland standards and to internalize their inferiority. The extent to which such negative stereotyping has occurred is poignantly evidenced by the remarks of Vu Dinh Hien, a young student from Lai Chau Province who won acclaim for successfully passing the entrance examinations for three universities: “When I went to Tuan Giao district high school to study, many friends disregarded me because I was from the highlands so must know nothing and be ignorant. I felt angry and sad but did not lose heart and resolved to study hard in order to make everyone understand more clearly about people from the highlands.”^{vi} Hien is evidently a strong-willed individual who struggled to escape the fate to which others consigned him; but many other upland youths are defeated before they ever have the chance to

Many upland minorities are victimized by stereotypes that portray them as backward, superstitious, and conservative

excel. As sociologist Peter Berger¹⁴ has so aptly observed: "The most terrible thing that prejudice can do to a human being is to make him tend to become what the prejudiced image of him says that he is."

Anecdotal evidence suggests that the incidence of drug addiction, alcoholism, gambling, spouse abuse, and other disorders is rising in the uplands, and not just among ethnic minorities. (Upland Kinh are also to some extent marginalized in relation to their lowland compatriots, especially those in major urban centers.) Of course, these problems are increasing in the lowland villages and cities as well, where they are generally attributed to social and psychological dislocations caused by rapid change. There is simply no evidence available to indicate if the situation is better, worse, or the same in the uplands. But ample evidence from around the world demonstrates that serious social impairment can result from the kinds of marginalization processes that are widespread in the uplands of Vietnam today. These dangers are little recognized in Vietnam, nor are the possible causes understood. Thus, the situation will most likely worsen.

Marginalization of upland populations has become a significant component of the downward spiral. It interacts with and exacerbates problems of population growth, resource depletion, and poverty; and it is in turn amplified by their further growth. This process of marginalization is accelerating and spreading, and it has economic, social, and cultural dimensions. In some segments of the population, it may be producing impairment that will persist over generations.

This grim situation is relieved by only a few scattered bright spots. Real improvement is improbable. It is more likely that, over the next 20 years as the population doubles, resources become more degraded, and poverty perpetuates itself across another generation, the downward spiral will become tighter and more powerful. This reflects the reality that the Vietnamese uplands are subject to powerful structural influences that direct the

course of development in ways that are only beginning to be evident.

THE STRUCTURAL DETERMINANTS OF CRISIS

The interacting elements of the downward spiral—runaway population growth, poverty, environmental degradation, dependency, and marginalization—are symptomatic of deeper structural problems. The problems in the uplands are certainly not the intended outcome of government policy, nor are they the product of chance events. The basic pattern of underdevelopment that the Vietnamese uplands share with mountain areas in other Asian countries and even the United States suggests that more systemic factors are at work. In Vietnam, as elsewhere, it appears that the development process is powerfully shaped by four underlying factors: the structures of knowledge, power, social organization, and the economy.

The Structures of Knowledge

Cultural factors play a critical role in the upland development process. State policies affecting everything from the central government to the village level are decided and implemented by men (and a few women) who for the most part share a culturally specific worldview and who base their actions on a common body of knowledge. This is not necessarily the worldview and body of knowledge typical of technocratic staff of international development agencies. Nor is it always the same worldview and body of knowledge of the uplands population.

In this worldview, development is assumed to take place in an orderly, predictable world in which the whole is equal to the sum of its parts. Such a world is readily broken down into pieces that can be reshaped according to a plan. Humans are considered the masters of nature. They can shape ecosystems, social systems, and even cultures by using "rational" models.

