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INCLUSIVE DEVELOPMENT IN THE GREATER MEKONG SUBREGION: AN ASSESSMENT

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Chapter 1
Growth, Development
and Inclusion in the
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An Assessment

Chapter 1

Growth, Development and Inclusion in the Greater Mekong Subregion: An Assessment

by Srinivasa Madhur and Jayant Menon*

1. INTRODUCTION

The Greater Mekong Subregion (GMS) is a natural geographic area linked by the Mekong River. It covers the five Southeast Asian countries – Cambodia, Laos, Myanmar, Thailand and Vietnam – along with the Yunnan province and the Guangxi Zhuang autonomous region of China. The subregion covers about 2.6 million square kilometres of land and is home to around 326 million people with an average per capita income of about USD1500 at current exchange rates. Although only part of China belongs to the subregion, the subregion’s members, including China, are commonly referred to as the GMS countries.

In the last couple of decades, most GMS countries have experienced strong economic growth. Indeed, three GMS countries – Thailand, China and Vietnam – belong to the global list of 16 post-war high-growth economies, i.e. those that grew at an average annual rate of more than 7 percent for 25 years or more. Thailand posted that kind of high growth for 37 years between 1960-1997, and China has done so for more than 50 years since 1961 (Commission on Growth and Development 2008). In 2011, Vietnam joined this globally coveted country club. Both Cambodia and Laos – which have now grown at above 7 percent per year for about 20 years – are also on course to join the high-growth country list in the next few years. Both of these countries are now included in the select list of what the IMF has recently referred to as the dynamic low-income countries that started their economic take-offs in the 1990s (IMF 2013). Myanmar, too, with its recent opening-up initiatives, is now beginning to explore and articulate visions of strong growth in the future.

Global development experience indicates that strong economic growth is a prerequisite for fostering inclusive development – a process in which the fruits of growth and development are shared equitably among the different segments of the population in a society. However, it also highlights that growth in itself is not a sufficient condition for such equitable socioeconomic development. Growth does not automatically trickle down to all the segments of the population, especially to the poorer ones; the benefits are not necessarily shared by society at large. In modern parlance, growth may not be inclusive. In its extreme form, growth may be so non-inclusive that it benefits mostly the people in the top income/wealth brackets and bypasses the rest. In less extreme cases, growth may not be inclusive enough in that it may benefit the richer segments of a society more

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than the poorer segments. Growth inclusion or non-inclusion is thus a matter of degree. Global development experience indicates that countries that experience less-inclusive growth also find it difficult to sustain strong growth over the long haul (ADB 2012a).

Non-inclusive growth may be socially undesirable too, as it often leads to the perpetuation of economic inequality and social polarisation across generations through “political capture”, “privilege cascade” and “opportunity hoarding” by the rich (Oxfam 2014). It may not even be socially acceptable, in which case it could lead to social unrest and civil conflict (Basu 2011; Sachs 2011; Stiglitz 2012; WEF 2014). In very basic terms, rising inequalities can pose a risk to political and social stability, undermining the very basis of growth itself.

Moreover, there is no guarantee that countries achieving strong growth necessarily make substantial progress in the non-income dimensions of development (UNDP 2010). Consequently, even strong growth might not necessarily lead to equitable improvements in access to health, education, and even basic necessities such as safe drinking water and sanitation, affordable electricity and modern cooking fuels.

Lack of inclusion in these non-income dimensions often constrains human capital formation and therefore growth itself (ADB 2012a). Indeed, achievements in terms of health, education and other necessities are also thought to be ends in themselves in the development process. For this reason, development inclusiveness goes beyond inclusiveness in growth alone to embrace both the income and the non-income dimensions.

The multi-dimensional nature of development inclusiveness is aptly summarised by Takehiko Nakao, President of the Asian Development Bank: “For growth to be sustainable, it also needs to be inclusive... we must address issues of income inequality, access to good education and health services, gender equity and provision of social safety nets... Inclusive growth is ultimately an issue of empowerment – a concept much emphasized by Nobel Laureate Amartya Sen. Empowerment is not just a means of development, but should also be a primary objective of development.” (ADB 2013a)

The objective of this paper is to assess how far the GMS countries have come towards achieving such a broader goal of development inclusiveness – not just the income dimension of inclusiveness, but also its non-income dimensions. The paper addresses two key questions: (i) How inclusive has growth and development been in the GMS countries? (ii) Based on the emerging patterns of development inclusiveness in these countries, what are the broad lessons and emerging challenges for sustaining growth, development and inclusiveness in the future? In so doing, it examines empirical evidence across a wide range of macroeconomic and sectoral development indicators.

The paper focuses mostly on *outcomes* in both the income and non-income dimensions of inclusiveness. The aim is to *systematically document* the key trends in inclusiveness, arrive at an *assessment* of development inclusiveness in the GMS countries in its various dimensions, and identify *broad lessons and challenges* for the future. It does not purport to *explain the trends* in development inclusiveness over time or across GMS countries.

Nor does it provide *specific policy options* for achieving better inclusiveness in the GMS countries.

In examining the income dimensions of inclusion, the paper looks at the pace and the structural/sectoral pattern of growth (i.e. the changing balance between agriculture, industry and the service sector); trends in poverty, income distribution and income polarisation between the rich and the poor; and overall human development (see Section 3). In evaluating the non-income dimensions of inclusiveness, several indicators structured around four broad groups to capture the main features of health, education, gender and basic services are tracked. Section 4 examines progress in improving people's health among the GMS countries. Section 5 looks at how the GMS countries have fared in educating their people. Section 6 focuses on inclusiveness with regard to gender equality and people's access to necessities (such as improved sanitation, safe drinking water, electricity, modern cooking fuel and social protection). As a prelude to the empirical assessments of inclusiveness in Sections 3 to 6, Section 2 dwells on the conceptual underpinnings of inclusive growth – the core of development inclusiveness – and how it is related to other similar concepts that are often used in the development literature. Finally, Section 7 presents the paper's key conclusions.

2. INCLUSIVE GROWTH: CONCEPTUAL UNDERPINNINGS

Although there is no agreed formal definition of “inclusive growth”, there is a growing consensus on the basic elements that need to be present to distinguish it from other related concepts, such as pro-poor growth. A commonly accepted definition treats inclusive growth as growth that not only creates opportunities but also makes those opportunities accessible to all (Ali and Zhuang 2007). Following this definition, growth is inclusive when it allows all members of a society to participate in and contribute to the growth process on an equal basis, regardless of their individual circumstances. In this sense, inclusive growth must both generate, and be driven by, productive and sustainable jobs. Inclusive growth recognises that economic growth and social policy cannot be treated separately. The persistence of growing inequities and exclusion suggests that they can no longer be treated as an unavoidable residual outcome of a market-led growth process to be tackled separately. Inclusive growth must, therefore, encompass aspects of equity, equality of opportunity, and protection against employment transitions and disturbances.

Furthermore, inclusive growth refers to both the pace and pattern of growth, and is both an outcome and a process. On the one hand, it requires that everyone participates in the growth process, both in organising its progression and in generating the growth itself. On the other hand, it requires that everyone shares equitably in the benefits of growth. Therefore, inclusive growth implies participation and benefit sharing. Participation without benefit sharing makes growth unjust, and sharing benefits without participation prevents it from being a desirable welfare outcome. As the idea of inclusive growth gains increasing recognition, it is now acceptable even for so-called mainstream economists to address inequality in the design stage of growth programmes and policies, rather than considering it only as an afterthought (ADB 2012a).

In understanding the totality of “inclusion”, the recognition has grown that other forms of inequity can exist and need to be addressed, sometimes independently. In poor countries in particular, educational capabilities and skills development, as well as health conditions and outcomes, are strongly skewed in favour of the richer segments of the population. While inclusive growth stresses the need to improve access to both health and education, there is a need also to ensure that removing barriers to access translates into results in the form of better outcomes. A healthy and skilled workforce is vital to sustaining a country’s growth. The same applies to a host of related areas, such as basic sanitation and clean drinking water. Improving outcomes in all of these areas are not only desirable ends in themselves, they are also critical for achieving robust, sustainable growth.

2.1. How Different is it from Pro-poor Growth?

In the past, discussion about the impact of growth on poverty and inequality has focused on concepts such as broad-based or pro-poor growth (Tandon and Zhuang 2007). How does inclusive growth relate to these concepts? Inclusive growth advances these concepts by adding access and opportunities, but it is more closely related to an absolute, rather than a relative, definition of pro-poor growth.

Under the absolute definition, growth is considered to be pro-poor as long as poor people benefit in absolute terms, as reflected in some agreed measure of poverty (Ravallion and Chen 1997), regardless of the benefit achieved by others. In contrast, in the relative definition, growth is “pro-poor” only if the incomes of poor people grow faster than those of the population as a whole, so that inequality declines. However, while absolute pro-poor growth can be the result of direct income redistribution schemes, redistribution does not suffice for growth to be inclusive. Productivity must also be improved and new employment opportunities created. In short, inclusive growth is about increasing the pace of growth and enlarging the size of the economy, while at the same time levelling the playing field for investment and expanding and ensuring fair access to productive employment opportunities (Ali and Zhuang 2007).

Whichever concept of pro-poor growth – absolute or relative – is adopted, the difference between pro-poor growth and inclusive growth is obvious. The former refers to growth with poverty reduction, whereas the latter refers to growth with inequality reduction. Since poverty (as it is generally measured) is an extreme form of inequality, inclusive growth is a much broader concept than pro-poor growth.

2.2. Does Growth Increase Inequality?

Since inclusive growth is built on the twin pillars of strong growth and inequality reduction, there is a legitimate concern as to whether there is a trade-off between growth and inequality. The conventional view is that rapid economic growth in the early stage of development, while able to make significant inroads into poverty, also tends to be associated with rising income inequality (Kuznets 1955). Indeed, rising inequality in developing countries, as they move from being predominantly agricultural to being more industrial, is postulated by the Kuznets curve, or inverted U-hypothesis. While the rise in income inequality in the process of industrialisation, driven by convergence and rapid

growth, is widely evident – as posited by Kuznets – the persistence of such inequality has raised further questions.

