The majority of people inhabiting the valleys and lowlands of the subregion are lowland ethnic groups—Khmer of Cambodia, Han of the PRC, Lao of the Lao PDR, Burman of Myanmar, Thai of Thailand, and Khinh of Viet Nam. The highland ethnic minorities are found in the mountainous areas that define the borders between the countries. Both the majority ethnic populations and the highland ethnic minorities can be classified as belonging to the three major families of languages used by the populations of mainland southeast Asia—Sino-Tibetan, Austro-Thai, and Mon-Khmer. These major families of languages are further differentiated into subfamilies, such as the Tibeto-Burman branch of the Sino-Tibetan, the Austronesian and Kadai branches of the Austro-Thai, and the Hmong groups of the Mon-Khmer family.

Both majority and minority ethnic groups can be identified on the basis of their linguistic differences. Sometimes, mainstream society lumps them together and treats them as undifferentiated groups. An example is the Karen of Myanmar and Thailand, who are generally treated as one group without regard for the subgroups. Ethnic subgroups in Viet Nam, such as Muong, Nguon, Taj Pong, Hung, Tam, Sach, May, Ruc, Arem, Thavung, Phong Sung, Pakatang, Kha Tong Luang, Pong, and Bo are clustered with the majority group of the Vietnamese. In the same manner, the majority ethnic groups in Thailand include subgroups such as Yay, Sai, Zhuang Nong, Tay (Chok), Caolan, Tai Nuela, Shan, Khyn, Yuan, Lue, Tai Dam, Tai Deng, Phutaj, Yo, Lao, and Phuan, which are grouped together with the mainstream Thai as part of the Tai subgroup of Tai-Kadai. Tai-Kadai is part of the Austro-Thai family of languages.

### Major Ethnic Groupings

<table>
<thead>
<tr>
<th>MAJOR GROUPS</th>
<th>CAMBODIA</th>
<th>YUNNAN, PRC</th>
<th>LAO POR</th>
<th>MYANMAR</th>
<th>THAILAND</th>
<th>VIET NAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Majority Peoples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khmer</td>
<td>6,467,000</td>
<td>24,620,000</td>
<td>3,000,000</td>
<td>21,533,000</td>
<td>59,000,000</td>
<td>65,051,000</td>
</tr>
<tr>
<td>Han</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lao</td>
<td>7,468,884</td>
<td></td>
<td>159,500</td>
<td>9,692,008</td>
<td>620,800</td>
<td>32,432</td>
</tr>
<tr>
<td>Burman</td>
<td>2,059,800</td>
<td></td>
<td>674,085</td>
<td>3,362,400</td>
<td>758,000</td>
<td>5,099,907</td>
</tr>
<tr>
<td>Thai</td>
<td>1,233,100</td>
<td></td>
<td>260,000</td>
<td>10,000</td>
<td>155,000</td>
<td>1,579,700</td>
</tr>
<tr>
<td>Khinh</td>
<td>1,159,961</td>
<td>1,280,700</td>
<td>864,449</td>
<td>1,380,100</td>
<td>1,577,857</td>
<td>2,880,905</td>
</tr>
<tr>
<td>Highlnd Peoples</td>
<td>255,000</td>
<td></td>
<td></td>
<td>7,000</td>
<td>3,115,500</td>
<td>590,000</td>
</tr>
<tr>
<td>Sino-Thai</td>
<td>12,042,484</td>
<td>542,100</td>
<td>1,948,014</td>
<td>15,451,508</td>
<td>6,227,157</td>
<td>9,682,524</td>
</tr>
<tr>
<td>Mon-Khmer</td>
<td>370,961</td>
<td></td>
<td></td>
<td></td>
<td>1,423,000</td>
<td></td>
</tr>
<tr>
<td>Austronesian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>6,837,861</td>
<td>37,213,584</td>
<td>4,948,014</td>
<td>36,984,508</td>
<td>66,650,157</td>
<td>74,733,524</td>
</tr>
<tr>
<td>Ethnic Population Estimate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,716,000</td>
<td>37,690,000</td>
<td>5,635,967</td>
<td>41,994,678</td>
<td>61,797,751</td>
<td>79,939,014</td>
<td></td>
</tr>
</tbody>
</table>


Note: The enumeration of populations by major ethnic groups is not accurate or up to date. As a result, in all countries except Thailand, the ethnic population estimates are less than the estimate for total population. In Thailand, the ethnic population estimate exceeds the total population, indicating that some people have been counted as both an ethnic minority and Thai.