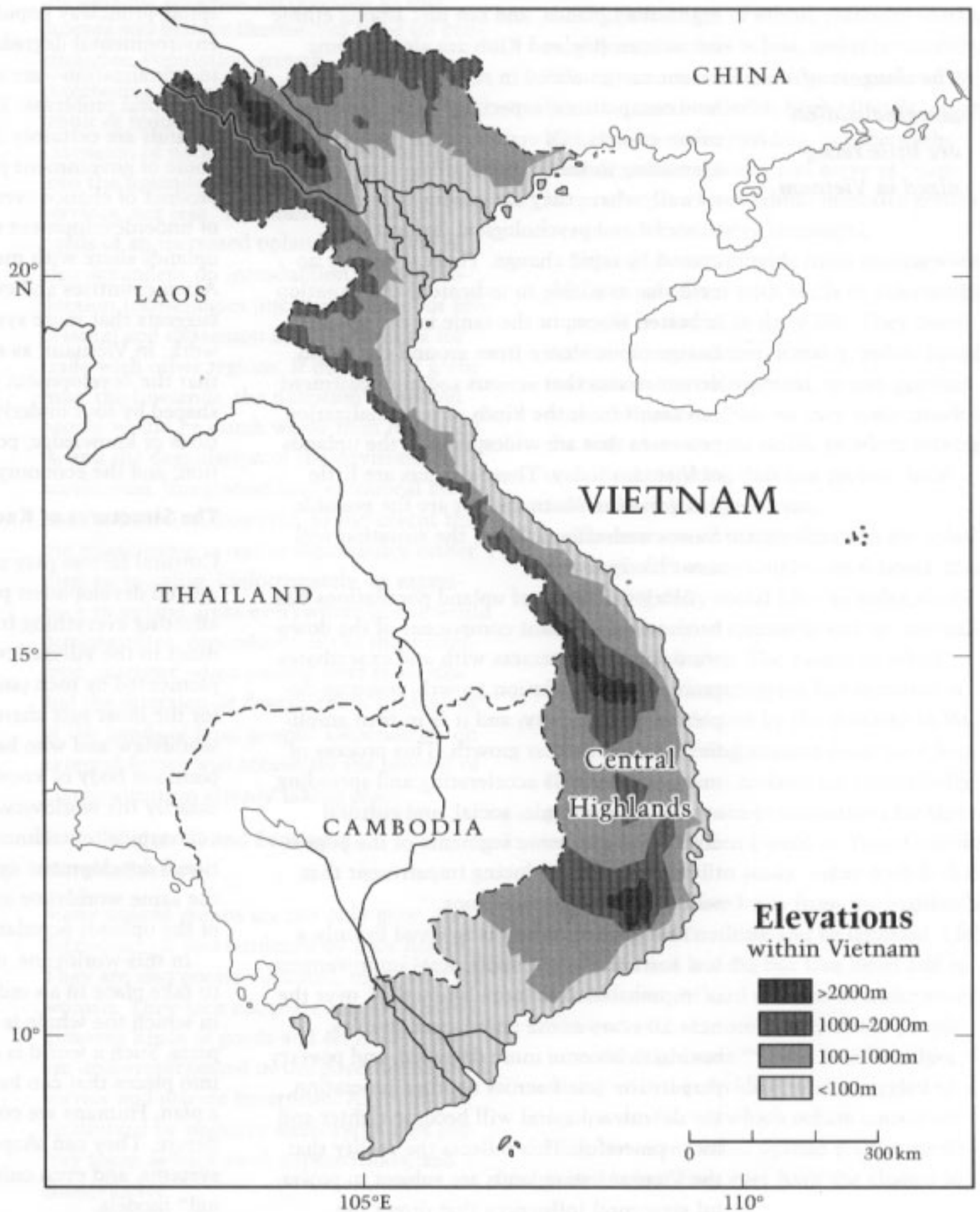
The dangers of marginalization are little recognized in Vietnam

Development is assumed to take place in an orderly, predictable world

Causality is treated as simple, linear, and direct. Reductionist science, it is assumed, can solve all problems. To this basic view of reality has been added the Marxist version of social evolutionary thought. This is a linear scheme that assumes that evolution has a purpose and inevitably leads to a good end. It

further assumes that social evolution is unilinear, and that all groups must eventually proceed through a set number of ascending universal stages.

Development, then, is seen as planned movement up a predetermined path. Some groups, in this worldview, move more quickly



up this evolutionary path than others. Movement up the path is equated with progress. Evolutionary laggards are “backward” and must catch up with those who are more advanced. It is inconceivable to those in advanced stages that they might have anything to gain from those in earlier stages.

Cultures of the ethnic minorities are perceived to be “backward” and it is the right and the duty of more advanced groups to transform them in conformity with the natural order of evolution to a higher stage. Thus, a confidence in one’s own ethnic superiority (a concept decried as “ethnocentrism” by social scientists in many parts of the world but for which there is no comparable term in Vietnamese) is perceived in a positive light, indeed as a force for progress in the uplands.

Elements of minority cultures perceived to be “backward” (such as shifting cultivation or matrilineal kinship systems) or “superstitious” (like animistic religious beliefs) are to be eliminated as obstacles to progress. But the determination of which cultural traits are backward or are superstitions can only be made by people who view themselves as more advanced and more rational. In Vietnam, these are the lowlanders. It is their imposition of their own standards and perceptions that has driven sociocultural change in the uplands. Members of minority cultures have only passive roles in this process. To use the jargon of contemporary social science, they are the “objects,” not the “agents,” of development. Even many of the upland Kinh are objects rather than agents of development. With relatively low educational levels and still influenced by traditional (“less advanced”) culture, they too are assumed to require guidance from an even more advanced lowland Kinh elite.

The inappropriate imposition of lowland models upon upland realities is a major determinant of the crisis.¹⁰ Few ranking policymakers have any accurate and empathetic understanding of upland peoples and environ-

ments. They have a much more valid and sympathetic image of life in lowland Kinh villages, but the lowland structure of knowledge that guides decision making is largely inapplicable in upland circumstances. The resulting development model is based on a particular set of assumptions about the nature of the uplands, assumptions that comprise the “conventional wisdom.”

Conventional Wisdom about the Uplands Most decision makers, in fact most Vietnamese—even educated members of minority groups—hold certain truths about the problems of upland development to be self-evident. These beliefs, held unquestioningly and with little or no testing against empirical experience, are important because they provide the assumptions on which development policies and projects are based. To the extent that they vary from actual conditions, they result in misguided development policies.

Belief: Upland minorities are involved in closed subsistence economic systems and resist involvement in the market economy in which commodities are bought and sold with cash.

Reality: Most upland minorities are deeply involved in the cash economy and have been involved in it for generations, even centuries. For example, the Hmong, often viewed as one of the most subsistence-oriented groups, have for at least a century engaged in production of opium for the market. The Hmong cannot survive without an inflow of cash needed to buy tools, ammunition, salt, and other necessities of life. Problems of food security and transportation require that subsistence production remain very important, but this is because of practical necessity, not cultural commitment to a traditional way of life.