How can these adverse side effects of rapid growth on inequality be avoided, or at least minimised? A good starting point in addressing this question would be to identify the factors driving the inequality. There are no general theories, as the relationship may be region or even country specific. A recent study on inequality in Asia identifies three processes as the key drivers for the rising inequality in developing Asia: technological change, globalisation, and market-oriented reforms (ADB 2012a). All three are also considered the primary drivers of economic growth, suggesting that many of the factors driving rapid growth can also be linked to rising inequality. These forces have tended to favour owners of capital over labour, high-skilled over low-skilled workers, and urban and coastal areas over rural and inland regions. All three factors are perhaps present among the GMS countries to varying degrees, although globalisation and market-oriented reforms are the dominant ones.

Even so, reducing growth in order to reduce inequality is not a relevant policy option. Similarly, reversing the trend towards greater openness and market orientation is not the way to go to address inequality if these factors are the main ones driving it. If convergence at the expense of internal cohesion is seen as a hollow victory, then so, too, must the preservation of internal cohesion at the expense of convergence. Clearly, the challenge lies in striking a balance between the two, where convergence can continue without further threatening internal cohesion.

2.3. Does Inequality Hinder Growth?

There is another reason why rising inequality must be addressed. We need to recognise that the link between inequality and growth can run in both directions. So far, we have focused on the impact that growth can have on inequality. But both theory and empirical evidence point to a number of ways in which the level of inequality can affect growth.

High and/or rising inequality and polarisation pose risks to political and social stability. The persistence of inequality can trigger social and political tensions and even lead to conflict, as is currently evident in parts of Asia and in the Middle East. Political stability and social cohesion are factors that contribute to sustained growth, and each of these factors can be adversely affected by income and social inequality. A deficiency in these two areas can lead to lower growth and lower effectiveness in responding to economic crises (Rodrik 1999).

There is little disagreement that rising inequality can result in political and social instability, and that political and social instability can in turn negatively affect growth. The dispute seems to revolve around the other channels, including economic, through which rising inequality can affect growth and its sustainability. There are theoretical arguments that support both a positive and negative relationship.

There are a number of reasons to expect a negative relationship or to expect high inequality to reduce growth. One argument is that, due to credit market imperfections or

other institutional barriers, poor households tend to under-invest in higher education for their children. High levels of inequality can create institutions and cultures that favour those who have significant economic and political influence; that is, income inequality entrenches discrimination in other areas such as access to healthcare and education, thereby reinforcing and perpetuating inequality. High inequality is then bad for growth because (given the diminishing marginal returns on education) the average productivity of the human capital in an economy with high levels of inequality is low. This is because the poor under-invest in human capital even when return on their investment would have been high, while the rich over-invest in human capital even as the return on their investment becomes progressively lower.

Yet, the same credit market imperfections could make inequality good for growth. This can occur if investment and innovation require large start-up costs relative to a country's median income. In such a case, inequality in the form of capital concentration would help to increase investment and thus raise economic growth. This argument, however, works best in a closed economy setting. Once we allow for access to foreign savings, either in the form of debt or equity, the need for domestic capital concentration diminishes. If this is true, inequality is no longer required for growth in rich countries as long as the economy is open. Alternatively, access to foreign capital is even more important in poor countries if the negative impact of inequality on growth is to be ameliorated (Menon 2013).

As with theory, the empirical evidence on the relationship between inequality and growth is mixed. Barro (2000) finds little overall relationship between income inequality and rates of growth and investment when tested against a broad panel of countries. When the sample is broken down into poor and rich countries, however, higher inequality is found to retard growth in poor countries and encourage it in richer ones. Initial conditions such as the level of per capita incomes therefore appear to matter in determining this relationship. A number of other studies tend to provide support for a negative relationship in cross-country regressions (Alesina and Rodrik 1994; Persson and Tebellini 1994). More recently, the study by the Growth Commission (Kanbur and Spence 2010) shows that growth strategies cannot succeed without a commitment to equality of opportunity; that is, giving everyone a fair chance to participate in the growth process and to enjoy the fruits that follow. Berg *et al.* (2008) find that inequality is also an obstacle to sustainable growth, since growth spells tend to be shorter in countries with greater inequality.

On balance, it would be fair to conclude that the evidence tends to favour a negative rather than a positive relationship. Therefore, both theory and evidence would suggest that addressing inequality is important for sustaining growth, and ensuring internal cohesion is necessary for convergence to continue in the future. Indeed, growth and equality should not be seen as trade-offs, but as part of a virtuous circle. More economic opportunities for the poorer people, when not at the expense of other groups in society, can lead to higher growth, which in turn can bring about further opportunities.

2.4. Does Inequality Beget More Inequality?

If inequality can be viewed as bad for growth, then persistent and/or rising inequality must be even worse for growth. Indeed, there are studies suggesting that, left unaddressed, inequality begets more inequality. This view stems from the literature on the role of “institutions” in the growth process. Although their role has long been recognised, their prominence has been emphasised more recently, with some even citing them as the ultimate determinants of growth (Acemoglu and Robinson 2012). High levels of inequality can create institutions and cultures that favour those who have significant economic and political influence, thereby perpetuating the cycle of inequality and aggravating the social tensions that follow. That is, income inequality entrenches discrimination in other areas such as access to healthcare and education, which reinforces and perpetuates inequality. In contrast, greater equity can help to create influence for a larger group of people, and this can shape institutions that will promote the interests of even more members of the economy, reducing the sense of exclusion and polarisation.

For instance, “chronic” disparities in power, wealth and status among different socioeconomic groups are perpetuated by economic, political, and sociocultural mechanisms and institutions (Bourguignon *et al.* 2006). The capture of political power by an elite leads to political inequality and aggravates the initial inequality in endowments and opportunities. Apart from path dependency, or hysteresis that suggest asymmetric effects that limit the ease of reversing high levels of inequality, the process of addressing inequality can also lead to undesirable outcomes. Redistribution efforts can create disincentives for investment by raising taxes on those making the investments, dampening growth in the long run. On the other hand, economic elites may turn to corruption in the face of redistribution so as to maintain the status quo, which hurts the credibility of institutions and is also likely to decrease growth (Alesina and Rodrik 1994). This suggests that it is even more important that governments pursue a pattern of growth that limits the negative consequences on the distribution of income that results from it.

3. INCOME INCLUSIVENESS

In assessing the income dimensions of inclusiveness, this paper looks at empirical evidence on five key indicators across the GMS countries: per capita income, structure of the economy, poverty, income/consumption inequality/polarisation, and overall human development.

3.1. Per capita Income

In 1995, just three years after the GMS countries started their cooperation project, Thailand was their richest member, with a real per capita gross national income (GNI, at 2005 prices) of USD5567 (Table 1). Although reliable data on Myanmar’s income for the 1990s is not available, indicators of economic activity that are available suggest that, by the mid-1990s, it was perhaps the poorest GMS country. Seventeen years later, although Myanmar remains the poorest, the region has seen significant convergence in real per capita incomes. China has now replaced Thailand as the richest GMS country. At close to USD8000, China’s real per capita GNI (at 2005 prices) in 2012 was higher than

Thailand's, whereas in 1995 China's real per capita GNI was only one-third of Thailand's level (Table 1). The more than quadrupling of China's per capita income during 1995-2012, compared with Thailand's 40 percent increase, has been the highest inter-country income convergence posted among the GMS members.

Table 1: Income Convergence – Real per capita Gross National Income (GNI, PPP\$ at 2005 prices)

Country	Per Capita GNI		
	1995	2012	Multiple (2012/1995)
Cambodia	797	2095	2.6
Laos	1081	2435	2.3
Myanmar	NA	1817	NA
Vietnam	1218	2970	2.4
Thailand	5567	7722	1.4
China	1818	7945	4.4

Source: UNDP-Human Development Report 2010, 2013

Although less impressive than China, other countries have also recorded significant income convergence with Thailand. In 1995, Cambodia's per capita GNI was about 14 percent of Thailand's level; by 2012, that ratio had almost doubled. Both Laos and Vietnam have achieved similar narrowing of their income gaps. Despite this convergence, however, the CLMV (Cambodia, Laos, Myanmar and Vietnam) countries as a group remain substantially behind Thailand. The richest country among them, Vietnam still has a per capita income less than 40 percent of Thailand's level. This indicates that there is substantial scope for further income convergence between the CLMV countries and both Thailand and China. While the onus of closing this income gap rests squarely on CLMV countries adopting appropriate national development strategies and policies, collaboration among the GMS countries and at the broader ASEAN and East Asian levels could play a complementary role in enabling the CLMV countries to narrow their development gaps with Thailand and China.

3.2. Structure of the Economy

Income convergence has been accompanied by convergence in the structure of GMS economies. Vietnam is a case in point. In 1999, agriculture accounted for about 32 percent of Vietnam's gross domestic product (GDP) at constant prices, but by 2011 that share had been halved (Table 2). Similar structural changes in output have occurred in both Laos and Cambodia. Even in Myanmar – the GMS country that has seen the least structural change in the past decades – agriculture's share in output seems to have declined from 45 percent in the 1990s to about 31 percent in 2012 (ADB 2013b). Despite these convergences, the structural transformations of the CLMV countries are far from complete. For example, in both Thailand and China agriculture now accounts for only about 10 percent of GDP, indicating that the CLMV countries have some way to go in terms of structural change. Interestingly, the structure of output in China's

Yunnan province is akin to that of Vietnam, implying that Yunnan has a long way to go to structurally converge with its more prosperous counterparts within China and within the GMS more generally.

