



THE STATUS OF ETHNIC MINORITIES

2.1 Ethnic Minorities in the GMS

Ethnic minority populations in the Greater Mekong Subregion are numerous and diverse in and across the focus countries. Who are they, and where do they reside? Across the region, minority groups are concentrated in the highland areas, and are mainly involved in uplands and subsistence agriculture. A brief sketch of the minority populations follows.³

largest group, the ethnic Lao, accounts for only 52.5 percent of the total population. The ethnic Lao are the predominant group in lowland areas of the country, and in highland areas some of the larger ethnic groups include the Hmong, Khmu, Phutai, Kor, and Katu. In eight of 18 provinces, ethnic Lao are the largest ethnic group, while in seven provinces they account for less than 20 percent of the total population. In the provinces of Attapeu, Bokeo, Louang Namtha, Phongsali, Sayaburi, and Sekong, the three largest ethnic groups represent less than 70 percent of the total population of the province.

CAMBODIA

There are an estimated 36 minority groups in Cambodia, accounting for nearly 4 percent of the total population. An estimated 1 percent of the total population is known as highland, or hill tribe, peoples. Hill-tribe groups in Cambodia—which are heavily concentrated in the four northeastern provinces of Ratanakiri, Mondolkiri, Stung Treng, and Kratie—represent about 66, 71.1, 6.6, and 8.3 percent, respectively, of the total population within these provinces. Hill tribes are also found in Preah Vihear, Pursat, Kampong Thom, and Sihanoukville. There are 15 major hill-tribe groups, including the most populous hill tribes of the Tampuan, Kui, Jarai, Kroenung, and Phnong.

THAILAND

Highland minority groups are known as hill tribes in Thailand, and there are nine major groups: Karen, Hmong, Lahu, Lisu, Mien, Akha, Lua, Htin, and Khamu, as well as other groups sharing similar characteristics. Hill tribes are represented in 20 provinces in Thailand, but are concentrated in the north and northeast. Although they account for a small percentage of the total population (1.22 percent or approximately 753,000 people), the concentration of highland peoples is large in a number of these northeastern provinces (20 to 49 percent of provincial populations).

LAO PDR

Based on the latest census (National Statistics Center [Lao PDR], 1995), there are 47 different ethnic groups, and ethnic diversity by province is tremendous in Lao PDR. The

VIET NAM

In addition to the majority Kinh ethnic population, there are 53 minority groups. Ethnic minorities account for 13–14 percent of the total population in Viet Nam, and are scattered across the country in 45 of 61 of provinces. Minority groups are largely concentrated in the mountainous areas. In the

³ A more in-depth discussion of ethnic minority groups and language families is found in each of the four Country Reports prepared under this project (ADB, 2000a, b, d, e).

north, 31 of 54 groups are found. These include such large groups as the Tay, Muong, and Thai in the valleys and foothills; the San Chay and San Diu in the more mountainous areas; and the Dzao, Khmu, and Hmong in the middle stretch of uplands. In the Central Highlands, there are an estimated 19 ethnic groups, and the groups tend to be more concentrated. Groups include the Dzao, Muong, Nung, Tay, and Thai that have migrated from the north, as well as others in the Mon-Khmer and Malayo-Polynesian linguistic groups.

2.2 Ethnic Minorities and the Social Sector

The interlocking relationships among poverty, health, education, and ethnic status are quite evident from a review of country situations. For example, poor nutritional status and health indicators among ethnic highland peoples make it much more difficult for these poor populations to earn a living and gain adequate income. Limited access to education services contributes directly to unsound health

and hygiene practices. Poor health is a factor in school attendance and students' ability to learn.

Furthermore, the generally limited political or social empowerment of highland and ethnic minority populations greatly restricts their abilities to influence the nature of policies, programs, and project interventions designed to service their needs. Generally, they have little influence in resource allocations for social services. Thus, the cumulative effects of limited access to services and marginalized social status add up to very poor standards of living and quality of life among the more than 21 million ethnic minorities in the GMS.