It is the desperate pursuit of cash by minority peoples, not subsistence production, that is causing much of the continuing environmental degradation. The expansion of upland fields to raise corn and cassava to feed livestock which are sold for cash, the hunting of

Elements of minority cultures perceived to be “backward” are to be eliminated as obstacles to progress

wild animals that are purchased by traders from China, and the illegal logging and firewood cutting of the remaining forest trees to sell to outside merchants—these are the major sources of environmental degradation in the uplands today. If the upland minorities were psychologically locked into a subsistence mode of existence, none of this would be occurring.

Belief: Most upland minority peoples are nomadic shifting cultivators.

Reality: There are no truly nomadic peoples in the uplands. A few groups of Hmong continue to practice pioneering shifting cultivation, which requires moving their villages into areas of previously uncut forest every 10 to 20 years when the soils at their old settlement have been exhausted. But their numbers are declining.

In fact, the agricultural systems of the ethnic minorities are quite diverse. Groups such as the Dao and Kho Mu in the northwestern mountains practice rotational swiddening, in which the village site remains more or less fixed for decades but fields are shifted every few years. Probably most minority people, live in permanent settlements where they practice composite swiddening, a highly sustainable system of agriculture in which households combine cultivation of wet-rice fields in the valleys with rotational swiddening on the hillsides (as is done by the Tay of Da Bac). The Hmong and Dao at Sa Pa have converted whole hillsides into marvelous landscapes of terraced wet-rice fields.

Belief: The practices of minority cultures are irrational and based on superstitions.

Reality: Like all peoples, members of minority cultures hold many beliefs and engage in many practices that are not based on science. In this sense their cultures can be said to be irrational. But it is not necessarily the case that the cultures of the Tay or the Hmong contain more irrational elements than Kinh culture or, for that matter, American or European cultures. Lowland observers tend to per-

ceive the cultures of the minorities as irrational and loaded with superstitions simply because they are different. Because Kinh culture is characterized by a patrilineal kinship system, the matrilineal systems of many groups in the Central Highlands seem strange and irrational. Because Kinh live in houses built on the ground, the houses built on piles by many minority groups seem irrational (even more so when, as is the case with the E De, they are long houses inhabited by matrilineal lineages). Of course, during the colonial period, many French observers made similarly patronizing generalizations about the irrationality of traditional lowland Vietnamese culture because they judged its beliefs and behavior against the standards prevailing in French culture at the time.

In Vietnam, as in many other places, local cultural beliefs and practices that outsiders have dismissed as irrational often have practical survival value. In the uplands, a number of seemingly irrational cultural practices have adaptive value for people living under the area's special environmental conditions. Some ethnic minorities, for example, live in houses built on stilts, cook with fire inside the house, and stable livestock under the house. Many Kinh perceive these practices as "backward," yet they may help to protect people against malaria.¹⁵

Belief: Minority cultures are static and actively resist change.

Reality: Members of many groups are quick to adopt new technology that is appropriate to the conditions under which they live, but reject new technology that does not fit their environment. Thus, Hmong living around Sa Pa spontaneously developed a system of terraced wet-rice fields that has allowed their villages to remain in the same place for hundreds of years. Hmong in the northwestern mountains, on the other hand, have not adopted wet-rice farming because there is no land suitable for construction of irrigated terraces in their habitat. But these Hmong have been quick to buy modern firearms and

Lowland observers often perceive the cultures of minorities as irrational simply because they are different

motorcycles when they become available.

Ethnic minorities may be perceived as resistant to change because they persist in living in traditional-style houses and wearing traditional forms of dress. But such distinctive cultural traits are important markers or symbols of ethnic identity and may be clung to all the more strongly when that identity is threatened. The same individuals readily adopt flashlights and plastic rain ponchos, and light their houses with electricity produced by microhydropower generators, because such modern technology is perceived as practical without having symbolic significance.

Belief: The uplands are mainly inhabited by ethnic minorities.

Reality: The Kinh population is large and growing rapidly everywhere in the uplands. Some 2.5 million Kinh now live in the Northern Mountain Region alone. In some provinces (Hoa Binh, Yen Bai), Kinh greatly

outnumber minority people. Kinh tend to be concentrated in district towns and provincial capitals, on State farms and forestry enterprises, and along main lines of communication.

Although Kinh generally enjoy higher incomes and better access to services than neighboring minorities, many upland Kinh households are desperately poor. Kinh cadre assigned to remote areas live under extremely difficult conditions and often suffer serious social isolation (this is especially so for young unmarried school teachers and health workers who typically live among other ethnic groups). In general the upland Kinh are poorer and have fewer prospects for improvement than the Kinh of the lowlands. Their depressed economic and social situation cannot be ignored in development efforts.

Belief: Environmental degradation is mainly caused by shifting cultivation by the minorities.

With a taste for TV but lacking electricity, many families place small hydropower generators in nearby streams to power up their contact with the outside. (Viewing ends when the dry season arrives.) This family's antenna and TV hung on a bamboo pole speak eloquently of the desire of many to join the "modern" world.