Table 2: Structural Convergence (% of GDP – Constant Prices – Agri./Ind./Service)

Country	Initial year	Latest year
Cambodia (1993-2011)	46/13/35	25/27/41
Laos (1995-2010)	54/21/25	28/33/39
Vietnam (1999-2010)	32/25/43	16/42/42
Thailand (1995-2009)	10/40/50	10/40/50
China (1993-2010)	20/46/34	10/47/43
Yunnan (2000-2010)	20/43/37	15/43/42

Source: GMS-DAN country studies

As the structure of output changes, so will the employment structure of these countries. All GMS countries have witnessed a significant decline in the share of agricultural employment (Table 3). Yet agriculture still accounts for as much as 72 percent of employment in Laos, about 62 percent in Cambodia and almost 50 percent in Vietnam – much higher than in Thailand and China. Interestingly, although the structure of output of China's Yunnan province is comparable to that of Vietnam, its employment structure more closely resembles that of Cambodia. As the CLMV countries continue to industrialise, a further reduction in the share of agriculture in their output and employment towards levels now prevalent in China and Thailand is likely to occur. Such structural changes could contribute to enhanced inclusiveness of growth, as many of those who are now dependent on low-paid agricultural jobs could shift to more productive and better-paid jobs in the industrial and service sectors. At the same time, even those who remain in agriculture are more likely to be engaged in more productive and higher paying agricultural activities.

Table 3: Structural Convergence (% of employment – Agri./Ind./Serv.)

Country	Initial year	Latest year
Cambodia (1993-2011)	80/2/17	62/10/28
Laos (1995-2011)	85/4/11	72/8/20
Vietnam (1999-2010)	69/15/16	48/22/30
Thailand (1993-2011)	57/17/26	38/21/41
China (1993-2010)	56/23/21	36/28/36
Yunnan (2000-2010)	74/9/17	59/13/28

Source: GMS-DAN country studies

3.3. Poverty

People who live in poverty are often defined as those who earn/consume a minimum amount of food and other basic necessities: this is an extreme form of economic inequality. Therefore, the initial steps towards making growth more inclusive should begin by reducing poverty – making growth more pro-poor. All the GMS countries have achieved significant reductions in poverty, whether measured using individual national poverty lines or the more standardised international poverty lines. The poverty headcount rates using the national poverty lines now range from 2 percent in China to 28 percent in Laos (Table 4).

Table 4: Progress in Poverty Reduction – Headcount % (National)

Country	Initial yr.	Final yr.	pp. per yr.
Cambodia (1993-2011)	45	19.8	-1.40
Laos (1993-2008)	46	27.6	-1.23
Vietnam (1998-2010)	37.4	14.2	-1.93
Thailand (1988-2010)	42.2	7.8	-1.56
China (2003-2010)	6.6	2	-0.66
Yunnan, China (2003-2008)	8.2	5.6	-0.52

Source: GMS-DAN country studies and national sources

Using the well-known USD1.25 a day international poverty line also reveals substantial annual reductions in poverty, albeit varied across countries. By 1990, Thailand had reduced the USD1.25 a day poverty rate to about 12 percent. Excluding Thailand, in the early 1990s, poverty rates ranged from 49 percent in Cambodia to 64 percent in Vietnam; China's poverty rate, then at 60 percent, was closer to Vietnam's, while Laos' rate at 56 percent stood in the middle of the range (Table 5). Since then, Vietnam has posted an impressive annual reduction in poverty at the rate of more than 3 percent, followed by China, Cambodia, and Laos, in that order.

Latest available data indicates that the USD1.25 a day poverty rate is negligible in Thailand. Outside of Thailand, it now ranges from about 13 percent in China (closer to Thailand's rate in 1990) to 34 percent in Laos (even higher than Myanmar's rate in 2005). It appears then that since the early 1990s, growth has been most pro-poor in Vietnam and China, while it has been the least pro-poor in Laos. In comparison, Cambodia's growth has been moderately pro-poor – a result consistent with more detailed analysis of the pro-pooriness of the country's growth (Roth and Lun, chap. 2). Given this, among the GMS countries, the task of reducing extreme poverty in the future seems to be the most challenging for Laos and less so for China, Vietnam, Cambodia and Myanmar, in that order.

Table 5: Progress in Poverty Reduction – Headcount % (USD1.25-a-day)

Country Name	Initial yr.	Final yr.	pp. per yr.
Cambodia (1994-2009)	48.6	18.6	-2.00
Laos (1992-2008)	55.7	33.9	-1.36
Myanmar (2005-2010)	32.1	25.6	-1.30
Vietnam (1993-2008)	63.7	16.9	-3.12
Thailand (1990-2010)	11.6	2	-0.48
China (1990-2008)	60.2	13.1	-2.62

Source: ADB 2012b; World Bank-World Development Indicators dataset 2013; GMS-DAN country studies; CDRI 2013; national sources

In addition to reducing extreme poverty, GMS countries also seem to have made significant progress in combating a broader measure of poverty. Data on such a measure – e.g. using a higher USD2 a day consumption norm – is available only for recent years for most GMS countries. It is difficult to track long-term trends in poverty using such a higher poverty line. Available data shows that by 2004, Thailand had already brought down the USD2 a day poverty rate to about 12 percent, while around that time the comparable figures outside of Thailand ranged from about 50 percent in China and Vietnam to 77 percent in Laos, with Cambodia’s 68 percent lying closer to the higher end of the range (Table 6).

Table 6: Progress in Poverty Reduction – Headcount (USD2-a-day)

Country	Initial yr.	Final yr.	pp. per yr.
Cambodia (2004-2009)	68.2	49.5	-3.74
Laos (2002-2008)	76.9	66	-1.82
Vietnam (2006-2008)	48.1	43.4	-2.35
Thailand (2004-2010)	11.5	4.1	-1.23
China (1990-2008)	84.6	29.8	-3.04
China (2002-2008)	51.2	29.8	-3.57

Source: World Bank-World Development Indicators 2010, 2012, WDI dataset 2013; CDRI 2013

Since then, the USD2 a day poverty rate has declined fastest in Cambodia at an annual rate of 3.7 percent, followed by China, Vietnam and Laos. As a result, outside of Thailand, the USD2 a day poverty rate now ranges from about 30 percent in China to about 66 percent in Laos, with Vietnam and Cambodia falling in between. It appears that in terms of the higher poverty line of USD2 a day, among the GMS countries (excluding Thailand), growth has been the most pro-poor in Cambodia, the least pro-poor in Laos, with China and Vietnam somewhere in the middle. Taking into account the latest available figures, the task of reducing the USD2 a day poverty rate in future seems to be most challenging for Laos and somewhat less so for Cambodia, Vietnam and China.

Within these overall declining trends in poverty, a few noteworthy features of inclusion deserve special mention. First, along with the decline in the headcount rates of national

poverty, both the poverty gap and its severity have also come down. This is true even in Laos, which has seen the least decline in headcount poverty rate among the GMS countries – where the national poverty gap fell from 11 percent in 1992-93 to 6.5 percent in 2007-08 and the severity index was halved during the same period (Nolintha *et al.*, chap. 3).

Second, poverty rates tend to be higher in rural than urban areas in all the GMS countries. Take the case of Vietnam, a country that has been most successful in poverty reduction. The poverty rate in the countryside is close to three times that in urban areas (Nguyen *et al.*, chap. 5). In Laos, although the rural-urban difference is lower, the poverty rate among rural people is about twice that of their urban counterparts (Nolintha *et al.*, chap. 3). In a similar vein, about 90 percent of Cambodia's poor live in rural areas.

Third, even among the rural areas, poverty is higher in hard-to-reach locations such as remote, mountainous regions. Within rural Laos, villages connected with roads have poverty rates that are one-third lower than those in villages without roads. The northern mountainous regions in Vietnam have thrice the poverty rates prevalent in the rest of the country. Similarly, the northeastern mountainous provinces in Cambodia have much higher poverty rates than the rest of rural Cambodia (CDRI 2013).

Fourth, poverty is higher among minority groups than among the majority ethnic people. In Vietnam, for example, poverty rates among the ethnic minority groups are more than five times those found among the ethnic majorities. In Laos, the poverty rate among the ethnic minorities is more than thrice that among the Lao-Tai majority population.

All of these indicate that despite the very impressive poverty reduction achieved by the GMS, significant pockets of vulnerabilities, including social exclusion, remain especially among CLMV members.

3.4. Income Inequality and Polarisation

While the headcount poverty rate, however measured, indicates the extreme form of income inequality, the Gini coefficient gives a broader measure across the entire range of the income distribution. In the early 1990s, the Gini coefficient using per capita consumption ranged from about 31 in Laos to about 44 in Thailand, with China's and Vietnam's figures closer to the lower limit and Cambodia's closer to the upper limit (Table 7). Since then, however, Cambodia and Thailand have seen substantial declines in economic inequality: Cambodia's consumption Gini fell by about 7 percentage points and Thailand's by 5 percentage points. In contrast, China's consumption Gini increased by a substantial 11 percentage points, while the figures for Laos and Vietnam went up by about 5 percentage points. As a result, latest available data indicates that overall income inequality is now lowest in Cambodia (Gini of 31) and highest in China (Gini of 43), with Laos closer to the lower limit of the range, Thailand closer to the upper limit, and Vietnam around the middle. Thus, China has the mammoth task of bringing about a more equal income distribution. The major challenge for Laos and Vietnam appears to be one of preventing inequality from rising further, while for Cambodia and Thailand it is one of preserving the past gains in income equality.