National indicators may not identify regional and ethnic disparities well. However, a study such as this one that looks at specific geographical areas and population groups is able to gather information that can then be compared to national data sets. There are clear disparities among the rich and the poor, and most ethnic minorities are poor. Further, rural areas are consistently poorer than urban areas, and it is in remote, mountainous rural areas that ethnic minorities are centered. The highland areas in each of the four countries clearly have lower levels of income, health, and education when compared with the lowlands and coastal areas of the respective countries. Studies that have detailed household data show that ethnic minorities are poorer than other populations, even taking into account the fact that ethnic populations tend to live in the poorest and most remote areas.

This study has confirmed a set of trends in the GMS countries affecting the health and education of ethnic minorities.

- The recent economic trends and the general trend toward cost recovery of communal services may result in reduced health and education access for poor ethnic minority populations that already tend to be among the marginalized groups. Some analysts have suggested that rural and poor areas were impacted significantly in the Asian economic crisis that began in 1997 through reduced funding to health and education that resulted in a lower quality of health



Education and School Calendar: Observations from Cambodia

Field work to Ratanakiri and Mondolkiri in Cambodia helped to highlight the importance of the school calendar and participation. Nationally, the school calendar runs from September to July, with two short breaks during the year. Children in the northeastern provinces play an important role in agriculture and problems arise when they must accommodate both the agricultural and school calendar. Students often drop out of school during key agricultural periods, such as field preparation, planting, and harvesting.

The study team observed many schools during November 1999 and January 2000 that had been temporarily abandoned, largely due to agricultural demands. Agricultural demands do affect lowland students, but lowland rice fields require less time than shifting cultivation often does. These rice fields are often not as far from farmers' homes, and the children do not need to move periodically, as they do in the highland areas.



Phongsali Province, Lao PDR. Children who live in remote villages rarely attend school and lack access to basic health services. Poor nutrition and low immunization coverage contribute to poor health and are a constraint on children's ability to learn. (Photo by Inthasone Phetsiriseng)

- care, fewer teachers, and limited supplies, among other factors (Table 2.1; see also Chamberlain, 1999; Jong-Wha Lee and Chongyong Rhee, 1999; ADB, 1999d).
- Political history in each country and across countries—including ethnic minority roles—continues to influence the making and implementation of policy, as well as societal relations. Decades of war have ended across the region, but difficult political and demographic issues remain a challenge to nation-building. Elements of history remain in societal relations and may be seen today in each of the four focus countries of this research.
 - Populations are in flux, and rapid population growth and migration have important impacts on service reach and delivery. Lack of good data and patterns of migration further constrain service planning. Migration within countries and across borders has a range of implications, and often involves peoples of diverse ethnic groups.
 - Environmental factors loom large in the lifestyles and status of ethnic minorities. Changes in the quality of the natural environment—e.g., deforestation, erosion, decline in water quality, lost biodiversity, and changing agricultural practices—have changed and are changing the cultures and economic opportunity of many minority villages. These issues pose policy and

❖ Table 2.1: Public Expenditure on Education as a Percentage of GNP (1995)	
Country	Rate of Expenditure (%)
Cambodia	1.0
Lao PDR	2.4
Thailand	4.1
Viet Nam	2.7
<i>Source: UNESCO, 2000.</i>	

program challenges for managing natural resources and human settlement(s), promoting good health, and valuing the culture and practices of ethnic minority populations.

- Income inequalities are growing across the GMS, although national economic growth in the focus countries is positive. Regional disparities can be seen within countries. In particular, some countries—such as Cambodia and Lao PDR and the highland areas of Thailand and Viet Nam—are not experiencing economic growth on par with their neighboring regions.
- HIV/AIDS poses a special threat to ethnic minority populations. Although in some cases their relative isolation offers some protection, it also is a danger as it blocks the entrance of effective preventive programs and thereby risks facilitating the spread of the virus. Although there is little concrete evidence, it appears that HIV/AIDS has entered several highland communities in Thailand.
- Decentralization poses implementation challenges. Along with decentralization of authority comes risk and opportunity. Where communications are poor, and staff capacities uneven at the local level, the risk of decentralization is that the management of public and community affairs may not be strong. One of several opportunities is that decentralized management often encourages more local involvement and community participation in the planning and implementation of social services and infrastructure development.

