

# Peoples and Cultures

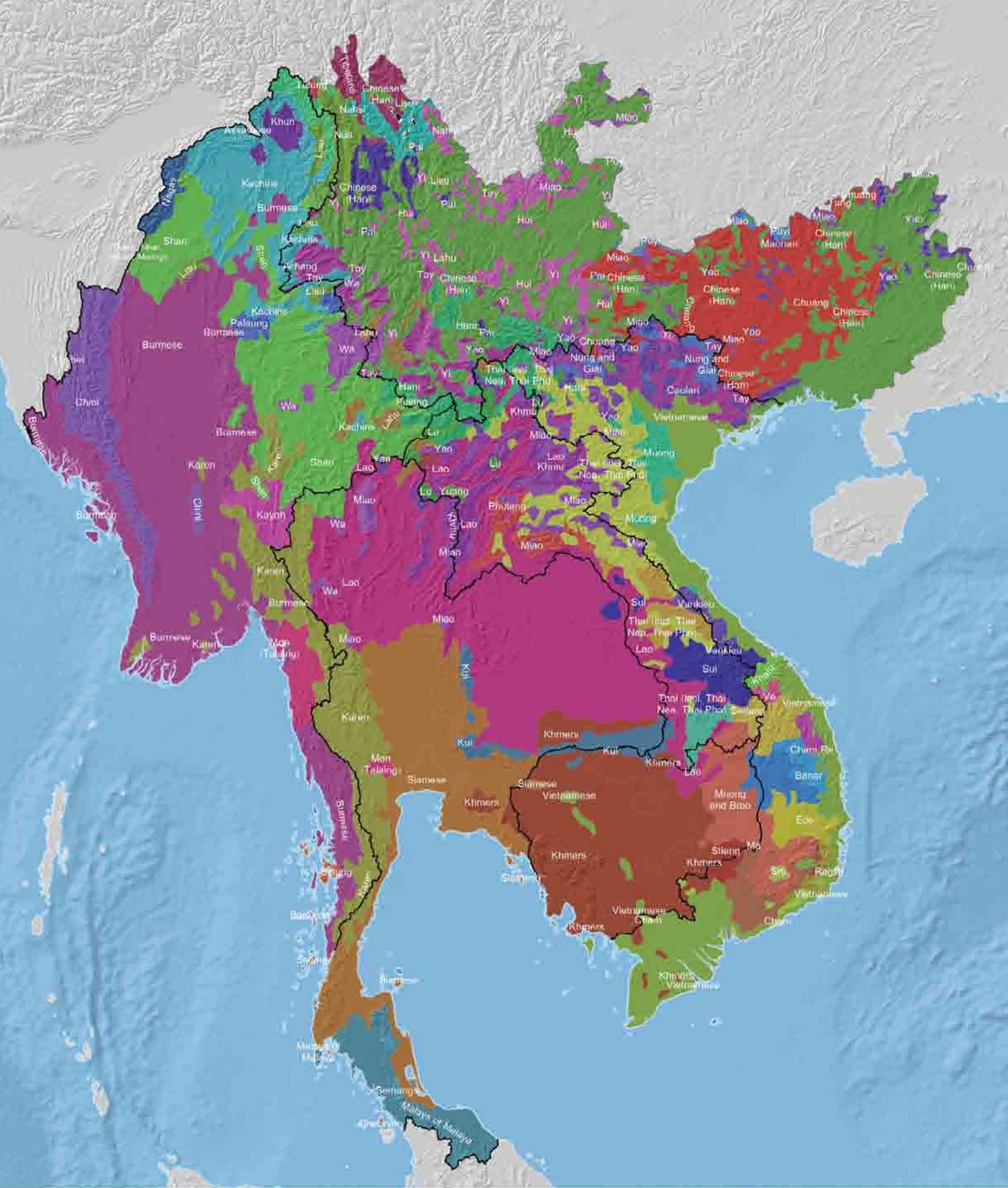


The majority of people inhabiting the valleys and lowlands of the subregion are lowland ethnic groups—Khmer of Cambodia, Han of the People’s Republic of China (PRC), Lao of the Lao People’s Democratic Republic (Lao PDR), Bamar of Myanmar, Thai of Thailand, and Kinh of Viet Nam. The highland ethnic minorities 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, Tay Pong, Hung, Tum, Sach, May, Ruc, Arem, Thavung, Phon 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



■ **Top:** Katu dance ceremony in the central Annamites, Viet Nam. **Middle:** Monks at an Angkor temple, Cambodia. **Bottom:** A Dai mother with her child, Yunnan, PRC.



### Ethnic Groups of the Greater Mekong Subregion

- |  |   |   |   |   |   |  |  |
|--|---|---|---|---|---|--|--|
| <span style="color: red;">■</span> Achang          | <span style="color: orange;">■</span> Chaonam           | <span style="color: purple;">■</span> Kayah       | <span style="color: blue;">■</span> Lao             | <span style="color: green;">■</span> Miao         | <span style="color: darkblue;">■</span> Pai       | <span style="color: lightgreen;">■</span> Shan     | <span style="color: pink;">■</span> Tulung           |
| <span style="color: lightgreen;">■</span> Assamese | <span style="color: lightgreen;">■</span> Chinese (Han) | <span style="color: darkblue;">■</span> Kehlao    | <span style="color: darkblue;">■</span> Lali, Lakwa | <span style="color: orange;">■</span> Mnong, Brao | <span style="color: purple;">■</span> Palaung     | <span style="color: orange;">■</span> Shuichia     | <span style="color: orange;">■</span> Tung           |
| <span style="color: blue;">■</span> Banar          | <span style="color: purple;">■</span> Chini             | <span style="color: lightgreen;">■</span> Khamtis | <span style="color: purple;">■</span> Lisu          | <span style="color: pink;">■</span> Mon (Talaing) | <span style="color: lightgreen;">■</span> Phuteng | <span style="color: lightgreen;">■</span> Siamese  | <span style="color: purple;">■</span> Vankieu        |
| <span style="color: orange;">■</span> Bengalis     | <span style="color: orange;">■</span> Chuang            | <span style="color: lightgreen;">■</span> Khatu   | <span style="color: purple;">■</span> Loba          | <span style="color: lightgreen;">■</span> Mongols | <span style="color: lightgreen;">■</span> Pulang  | <span style="color: lightgreen;">■</span> Sre      | <span style="color: pink;">■</span> Ve               |
| <span style="color: orange;">■</span> Bo and So    | <span style="color: lightgreen;">■</span> Ede           | <span style="color: orange;">■</span> Khmers      | <span style="color: lightgreen;">■</span> Lu        | <span style="color: lightgreen;">■</span> Mulao   | <span style="color: purple;">■</span> Puok, Ksaka | <span style="color: orange;">■</span> Stieng       | <span style="color: lightgreen;">■</span> Vietnamese |
| <span style="color: lightgreen;">■</span> Boloven  | <span style="color: lightgreen;">■</span> Hani          | <span style="color: purple;">■</span> Khmu        | <span style="color: orange;">■</span> Lushei        | <span style="color: lightgreen;">■</span> Muong   | <span style="color: purple;">■</span> Puyi        | <span style="color: purple;">■</span> Sui          | <span style="color: purple;">■</span> Wa             |
| <span style="color: purple;">■</span> Burmese      | <span style="color: lightgreen;">■</span> Hui           | <span style="color: purple;">■</span> Khun        | <span style="color: orange;">■</span> Ma            | <span style="color: darkblue;">■</span> Nagas     | <span style="color: orange;">■</span> Raglai      | <span style="color: purple;">■</span> Tay          | <span style="color: purple;">■</span> Yao            |
| <span style="color: purple;">■</span> Caolan       | <span style="color: lightgreen;">■</span> Jarai         | <span style="color: purple;">■</span> Kui         | <span style="color: lightgreen;">■</span> Malays    | <span style="color: lightgreen;">■</span> Nahsi   | <span style="color: orange;">■</span> Sedang      | <span style="color: purple;">■</span> Thado et al  | <span style="color: purple;">■</span> Yi             |
| <span style="color: lightgreen;">■</span> Cham     | <span style="color: lightgreen;">■</span> Kachins       | <span style="color: orange;">■</span> Lahu        | <span style="color: lightgreen;">■</span> Manipuris | <span style="color: lightgreen;">■</span> Nua     | <span style="color: orange;">■</span> Selung      | <span style="color: lightgreen;">■</span> Thai     | <span style="color: lightgreen;">■</span> Yuang      |
| <span style="color: purple;">■</span> Cham Re      | <span style="color: lightgreen;">■</span> Karen         | <span style="color: orange;">■</span> Lamet       | <span style="color: purple;">■</span> Maonan        | <span style="color: purple;">■</span> Nung, Glai  | <span style="color: lightgreen;">■</span> Semangs | <span style="color: lightgreen;">■</span> Tibetans |  |