Development policies are rarely tailored to fit the special conditions of the uplands

Reality: The causes of environmental degradation are multiple and complex, and shifting cultivation is only one of them. Logging by State enterprises, land clearing for agricultural settlement of migrants from the lowlands, mining and hydropower projects, and wartime herbicide spraying have caused more deforestation than shifting cultivation by minorities. The hills of Vinh Phuc and other midland provinces were turned into barren wastelands by people resettled from the lowlands, not by the Cao Lan people who live in the area. The planned and spontaneous migration of millions of lowlanders to the Central Highlands is recognized as a major cause of deforestation there.

The closing off of large areas of forest land formerly available for minority exploitation, either as a result of its enclosure by State enterprises or its incorporation into parks and protected forests, has also tended to concentrate shifting cultivation into a smaller area where it causes much more serious and lasting environmental damage. And, as noted earlier, agriculture, illegal logging, and hunting of animals by upland people who need commodities with which to raise cash is another contributor to environmental degradation.

Belief: The uplands are underpopulated and contain large areas of unused land that are available for future development.

Reality: Given current soil and water conditions and available agricultural technologies, the population of the uplands already exceeds carrying capacity. Natural resources are being used at unsustainable rates.

Virtually all available land is already being used by local people for some important purpose, although not necessarily for purposes recognized by "rational" land-use planners as significant. For example, so-called barren hills are often important sources of fodder for livestock and firewood for domestic use.

Conventional wisdom influences development policy in the uplands. Not surprisingly,

given the inadequacies of this "wisdom," policies fail to achieve their goals and all too often produce unanticipated negative results. Intellectual shortcomings are exacerbated by the structures of power within which upland development is planned and implemented in Vietnam.

The Structures of Power

What is happening in the uplands is strongly influenced by the structures of power: the Party; the State and its multiple agencies, including the multitude of State-owned enterprises; local community structures such as cooperatives and mass organizations (e.g., farmers' associations, women's associations), and to some extent international development assistance agencies and foreign investors. Within these institutions, key decisions are made about the course of development. The structures of power display a number of special characteristics.

Centralized Decision Making Vietnam is a relatively centralized state and development planning tends to be concentrated in national agencies in Hanoi. This means that critical decisions about the course of development are made outside of the uplands, often by planners with little personal experience or knowledge of the area. Implementation of policies is also largely in the hands of lowland cadre assigned to the uplands or of local cadre who have assimilated the worldview and knowledge structures of the larger society. The practical effects are that development policies are rarely tailored to fit the special conditions of the uplands, and implementation is too often mechanical and inflexible under circumstances calling for adaptability and flexibility. The unsuccessful effort to diffuse a plow known as the "Model 5-1," in which an improved technology developed to meet lowland conditions proved unsuited to the very different requirements of the uplands, illustrates the difficulties that can arise from such a decision-making structure.'

It took the authors 11 hours to drive 200 miles on this road (which runs from Lau Chai to a mountain resort in Lao Cai), an average of 18 miles an hour. During the trip they saw only 58 other vehicles. Though roads such as this are needed for military, political, and social purposes, they do not generate enough economic activity to cover maintenance costs, let alone recoup government investment in construction.

Underrepresentation of Uplanders in National Decision-Making Organs and in the Civil Service

Uplanders played a large and important role in the struggle for national liberation from the French, and many, especially members of the Tay and Nung minorities, achieved positions of leadership in the People's Army. Yet the number of uplanders occupying senior positions in the Party and the State has probably declined in the last several years. Recently, however, serious efforts have been made to increase minority representation in the National Assembly. In 1997, 78 minority representatives, or 17.3 percent of the total body, were elected.⁴⁶ The chairman of the National Assembly, Nong Duc Manh, is the most prominent minority representative, and frequently makes public appearances throughout the country.

Many provincial and district people's committees in the uplands are headed by members of minorities, but fewer uplanders (whether members of minorities or upland

Kinh) hold key positions in the ministries and State agencies that implement national development policies. This means that individuals with personal knowledge of upland life have relatively little voice in key decision-making processes about upland development. Uplanders are also generally underrepresented in the ranks of cadre responsible for implementing and managing development in the uplands. For example, only 18 percent of administrative cadre in Lao Cai Province in the Northern Mountain Region are ethnic minorities,⁴⁷ but ethnic minorities account for 66 percent of the provincial population.⁴⁸ Their absence is particularly evident in the technical branches of the civil service—a reflection of their relative lack of access to advanced education. State farm and forest enterprises are also most often headed by Kinh of lowland origin.

Underrepresentation of Highlanders in the Structures of Power

Although members of



ethnic minorities hold important positions in provincial, district, and village-level Party and government organs, these cadre tend to be recruited from groups such as the Thai, Muong, Tay, and Nung that have more formal education and live near administrative centers. Highland groups such as the Hmong and Dao are generally underrepresented at levels above the village or district.

Weakness of Local Structures of Power From the late 1950s to the late 1980s, traditional local institutions for allocating and managing resources atrophied as their functions were assumed by cooperatives and their informal leaders displaced by members of the formal bureaucracy. In recent years cooperatives have declined and the authority of their lead-

ers has diminished. This has left many upland communities with little ability to make or implement decisions about resource management above the household level. Although the recent practice of allocating hill slope and forest lands to households frequently leads to improved management of individual plots, it is further weakening community capacity to make and enforce measures for the common good.