### Notes on the linguistic map

The minority linguistic map (opposite) is based on a number of Internet and other sources (see p. 206). However, some of the source data are many decades out of date and are uneven in detail. Therefore, the language distributions must be taken as rough approximations only. Nevertheless, the map is worthwhile for showing the general areas across the subregion where these language family subgroups are found.
Ethnicity is a fluid concept. Attempts at defining it from linguistics, cultural, social, political, economic, or religious perspectives have limitations. Ethnic groups tend to change their identities in response to threat, or to take advantage of opportunities that would enhance their survival. One example is the minority nationalities of Yunnan Province, PRC, which, as a result of affirmative action of the Government, have gained stronger ethnic identities. With exemption from the “one-child policy” and preferential state support, they have grown into a larger minority constituting about 8% of the total population. However, without state support and with a policy of assimilation, ethnic minorities can soon become integrated into the mainstream society.

The ethnic minorities in the subregion generally live in remote areas and face problems of marginality, poverty, and lack of basic infrastructure. Increasingly over time, many have been assimilated into mainstream national cultures, often moving to lower valleys or plains and adopting the mainstream language and culture to such an extent that to outsiders they become virtually indistinguishable.

At present, many ethnic minorities of the subregion’s highlands still inhabit the critical watersheds of the Mekong River and its tributaries, where some have been wet-rice farming for generations. However, there are still ethnic minorities inhabiting remote and mountainous areas and their subsistence is based on limited hunting and gathering combined with swidden agriculture. Their subsistence is supplemented with income derived from trade of forest products with lowlanders along the Mekong River and its tributaries. Small game animals and fish are caught in the upstream parts of tributaries. Some of the Mon-Khmer bands in remote areas of the subregion may still be hunters and gatherers, and may be the descendants of some of the earliest human societies in Southeast Asia. Some have traditionally cultivated, for medicinal purposes, poppy plants from which opium and other drugs are extracted.

Swidden or shifting cultivation (see p. 92) has been blamed for deforestation and degradation. However, the established swidden agriculture of groups with a horticultural tradition, such as the Mon-Khmer, Austronesian, and highland Sino-Thai, is sustainable as long as it is focused on subsistence rather than market production.

Ethnic minorities living in forested areas or important watersheds have faced eviction in the name of conservation. Their population growth has increased pressure on available land, and as a result, traditional fallow periods are no longer observed, resulting in unsustainable swidden practices. This issue is often overshadowed by deforestation attributed to illegal commercial logging or the conversion of so-called “fallow” lands to plantations. Relocation programs have been drawn up for particularly vulnerable areas, such as the Xishuangbanna National Nature Reserve in Yunnan Province, PRC or as part of a much broader program of officially sponsored assimilation and relocation to lowlands.

Since the 1980s, there has been growing awareness throughout the subregion of the negative effects of deforestation and watershed degradation and the need to preserve or restore forests and watersheds. Some areas like the Thung Yai Naresuan Wildlife Sanctuary in Thailand have been added to the World Heritage Site list of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Nongovernment organizations, funding agencies, and governments are gaining greater awareness of the need to involve the highland ethnic minorities in conservation efforts. The Thung Yai Naresuan Wildlife Sanctuary has been cited as an example of how Karen communities protect forest resources and generally live in harmony with nature. To protect its natural forest, the National Nature Reserve Bureau of Xishuangbanna Dai National Autonomous Prefecture in Yunnan Province, PRC has sought to build on the long harmonious coexistence of its 10 national minorities with the forest and their rich lore of biodiversity use.

National minorities are also becoming more and more involved in the highly successful handicrafts and ecotourism industries, which have sparked both a cultural renaissance and the fusion of tradition and modernity in a reinvented ethnic identity. The Lijiang World Heritage Site in Yunnan Province, PRC for example, features the culture and handicrafts of the Tibeto-Burman Naxi national minority group.
Poverty has commonly been measured in terms of income. But now there is universal agreement that its dimensions far transcend this traditional definition. Poverty is now seen as a deprivation of essential assets and opportunities to which every human is entitled. All people should have access to basic education and primary health services. They must be able to sustain themselves by their labor and be reasonably rewarded for it, besides having some protection from financial shocks.