Table 7: Trends in Economic Inequality – Consumption Gini

Country	Initial yr.	Final yr.	Change
Cambodia (1994-2011)**	38.3	31.0	-7.3
Laos (1992-2008)**	30.5	35.4	4.9
Vietnam (1993-2010)**	33	37.8	4.8
Thailand (1990-2010)**	44	39	-5.0
China (1990-2008)*	32.4	43.4	11.0

Source: * ADB 2012a; ** GMS-DAN country studies and national sources

Almost similar inequality patterns are observed if, instead of the Gini, the Theil index – another measure of income/consumption inequality – is used. Within this overall pattern, evidence points towards a significantly higher level of inequality in urban than in rural areas. Moreover, with the notable exception of China, changes in income/consumption inequalities were much more due to intra-urban and intra-rural changes than to changes in inequalities between urban and rural areas (inter-regional). Take the case of Thailand. The intra-urban and intra-rural changes in inequalities accounted for almost 85 percent of the changes in national inequality (Paitoonpong *et al.*, chap. 4). Similar dominance of intra-regional changes in national inequality change was seen in Laos (more than 90 percent), Cambodia and Vietnam (75 percent) (Roth and Lun, chap. 2; Nguyen *et al.*, chap. 5). In sharp contrast, about 75 percent of the change in national-level inequality in China has been accounted for by changes between rural and urban inequality (Xiong *et al.*, chap. 7).

Table 8: Trends in Economic Polarisation – Consumption Share of Top 20% over Bottom 20% (ratio)

Country	Initial yr.	Final yr.	Change
Cambodia (1994-2011)**	5.8	5.3	-0.5
Laos (1992-2008)*	4.3	5.9	1.6
Vietnam (1992-2008)*	5.6	5.9	0.3
Thailand (1990-2009)*	8.8	7.1	-1.7
China (1990-2008)*	5.1	9.6	4.5

Source: * ADB 2012a; ** GMS-DAN country studies and national sources

Another way of examining inequality is to look at signs of polarisation in income and consumption at the extreme ends of the income distribution. “... while the Gini coefficient is important, the gap between the richest and the poorest is important as well” (Basu 2011: 164). One way of assessing such income/consumption polarisation is to look at the income/consumption shares of the richest and the poorest segments of the population. The ratio of the income share of the top 20 percent to that of the bottom 20 percent of the population is one such commonly used measure. This measure reveals that in the early 1990s, Thailand had the highest economic polarisation, with the richest 20 percent of the population having an income of about nine times that of the poorest 20 percent, while Laos had the lowest economic polarisation with the richest

20 percent of the population having an income of only about four times that of the poorest; other GMS countries had consumption polarisation figures in the range of 5.1 to 5.9 – if anything closer to that of Laos than to that of Thailand (Table 8).

Since then, however, China has seen an almost doubling of economic polarisation. Indeed, the income share of the poorest 20 percent of the people in China had declined from 5.7 percent in 2000 to 4.4 percent by 2010 (Xiong *et al.*, chap. 7). Laos, too, experienced an increase in economic polarisation, although of a smaller magnitude than China's. Among the remaining GMS countries, economic polarisation lessened in Thailand and Cambodia while it remained more or less unchanged in Vietnam. Latest available data indicates that economic polarisation is now lowest in Cambodia, and highest in China. Among the remaining GMS countries, economic polarisation in Thailand (although lower than in the early 1990s) is closer to the upper limit of the range while that of Laos and Vietnam is closer to the lower limit. Thus, as in the case of income/consumption inequality, the challenge of combating income/consumption polarisation seems to be the most daunting for China and Thailand. The task seems to be less challenging for the other GMS countries, although the experiences of China and Thailand clearly show that there is no room for complacency.

3.5. Human Development

The human development index (HDI) is a composite index that captures both income and non-income dimensions of inclusiveness, giving equal weight to income, health, and education indicators. Available data indicates that in 1995, Thailand had the highest and Myanmar the lowest HDI. By 2012, Myanmar still had the lowest HDI, but China had overtaken Thailand: China's HDI is now about 1 percent higher than Thailand's, whereas in 1995 Thailand's figure was about 12 percent higher than China's (Table 9). Other GMS countries have made impressive progress in achieving better human development, although less dramatically than China. The increases in HDI during 1995-2012 range from 35 percent in Vietnam to 45 percent in Myanmar, with Cambodia and Laos witnessing increases of 40 percent and above. These improvements were about double the gain made by Thailand. The CLMV countries are gradually closing their human development gaps with Thailand.

Table 9: Trends in Human Development (HDI)

Country	1995	2012	Percentage Change in HDI 1995-2012
Cambodia	0.385	0.543	41.0
Laos	0.388	0.543	40.0
Myanmar	0.343	0.498	45.2
Vietnam	0.457	0.617	35.0
Thailand	0.581	0.690	18.8
China	0.518	0.699	35.0

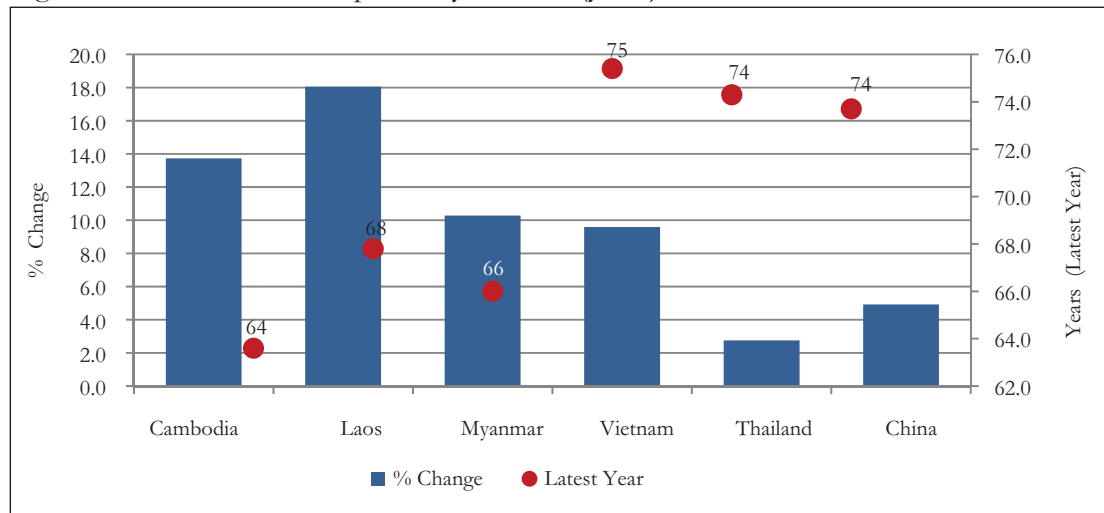
Source: UNDP-Human Development Report 2010, 2013

4. HEALTH

4.1. Life Expectancy

The development literature acknowledges that if a country's health status were to be represented by just one summary measure from the various readily available data, life expectancy at birth would be the indicator of choice. UNDP's HDI reflects this reasoning. In 1994, Thailand had the highest life expectancy at birth among the GMS countries at 72 years, while Cambodia was at the bottom of the table with a life expectancy of 56 years. China (71 years) and Vietnam (68 years) had figures closer to the upper end and Laos (58 years) and Myanmar (59 years) had figures closer to the lower end of this range. In the 18 years that followed, with the exception of Cambodia, countries with lower life expectancy in the initial years posted higher increases in life expectancy – leading to gradual convergence in life expectancy at birth (Figure 1). Indeed, the fastest convergence was achieved by Vietnam, which, with a life expectancy of 75 years, now has the highest figure among the GMS countries, followed by China, Thailand, Laos, Myanmar and Cambodia. At current levels, the scope for further raising the life expectancy is much larger for Cambodia, Myanmar and Laos than for the rest of the GMS countries.

Figure 1: Trends in Life Expectancy at Birth (years), 1994-2012



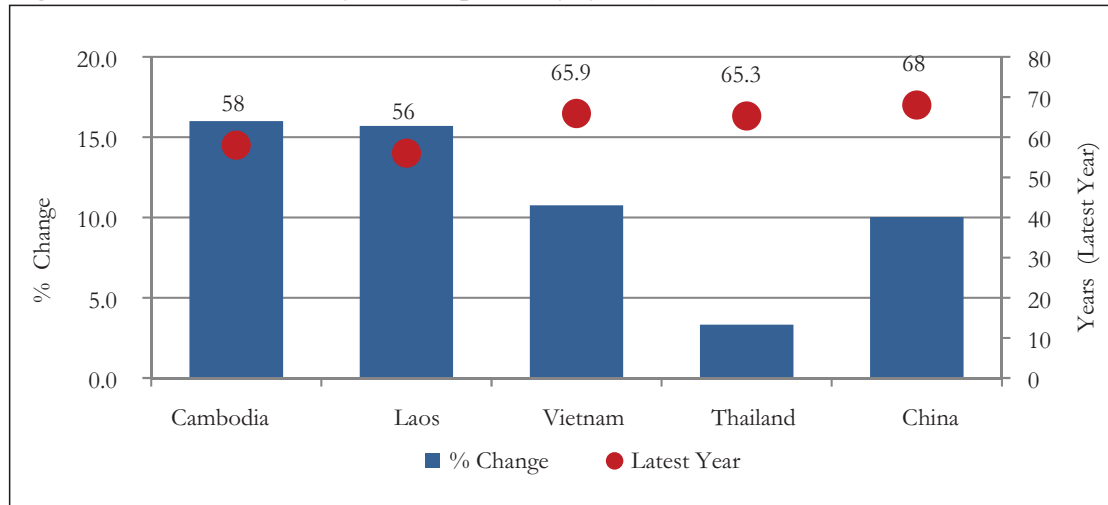
Source: UNDP-Human Development Report 2002, 2013; World Bank-World Development Indicators 2001, 2013, WDI dataset 2013; GMS-DAN country studies

The standard measure of life expectancy, however, does not necessarily factor in the overall health status of people. Consider two persons with the same years of life, but one of them lives with various health ailments and the other lives disease-free. Adjusting for health conditions, the latter clearly has a healthier life expectancy than the former.

Using one such measure of healthy life expectancy, the relative positions of GMS countries are somewhat different from that of the standard measure. With a life expectancy of 68 years, China tops the GMS table followed by Vietnam, Thailand, Cambodia and Laos (Figure 2). This implies that China loses on average about six years equivalent of life due to health ailments, while Vietnam and Thailand lose about nine years, and

Laos loses about 12 years. Although Cambodia loses only about six years due to health ailments, its percentage loss is much higher than that of China. Once again, at current levels, the CLMV countries have the largest scope for improving healthy life expectancy through higher investments and better delivery of healthcare and other basic services. The other GMS countries are in better shape, but the nature of their health-related challenges may change away from primary healthcare and communicable disease control to the gradually rising burden of non-communicable, life-style-related diseases such as respiratory disorders, cardiovascular ailments and diabetes.