The Structures of Society

In the uplands, the structures of society—both internal ones and those linking the uplands to larger systems (national and international ones)—are important determinants of the development process. Several key structural features exist.



With each passing year, upland women in many communities must walk further and further to cut and carry home the heavy loads of firewood their families need for cooking and other purposes. Even on these long and arduous walks, the women are typically barefoot.

The cultural gap between leaders and common people is much greater in the uplands than in the lowlands

Cultural Diversity and Social Fragmentation

The great cultural and social diversity of the uplands is both a potentially valuable resource and a major constraint on development. These diverse cultures represent a rich storehouse of indigenous knowledge and are the source of legitimate national pride in the multiethnic character of Vietnamese national society. At the same time, the division of the upland population into many different local groups is an obstacle to the emergence of a shared consciousness of upland problems. Few social structures exist that can integrate people from different groups, minority and Kinh alike, and articulate the interests they share as residents of the uplands.

Differentiation between Elites and Common People

The cultural gap between leaders and common people is much greater in the uplands than in the lowlands. In the lowlands, cadre and villagers share a common language and cultural values, and have all had access to formal education of the same type. The leaders may have more advanced education and greater knowledge of modern technology, but the difference is a quantitative one. In the uplands, however, the common people have both less and lower-quality formal education, are often illiterate, and lack fluency in the national language. Only 1.07 percent of local administrative cadre in Lao Cai Province are considered to be experts in their assigned field of work; 2.5 percent are illiterate.¹⁰ In contrast, members of the leadership, particularly the senior leaders at district and provincial level, are increasingly the products of advanced education. For example, 78 percent of ethnic minority representatives to the newly elected National Assembly have university-level educations.¹¹

Higher-level cadre who do not share the same worldview as the common people of other ethnic groups, and rarely speak their languages, particularly those of high-mountain populations, are predominantly Kinh or members of the Thai, Muong, or Tay minorities. This cultural gap impedes communica-

tion between the leadership and the people who are the object of development projects.

Disproportionate Strength of Extralocal

Institutions Many of the most powerful and best-endowed development initiatives have been implanted into the uplands from outside. They did not evolve from a local base and are thus free from many of the constraints on behavior (such as local taboos) that influence decision making about resource management in long-established communities. State enterprises, especially State farms and forest enterprises, are funded from the national budget and managed and often staffed by Kinh brought for that purpose from the lowlands. Despite the avowed national intent to assign forested hillsides to households, six million of the seven million hectares of forest lands allocated to date have been assigned to State forest enterprises and collective organizations. Such extralocal institutions are likely to become privileged enclaves whose survival depends on continued external support rather than on serving as efficient engines of local development.

Coexistence of Local and National Social

Structures The uplands are a complex matrix of local social structures overlaid, often very unevenly, by national institutions. Informal structures dependent on local customs and resources interact with a variety of formal State institutions dependent on external validation and resources. Negotiations between these structures are complex and fraught with misunderstandings and conflicting interests. A good example of this is the implementation of the national land law. Although the law sets out a standardized model of land allocation to households, actual implementation of the law is in the hands of local authorities. Implementation often varies from village to village, and great variation exists among communities in the ways in which land is actually managed. The effect may be positive, when reflective of local knowledge and interests, but is too often

The border trade with China has become a major source of cash as well as a major cause of environmental damage

distorted by the power of extralocal institutions that manipulate land allocation to maintain their special privileges.

Scarcity of Social Capital The efficacy of development efforts, particularly in rural communities, is closely linked to the amount of “social capital” available. A primary component of social capital is mutual trust and understanding among the individuals and households that make up a community. Social capital promotes cooperation, reduces transaction costs, and makes possible more optimal solutions to a vast array of problems in natural resource management, economic ventures, and the creation of various public benefits.

In the uplands, as in most other parts of Vietnam, social capital is a very scarce commodity, although this shortage is concealed by an emphasis on the lack of investment capital as the main deterrent to development. The decay of traditional social institutions among minorities, and lack of any tradition of a vigorous civil society among the Kinh communities, means that creating the social capital necessary for upland development will be a very long and difficult process.

The Structures of the Economy

The economic system of the uplands is complex, poorly understood, and rapidly changing. In some ways it resembles the “dual economy” that European economists once thought typified colonial and excolonial countries. In such an economy, the market sector is seen as totally isolated from the peasant subsistence sector. This model, however, ignores the most important fact about the economic system of the uplands: all of its components and sectors are interrelated and interdependent. Furthermore, they are increasingly tied into the national, regional, and international economic systems. Key characteristics of the upland economy are described below.

Dependence on External Economic Structures Local economies increasingly depend on larg-

er economic structures. Even people who are primarily subsistence farmers rely on goods and services produced outside of their communities. They in turn sell goods and services to external markets to obtain the cash needed to make their purchases. The food security of many upland communities, which are no longer able to produce sufficient rice to meet daily needs, now depends on trade. The transboundary trade with China of non-timber forest products (e.g., medicinal plants, wild animals) has become a major source of cash, as well as a major cause of environmental degradation. Even entertainment is now derived from outside the boundaries of local communities, as radios, cassette recorders, and televisions have become high-prestige consumer goods. The appetite for outside goods is especially pronounced in areas served by well-developed transportation networks (as in the Lao Cai–Yen Bai–Vinh Phuc corridor along the valley of the Red River) and is less so in more remote and inaccessible areas (such as the interior districts of Lai Chau). But demand is clearly widening and deepening throughout the uplands.