Beyond income and basic services, however, individuals and societies are also poor—and tend to stay poor—if they have no say in decisions that shape their lives. For this reason, poverty is better measured in terms of basic education, health care, nutrition, water, and sanitation, as well as income, employment, and wages. Such measurements also help to account for other important, but intangible, factors, such as feelings of powerlessness and lack of freedom to participate.

There is a great deal of literature on the links between poverty and environment. The World Bank has introduced a useful, although simplified, way of examining these links, which shows how different environmental factors affect aspects of poverty and well-being in a given set of circumstances. Links between poverty and environment vary depending on such factors as governance systems, the role of civil society, gender relations, and property regimes. These links are depicted and discussed in the following pages.
Environment, Livelihood, and Opportunity

The environment provides sustainable livelihoods to many people, giving them ways to improve their well-being. Maintenance of a sound natural environment is important, especially to poor people who depend on it—partly or fully—for subsistence and livelihood. Poor countries still depend heavily on agricultural and natural resource exports, such as rice, coffee, timber, and minerals. Thus, it is the poor, with their limited assets and greater dependence on common property resources, who suffer first when the natural environment is degraded. This is true in the subregion, where four out of five persons live in rural areas and depend on agriculture for income and sustenance. In places where the environment has deteriorated, their livelihoods and future opportunities have been undermined.

Swidden agriculture and increasingly short fallow periods have impaired soil quality and degraded arable land. In Viet Nam, intensive farming, the main source of livelihood of the rural people, has pushed the country to the limit of its arable land, which constitutes only 23% of its total land area. The arable land per capita is now down to 0.10 ha, one of the smallest ratios in the world. Within the subregion, Cambodia has the biggest ratio, about 0.4 ha per person.

Forests have been degraded or destroyed over extensive areas in some parts of the subregion. Government-sanctioned timber harvesting, illegal logging, and land clearing for agriculture have drastically reduced forests in Thailand and Viet Nam to about a third of the land area. Cambodia, Lao PDR, and Myanmar have larger remaining natural forest cover, averaging more than half of the total land area. Generally, these countries supply the timber needs of Thailand, Viet Nam, and Yunnan Province, PRC. This relationship is mutually beneficial to these two groups of countries. But, in the greater scheme of things, the shrinkage of forests disproportionally affects the poor. And among these, women and children are particularly affected. Most spend an inordinate amount of time and energy on their traditional activities of collecting fuel, fodder, and water. If resources near their homes are already exhausted they may have to walk long distances. Such women have less time to earn an income and take care of their children; and their school-age children spend fewer days in school.

Environment, Health, and Opportunity

Good health influences the productivity of a person. Many perceive poor health as a core dimension of poverty, since one must be healthy to earn a living and expand one’s opportunities.

The major environmental causes of poor health are unsafe water and sanitation; exposure to disease carriers; dirty air inside the home and in urban areas, particularly in overcrowded slums; and exposure to toxic substances. These account for 19% of illnesses and deaths in the developing world. Respiratory infections (from indoor and outdoor air pollution) and diarrhea (from inadequate hygiene, water supply, and sanitation) are the two leading causes of death within the poorest fifth of the world’s population. In the subregion, while there are no data on morbidity or mortality rates associated with respiratory infection, the use of traditional fuels by most households, especially in Cambodia and the Lao PDR, indicates exposure to indoor air pollutants. Malaria, usually related to the presence of stagnant water, also disproportionately affects the poor.

Environment, Vulnerability, and Security

Besides being prone to ill health, the poor are increasingly exposed to environmental degradation. They tend to live in precarious housing, often in environmentally vulnerable areas, such as floodplains or steep mountain slopes, where the risk from natural disasters like floods, landslides, and severe weather is great. They also become vulnerable when overexploitation destroys the ecology of the environmental resources on which they depend. The reported pesticide pollution of Tonle Sap Lake in Cambodia, for instance, will potentially affect not only the sustainability of livelihoods but, most importantly, health.
Environmental degradation is accompanied by more frequent and more severe natural disasters. For example, mangrove degradation in Viet Nam has heightened the effect of typhoons on coastal communities. Meanwhile, weather extremes (severe storms, extended droughts, etc.) are becoming more frequent. Destructive floods in Cambodia, Myanmar, and Thailand have largely been attributed to extensive tree cutting. The poor are made even more vulnerable by the insufficient capacity of government to predict and respond to these increasing natural disasters.