Boundaries are not necessarily authoritative. Map displays a generalized overview of ethnic groups and follows the spelling of the data source.  
 Data source: Geo-referencing of Ethnic Groups (GREG; Weidmann, Rod & Cederman 2010), UN FAO GAUL, NASA SRTM





in Thailand include subgroups, such as Yay, Saek, Zhuang Nong, Tay (Cho), Caolan, Tai Nuela, Shan, Khyn, Yuan, Lue, Tai Dam, Tai Kaw, Tai Deng, Phutaij, 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.

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, 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 33% of the total population. However, without state support and with a policy of assimilation, ethnic minorities can soon become integrated into the mainstream society.

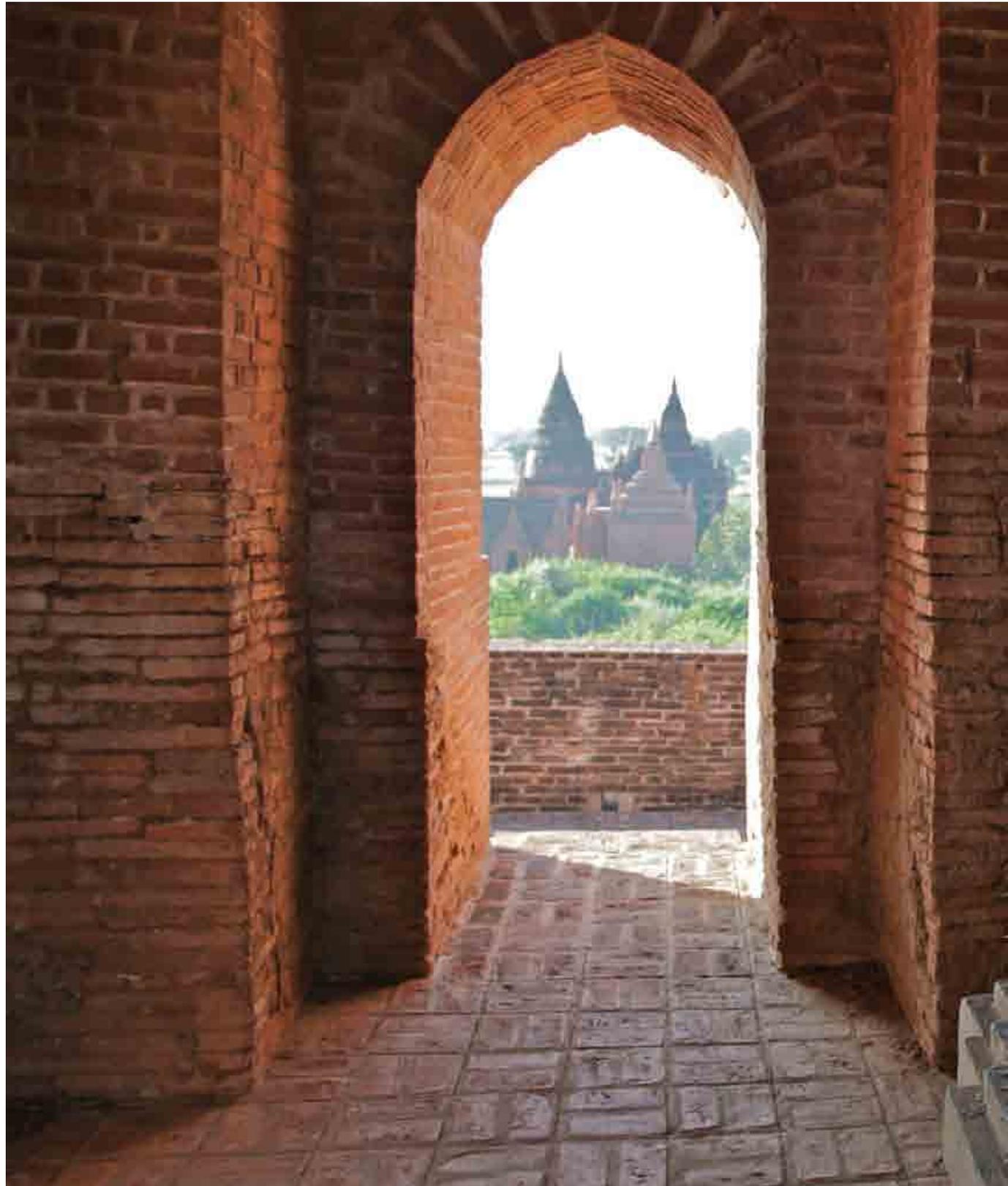
The ethnic minorities in the subregion generally live in remote areas and face problems of marginality, poverty, and lack of basic



■ Upper: Zhuang ethnic festival in Guangxi, PRC. Lower: Vegetable seller at Hoi An market in Viet Nam.

Major Ethnic Groupings							
Major Groups	Cambodia	Guangxi, PRC	Yunnan, PRC	Lao PDR	Myanmar	Thailand	Viet Nam
<b>National Majority Peoples</b>							
Khmer	13,627,262						
Han		32,019,000	30,662,000				
Lao				4,129,090			
Bamar					40,650,400		
Thai						57,213,500	
Kinh							65,800,000
<b>Highland Peoples</b>							
Tibeto-Burman			9,774,000	122,640	8,423,914	464,640	45,794
Sino-Thai		16,587,200	2,440,000	799,280	3,591,640	966,280	4,125,479
Hmong-Mien	8,008		1,424,000	294,800	10,000	132,400	1,313,664
Mon-Khmer	274,249		518,000	1,045,984	2,268,610	2,123,137	3,320,450
Austronesian	320,114				7,000	1,008,500	833,050
<b>Others</b>							
	19,179					1,174,080	1,010,200

Source: Cambodia-Commune Database 2010; Communique on Sixth Population Census of Guangxi; Guangxi Bureau of Statistics. 2011; Lewis, M.P., ed. 2009. *Ethnologue: Languages of the World. Sixteenth edition*. Dallas: SIL International. <http://www.ethnologue.com/>; Yunnan Statistical Yearbook 2011.