Understanding and appreciating these broad and systemic interconnections and trends is difficult, but also is central to adequately addressing the constraints to ethnic minorities' effective access to health and education services in the GMS.

There is also another very important linkage to consider: that between poverty and ethnicity. Extremely poor human capital levels in the remote northeastern provinces of Cambodia confirm a close association between poverty status, broadly defined, and hill-tribe peoples. In Lao PDR, poverty rates increase

with the degrees of remoteness and concentration of ethnic minorities. Income and other socioeconomic indicators—low literacy, limited access to education and health care—confirm a close association between minority ethnicity and lower standards of living. In Thailand, the average annual income of hill-tribe people is 25 times lower than the national average (Boonkham, 1997). In Viet Nam too, the link between minority ethnicity and poverty may be seen.

Understanding poverty requires recognizing what poverty provides: freedom from malnutrition, opportunities to use health and education systems, and a clean environment, among other factors. Health contributes to income and the ability to learn. Likewise, education definitely contributes to health status, to income, and thereby to the reduction of poverty.

Many of these concerns go beyond what any single household can attain solely with its own income and therefore require government intervention. And there are important dimensions to poverty that include links to ethnicity. Policies that may only target poor areas may not fully benefit ethnic minority populations, who need to be targeted specifically as a people, and not just as residents of an area (van de Walle and Gunewardena, 1999).

Many of these trends and sectoral conditions are highlighted below. The following sections on education and health—plus a brief review of the overall environment situation—discuss the problems and illustrate the specific links to ethnic minorities.

2.3 The Education Status of Ethnic Minorities

2.3.1 Literacy Rates

Literacy rates are an important indicator of the problems ethnic minority groups are facing in the education sector—and in their participation with the majority of society. Adult literacy in the dominant or national language at the national level is high in Thailand and Viet Nam, and for Viet Nam—

given its low average income level—this fact is an important accomplishment. However, Cambodia and Lao PDR have rather low national literacy rates. These national patterns among the countries also hold true as one looks at the literacy rate of ethnic populations in each country, as indicated in Table 2.2.

Highland peoples in Thailand and Viet Nam have higher rates of literacy than minority groups in Cambodia and Lao PDR. In all four countries, literacy rates are significantly lower for highland peoples than for lowland peoples. For example, Cambodia's nationwide literacy rate is 67 percent, yet for Ratanakiri Province (a province with a high concentration of minority peoples), the literacy rate is 23 percent. Literacy rates among the Kinh majority in Viet Nam are over 87 percent, yet for highland minority groups, rates are much lower (e.g., Ede, 42 percent; Hmong, 10 percent).

Thai language skills are very low among hill-tribe populations in Thailand. Limited Thai language abilities are an impediment to educational advancement for highland groups. Field work in Viet Nam and Lao PDR noted that schoolchildren from ethnic populations have difficulty entering the early primary grades due to language constraints. Many drop out before the third grade from frustration and lack of classroom success. The return on time invested in school is simply not seen as positive.

2.3.2 Gender Considerations

There are important *gender* considerations as one looks at education and literacy problems. Generally the gender gap in literacy is higher in ethnic minority communities than the national averages. In Lao PDR, literacy rates for the majority Lao-Phutai are 84 percent for males and 62 percent for females; among the Mon-Khmer, 55 percent for males and 20 percent for females; and among the Hmong-Yao ethnic groups, 45 percent for males and 8 percent for females. Field observations do suggest more girls entering school, although traditional matrilineal and patrilineal

❖ Table 2.2: Literacy Rate for Ethnic Minorities and Total Population (percent)				
	Ethnic Minorities		Total	
Country	Female	Total	Female	Total
Cambodia	17	26	55	63
Lao PDR	17	33	48	60
Thailand		80		94
Viet Nam		73	86	92

Source: Cambodia: National Institute of Statistics/Ministry of Planning/United Nations Population Fund, 1998. Lao PDR: National Statistics Center, 1995. Viet Nam: General Statistical Office, 1999.