Progress in the Fight Against Poverty

The subregion as a whole has made strides in economic and human development in the past 3 decades. Incomes have increased, poverty has dramatically declined, and notable improvements have been achieved in key social indicators. These improvements have been hailed as major dividends of peace.

However, despite growth and gradual economic diversification, poverty is still widespread, and GDP per capita is only about $1 per day in most of the region. Indeed, while economies are growing, income inequality is increasing. Moreover, the Human Poverty Index, both in rank and value, is high, implying that much of the population of the subregion is still deprived of a healthy life, access to education, and a decent standard of living.

The Poor

There are about 55 million poor people in the subregion (1 in every 5 persons). These are generally rural people, often farmers, landless laborers, fishers, or agricultural workers dependent on such natural resources as soil, fish, and forest products for subsistence and income. They are mostly from ethnic minorities—the poorest and socially most vulnerable groups. Typically, they live far from the economic mainstream in remote areas, upland areas, and fragile ecosystems. They lack secure title to their land and other resources, are poorly educated, and have limited livelihood alternatives. They rely on a dwindling base of both renewable and non-renewable resources, and must contend with pressures caused by population increase, resource extraction, and development. Women and children, particularly girls, tend to have less access to scarce resources. Their contributions are not generally reflected in their rights and control of resources. They tend not to be represented in decisions or to have influence in matters that concern them.

The poor are often difficult to reach when it comes to development. Bad roads keep them from transporting their goods to markets. Basic social services often do not reach the remote places where they live. They have no part in important political and economic decisions that affect them. Moreover, governance and institutions in rural hinterlands are usually fragile and biased against them. Living on marginal land, they are often vulnerable to financial shocks and have no means of coping.

Over the long term, poverty will be reduced only if the environment continues to provide services and resources that people need and if resources are used in a way that is conducive to long-term development. Recent studies recommend four main ways to reduce poverty and ensure environmental sustainability: improving governance, protecting and expanding the environmental asset base of the poor, improving the quality of economic growth by including environmental concerns, and reforming international policies in a way that helps poor countries.
Mapping Poverty

The basic indicator used for poverty mapping is “the proportion of people living below the consumption-based poverty line.” In this measurement, poverty is expressed in terms of a person’s consumption of food and basic necessities. The poverty line represents the minimum value of the daily consumption of goods and services needed to sustain an average adult. People whose consumption falls below this level are considered to be poor.

Each country uses a different methodology to determine the poverty line. Because of this, caution is needed in making comparison between countries.

The incidence of poverty in the subregion varies significantly. Not surprisingly, it is consistently higher in rural areas than in urban areas. And it tends to be highest in remote areas, uplands, and watersheds, where most of the ethnic minority groups live.

In Cambodia, about 36% of the 1997 population or about 4 million people were classified as poor using a consumption-based poverty line defined as adequate income to buy a daily 2,100-calorie food basket plus an allowance for nonfood expenditure.

Poverty is most prevalent in northwestern Cambodia. A large proportion of the population, however, is clustered around the poverty line indicating a potential for significant changes in the incidence of poverty.

In the Lao PDR, 39% of the population were below the poverty line in 1997/98. This was based on poverty thresholds that utilize food and nonfood consumption as well as energy requirements. There is a large difference in poverty incidence between urban (27%) and rural (41%) areas. Poverty is widespread in the north and south of the country.

In Myanmar, official poverty incidence (based on 1997 data) for the country as a whole is estimated at 23%, while cases of more severe poverty are reported to occur in the northwestern border regions.

In Thailand, poverty incidence in 1997 was only about 13% in 1998. Despite this, certain inequities have been increasing (e.g., between urban and rural areas, between regions, and between well-educated workers and those with little education), and poverty remains acute in certain areas, particularly in the northeast.

In Viet Nam, poverty incidence was 37% in 1997/98. Poverty is largely a rural phenomenon, with 45% of the rural population living below the poverty line. Poverty is highest in the northwestern region and central highlands.