■ **Upper left:** Dai traditional weaving in Yunnan, PRC. **Lower left:** Ethnic minority ladies in traditional costume, Lao PDR. **Right:** Pagodas of Bagan, Myanmar.

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 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 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 resources 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



■ **Upper:** Pa-O ethnic couple in Myanmar.  
**Lower:** Han men at a park in Yangshuo, Guangxi, PRC.

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 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 has sought to build on the long harmonious coexistence of its 10 national minorities with the forest and their rich lore of biodiversity use.

Some ethnic groups in Guangxi, such as Zhuang, Dong, Shui, Mulao and Maonan, have traditional relations with many ethnic groups in the Lao PDR, Myanmar, Thailand, and Viet Nam. They share similarities in language and folk customs. All this constitutes a favorable foundation for economic and cultural exchanges between the PRC and Southeast Asian countries.



■ **Upper left:** Apsara dancers in Siem Reap, Cambodia. **Lower left:** Katu woman smoking traditional pipe, Viet Nam. **Right:** Chengyang Wind and Rain Shelter bridge, Guangxi, PRC.

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 for example, features the culture and handicrafts of the Tibeto-Burman Naxi national minority group.

### A Rich Diversity of Cultures

**Cambodian** culture and tradition date back many centuries. There are many classical dance forms in Cambodia, of which a highly stylized art form was once confined mainly to the courts of the royal palace and performed mainly by females. Known formally in Khmer as Robam Apsara, the dancers of this classical form are often referred to as Apsara dancers. The Apsara dance is particularly inspired by the style of the more than a thousand

Apsara carvings in the Angkor temple complex. Silk weaving in Cambodia also has a long history. The practice dates to the first century when textiles were used in trade. It is common to see men and women using a krama (Khmer Scarf), a long, narrow checked cotton cloth round the neck. Cambodia's three important silk textiles are ikat silks (chong kiet in Khmer), or hol, the twill-patterned silks, and the weft ikat textiles.

Though now associated with the Zhuang ethnic minority, **Guangxi's** culture traditionally has had a close connection with the Cantonese. Cantonese culture and language moved up the Xi River valley from Guangdong Province and is still predominant in the eastern half of Guangxi today. Most Zhuang follow a traditional animist/ancestor-oriented religion; however, Buddhism is the major religion and there are a number of Christians and Muslims as well. The world-famous Huashan Cliff Paintings were created by the ancestors of Zhuang



people. The Zhenwu Pavilion of Rongxian County, the Chengyang Wind and Rain Shelter bridge and Mapang Drum Tower from Sanjiang Dong Autonomous Prefecture are the crystallization of wisdom of Han and Dong ethnic groups in the development of Chinese architecture. Guangxi is a sea of folk songs, with a rich heritage of ballads. Weddings, birth ceremonies, funerals, and harvest festivals all provide opportunities for ethnic minorities to dress up in bright traditional clothes and sing to their heart's content. Zhuang medicine, Yao medicine, Miao medicine, and Dong medicine have all developed special folk prescriptions. Embroidery, brocade, and wax printing, as well as pottery, engraving, and inscription of the ethnic minorities from Guangxi enjoy a high reputation across the PRC.

Most dialects of the Chinese language spoken in **Yunnan** belong to the southwestern subdivision of the Mandarin group, and are very similar to

the dialects of neighboring Sichuan and Guizhou provinces. In addition to the local dialects, most people speak Putonghua, commonly called "Mandarin." Yunnan's ethnic diversity is reflected in its linguistic diversity. Languages spoken in Yunnan include Tibeto-Burman languages, such as Bai, Yi, Tibetan, Hani, Jingpo, Lisu, Lahu, and Naxi; Tai languages like Zhuang, Bouyei, Dong, Shui, Tai Lü, and Tai Nüa or northern Lao dialect; as well as Hmong-Mien languages. The Naxi, in particular, use the Dongba script, which is the only pictographic writing system in use in the world today. The Dongba script was mainly used to provide the Dongba priests with instructions on how to carry out their rituals: today the Dongba script features more as a tourist attraction. Yunnan is well known for the emergence of three major ancient cultures: the Ancient Dian Culture, centered around Dianchi Lake from the Pre-Qin Period (221–207 B.C) to the Han Dynasty (25–220 A.D),

■ **Upper:** Young novice monk, Myanmar.  
**Lower:** Jing Po ethnic minority women, Yunnan, PRC.



■ Upper: Shwedagon Pagoda, Yangon, Myanmar. Lower: Street cooking in Mandalay, Myanmar.

epitomizes the culmination of the bronze age civilization in Yunnan; the Cuan Culture, which rose slightly later in the valley of the Panjiang River, embodies the cultural development of this province in the middle ages; and the Nanzhao-Dali Culture, which formed and fully developed around Er Hai Lake.

The people of the **Lao PDR** are almost all Buddhists and perhaps more than elsewhere Buddhist practices permeate life and society, influencing their arts and literature as well as the architecture of the country's many temples. The main language is Lao, from the Tai linguistic group, but about half the population do not speak Lao, but one or more of the languages, such as Khmu and Hmong, of the many ethnic minority groups scattered around the country.

Traditional music is performed on the khene, a long reed instrument resembling pan pipes but blown through a single transverse pipe. The national musical instrument, it generally accompanies Lao Lum extemporaneous singing or lyrical storytelling.

The main Lao food staple is sticky rice, which has cultural and religious significance and is so ubiquitous that it is believed to have originated in the Lao PDR. Sticky rice forms the basis of the Lao meals and is served with the most characteristic

Laotian dish, the larb, made from slices of meat or fish marinated in a spicy sauce. Another staple is tam mak hoong or tam som, a salad made primarily from unripe, or green, papaya with spices.

**Myanmar** is another predominantly Buddhist country, but people of other beliefs, such as Christianity, Hinduism, Islam or animist beliefs live side by side and it is not unusual to see pagodas, churches, mosques, and temples in one neighborhood. Spirit worship exists with Buddhism, as these minor gods are also believed to be disciples of the Buddha's teachings. The Bama or Myanmar are the majority race, inhabiting the central zone with Shan, Kayin, Kachin, Kayah, Chin, Rakhine, and Mon; their sub-races live in mountainous regions closer to the borders or near the long coastline.

People in Myanmar adore festivities and there is a saying that Myanmar celebrates a festival each month. Pagoda festivals are like country fairs and Nat ceremonies are accompanied by a lot of music, dancing and feasting. Apart from the pagoda festivals, the nationalities each have their new years and harvests to celebrate. Families celebrate their sons' entry into the Buddhist Order for a few days or weeks, and daughters are pampered with equally lavish ceremonies to have their ears pierced. Myanmar dress for males consists of a collar-less white shirt with an over



coat and longyi—a sarong-like piece of cloth. Myanmar ladies prefer silk but fine cotton dresses are also very popular for all ages.