Unfavorable Terms of Trade Goods and services imported into the uplands are expensive relative to the prices received for goods and services sold by upland communities. For example, a cloth that a Thai woman spends 10 days weaving sells for the equivalent of one day’s wages in Hanoi; the flashlight batteries that a worker in Hanoi or Shanghai produced in a few minutes would cost her the equivalent of several days’ income. A number of related factors explain these unfavorable terms of trade: 1) High transportation costs add a significant markup on goods passing in both directions. Only goods with a very high value-to-weight ratio, such as opium, can be profitably exported from the high mountains; 2) Markets are highly imperfect, and are often de facto monopolies offering uplanders “take-it-or-leave-it” prices; 3) Market information is inadequate and unreliable; and 4) Transaction costs are high, in

part due to dispersed populations and the lack of highly concentrated areas of production. Goods tend to pass through the hands of several middlemen before reaching the consumer.

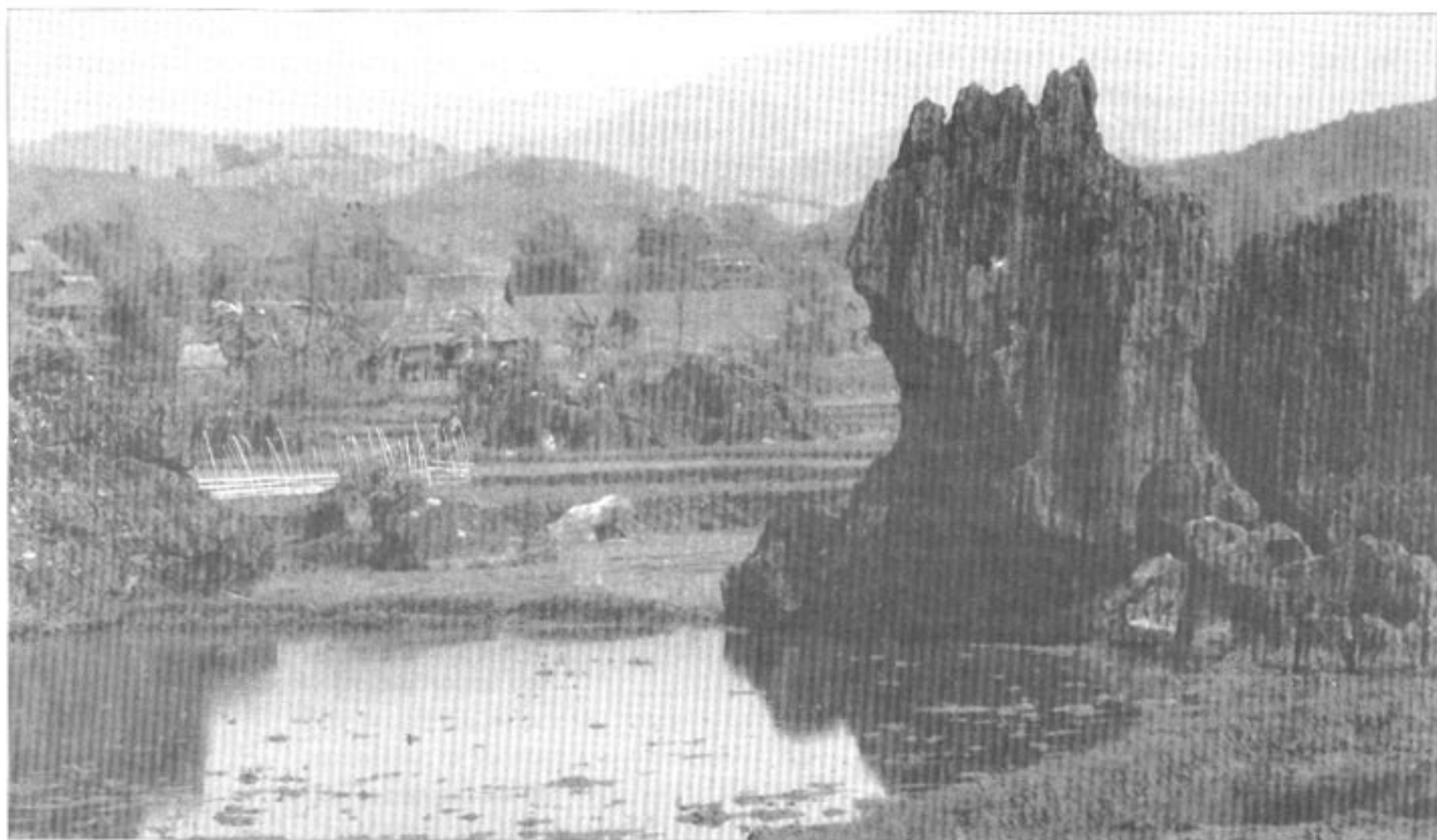
Shortage of Investment Capital Allocation of investment disfavors the uplands, where returns on capital are low compared to the lowlands, reflecting the scarcity of profitable investment opportunities and the high costs of management. Extending credit to small farmers who lack collateral is particularly expensive and difficult. Microcredit projects are one of the most popular features of many upland rural development projects and NGO initiatives, but even the most successful projects reach only a tiny percentage of potential borrowers.