Figure 2: Trends in Healthy Life Expectancy (years), 1990–2010



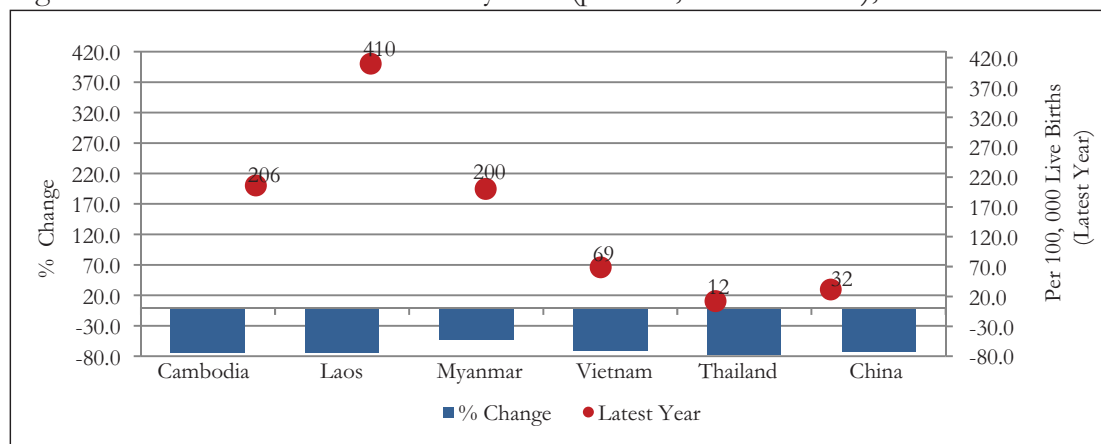
Source: Salomon 2012

4.2. Maternal and Child Mortality

Maternal and child health tend to be poor in most low-income countries. Reflecting this, in 1990, Laos had the highest maternal mortality rate of about 1600 per 100,000 live births and Thailand had the lowest figure of 54 per 100,000 live births. Outside of these two countries, Cambodia had a maternal mortality rate of about 830, followed by Myanmar (420), Vietnam (240) and China (120). By 2010, although the relative rankings of the GMS countries remained the same as in 1990, all had made substantial progress. Between 1990 and 2012, with the exception of Myanmar, GMS countries achieved about 70-77 percent reductions in maternal mortality rates; the figure for Myanmar was lower at about 50 percent (Figure 3). Given the current levels, further reducing the maternal mortality rate seems to be the most challenging for Laos, followed by Cambodia, Myanmar and Vietnam.

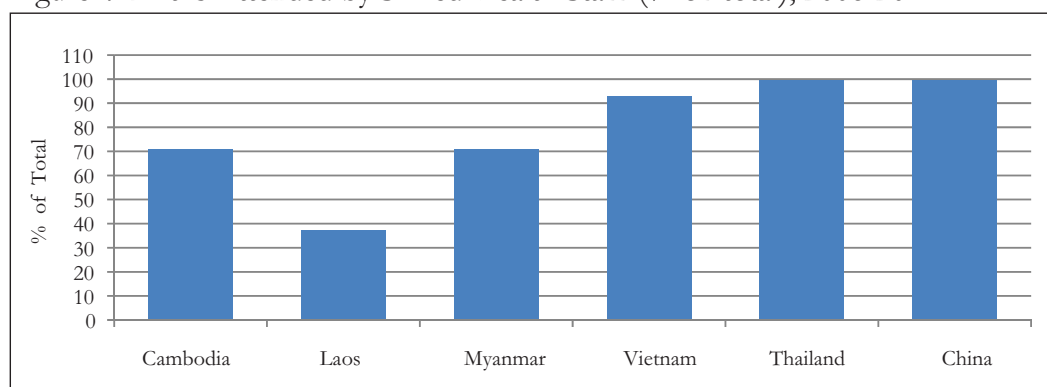
The key determinant of maternal mortality rates seems to be access to skilled health staff at the time of childbirth. Not surprisingly, Laos, with the lowest percentage of births attended by skilled health staff among the GMS countries, has the highest maternal mortality rate. Thailand is at the other end of the GMS spectrum. Indeed, there seems to be an inverse correlation between maternal mortality rate and the proportion of births attended by skilled health staff (Figure 4).

Figure 3: Trends in Maternal Mortality Rate (per 100,000 live births), 1990–2010



Source: UNDP-Human Development Report 2002, 2013; World Bank-World Development Indicators 2001, 2013, WDI dataset 2013; ADB 2012b

Figure 4: Births Attended by Skilled Health Staff (% of total), 2006-2011



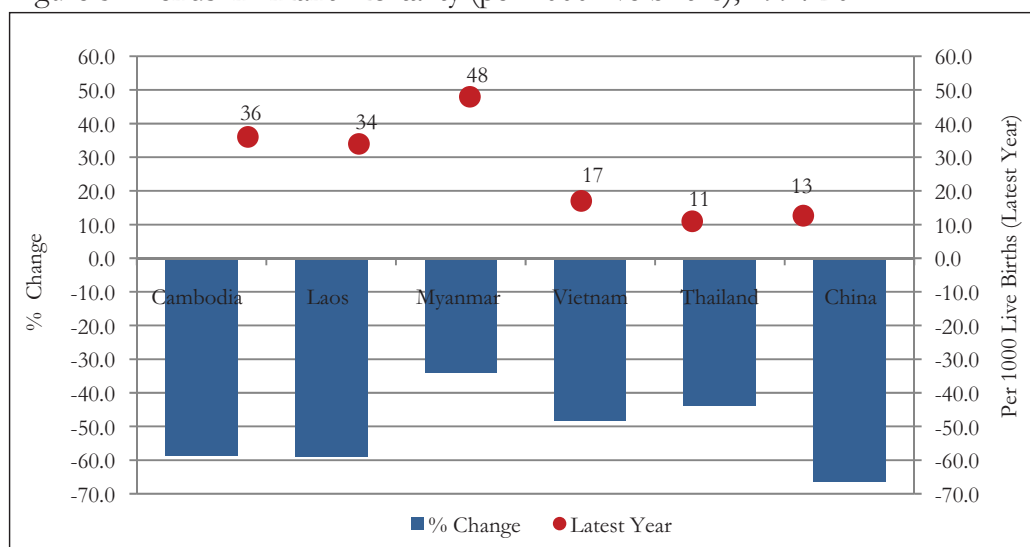
Source: UNDP-Human Development Report 2002, 2013; World Bank-World Development Indicators 2001, 2013, WDI dataset 2013

Like maternal mortality rates, trends in infant mortality rates have shown heartening declines among the GMS countries in the last two decades. In 1994, Thailand had the lowest infant mortality rate of 15 per 1000 live births and Myanmar the highest rate of 64, with Cambodia (57) and Laos (54) near the upper limit and Vietnam (25) and China (21) near the lower limit of this range. Once again, by 2011 the relative ranking of the GMS countries in terms of infant mortality rates had not changed from that of 1990. Yet GMS countries have made big strides in reducing infant mortality rates – China by about 66 percent, Cambodia and Laos by close to 60 percent, Vietnam by 48 percent, Thailand by 44 percent, and Myanmar by 34 percent (Figure 5). The scope for further reductions in infant mortality rates is the largest for Myanmar, Cambodia and Laos, while more modest for the other GMS countries.

The mortality rate for children under five years of age shows a similar pattern. Although the relative rankings of the GMS countries remained unchanged between 1994 and 2011, all countries achieved substantial reductions in this category. The reductions in under-five mortality rates between 1994 and 2011 ranged from about 50 percent in Thailand, Vietnam and Myanmar to 71 percent in Laos, with the figure for China and

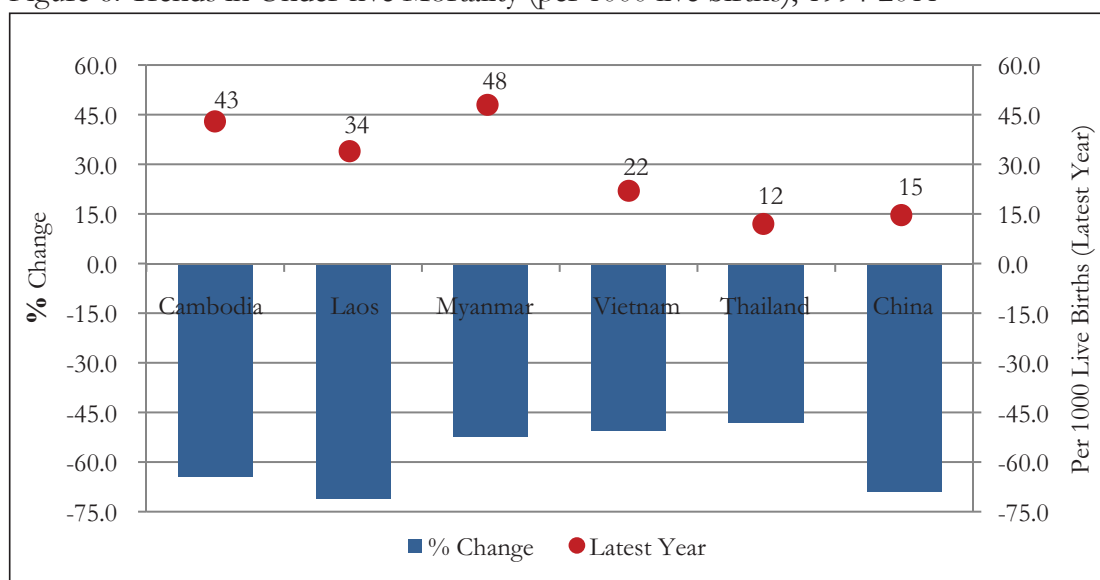
Cambodia closer to that of Laos (Figure 6). As in the case of the infant mortality rate, the scope for further reductions in under-five mortality rates is the largest for Myanmar, Cambodia and Laos, while more modest for the other GMS countries.