Myanmar food has its own special identity. Although it draws on its neighbors, Myanmar food is neither as hot as Thai, nor as spicy as Indian, nor does it resemble Chinese cooking much except in the stir-fry vegetables. The meal is arranged around rice with accompanying dishes of fish, meat, or fowl cooked in an onion and garlic based gravy. Monhinga, the thick fish broth and thin rice noodles, is probably Myanmar's most famous national dish. Running a close second is the highly popular ohn no kauk swe, the coconut-based chicken soup and noodles. Mondhi, particularly from Mandalay, is Myanmar's answer to spaghetti; and kyar zan chet is a chicken broth and vermicelli soup with chunks of chicken, dried mushrooms, and coriander.

**Thailand's** culture is also based largely on Buddhism, but it incorporates influences from what are now the neighboring countries of Cambodia and Myanmar, as well as more distant, enduring cultures of India and the present PRC. As in other GMS countries, the architecture, arts, and literature all reflect a strong Buddhist tradition and this influence is carried through into daily life. The Thai language is from the Tai-Kadai language group, which is closely related to languages spoken in these neighboring countries

and cultures. The largest minority language is the Lao dialect of Isan, used in the northeastern part of the country.

The first thing that visitors to Thailand may notice is the traditional welcome with the words *Sawasdee khrap* by men and *Sawasdee ka* by women, while bowing the head with hands together, the extended fingers pointing upward. Thai cuisine, with its distinctive spices and sauces and use of limes and lemon grass, has become world famous. Thai dishes are almost invariably based on jasmine rice, an aromatic rice that is the main Thai staple food.

**Viet Nam** differs from most of the other GMS countries in its incorporation of Confucian values and ethics, including ancestor worship, having long been influenced by Chinese civilization to the north. Still, about 85% of the population are Buddhists, with some 8% Christian, and the remainder a variety of other religions. Vietnamese culture is said to be among the oldest in Southeast Asia, probably derived mainly from the ancient Bronze Age Dong Son culture. Vietnamese life revolves around the nuclear and extended family. It is not uncommon for three generations to be living together under one roof.

The ao dai, meaning long dress, or a two piece garment, is the most recognizable traditional dress seen in Viet Nam, and though western style clothes are popular, this beautifully styled outfit is



■ **Upper:** School girls at an orchid display at Siam Paragon shopping mall, Bangkok, Thailand. **Lower:** Buddhist Temple in the Grand Palace, Bangkok, Thailand. Buddhism is the major religion across the subregion.



■ **Upper:** Enjoying food al fresco in Ho Chi Minh City, Viet Nam. **Lower:** Rice planting, Viet Nam. Activities associated with rice farming form the basis of much of the subregion's cultures.

still actively worn throughout the country during work, weddings, and national celebrations.

Recently voted by health experts as the world's healthiest food, Vietnamese cuisine mixes grilled meats, fresh vegetables, cold noodles, and all kinds of seafood dishes, spiced with tamarind and chili. Available at all hours of the day, Vietnamese food can be eaten as snacks, in street-side stalls, in budget restaurants, and in hotels. In many cases only the price is the difference because often the tastiest foods come from the most basic kitchens. Soups play a large part in northern cuisine. Pho, Viet Nam's chicken soup, is made with white vermicelli noodles, sliced beef or chicken, bean sprouts, chopped peanuts, hot broth, and mint leaves. Most of the food eaten in central Viet Nam has some link to the imperial kitchens of the Nguyen emperors in Hue. Many of the spices, techniques, and vegetables come straight from the tables of the emperors themselves. In the south, with the lush Mekong Delta so close, the fruit is very fresh and durians, pineapple, mango, and star fruit all come into play in dishes as they come into season, with a choice of many flavors of seafood dishes.

There are several popular forms of folk music. And the 1955–1975 Viet Nam War led to the penning of many patriotic songs that have become anthems for the people.

# Poverty and Environment



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.

Over the first decade of this century, the Greater Mekong Subregion (GMS) has achieved both impressive growth of output per person and large reductions in absolute poverty incidence. Poverty reduction in the GMS is strongly related to growth of real gross domestic product (GDP) or gross national income (GNI) per person. During 2000–2010, economic growth and reduction in poverty incidence were enjoyed by all the GMS countries to a varying extent. The rate of poverty reduction



in the GMS may rise over the coming decade. If past overall rates of GDP growth per person can be maintained, growth will become more poverty-reducing, given the structural changes that seem to be consistent with global economic restructuring.

■ **Upper:** Forest clearing in the Cardamom Mountains, Cambodia. **Lower:** Basket weaving using grass, a livelihood of villagers from the Karen ethnic group in the Western Forest, Thailand.



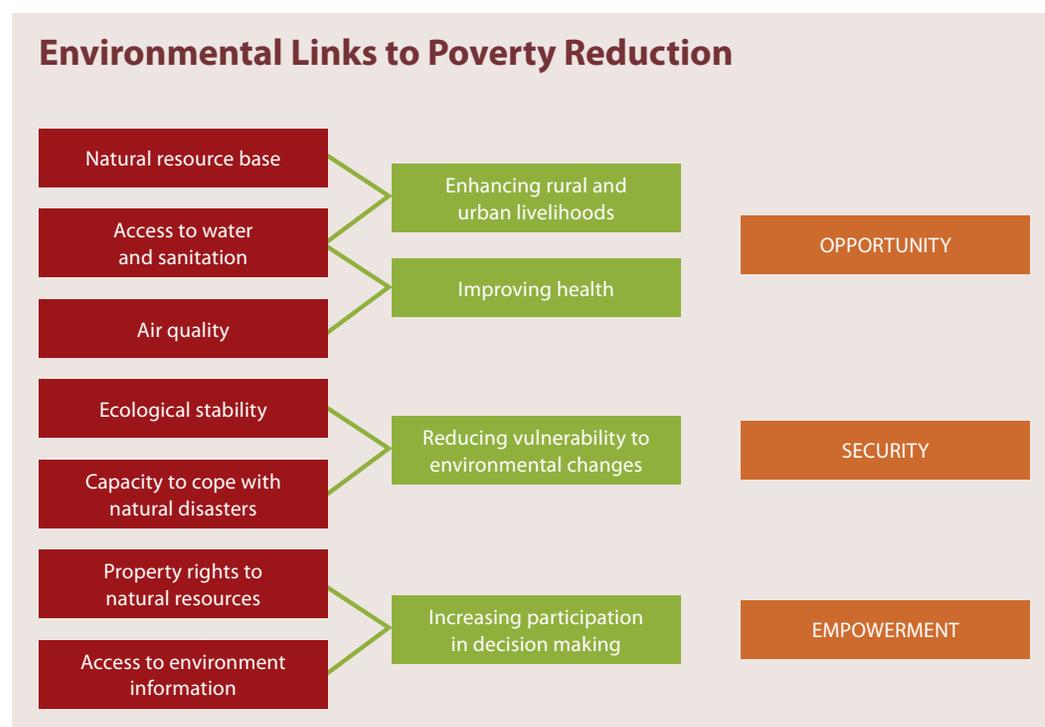
■ Girl assisting her family to make charcoal in Champasak, Lao PDR.

## Links between Poverty and the Environment

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 diagram:

## 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 60%-80% of the populations 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 20.3% (2009) of its total land area. The arable land per capita is now down to 0.073 hectares (2009), one of the smallest ratios in the world. Within the subregion, Cambodia has the biggest ratio, about 0.279 hectares (2009) 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 disproportionately 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 one fifth 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.