State investment provides a relatively small amount of capital for upland development. In 1985, State investment in infrastructure construction managed by local

authorities totaled 1,208 billion dong (at constant 1989 prices) nationwide. Of this amount, the Central Highlands received 4.6 percent (55 billion dong), the Northern Mountain Region (NMR) received 14 percent (169 billion dong), and Ho Chi Minh City and its surrounding provinces received 19 percent (229 billion dong). In 1994 the total amount invested by the State had increased to 2,384 billion dong. Of this amount, the Central Highlands received 6 percent (143 billion dong), the NMR received 12.5 percent (or 299 billion dong), and the Ho Chi Minh City region 39.6 percent (945 billion dong). In the uplands, most State investment is managed by local authorities. Elsewhere in the country, only about half of State investments are managed by local authorities.

In addition to questions about the appropriate share of State money the uplands should receive, questions exist about how efficiently State-supplied capital is used. Local authorities appear to divert much of it to

Dramatic rock outcroppings punctuate rice paddies in a village in Hoa Binh Province. Virtually all the land that can possibly be used for growing wet rice is already under cultivation.



nonproductive use. Thus, poor and remote Lai Chau Province has spent some eight billion dong on construction of a new people's committee building and a rumored 12 billion dong on new Party offices in the newly relocated provincial capital at Dien Bien.

Given the continued availability of favorable investment opportunities in the lowlands, Vietnamese private capital is unlikely to enter the uplands on a large scale. This is true despite the fact that entrepreneurs have been quick to seize local investment opportunities in sectors such as tourism and transboundary trade that offer a quick return. Private foreign capital has also been almost wholly focused on the lowlands. As of 16 July 1997, a total of US\$26.9 billion had been committed to investment in 1,726 foreign projects in the country, but the three northwestern region provinces (Hoa Binh, Son La, and Lai Chau) accounted for only six projects with a total capital of \$27.1 million. Lai Chau had received only one project—worth \$1.5 million.²⁰

Asymmetry of Resource Flows It is a truism in the uplands that profits from development flow downhill while costs flow uphill. For example, virtually all of the benefits from the uplands Hoa Binh hydropower project have gone to the lowlands (e.g., flood protection, cheap electricity). The costs, in the form of the loss of productive farm land and displacement of local people from the area flooded by the reservoir, have been borne almost exclusively by the uplands. Even development that appears to benefit uplanders through providing employment, such as the growth of tourism at Sa Pa, may carry high hidden costs in the form of environmental degradation, cultural disruption, and the spread of social problems (e.g., prostitution, AIDS), while most of the profits are captured by enterprises based in Hanoi.

It is a truism in the uplands that profits from development flow downhill while costs flow uphill

CONCLUSIONS AND RECOMMENDATIONS

In the preceding pages we have presented for discussion and criticism a view of upland development in Vietnam that differs in significant ways from the views of many development planners, both Vietnamese and foreign. We have also presented a model for analyzing the development process that is, to say the least, somewhat unconventional. While we genuinely believe that our analysis is sound and our approach is useful, we wish to emphasize that the foregoing analysis is incomplete and that some details of fact and interpretation are doubtless incorrect. Our goal in presenting these preliminary findings is to stimulate discussion aimed at rethinking upland development in Vietnam.

We feel reasonably confident that our description and analysis of the downward spiral with its five interacting elements (population growth, environmental degradation, poverty, marginalization, and dependence) is essentially correct, although certainly in need of improvement. It is based upon a large volume of field data, many reports and newspaper articles, and direct field observation. Most of the elements could in fact be amply documented from the pages of *Nhan Dan*, the Party newspaper.

Our description and analysis of the underlying causal determinants of the crisis are decidedly more speculative. The structures of knowledge, power, social organization, and the economy have not been subjected to scholarly scrutiny and are rarely discussed. Direct observation of such structures is exceedingly difficult. Empirical verification is also difficult given the paucity of data. Nevertheless, we believe that even if our treatment of these structures is incomplete and wrong in some particulars, these issues are simply too important and too urgent to be ignored.

Improving the Development Process

We believe that the analysis we have presented has important implications for improving the development process in Vietnam's uplands. We conclude with a few general observations about these implications.

No Simple Solutions The problems of upland development are complex and poorly understood. The tremendous environmental and social diversity in the uplands makes any simple, broadly applicable solutions impossible. There are not and cannot be any "magic bullets" to revolutionize the development process.

Change the Structures of Knowledge The biggest and most crucial step in reversing the downward spiral is to change the structures of knowledge that channel discourse about upland development. Such a change is prerequisite to all necessary reforms in the way development programs are planned and implemented. This will require empirical research that will test previously unexamined assumptions and reveal causes of problems that are not obvious without innovative analysis. Development models based on conventional wisdom can then be replaced by new approaches based on observation and analysis. A coordinated combination of education, training, publications, private and public dialogues, and innovative pilot programs will feed into this effort and disseminate its results.

Address Underlying Structures Even modest progress toward more sustainable and more equitable upland development requires that the underlying structures that are producing the crisis be identified and substantially altered. The downward spiral cannot be reversed by focusing remedial efforts only on its individual components.