Literacy rates in Cambodia are for age 7 and older. Literacy rate for ethnic minorities is the literacy rate for the provinces of Mondolkiri and Ratanakiri, which are 67% ethnic minority (source: 1998 census). Literacy rates in Lao PDR are for non-Lao-Phutai speakers (source: 1995 census). The literacy rates in Thailand for ethnic minorities over the age of 15 refer to reading ability in the Thai language. The national figure is for adults, i.e., those over the age of 18. The literacy rates in Viet Nam are for the population over age 10 (source: 1997-98 Viet Nam Living Standards Survey).

traditions still factor into families' decisions to invest in and support their children's education. In Lao PDR, there is clear evidence that the higher the elevation, the less access girls have to primary school (ADB, 2000b).

This issue of language literacy is also present with respect to numerical ability in the dominant, mainstream language. As has been observed in this study's field work, a large proportion of ethnic or highland communities function in a language other than the national language, and these populations have difficulty succeeding in what, to them, are foreign language programs and foreign language use in everyday life. For example, ethnic minorities in Cambodia have difficulty operating in local markets in the Khmer language.

Improvements in literacy levels and language skills are generally quite slow to take hold given the number of years of study required to achieve literacy and language proficiency.



Grade 1 class in Virak Chey School, Ratanakiri Province, Cambodia. Students have few books or supplies but are fortunate to have an enclosed classroom and a teacher at this school. Age differences are large within the class, given the high repetition rate and late starts for many grade 1 students. (Photo by Hean Sokhom)

Primary school achievement toward full literacy takes a number of years. Basic literacy is generally thought to be accomplished in four or five years of primary education, in order for one to gain command of letters and numbers to communicate in a given language.

Adult literacy classes are too often pilot efforts and sustained benefits are too often hard to see, as noted in the program experiences in Cambodia, Thailand, and Viet Nam among ethnic populations. Literacy classes for adults have struggled to sustain results, as communities such as those in the northeast provinces of Cambodia have not been able to consistently use the skills learned because of their isolation and lack of exposure to media sources or other ways to regularly apply new skills.

Even with increases in primary school enrollment rates like those seen in Lao PDR, changes in literacy levels will lag a number of years. And importantly, the rate of enrollment alone does not translate into literate populations. The quality of teachers and

instruction and the overall health of the students will have a great impact on educational achievement. Without continuation in school, all knowledge gained in a year or two of education will soon be lost.

2.3.3 Teacher Quality

Teachers are perhaps the single most important input to the educational system. Teacher availability and quality rank high as common education sector problems linked clearly to student achievement for highland minorities. In Viet Nam, 40 to 50 percent of primary school teachers in highland areas are not fully trained. In Lao PDR, academically qualified teachers and certified teachers are not likely to be found in remote areas, teaching minority children.

Across the GMS, it is very difficult to recruit and retain qualified teachers in remote, highland areas. Absenteeism is a concern, and turnover is high. Salaries are low—and too often, slow to be paid—and there are few

positive incentives for serving in highland and remote areas.

Teacher deployment, matching supply with demand, is particularly a challenge in remote areas. In Cambodia, there are not nearly enough teachers for the number of school-age children in the northeast provinces. The heavy use of contract teachers in each of the four countries is a common way to mobilize teachers to those less-desirable highland areas, seen most vividly in Lao PDR and Viet Nam. Contract and short-term teachers are often less qualified. Even among full-time civil servant teachers, qualifications are consistently lower among highland teachers (lower than lowland teachers) across the four countries in the mountainous areas.