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.



■ Upper: Poor family living in a hut by Tonle Sap at Chong Kneas, Cambodia. Lower: Forest clearing for farming in Lao PDR.



■ **Upper:** Rubbish clogs a drainage canal in a peri-urban slum area of Phnom Penh, Cambodia. **Lower:** Fisher with throw net in Tonle Sap, Cambodia.

## The Poor

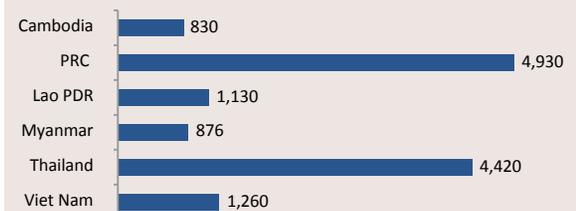
There are still pockets of poor people in the subregion, both in urban and rural areas and income disparities are on the rise. The rural people are often farmers, landless laborers, fishers, or agricultural workers dependent on such natural resources as soil, fish, and forest products for subsistence 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 nonrenewable 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

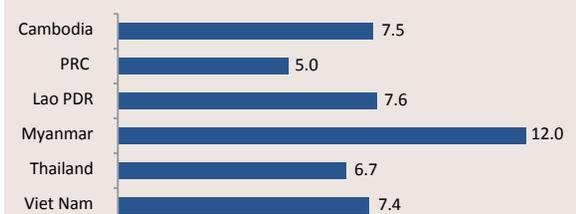
in a way that is conducive to long-term development. Recent studies recommend four main ways to reduce poverty and ensure environmental sustainability: improving governance, protecting and expanding the environmental asset base of the poor, improving the quality of economic growth by including environmental concerns, and reforming international policies in a way that helps poor countries.

### Gross National Income per Capita (\$), 2010-2011



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Note: Myanmar data refers to 2010. Source: World Data Bank. *World Development Indicators and Global Development Finance*. <http://databank.worldbank.org/ddp/home.do?Step=1&id=4> (Accessed 20 July 2012). UNdata. A World of Information. Databases. <http://data.un.org> (Accessed 20 July 2012).

### Share of Poorest Quintile in National Consumption (%), 2007-2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Source: UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010): MDG Data Report*. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx> (Accessed 1 December 2011).



## Progress toward the Millennium Development Goals

Eight goals for poverty eradication and development to be achieved by 2015 were set out by heads of States at the Millennium Summit of the United Nations in September 2000. Some of the goals have more than one target. These goals have been accepted as indicators of development progress. They measure the efforts of the developing countries, of the developed countries that fund development programs, and of the multilateral institutions that help countries carry out the programs.

### The Millennium Development Goals

- Goal 1: Eradicate Extreme Poverty and Hunger
- Goal 2: Achieve Universal Primary Education
- Goal 3: Promote Gender Equality and Empower Women
- Goal 4: Reduce Child Mortality
- Goal 5: Improve Maternal Health
- Goal 6: Combat HIV/AIDS, Malaria, and Other Diseases
- Goal 7: Ensure Environmental Sustainability
- Goal 8: Develop a Global Partnership for Development

The environment is at the heart of these Millennium Development Goals (MDGs). 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 status of some of the targets under the various goals and steps the countries still have to take to achieve the goals.

#### Goal 1: Eradication of Poverty and Hunger

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.

**Target 1.A:** 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 poverty rate of 14% in 2010 was only about half the rate in 2000. However, the overall GMS poverty incidence was around 15% in 2009–2010; 49 million people in the subregion are still poor.



■ **Upper:** Village children near Xepian National Protected Area, Lao PDR. **Lower:** Carrying sand from the Ayeyarwady River, Myanmar.



■ **Upper:** Village land-use planning in Champasak, Lao PDR. **Lower:** The children of a poor family, Champasak.

## Poverty Incidence and Poverty Reduction in the GMS

GMS Entity	Poverty Incidence		Level of Rural and Urban Poverty Incidence (%)			Average Annual Rate of Total Poverty Reduction	
	Value (%)	(year)	Rural (%)	Urban (%)	(year)	Value (%)	(period)
Cambodia	25.8	(2010)	34.5	11.8	(2007)	1.55	(2004–2010)
PRC							
Guangxi	7.5	(2010)	—	—	—	0.43	(2001–2007)
Yunnan	14.1	(2010)	—	—	—	1.55	(2001–2010)
Lao PDR	27.6	(2009)	31.7	17.4	(2008)	1.18	(2003–2008)
Myanmar	25.6	(2010)	29.2	15.7	(2010)	1.30	(2005–2010)
Thailand	8.1	(2009)	10.4	3.0	(2009)	1.43	(2000–2009)
Viet Nam	14.2	(2010)	17.4	6.9	(2010)	0.65	(2004–2010)

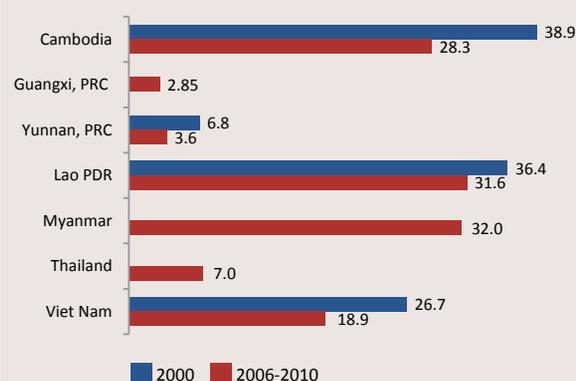
GMS = Greater Mekong Subregion, Lao PDR = Lao People's Democratic Republic, - = not available, PRC = People's Republic of China.  
 Source: ADB. *Asian Development Outlook*, various years. <http://beta.adb.org/publications/series/asian-development-outlook>; Guangxi Bureau of Statistics; Royal Government of Cambodia. 2010. *Achieving Cambodia's Millennium Development Goals*. Phnom Penh; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009–2010): MDG Data Report*. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; Yunnan Poverty Alleviation Office; Viet Nam Ministry of Planning and Investment, General Statistics Office. 2011. *Statistical Yearbook of Viet Nam 2010*. Ha Noi.

**Target 1.C:** 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 this target. Almost a third of children aged below 5 years in Cambodia, Lao PDR, and Myanmar are still malnourished. A fourth of the population of Cambodia and Lao PDR takes in less than the 2,100 calories a day recommended by the World Health Organization.

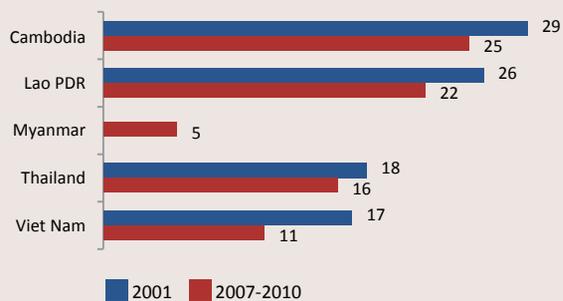
Tackling this problem requires nutrition education, micronutrient supplementation and fortification, higher status and better education for women, increased government commitment to health and nutrition, and an effective health infrastructure. Achieving the goal also requires the sustainable management 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.