Figure 5: Trends in Infant Mortality (per 1000 live births), 1994-2011



Source: World Bank-World Development Indicators 2012; UNDP-Human Development Report 2013

Figure 6: Trends in Under-five Mortality (per 1000 live births), 1994-2011



Source: World Bank-World Development Indicators 2012; UNDP-Human Development Report 2013

In most countries, both availability of, and access to, skilled health personnel are generally lower in rural than in urban areas. Consequently, rural areas have significantly higher maternal and child mortality rates than urban areas. In rural Vietnam, for example, the maternal mortality rates are about twice those in urban counterparts; similarly, mortality rates among Vietnamese children are two and half times the corresponding urban figures. Furthermore, within rural areas, the hard-to-reach mountainous areas have twice the rate of the rest of rural Vietnam (Nguyen *et al.*, chap. 5). A similar pattern is present in

other GMS countries. Although rural-urban discrepancy has fallen dramatically in China since the early 1990s, the under-five mortality rate in rural areas is about twice that in urban China (Xiong *et al.*, chap. 7). Similar rural-urban disparities in child mortality are seen in Cambodia and Laos, too (CDRI 2013; Nolintha *et al.*, chap. 3). As in the case of Vietnam, child mortality rates in Cambodia's northeastern mountainous regions are much higher than they are in the rest of the country (CDRI 2013).

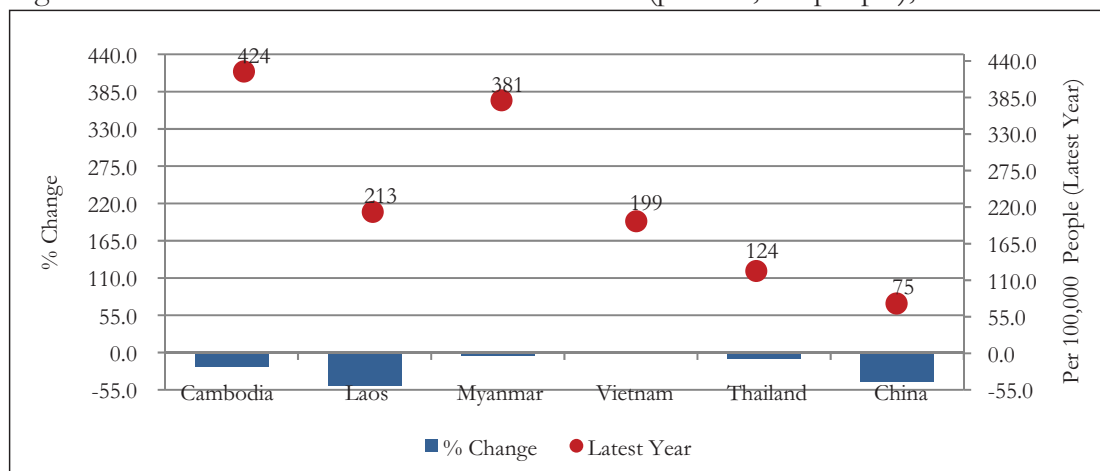
Although comparable data on mortality rates among children across income/wealth groups is not available for all GMS countries, it is interesting that, in Cambodia, the pro-poorness of the key elements of child nutrition increased in the first half of the 2000s, and then showed mixed trends in the second half (Roth and Lun, chap. 2). Infant and child mortality rates in Cambodia are now about three times higher for the poorest 20 percent of the population than for the richest 20 percent. In Vietnam, too, child mortality rates are substantially higher among the poor (Nguyen *et al.*, chap. 5). Similarly, in Cambodia and Laos, the prevalence of other health conditions such as malnutrition, diarrhoea and respiratory disorders among the poorest 20 percent of the population are about twice that among the richest 20 percent (CDRI 2013). Moreover, the much higher poverty rate among the ethnic minority in Vietnam suggests that maternal and child mortality rates are also higher among this group (Nguyen *et al.*, chap. 5).

4.3. Contagious Diseases and Diet

Beyond life expectancy and mortality rates, the incidence of diseases, especially contagious diseases, is an important dimension of a country's health status and indeed of overall wellbeing more generally. Incidence of two key diseases has been particularly singled out in recent policy discussions on health in Asia: tuberculosis and HIV.

In 1994, Cambodia had the highest incidence of tuberculosis among the GMS countries at more than 500 per 100,000 people; China had the lowest incidence of around 100. Myanmar had the second highest incidence of about 400, followed by Laos (318), Vietnam (204) and Thailand (136). More than a decade and a half later, the relative ranking of the GMS countries has more or less remained unchanged. Yet the degree of success in tackling tuberculosis has been quite varied across countries (Figure 7). Laos and China have seen the largest declines in the incidence of tuberculosis – about 50 percent and 44 percent, respectively. Among the other GMS countries, reductions in tuberculosis incidence ranged from about 2 percent in Vietnam to about 20 percent in Cambodia. For the incidence to be brought down to the level now prevailing in China – about 100 per 100,000 people or about 0.1 percent of the population – almost all the other GMS countries need to make tackling tuberculosis a high priority health policy objective in the coming years. The challenge is the most pressing as well as most daunting for Cambodia and Myanmar, but it appears that the task must not be underestimated even for Laos, Vietnam and Thailand.

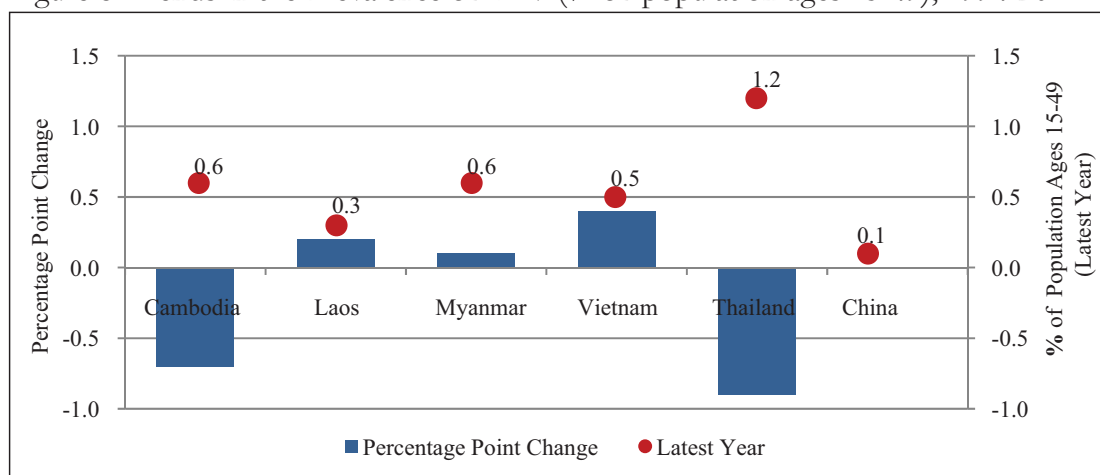
Figure 7: Trends in the Incidence of Tuberculosis (per 100,000 people), 1994-2011



Source: World Bank-World Development Indicators 2012; UNDP-Human Development Report 2013

The prevalence of HIV infection is another key dimension of contagious disease. In the mid-1990s, the prevalence of HIV – measured as the incidence of the infection as a percentage of the population aged 15-49 years – was the highest in Thailand at about 2.1 percent and the lowest in China (negligible). At 1.3 percent Cambodia had the second highest rate of prevalence followed by Myanmar (0.5 percent), Vietnam (0.1 percent), and Laos (0.1 percent). Both Thailand and Cambodia – the then high incidence countries – made substantial progress in reducing the prevalence of HIV in the next decade and a half. Between 1994 and 2011, Thailand’s prevalence rate fell by nearly 1 percentage point and Cambodia’s by 0.7 percentage points (Figure 8). In contrast, the prevalence rates edged up in all other GMS countries, most notably in Vietnam (by 0.4 percentage points). Looking ahead, Thailand and Cambodia – the two countries with initially high prevalence rates – face the challenges of making further reductions, while Myanmar, Vietnam and Laos face the challenge of preventing the incidence of the disease from further escalating. In comparison, China’s challenge seems to be one of sustaining the low prevalence rate.

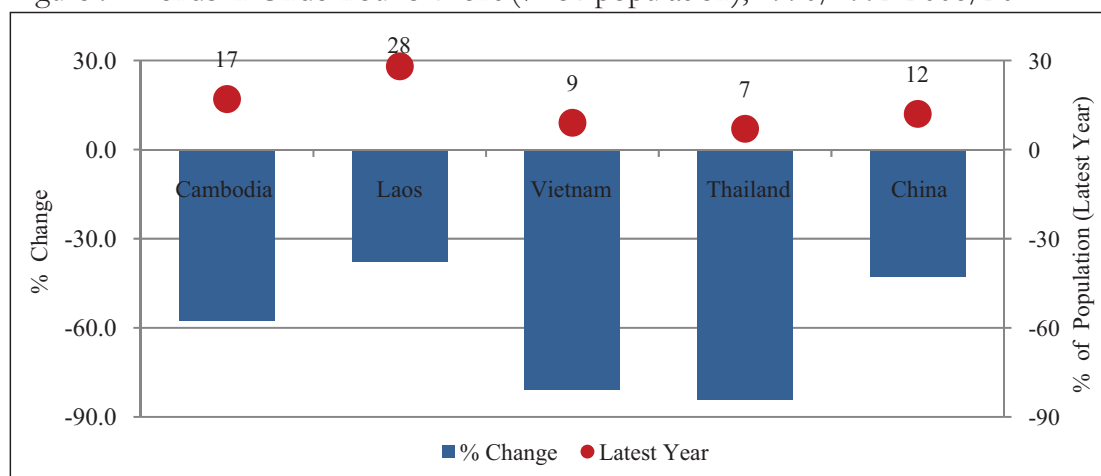
Figure 8: Trends in the Prevalence of HIV (% of population ages 15-49), 1994-2011



Source: World Bank-World Development Indicators 2012; UNDP-Human Development Report 2013

Going beyond life expectancy, mortality rates and contagious diseases, the overall health of the people depends upon the quality of their diet. Indeed, along with safe drinking water and improved sanitation, diet can be viewed as fundamental for a healthy life. A commonly used indicator for assessing a country's quality of diet is the percentage of undernourished people in its population. In the early 1990s, Thailand had the lowest percentage (about 13 percent) and Laos had the highest at close to 40 percent, with the extent of undernourishment in Cambodia closer to that of Laos, and that of the other countries closer to Thailand's. Latest available figures for the years 2006-11 indicate that Laos still has the highest percent of undernourished population (28 percent) among the GMS countries, while Thailand has the lowest (7 percent), with Cambodia closer to Laos and the other GMS countries somewhere in the middle (Figure 9). Once again, the scope for improving diet and reducing undernourishment appears to be largest for Laos and Cambodia (perhaps Myanmar, too) and more modest for the other countries, although China seems to have more room for improvement than Thailand and even Vietnam.