Positive role models among the teaching cadre are too few. Women are underrepresented, and ethnic minorities are greatly underrepresented among the teaching force. In Lao PDR, over 80 percent of the teachers are from the Tai-Kadai language family. Low school achievement and advancement among ethnic minorities, particularly girls, does not provide a deep cadre of skilled, locally based staff, to serve as teachers and health workers in highland areas. Capable teachers are also a critical component for boosting student achievement, and for gaining community support and participation for schools.

2.3.4 Enrollment

Enrollment rates tend to be lower for minority groups than for majority ethnic groups, across the four countries. High primary gross enrollment and net enrollment rates, as well as high dropout rates, indicate inefficiency in an education system. Data, where available across the four countries, suggest provinces with high populations of ethnic minorities tend to perform poorly on these measures of success of the education system.

Advancement to higher grades and higher levels of learning is another important indicator that further highlights how ethnic minorities fall behind mainstream society. While enrollment across provinces and



Education and Gender— A View from the Field

Ethnic and gender role models make a difference in boosting participation and opening up access to services. During a trip to Phongsali Province in Lao PDR in November 1999, the study team found that the Ikor ethnic minority has shown progressive support for children's education, at least for boys. Compared to other provinces—such as Louang Namtha, which also has a high Ikor population—large percentages of Phongsali's Ikor children were enrolled in school.

This increased enrollment is credited in part to the significant presence of teachers from the Phounoy ethnic group, which is in the same linguistic group as the Ikor. Also, Ikor parents strongly support the education of their children. Most Ikor villages have a school where the boys are enrolled, and Ikor parents support continued education at schools outside the villages. Parents build huts for their children near their schools and bring rice and food to them weekly.

Although the Ikor have not traditionally sent their daughters to school, Ikor girls do attend the provincial ethnic minority boarding school.

ethnicities is mostly even at the first-grade level, this equity rapidly disappears in the upper grades of primary school. Across all four countries, the variation in enrollment rates is great at higher levels of education. Enrollment rates in secondary school are low nationally, and they are particularly low for ethnic minority populations. The quality and availability of boarding schools introduce important policy and program issues for highland areas. Even within the better-off economy of Thailand, secondary education enrollment is low among highland peoples. Further, university enrollments among ethnic minority populations are extremely small.

2.3.5 Facilities

Supply of education facilities and services is also a common cause of poor participation and achievement in school for ethnic minority



Better Teachers Building Stronger Communities

Somsy, a former teacher and now teacher trainer, recites an impressive story of the multi-dimensional benefits derived from targeting the improvement of teachers. A Hmong, he bubbles over with pride in talking of the benefits seen with teacher improvement and community support for the schools. The successful completion of the Lao Network Teacher Upgrading Program's (NTUP's) two-year training program raised the credentials of the teachers. Because salary levels are linked to certifications, these teachers were able to raise their income level. Such incentives helped boost job satisfaction and reduce the turnover rate among teachers. Higher credentials, better incentives, and better practices in the classroom raised the self-esteem of the teachers while raising the standards of teachers across the system.

The program has given us more opportunity; it gives us opportunity to upgrade ourselves. Those of us having completed the program have encouraged many others to also participate.... Demand has grown as teachers in other districts see our spirits, enthusiasm uplifted. (Study team interview in Vang Vieng Teacher Training Center, Lao PDR)

NTUP supports increased participation of ethnic minority teachers in community schools. The program has shown impressive results in raising teaching standards, which has been directly linked to increased community support and student participation, performance, and advancement.

populations. Limited distribution of facilities and supplies across areas with low population densities makes geography and distance an important element in school participation. This fact is seen most strikingly in Lao PDR, where thousands of villages have no primary school; but it is also observed in Cambodia, Thailand, and Viet Nam. Although in many cases the first grades are available, education may not be available beyond the second or third grade, which lowers the value of the initial investment. In Cambodia, for example, there are 381 primary schools in the northeastern provinces, mostly in poor

physical condition, and only 99 of these schools are complete (e.g., schools that offer the full complement of grades 1 to 6).