## Underweight Children under 5 Years (%), 2000 and 2006-2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Note: 2000 data are not available for Guangxi, Myanmar, and Thailand.  
 Source: Guangxi Bureau of Statistics. 2011. *Monitoring Report on Development Plan of Children in Guangxi 2001-2010*. Nanning; National Institute of Statistics, Directorate General for Health, and ICF Macro. 2011. *Cambodia Demographic and Health Survey 2010*; UN. 2010. *Viet Nam Factsheet for MDGs*. New York; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010): MDG Data Report*. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx> (accessed 19 July 2012); Yunnan Bureau of Statistics. 2011. *Monitoring report on Developmental Plan of Women and Children in Yunnan 2001-2010*. Beijing.

## Proportion of Population below Minimum Level of Dietary Energy Consumption (%), 2001 and 2007-2010



Lao PDR = Lao People's Democratic Republic.

Note: 2000 data not available for Myanmar.

Source: UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010): MDG Data Report*. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>.

## Goal 2: Achieve Universal Primary Education

**Target 2.A:** Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

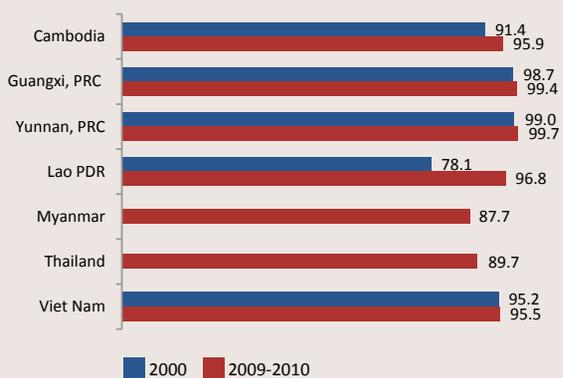
Education is a powerful instrument for reducing poverty and inequality, improving health and social well-being, and laying the basis for sustained economic growth. It is essential for building democratic societies, and dynamic and regionally and globally competitive economies.

Primary school enrollment rates are improving in the subregion. Enrollment rates are high in Guangxi and Yunnan, 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 the subregional countries, except the Lao PDR. It is an especially important goal in Thailand and Viet Nam, where industry contributes more to GDP and the labor force increasingly seeks employment outside agriculture.



## Net Enrollment Ratio in Primary Education (%), 2000 and 2009-2010

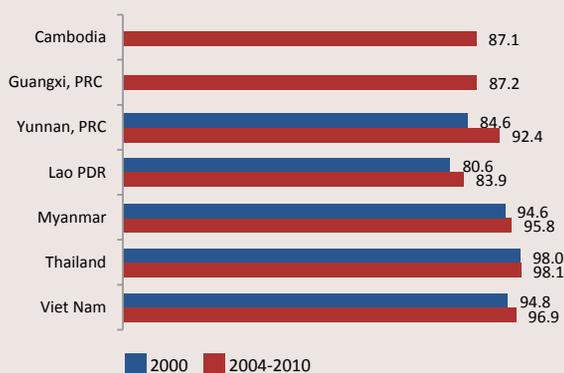


Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: 2000 data not available for Thailand and Myanmar.

Source: Guangxi Bureau of Statistics. 2011. *Guangxi Statistical Yearbook 2011*. Beijing; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010): MDG Data Report*. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; Viet Nam Statistical Office. 2011. *Education in Viet Nam: An Analysis of Key Indicators*. Ha Noi; World Data Bank. *World Development Indicators and Global Development Finance*. <http://datbank.worldbank.org/ddp/home.do?Step=1&id=4>; Yunnan Bureau of Statistics. 2011. *Yunnan Statistical Yearbook 2011*. Beijing.

## Literacy Rate among 15-24-Year Olds (%), 2000 and 2004-2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: 2000 data not available for Cambodia and Guangxi. Yunnan data for 15 years old and above.

Source: Cambodia Ministry of Planning, National Institute of Statistics. 2010. *Cambodia Socio-Economic Survey 2009*. Phnom Penh; Guangxi Bureau of Statistics; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010): MDG Data Report*. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>. Yunnan Bureau of Statistics. 2011. *Yunnan Statistical Yearbook 2011*. Beijing.

■ Upper: Writing lessons at a village school, Champasak, Lao PDR. Lower: Computer classes in Kon Tum Provincial Ethnic High School, Viet Nam.



■ **Upper:** Flight attendant at Ha Noi airport, Viet Nam. There are increasing job opportunities for women in the tourism sector. **Lower:** Learning how to make souvenirs out of natural products, Tenasserim, Thailand.

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

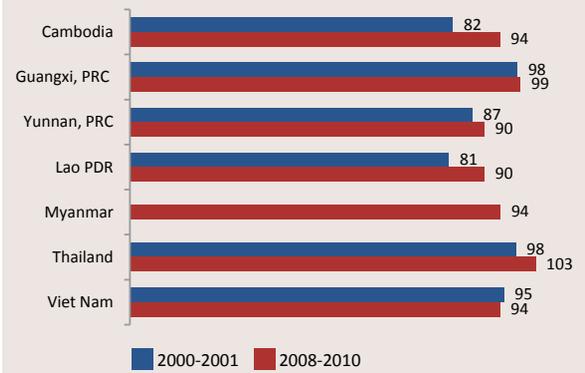
**Target 3.A:** Eliminate gender disparity in primary and secondary education, preferably by 2015, and in all levels of education no later than 2015.

The gap in enrollment between girls and boys has narrowed, most notably in Guangxi, PRC and Thailand. Cambodia, Myanmar, and Viet Nam are also showing improvements. In the Lao PDR and Yunnan PRC, however, there is a difference of 10% 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.

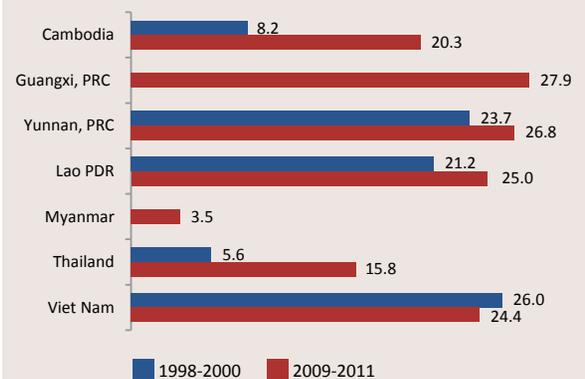
For many women in the subregion, access to education is constrained by time spent on gathering water and fuelwood. Making water and energy readily available will enable them to study and in the long run, avail of employment opportunities outside agriculture.

### Ratio of Girls to Boys in Primary and Secondary Education (%), 2000-2001 and 2009-2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Note: 2000 data is not available for Myanmar. Source: Chinese Educational Statistical Year Book 2000 & 2010; Guangxi Bureau of Statistics. *Guangxi Statistical Yearbooks*. Beijing; UNDP Myanmar, 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010)*; MDG Data Report. Yangon; Viet Nam Ministry of Planning and Investment, General Statistics Office, 2011. *Statistical Yearbook of Viet Nam 2010*. Ha Noi; World Bank.

### Proportion of Seats held by Women in National/Provincial Parliament (%), 1998-2000 and 2009-2012



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Note: 2000 data is not available for Guangxi, PRC and Myanmar. Source: Guangxi Bureau of Statistics; Government of Viet Nam. Election Council, 2011. *Report on the Results of the Elections of Deputies to the 13th National Assembly and People's Councils at All Levels for the 2011-2016 Tenure*. Ha Noi; UNDP, 2011. Human Development Report 2011. New York; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; Yunnan Bureau of Statistics, 2011. *Yunnan Statistical Yearbook 2011*. Beijing.