Improve Communication and Information Flow The necessary changes in the development system itself must be driven by a constantly improving understanding of ground reality

and more realistic appreciation of the links between actions and their consequences. This requires that the upland development system itself place less emphasis on control and mobilization and much more emphasis on learning and facilitating. The flow of information, especially from the bottom to the top and horizontally among parties, must be exponentially increased.

Diversify the Economy The upland economy must be diversified by all possible means. Diversification is important at the household level to ensure survival during difficult times (crop failure, market collapse). It is important at the agroecosystem level (a farm, or a group of farms) to increase resilience to disturbances of all kinds. And it is important at all levels, from the household to the region, as a means of increasing the capacity to cope with change.

Rely on Local Management Systems The evolution of local systems of resource management should be studied and nurtured. Upland peoples are struggling to adapt to severe stresses from population pressure, resource depletion, and cultural dislocation from decades of externally imposed change. Upland development must concentrate on promoting this process of adaptive change, recognizing that it must be accomplished by the people themselves, and that they will inevitably have to devise many different ways of doing it. Experience elsewhere strongly indicates that local management systems are usually the most effective ones. It is realistic to put faith into local solutions that build on local knowledge and values and give local people an active role in shaping strategies for the management of local resources.

Foster Adaptive Change in Agricultural Systems Agricultural research and extension must be restructured to be much more "demand-driven," responding to farmers' perceived needs and resources. The top-down, "supply-driven" system that now prevails cannot meet emerging needs. The primary goal of applied research and extension should

The downward spiral cannot be reversed by focusing only on its individual components

Development in Vietnam must become more effective and more humane

be to help farmers achieve adaptive change in existing systems. Swidden cultivation is currently an indispensable part of many upland farming systems, and it must be improved and gradually transformed, not suddenly eliminated by administrative decree. Farmers should be partners in innovative field trials that combine local knowledge with scientific methods.

Improve the Upland Educational System Any successful transformation of the Vietnamese uplands must ultimately depend upon the upland people themselves, but human resources in the uplands today fall far short of what the situation demands. Quite simply, the upland educational system is not meeting the needs of the upland population. There are both qualitative and quantitative shortcomings. Teaching methods, curricula, and extra-curricular activities (or their absence), and the dynamics of multiethnic, multicultural classrooms must be subjected to intense scrutiny.

Some Encouraging Trends

Many objective trends in the uplands of Vietnam are clearly negative. No matter what anyone does, the situation will probably continue to worsen in the immediate future. Severe environmental degradation and human misery of tragic proportions remain real possibilities. Our analysis makes it very difficult to be optimistic.

But recently we have observed some encouraging signs that the capacity to respond more effectively to this great challenge is increasing. Government planners and policy-makers are beginning to recognize the seriousness of the situation. There is noticeably greater openness to new perspectives, and greater involvement of knowledgeable and insightful researchers in planning and policy-making. And a number of major upland development projects have been restructured along innovative lines to become more responsive to local conditions and to include more participation by local people.

The crisis is real and it is growing. But disaster is not inevitable, and this paper is not a call for despair. Rather, it is intended to be a call for sober reassessment and for a renewed commitment to make upland development in Vietnam more effective, more equitable, more sustainable, and more humane.

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ENDNOTES

In order to increase the readability of this discussion paper, references have been kept to a minimum. Readers wishing to check facts and figures presented here are directed to *The*

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¹Rerkasem et al. [1996].

²Rambo et al. [1995].

³Le Trong Cuc and Rambo [1993].

⁴Rambo [1996]; Rambo and Le Trong Cuc [1997], as exemplified by the composite swidden system of the Tay minority people of Ban Tat in Hoa Binh Province.

⁵All statistics from Chu Huu Quy (1997).

⁶Doan Trung Tue [1997].

⁷Berger [1963].

⁸Jamieson [1991].

⁹Le Trong Cuc, Gillogly, and Rambo [1990].

¹⁰Donovan et al. [1997].

¹¹*Nhan Dan* [18 September 1997].

¹²*Vietnam News* [3 August 1998].

¹³Khong Dien [1995].

¹⁴*Vietnam News* [3 August 1998].

¹⁵*Nhan Dan* [18 September 1997].

¹⁶*Vietnam Economic Times* [August 1997].

¹⁷Hoang Xuan Ty [1998].

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All photographs by A. Terry Rambo

AUTHOR INFORMATION

Neil Jamieson is a senior researcher at Winrock International Institute for Agricultural Development and a senior associate of the Indochina Institute at George Mason University. He is the author of *Understanding Vietnam* (University of California Press). Contact address: 1055 Harryhogan Road, Callao, Virginia 22435 U.S.A. Fax: 804-529-5527. E-mail: jamieson@rivnet.net.

Le Trong Cuc is the director of the Center for Natural Resources and Environmental Studies (CRES), Vietnam National University, Hanoi. Contact address: CRES, 167 Bui Thi Xuan, Hanoi, Vietnam. Fax: 84-4-821-8934. E-mail: cuc@uplands.ac.vn.

A. Terry Rambo is a senior fellow in the Program on Environment, East-West Center, 1601 East-West Road, Honolulu, Hawaii 96848-1601 U.S.A. Contact address: c/o CRES, 167 Bui Thi Xuan, Hanoi, Vietnam. Fax: 84-4-821-8934. E-mail: rambot@ewcvn.ac.vn.