Figure 9: Trends in Undernourishment (% of population), 1990/1992-2006/2011



Source: UNDP-Human Development Report 2002, 2013; World Bank-World Development Indicators 2001, 2013, WDI dataset 2013

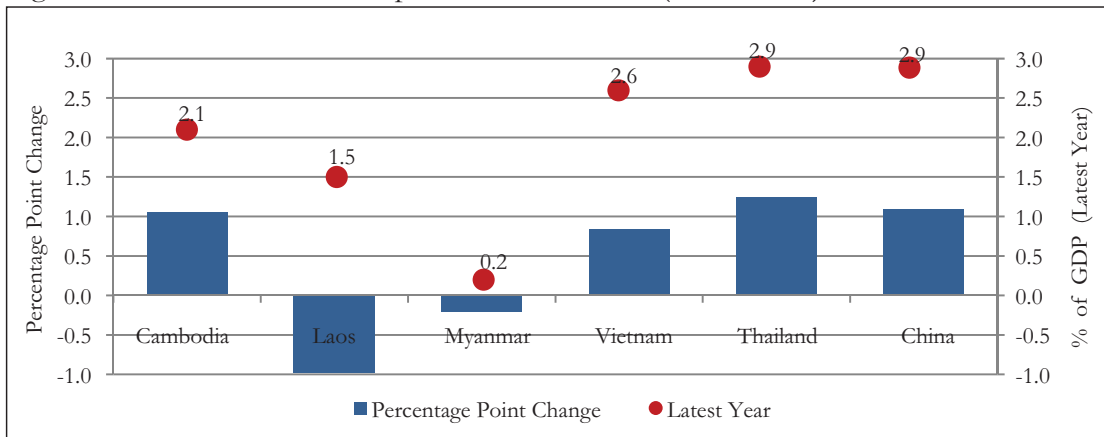
4.4. Public Expenditure on Health

The health status of the people, especially in developing countries, depends largely on public expenditure on health and the efficiency with which such expenditure is used to deliver quality healthcare. The latter in turn is inextricably linked to a whole gamut of factors – organisation of the health system, health sector governance, quality of health personnel, provision and distribution of medicines, and even physical infrastructure such as roads and transport linking people with healthcare centres, to name a few.

In terms of public expenditure on health (relative to GDP), the GMS countries show huge heterogeneity. In the mid-1990s, Laos had a public health expenditure of about 2.5 percent of GDP – the highest figure then among the GMS countries – followed by China, Thailand, Vietnam (about 1.8 percent), Cambodia (1 percent) and Myanmar (0.4 percent). Since then, trends in public expenditure on health have been quite dramatic across the GMS countries. By 2010, public expenditure on health declined by 1 percentage point in Laos, while it increased by around 1 percentage point in four

of the other GMS countries – Thailand, Cambodia, China and Vietnam. In Myanmar, it increased marginally (Figure 10). Today, public expenditures on health are in the 2.5 to 3 percent range in China, Thailand and Vietnam, followed by Cambodia, Laos and Myanmar. Looking ahead, it appears that Myanmar has a huge task of stepping up public expenditure on health, while the challenge for Cambodia and Laos appears to be one of gradually increasing it closer to the 3 to 4 percent (of GDP) mark, even as they focus on increasing the efficiency of these expenditures.

Figure 10: Trends in Public Expenditure on Health (% of GDP), 1995-2010



Source: World Bank-World Development Indicators 2012; UNDP-Human Development Report 2013

5. EDUCATION

The HDI incorporates two education indicators: mean years of schooling and expected years of schooling. While these indicators do summarise the education attainments of the population, there are many more aspects of education that need to be examined for a more complete assessment of the education status of the people.

5.1. Literacy Rates

A basic indicator of how inclusive a country's development process is, and specifically the education system, is the youth literacy rate (people in the age group of 15-24 years). In 1990, four GMS countries – China, Myanmar, Thailand and Vietnam – had already achieved youth literacy rates of 94-95 percent. In contrast, Cambodia had a much lower rate of 74 percent, and Laos even lower at 70 percent. Since then, both Cambodia and Laos have taken big strides in spreading literacy among their youth. As a result, although the relative ranking of the countries remains unchanged from 1990, youth literacy rates in both Cambodia and Laos have shown substantial convergence towards the other countries' levels (Figure 11). At present, China, Myanmar, Thailand and Vietnam have close to universal youth literacy rates (in the 95-100 percent range), while Cambodia and Laos are moving towards that target.

More or less the same pattern of trends and achievements can be observed in the adult literacy rate (15 years and older). Adult literacy rates are now in the 92-94 percent range in China, Myanmar, Thailand and Vietnam, while they are lower in Cambodia (78 percent) and Laos (73 percent).

Figure 11: Trends in Youth Literacy Rate (% of people aged 15-24), 1990-2005/2010

Country	Literacy rate, youth total (% of people ages 15-24)	
	Latest yr.	% change
Cambodia	87.1	18.5
Laos	83.9	19.7
Myanmar	95.8	1.4
Vietnam	96.9	3.0
Thailand	98.1	NA
China	99.4	4.3

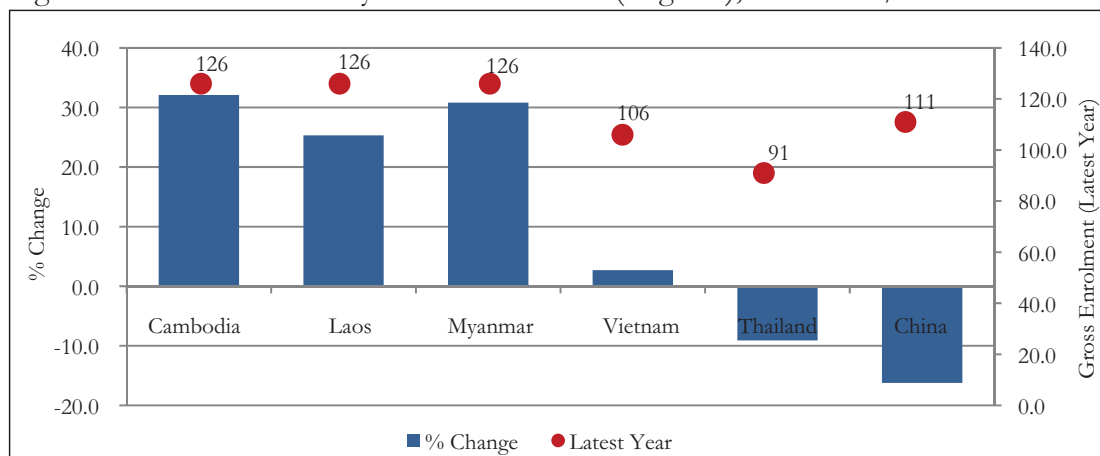
Source: UNDP-Human Development Report 2005, 2013; World Bank-World Development Indicators 2013, WDI dataset 2013; CDRI 2013

5.2. Enrolment Rates

In the 1990s, primary gross enrolments were already very high among the GMS countries, in the range of 95 percent in Cambodia and 129 percent in China. Since then, primary gross enrolments have shown a further increase across the GMS countries, except in China and Thailand (Figure 12). The fall in China is not a cause for concern as it is still above 100 percent; in contrast, the decline in primary gross enrolment rate in Thailand to below 100 percent is a matter of concern, as it indicates that at least around 9 percent of the eligible primary school cohorts are not enrolling. It is encouraging that Cambodia and Laos now have high enrolment rates and are also moving towards achieving universal primary education. That said, it appears that there is significant scope for improving the quality of primary education in some of the GMS countries – notably in Cambodia, Laos and Myanmar, and even in Vietnam.