### Goal 4: Reduce Child Mortality

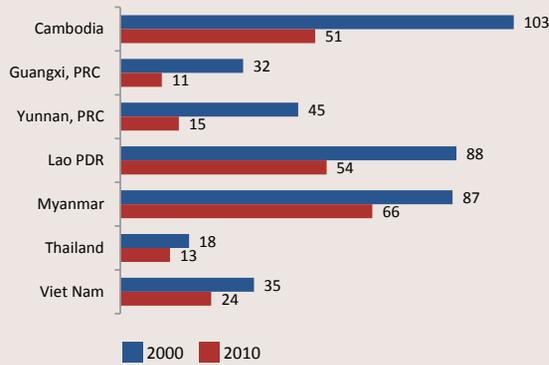
**Target 4.A:** Reduce by two thirds, between 1990 and 2015, the under-5 mortality rate.

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 is a powerful indicator of a country's overall health.

Infant mortality has been substantially reduced in Guangxi and Yunnan, PRC; Thailand; and Viet Nam, but not in Cambodia, Lao PDR, and Myanmar. These countries require more persistent effort and funding support.

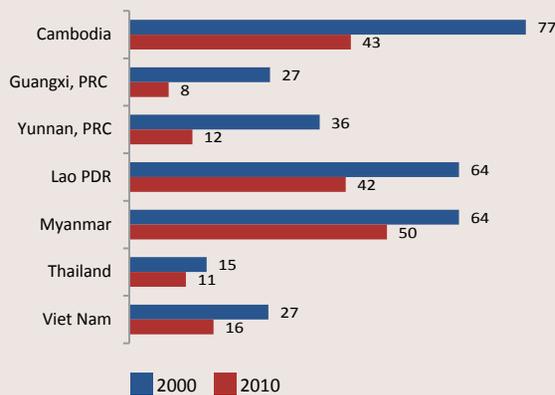
Average life expectancy is now an impressive 76 years in Guangxi and close to 75 years in Thailand and Viet Nam. But life expectancy in high-income countries is still at least 5 years longer.

### Under 5 Years Mortality Rate per 1,000 Live Births, 2000 and 2010



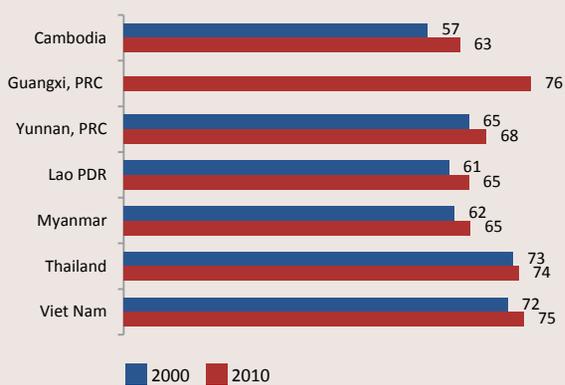
Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Source: Guangxi Bureau of Statistics. 2011. *Monitoring Report on Development Plan of Children in Guangxi 2001-2010*. Beijing; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; Viet Nam Ministry of Planning and Investment, General Statistics Office. 2011. *Statistical Yearbook of Viet Nam 2010*. Ha Noi; Yunnan Bureau of Statistics. 2011. *Monitoring report on Developmental Plan of Women and Children in Yunnan 2001-2010*. Beijing.

### Infant Mortality Rate per 1,000 Live Births, 2000 and 2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Source: Guangxi Bureau of Statistics. 2011. *Monitoring Report on Development Plan of Children in Guangxi 2001-2010*. Beijing; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; Viet Nam Ministry of Planning and Investment, General Statistics Office. 2011. *Statistical Yearbook of Viet Nam 2010*. Ha Noi; Yunnan Bureau of Statistics. 2011. *Monitoring report on Developmental Plan of Women and Children in Yunnan 2001-2010*. Beijing.

### Life Expectancy at Birth (Years), 2000 and 2010



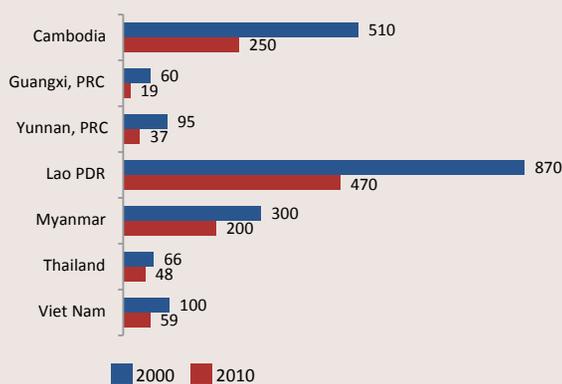
Guangxi National Economy. Statistical Analysis. <http://www.gxtj.gov.cn/show.asp?typid=81&id=9483,2005> data:<http://www.eai.nus.edu.sgCWP74.pdf>; UNDP. 2011. *Human Development Report 2011*. New York; World Data Bank. *World Development Indicator and Global Development Finance*. <http://databank.worldbank.org>. Accessed on 20 July 2012; *Yunnan Statistical Yearbook 2011*.



### Goal 5: Improve Maternal Health

Overall, maternal health in the subregion has improved. But in 2010, 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.

### Maternal Mortality Ratio per 100,000 Births, 2000 and 2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Source: Guangxi Bureau of Statistics. 2011. *Monitoring Report on Development Plan of Children in Guangxi 2001-2010*. Beijing; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; Yunnan Bureau of Statistics. 2011. *Yunnan Statistical Yearbook 2011*. Beijing.

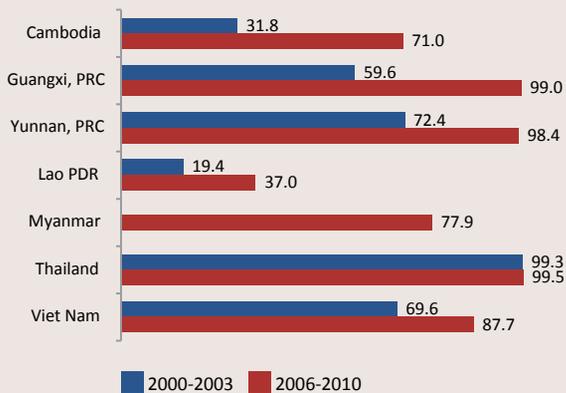


■ Upper: Mother and child care, Viet Nam. Lower: Mother and child from the Katu ethnic minority in the Central Annamite Mountains, Viet Nam.



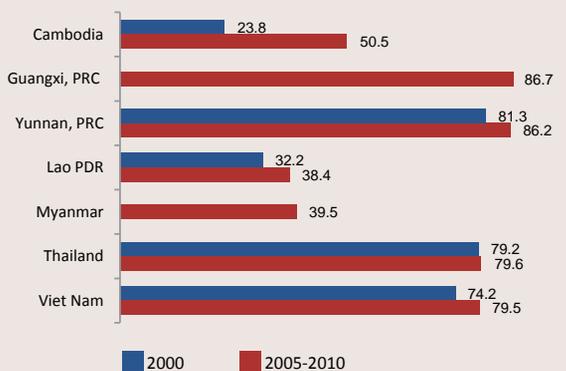
■ **Top:** Hmong family in Lao PDR. **Middle:** Poor family living by the Ayeyarwady River in Myanmar. **Bottom:** Solid waste in a Phnom Penh slum area, Cambodia.