### Actions to Reduce Poverty and Ensure Environmental Sustainability

<table>
<thead>
<tr>
<th>SUGGESTED ACTION AREA</th>
<th>SUGGESTED MEASURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving governance</td>
<td>• Integrating poverty, environment, and gender issues into national planning</td>
</tr>
<tr>
<td></td>
<td>• Ensuring effective participation by the poor</td>
</tr>
<tr>
<td></td>
<td>• Fighting corruption</td>
</tr>
<tr>
<td>Protecting and expanding the</td>
<td>• Assessing the implementation of policy on poverty and environment</td>
</tr>
<tr>
<td>environmental asset base of the poor</td>
<td>• Supporting local participatory environmental management</td>
</tr>
<tr>
<td>Improving the quality of economic</td>
<td>• Promoting access to markets and appropriate technology</td>
</tr>
<tr>
<td>growth</td>
<td>• Integrating poverty, environment, and gender concerns into economic policies</td>
</tr>
<tr>
<td></td>
<td>• Improving environmental information and valuation so the private sector can</td>
</tr>
<tr>
<td></td>
<td>contribute to environmental management</td>
</tr>
<tr>
<td>Reforming international policies</td>
<td>• Removing environmentally damaging subsidies</td>
</tr>
<tr>
<td></td>
<td>• Improving market access for poor countries</td>
</tr>
<tr>
<td></td>
<td>• Strengthening the capacity of poor countries to meet environmental standards</td>
</tr>
<tr>
<td></td>
<td>• Strengthening international agreements and financial mechanisms for the</td>
</tr>
<tr>
<td></td>
<td>management of global public goods</td>
</tr>
<tr>
<td></td>
<td>• Providing more effective development assistance and debt relief</td>
</tr>
<tr>
<td></td>
<td>• Supporting international principles for the conduct of foreign direct investments</td>
</tr>
</tbody>
</table>
Eight goals to be achieved in 2015 for development and poverty eradication were set out by heads of States at the Millennium Summit of the United Nations in September 2000. These goals have been accepted as indicators of development progress. They measure the efforts of the developing and of the developed countries that fund development programs and the multilateral institutions that help countries carry out the programs. The first seven mutually reinforcing goals are aimed at reducing poverty in all its forms while the eighth goal—global partnership for development—is the means of achieving the first seven.

The environment is at the heart of these Millennium Development Goals. The seventh goal in particular is intended to ensure environmental sustainability by mainstreaming the environment in policies and programs, reversing environmental degradation, and improving access to environmental services. Achieving this goal would help achieve other goals; conversely, achieving other goals would help ensure environmental sustainability.

The following section describes the progress made by the subregional countries toward the Millennium Development Goals and the steps they still have to take to achieve the goals.

**Goal 1: Eradicate Extreme Poverty and Hunger**

**Target 1**: Halve, between 1990 and 2015, the proportion of people who earn less than $1 a day.

Poverty has been significantly reduced in the subregion, particularly in Viet Nam where the incidence of 37% in the late 1990s was only about half the rate in the mid-1980s. However, 55 million people in the subregion are still poor. Sustainable management of the environment, which sustains and gives employment to the poor, would help eradicate extreme poverty and hunger.

**Target 2**: Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

Declining trends in the number of undernourished children roughly indicate progress toward halving hunger by 2015. Almost a third of the children below 5 years in the subregion, and about 44 million in the subregion overall, are still malnourished. A fourth of the population of Cambodia and of the Lao PDR takes in less than the 2,100 calories a day recommended by WHO.

Tackling this problem requires nutrition education, micronutrient supplementation and fortification, higher status and better education for women, increased government commitment to...
health and nutrition, and an effective health infrastructure. Achieving this goal also requires the sustainable management of agricultural systems, forests, and other natural resources that provide subsistence and livelihood resources to the vast majority of the poor in the subregion. An early warning system may also help ward off natural hazards that can compromise long-term welfare by forcing affected households to sell assets or use their savings.

Goal 2: Achieve Universal Primary Education

**Target 3:** Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

Education is a powerful instrument for reducing poverty and inequality, improving health and social well-being, and laying the basis for sustained economic growth. It is essential for building democratic societies, and dynamic and regionally and globally competitive economies.
Primary school enrollment rates are improving in the subregion. Enrollment rates are high in Yunnan Province, PRC and Viet Nam. Viet Nam has a higher primary enrollment ratio than Thailand, whose per capita income is many times higher. More funds for education would improve primary school enrollment rates in other countries.

Literacy among the youth is high in many subregional countries, except Cambodia and the Lao PDR. It is an especially important goal in Yunnan Province, PRC, Thailand, and Viet Nam, where industry contributes more to GDP and the labor force increasingly seeks employment outside agriculture.

**Goal 3: Promote Gender Equality and Empower Women**

**Target 4:** Eliminate gender disparity in primary and secondary education, preferably by 2015, and in all levels of education no later than 2015.