Investing in education has many beneficial effects. It helps to raise earnings capacity both in the labor market and on the family's own household plot. It also contributes to the health of ethnic minority families. Returns on education can be significant, although the question remains whether ethnic minorities will be able to take advantage of these potential benefits. There are both costs and benefits of pursuing education for many highland families. For many ethnic minorities, the costs of education may well outweigh the benefits, especially if the quality of teaching is low, students don't speak the language used in the school system, textbooks are in short supply, and the education is seen as irrelevant for the community.

2.4

The Health Status of Ethnic Minorities

The health status of ethnic minorities has shown signs of improvement in all four of the focus countries of this study. That said, many serious problems remain.

A child born in the highlands in Thailand has a higher life expectancy than one born in Laos, but life expectancy in each country is lowest among ethnic minorities. Nationally, Lao PDR and Cambodia have among the highest infant mortality rates in all of the Asia region. Viet Nam and Thailand have substantially higher life expectancies, which is impressive given the low level of income in Viet Nam.

In each of the four countries, infant mortality is indeed a major concern in the highlands (Table 2.3). Across countries, variations in the infant mortality rate reflect differences in income, nutrition, and access to health care. Yet despite the wide variation across countries, highland peoples have the highest infant mortality rates.

Similar comparisons may be made with respect to maternal mortality rates (Table 2.4), although reliable highland data are limited.

The majority of births occur at home with only families and immediate village residents assisting in child delivery. Surveys of highland areas do report considerably higher rates of maternal mortality among ethnic minorities.

Prenatal care is quite limited among ethnic peoples, as are high-quality health care, nutrition, and assistance to women during their reproductive years. Family planning and the use of contraceptives also are low among highland people. Relatively large family size is common. Field surveys suggest that ethnic minorities have four to eight children per family, significantly more than the national average in each of the four countries. Beliefs, distance from services, education levels, and family poverty all are factors.

Although many of the problems with access to health services are grounded in the lack of health centers and health professionals, the lack of education among the population also plays a significant role. Education definitely alters the health-seeking behavior of women, with benefits for the health of the entire household.

Diarrhea and malaria rank high as major causes of mortality and extended illness across the GMS. Acute respiratory infections and pneumonia are also dominant health problems. Dengue fever and tuberculosis are

❖ Table 2.3: Comparison of National and Highland Infant Mortality Rates (IMR)		
Country	National IMR	Highland Area IMR
Cambodia	115 per 1,000	N/A
Lao PDR	100 per 1,000 (1995)	132 per 1,000 (1995)- Louang Phrabang Province
Thailand	5.8 per 1,000 (1997)	10.1 per 1,000 (1997) - Northern Provinces
Viet Nam	36 per 1,000 (1996)	52 per 1,000 (1996) - Northern Highlands; 55 per 1,000 (1996) - Central Highlands
<i>Source: Cambodia: National Institute of Statistics/Ministry of Planning/United Nations Population Fund, 1998. Lao PDR: National Statistics Center, 1995. Thailand: Ministry of Public Health, 1997. Viet Nam: Nguyen Van Phai, 1998.</i>		

❖ Table 2.4: Comparison of National Maternal Mortality Rates (MMRs)	
Country	National Avg. MMR
Cambodia	650 per 100,000 (1998)
Lao PDR	850 per 100,000 (1995)
Thailand	120 per 100,000 (1997)
Viet Nam	160 per 100,000 (1996)
<i>Source: Cambodia: National Institute of Statistics/Ministry of Planning/United Nations Population Fund, 1998. Lao PDR: National Statistics Center, 1995. Thailand: Ministry of Public Health, 1997. Viet Nam: Nguyen Van Phai, 1998.</i>	

widespread and in many areas are a rising concern. Likewise, HIV/AIDS is a growing threat, and a concern most clearly in Cambodia and Thailand, although the risk crosses all countries. Health education that encourages preventive health practices clearly has the potential to make a difference to combating these diseases and to improving the health conditions in the highland areas. Highland areas, however, are least likely to receive health information.