### Births Attended by Skilled Health Staff (%), 2000-2003 and 2006-2010



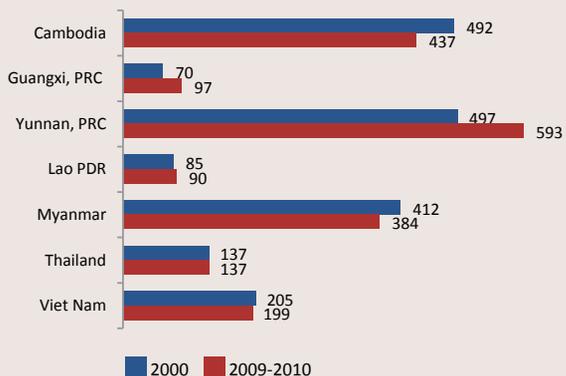
Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Note: 2000 data not available for Myanmar. Source: National Bureau of Statistics of China. 2010. *China Health Statistical Yearbooks 2004 and 2011*. Beijing; Guangxi Bureau of Statistics. 2011. *Monitoring Report on Development Plan of Children in Guangxi 2001-2010*. Beijing; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010)*; MDG Data Report. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; World Bank.

### Contraceptive Prevalence Rate among Women Aged 15-49 (%), 2000 and 2005-2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Note: 2000 data not available for Guangxi and Myanmar. Source: Guangxi Bureau of Statistics. 2010. *Monitoring Report on Developmental Plan of Woman in 2009*. Beijing; National Institute of Statistics, Directorate General for Health, and ICF Macro. 2011. *Cambodia Demographic and Health Survey 2010*; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010)*; World Bank; Yunnan Bureau of Statistics. 2011. *Monitoring report on Developmental Plan of Women and Children in Yunnan 2001-2010*. Beijing.

### Incidence of Tuberculosis (TB) per 100,000 Persons, 2000 and 2009-2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Source: National Bureau of Statistics of China. 2010. *China Health Statistical Yearbook 2010*. Beijing; Guangxi Public Health Department; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>; Yunnan Tuberculosis Prevention and Control Plan 2002-2010.

## Goal 6: Combat HIV/AIDS, Malaria, and Other Diseases

**Target 6a:** Have halted by 2015 and begun to reverse the spread of HIV/AIDS.

HIV is most prevalent in Cambodia and Myanmar at nearly twice the rate of occurrence in Thailand, and is least common in Lao PDR. 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 6c:** Have halted by 2015 and begun 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 2010, tuberculosis was most prevalent in Cambodia, Myanmar, and Yunnan, where it afflicted more than 400 out of every 100,000 persons (0.4% 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.

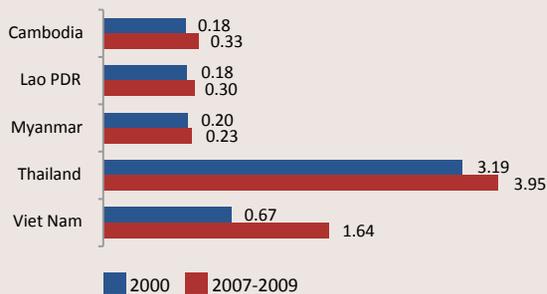
## Goal 7: Ensure Environmental Sustainability

**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.

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 2009, nearly 431 million tons of carbon dioxide, about 1.4% of the worldwide total, came from the subregion excluding Guangxi and Yunnan PRC. Thailand contributed 63% of this amount; Viet Nam, about 33%; Myanmar, about 3%; and Cambodia and the Lao PDR together, 1.5%.

### Carbon Dioxide Emissions per Person (ton), 2000 and 2007-2009



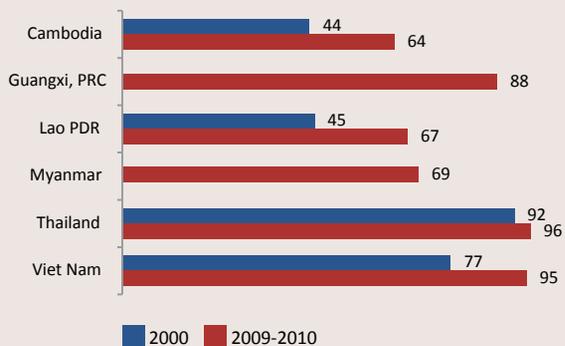
Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Source: United Nations. Millennium Development Goals Indicators. <http://unstats.un.org/unsd/mdg/Data.aspx>.

**Target 7c:** Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation.

Safe water was accessible to more people in most subregional countries except Yunnan, PRC in 2010 than in 2000, but not yet for about 39 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 millimeters 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 11.6% to GDP, and only 7% is used for domestic purposes.

### Proportion of Population with Access to Improved Water Source (%), 2000 and 2009-2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Note: 2000 data not available for Guangxi and Myanmar.  
 Source: Guangxi Bureau of Statistics. Monitoring Report on Development Planning of Children in Guangxi, 2007 and 2009. Beijing; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010): MDG Data Report*. Yangon; United Nations. Millennium Development Goals Indicators. <http://unstats.un.org/unsd/mdg/Data.aspx>.



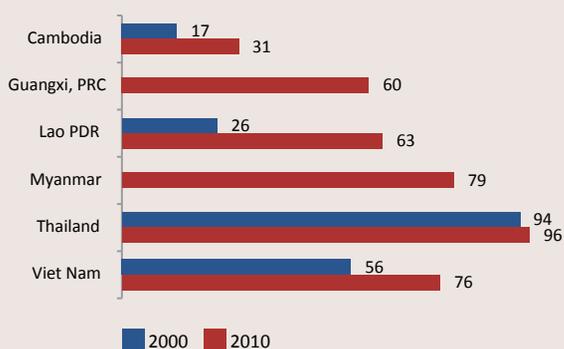
In 2010, 69 million people in the subregion excluding Yunnan, PRC had no access to improved sanitation. This is in addition to the problem of access to clean water, adequate housing, and problems of peace and order. Myanmar, Thailand, and Viet Nam have made significant improvements. Guangxi and the Lao PDR still need to improve access to sanitation. Cambodia lags behind the rest and faces the biggest challenges.

■ **Upper:** Forest nursery in the Tenasserim mountains, Thailand.  
 ■ **Lower:** A family enjoys freshwater access through a development assistance project, Cambodia.



■ Children of the Khmer Daeng ethnic minority in the Cardamom Mountains, Cambodia.

### Proportion of Population with Access to Improved Sanitation (%), 2000 and 2010



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Note: 2000 data not available for Guangxi, PRC and Myanmar.  
 Source: Addressing climate change in Guangxi; UNDP Myanmar. 2011. *Integrated Household Living Conditions Survey in Myanmar (2009-2010): MDG Data Report*. Yangon; United Nations. *Millennium Development Goals Indicators*. <http://unstats.un.org/unsd/mdg/Data.aspx>.

### 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 improvement, 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 69 million people in the subregion.

This goal ensures that global action creates an environment where each person 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.