The gap in enrollment between girls and boys has narrowed, most notably in Myanmar and Thailand. Yunnan Province, PRC and Viet Nam are also showing improvements. In Cambodia and the Lao PDR, however, there is a difference of more than 20% in the enrollment rates of girls and boys.

Equal access to education, employment opportunities outside agriculture, and political decision making will increase the productivity of women and thereby raise overall output and reduce poverty; promote gender equality within households, reduce fertility rates, and improve maternal health; and enable women to take better care of their children, increasing the chances that the latter will survive and be healthier and better educated.

For many women in the subregion, access to education is constrained by time spent on gathering water and fuelwood. Making water and energy readily available will enable them to study and in the long run, avail of employment opportunities outside agriculture.

**Goal 4: Reduce Child Mortality**

**Target 5:** Reduce by two thirds, between 1990 and 2015, the under-5 mortality rate.

Most infant deaths are traced to unhealthy conditions around the time of birth and lack of skilled midwives and attendants. Among young children, especially the chronically malnourished, the common killer diseases are pneumonia, diarrhea, malaria, and measles. Immunization programs, as well as oral rehydration therapy, antibiotics for pneumonia, and better economic and social conditions, have caused a significant drop in infant and child deaths in the last 25 years. Child mortality has a dramatic effect on life expectancy, which is part of the Human Development Index and an excellent indicator of a country’s overall health.
Infant mortality has been substantially reduced in Yunnan Province, PRC; Thailand; and Viet Nam, but equivalent programs in Cambodia, Lao PDR, and Myanmar require more persistent effort and funding support. In 1998–1999, the Lao PDR spent more than Cambodia or Myanmar on health as a percentage of GDP.

Life expectancy is now an impressive 70 years in Yunnan Province, PRC and close to 70 years in Thailand and Viet Nam. But life expectancy in high-income countries is still at least 7 years longer.

Goal 5: Improve Maternal Health

Overall, maternal health in the subregion has improved. But in 2000, the maternal mortality rate was an order of magnitude above that of Singapore. Fewer pregnancies, adequate nutrition especially during pregnancy and childbirth, safe sex practices, and better health care in general would further reduce maternal mortality rates.
Goal 6: Combat HIV/AIDS, Malaria, and Other Diseases

Target 6a: Halt by 2015 and begin to reverse the spread of HIV/AIDS.

By the end of 1999, almost 140,000 children in the subregion had lost their mothers or both parents to AIDS. HIV is most prevalent in Cambodia, at nearly twice the rate of occurrence in Myanmar and Thailand, and is least common in Yunnan Province, PRC; Lao PDR, and Viet Nam. In addition to appropriate government policies and respect for the reproductive rights of women, developing countries should make available generic alternatives to expensive patented drugs.

Target 6b: Halt by 2015 and begin to reverse the incidence of malaria and other major diseases.

Fatal cases of tuberculosis and malaria can be prevented, but treatment is inaccessible to thousands of people in the subregion. In 2000, there were about 360,000 cases of malaria in the subregion. The disease is most prevalent in Cambodia and the Lao PDR, where it afflicts nearly 1,100 out of every 100,000 (1.1% of the population).

Goals 4, 5, and 6 focus on health improvement and urge governments to improve the delivery of health care services and address the causes of ill
health. Considering that 20% of the burden of diseases in developing countries can be attributed to insufficient and unsafe water, poor sanitation, carriers like mosquitoes, indoor and outdoor air pollution, and other environmental conditions, dealing with environmental causes of death and disease is highly cost-effective, yielding other lifestyle benefits as well.

**Goal 7: Ensure Environmental Sustainability**

**Target 7a:** Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources.

Everywhere, experience is similar—the poorer countries contribute the least to carbon dioxide emissions but suffer the most from their effects. Thailand is rehabilitating old factories and fitting new ones with energy-efficient technologies.

To achieve sustainable development, countries should integrate environmental concerns into their development plans at the national, regional, sector, or project levels. Global warming from carbon dioxide emissions, among others, is a universal concern. High-income countries produce such emissions in proportions far in excess of their share of the world’s population. Even so, in 1997, nearly 300 million tons of carbon dioxide, about 1% of the worldwide total, came from the subregion. Thailand contributed 60% of this amount; Yunnan Province, PRC, 30%; Viet Nam, nearly 10%; and Cambodia and the Lao PDR together, 1%.