High rates of tobacco and alcohol use are also important health factors. Use of such stimulants is notably high among children and young adults in many, though not all, highland areas. Traditional use of opium as a painkiller is common among ethnic minority groups, and cases of substance abuse are found, although data are not consistently available.

Financing and programming for the provision of health facilities, staff, and supplies directed to highland areas is complex, as these areas tend to have low population density. The average distance to nurses, doctors, and pharmacies is far greater for ethnic highland peoples than for lowland dwellers across all four countries.

Even with some targeting to poor and remote areas, the highland areas across the four countries, on average, tend to have smaller health budgets per capita than the regions in lowland areas (ADB 2000a, b, d, e). Poor



Ethnic minority village in Phongsali Province, Lao PDR. Basic health and sanitation represent key areas for health education. Diarrhea is a major cause of mortality and morbidity in Lao PDR, and generally in the highlands in the GMS. Lower educational status for many minority populations, especially among women, is a constraint to household health. (Photo by Inthasone Phetsiriseng)

❖ Health Staff and Facilities— As Seen in the Field

Ethnic composition of the staff of service providers, language, and distance are all constraints to access. During a November 1999 trip to Son La Province, Viet Nam, the study team observed limited participation of ethnic minorities in the formal health system. Although 60 percent of the health staff were from an ethnic minority—a large percentage compared to many provinces—most of the health workers came from only one of the many ethnic groups in the province (Tai). Low education levels and lack of qualifications among ethnic minorities hinder the expansion of ethnic participation in the health care delivery system in Son La and throughout Viet Nam. Field work in Son La province also found that many rural communities lacked access to pharmacies, and often high-quality health facilities were too far for many ethnic minorities to travel.

roads, low levels of staffing, low quality of facilities, and low population density all contribute to limited health system coverage.

2.4.1 Nutrition

Caloric consumption and basic household nutrition are poor, again particularly in Cambodia and Lao PDR. A majority of families live at subsistence level. Caloric intake levels at or below 2,000 Kcal per capita per day are common in the highland areas of the GMS. Malnutrition and vitamin deficiencies are key factors in childhood deaths, stunted growth, and generally poor quality of life. Anemia and goiter are all too common among highland populations. In Cambodia, nutritional status is a concern nationwide, but particularly in the northeast. The national rate of low body mass index was 27 percent in 1998, but 43 percent in Kratie and Stung Treng Provinces, and goiter was the highest in the northeast (Ministry of Planning [Cambodia], 1998). Evidence in Viet Nam

shows that ethnic minority children are more stunted and wasted compared to the national averages, which are already low.

Even in relatively prosperous Thailand, nutrition is a concern for minority groups in the north. While severe malnutrition in Thailand is rare, it is clear that the largest levels of mild malnutrition are in the hill areas of the north and northeast; the levels in the hill areas are approximately three times the national average (Office of Health Promotion [Thailand], 1998).

2.4.2 Preventable Diseases

As noted previously, parents in the highlands receive less education than lowland peoples, and low education levels contribute to poor health practices. Limited access, use, and overall effectiveness of health services also are reflected in the high rates of a number of preventable diseases.

The low rate of immunization in the highlands is a clear indicator of access to health services. It also is an important issue in understanding health-seeking behavior of minority groups. Table 2.5 highlights immunization coverage for polio as an example of the very low rates of coverage in the areas most populated by ethnic minorities.

2.4.3 HIV/AIDS

With the exception of the hill tribes in Thailand, ethnic minority communities have not encountered the HIV/AIDS epidemic so far. For example, despite the fact that Cambodia has one of the highest levels of HIV/AIDS infections in Asia, the level of infection appears to be quite low in the northeast.