**Target 7b:** Halve by 2015, the proportion of people without sustainable access to safe drinking water.

Safe water was accessible to more people in most subregional countries in 2000 than in 1990, but not yet for about 84 million people, increasing their risk, especially children, of potentially fatal diseases, such as diarrhea, malaria, and cholera.

The subregion is well endowed with freshwater resources. Except for some areas in Thailand and elevated areas of the river headwater in the PRC, rainfall averages more than 1,000 mm yearly. To supply the water needs of the poor, governments must urgently review the competing uses of water, especially in light of the expected growth in demand from industry. In Thailand, for instance, about 90% of water is for agriculture, which contributes a relatively small 9% to GDP, and only 7% is used for domestic purposes.

**Target 7c:** Achieve, by 2020, a significant improvement in the lives of at least 100 million slum dwellers.

In 2000, 89 million people in the subregion had no access to improved sanitation. This is in addition to the problem of access to clean water, adequate housing, and problems of peace and order. Thailand and Viet Nam have made significant improvements. Others such as Yunnan Province, PRC; Lao PDR; and Myanmar still need to improve access to sanitation. Cambodia lags behind the rest and faces the biggest challenges.

![Distribution of subregional population among economies grouped by carbon dioxide emissions in tons per capita, 1998](image1)

![Distribution of subregional population among economies grouped by percentage of population with access to an improved water source, 2000](image2)

![Carbon dioxide emissions in tons per capita, 1998](image3)

![Percentage of population with access to an improved water source ( ), 2000](image4)

**Carbon dioxide emissions (tons per capita), 1998**

- Viet Nam: 0.57 tons
- Thailand: 3.22 tons
- Myanmar: 0.18 tons
- Lao PDR: 0.07 tons
- Yunnan, PRC: 0.06 tons
- Cambodia: 0.00 tons

**Note:** Figure for Yunnan refers to the entire PRC. Source: World Bank 2002.

**Proportion of population with access to an improved water source (%), 2000**

- Viet Nam: 66%
- Thailand: 80%
- Myanmar: 64%
- Lao PDR: 58%
- Yunnan, PRC: 55%
- Cambodia: 71%

**Note:** Figures for Yunnan refer to the entire PRC. Sources: World Bank 2002; ADB, WSS Unit, Government of the Union of Myanmar.

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Goal 8: Develop a Global Partnership for Development

To achieve the first seven goals, industrial countries must reduce emissions of gases that induce climate change and of substances that deplete the ozone layer; and finance biodiversity, land degradation, sanitation, and slum-upgrading projects. Developing countries, for their part, must cofinance actions to combat desertification; together with developed countries, bear the opportunity cost of land in protected areas; abstain from using ozone-depleting substances; and finance water supply infrastructure. The same can be said of investment needed to improve sanitation facilities for 89 million people in the subregion.

This goal ensures that global action creates an environment where everyone can realize his or her potential. Development assistance may be necessary to help some countries achieve their targets, and sustain the efforts of those that are doing well.

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**Freshwater resources per capita, m³, 2000**

- Viet Nam: 11,350
- Thailand: 6,750
- Myanmar: 21,868
- Lao PDR: 63,175
- Yunnan, PRC: 10,000
- Cambodia: 39,613

**Freshwater withdrawn for agriculture (%), 2000**

- Viet Nam: 69
- Thailand: 61
- Myanmar: 52
- Lao PDR: 52
- Yunnan, PRC: 78
- Cambodia: 94

**Share of agriculture in GDP (%), 2000**

- Viet Nam: 24
- Thailand: 10
- Myanmar: 57
- Lao PDR: 53
- Yunnan, PRC: 16
- Cambodia: 40

**Proportion of population with access to improved sanitation facilities (%), 2000**

- Viet Nam: 78
- Thailand: 79
- Myanmar: 46
- Lao PDR: 49
- Yunnan, PRC: 88
- Cambodia: 18

**Percentage of population with access to improved sanitation facilities, 2000 and 2008**

- Viet Nam: 78
- Thailand: 79
- Myanmar: 46
- Lao PDR: 49
- Yunnan, PRC: 88
- Cambodia: 18

**Distribution of subregional population among economies grouped by percentage of population with access to improved sanitation facilities, 2000**

- Less than 40%: 22%
- 40-59%: 51%
- 60-79%: 2%
- 80% or more: 25%