However, HIV/AIDS poses a special threat to ethnic minority populations because of their relative isolation from the majority as well as language barriers they face. While isolation does provide some protection from infection, it also limits the entry of prevention campaigns. And because most prevention campaigns are presented in the national

❖ Table 2.5: Comparison of Highland Immunization Rates	
Country	Polio Immunization in Highland Areas: % Below Age 2
Cambodia	24% (1998) ^a
Lao PDR	45% (1999) ^b
Thailand	68% (1997) ^c
Viet Nam	92% (1998) ^d

^a Average percentage of children in the four northeastern provinces of Kratie, Mondolkiri, Ratanakiri, and Stung Treng immunized against polio, based on provincial data, January–August 1998.

^b A 1999 health survey in Lao PDR (ADB, 1999c) confirmed that 45% of the ethnic minority children ages 1–2 had two or three doses of polio vaccine. This compares to a rate of 60% for ethnic Lao people.

^c Average percentage of children 12–23 months who received polio vaccinations in the five northern provinces of Chiang Mai, Chiang Rai, Mae Hong Son, Nan, and Tak, based on the Survey of the Hill-Area Peoples' Health Status (Office of Public Health Policy and Planning [Thailand], 1998).

^d Average polio immunization rate for provinces in the Northern and Central Highlands. Although the overall average is relatively high, a number of individual Central and Northern Highland provinces—e.g., Son La (86%) and Yen Bai (88%)—have lower percentages of immunization coverage. The national average immunization rate in Viet Nam is 94%.

language, they often do not reach a large percentage of the ethnic population.

2.4.4 Water and Sanitation

The availability and use of safe water and basic hygiene and sanitation practices are linked to child and maternal death and illness rates. Standards in these areas have improved in the past 10 years, but not rapidly among minority populations. Poor basic health and sanitation practices are a major cause of disease, illness, and poor quality of life. In Cambodia and Viet Nam, fewer than half the households have access to safe water; in Lao PDR the figure is around 30 percent in many of the poorest northern and southern provinces. Even in relatively more prosperous Thailand, only around 30 percent of hill-tribe households have access to safe drinking water.



Ethnic Karen mother and son in a remote resettlement village in Lampang Province, Thailand. Encouraged migration has moved villagers away from traditional lands. Many challenges remain to accommodate traditional practices into regulation of natural resource rights, national parks management, and other land use decisions. (Photo by Myles Elledge)

Access to sanitation is very low, notably in Cambodia and Lao PDR.

Although it is not realistic to imagine that large-scale water projects will reach isolated ethnic minority communities, it is possible to make important contributions through well-tailored environmental health/education programming.

2.5 Environment and Ethnic Minorities

Environmental change is rapid among ethnic minority communities. Although it was not the focus of this study, it is a point difficult to ignore. The impacts of war, rapid changes in forest cover, agricultural practices, soil erosion, and water supply have changed and will continue to significantly change the lifestyles

of highland peoples. Income-generating opportunities have been altered; traditional practices have been lost; and water, health, and nutrition impacts may be seen.

Forced changes in land use practices and access to natural resources have been a significant concern for minority communities. Forced relocation or encouraged migration from highlands to lowlands (or lower lands) has been applied often as a tool for governments to tackle perceived problems of swidden agriculture, opium production, or poor highland conditions, in Thailand, Lao PDR, and Viet Nam. Other changes, such as major infrastructure development projects—notably mining activities, irrigation, and dam construction—have brought new residents to highland areas, and forced highland peoples out and off of traditional lands. In Thailand, for example, these factors have been a point of contention between the government and indigenous groups that have organized around concerns for natural resource rights. Forest concessions granted to developers and the designation of large highland areas as natural preserves have also had major impacts on highland peoples' lifestyle, residence location, and economic opportunities.

Population pressures also are important here. Lowland migration to the highlands and forced and voluntary migration have impacted the natural environment. These changes have altered patterns of farming and basic lifestyle among minority groups. In many cases, the livelihood, lifestyle, and quality of life of ethnic minorities have been impacted permanently by these environmental changes.