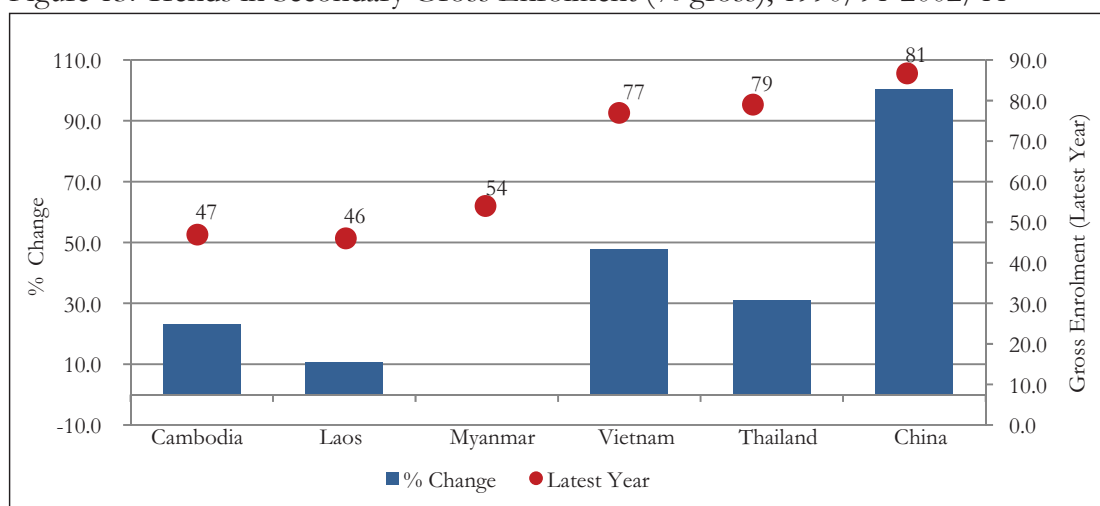
Turning to secondary school enrolment rates, in the early 1990s, Thailand had the highest gross secondary enrolment rate of about 60 percent and Cambodia had the lowest rate of 38 percent; China (40 percent) and Laos (41 percent) had rates closer to that of Cambodia while Vietnam's rate (52 percent) was closer to that of Thailand. Since then China has more than doubled its enrolment rate. Other GMS countries have posted much more modest increases. As a result, China has now replaced Thailand as the GMS country with the highest secondary enrolment rate of 81 percent, although Thailand and Vietnam now have rates close to that of China (Figure 13). Given that Cambodia and Laos now have secondary enrolments rates of below 50 percent and Myanmar just above the 50 percent mark, these countries have much work to do in raising their scores. For the other GMS countries, as they move closer towards universal secondary education, improving the quality of secondary education is emerging as a major challenge.

Figure 12: Trends in Primary Gross Enrolment (% gross), 1990-2002/2011



Source: World Bank-World Development Indicators 2012, 2013; UNDP-Human Development Report 2013

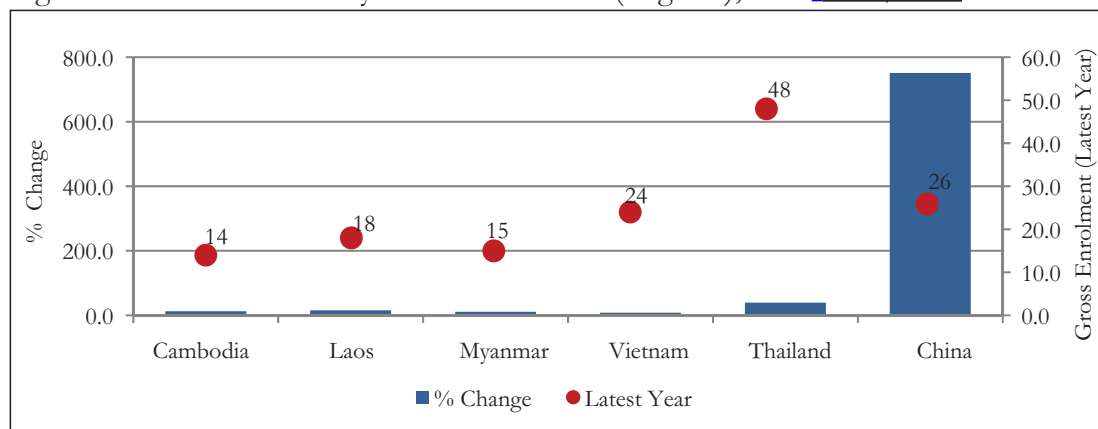
Figure 13: Trends in Secondary Gross Enrolment (% gross), 1990/91-2002/11



Source: World Bank-World Development Indicators 2012, 2013; UNDP-Human Development Report 2013

In the early 1990s, with the exception of Thailand, tertiary enrolments in the GMS countries were quite low—ranging from as little as 4 percent in China to 22 percent in Vietnam, and in the range of 12-16 percent in Cambodia, Laos and Myanmar. Thailand had a modest tertiary enrolment rate of about 35 percent. Thailand has since improved its rate to nearly 50 percent (Figure 14), and China has made notable progress in raising its tertiary enrolment rate – from 4 percent in the early 1990s to 26 percent now – to reach second position among the GMS countries. With tertiary enrolment rates of less than 25 percent, the challenge of providing higher education seems formidable for the rest of the CLMV countries. While both Thailand and China are ahead of the other GMS countries, improving the quality of tertiary education, including attracting more youth into science, technology, engineering and mathematics (STEM) subjects needs to be prioritised in the future.

Figure 14: Trends in Tertiary Gross Enrolment (% gross), 1990-2002/2011



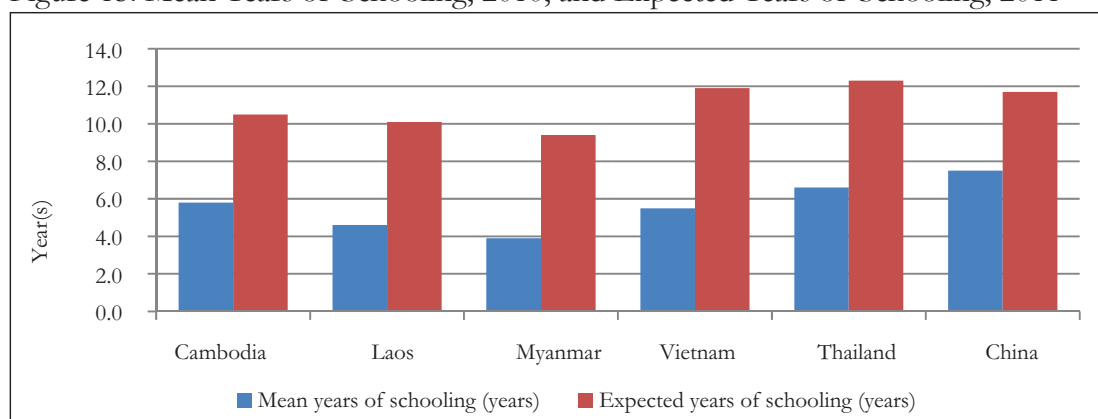
Source: World Bank-World Development Indicators 2012, 2013; UNDP-Human Development Report 2013

5.3. Schooling and Learning

While enrolment rates are good indicators of the percentage of youth entering schools at various levels (primary, secondary and tertiary), these do not reveal how long they stay there. Since students do drop out at various stages of their schooling, the degree of schooling cannot be inferred from enrolment rates. An indicator that *does* give a measure of the degree of schooling is the average years of schooling. A similar indicator – expected years of schooling – gives a forward-looking measure of the years of schooling that today’s youth is likely to have at the current enrolment and drop-out rates.

Available data for 2011 indicates that the *mean* years of schooling among the GMS countries range from 3.9 years in Myanmar to 7.5 years in China. Thailand (6.6 years) has the second highest number of *mean* years of schooling, followed by Cambodia, Vietnam and Laos (Figure 15). The corresponding figures for *expected* years of schooling are much higher and, except for minor deviations, the latter show a cross-country pattern that matches that of the current figures for *mean* years of schooling.

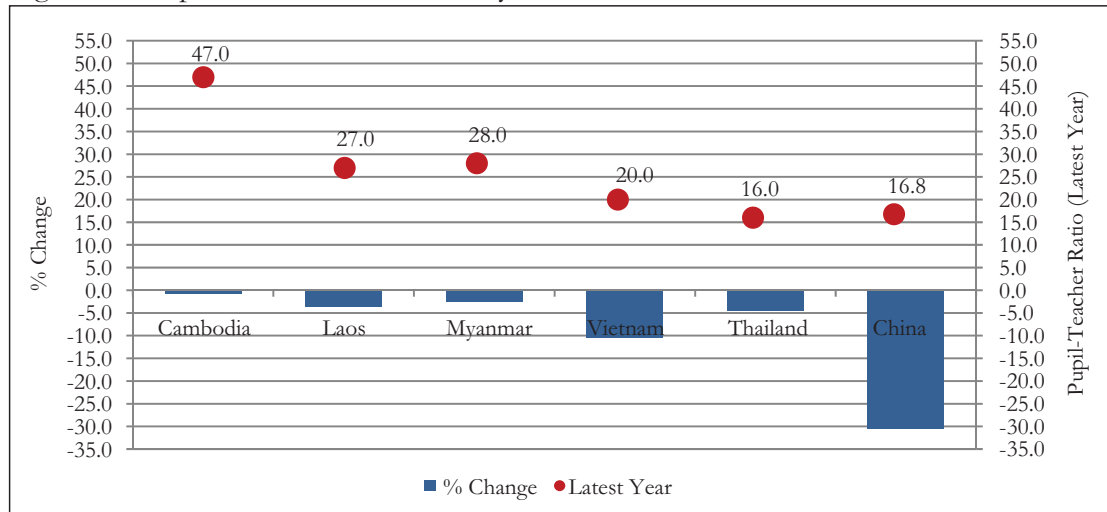
Figure 15: Mean Years of Schooling, 2010, and Expected Years of Schooling, 2011



Source: World Bank-World Development Indicators 2012, 2013; UNDP-Human Development Report 2013

The reported figures for mean years of schooling and the expected years of schooling have a major limitation. While they might give an average for the number of *years* of schooling, they do not take into account the number of instructional *hours* spent in class each day. Indeed, this varies across countries and means that the total hours of education students receive in a year differs vastly. Cambodia is a case in point. In global terms, the number of actual daily class instruction hours tends to range from six to eight, covering about 200 days in a year. In Cambodia, the figures are much lower – around 3.3 hours a day as most schools run multiple four-hour shifts a day with a 40-minute break time. Hence, even using the minimum of the global benchmark of six to eight hours of class instruction hours a day, Cambodia’s effective mean years of schooling would work out to 3.2 years – much lower than the reported figure of 5.8 years. The major reason for the multiple shifts with shorter class hours in Cambodia is an acute shortage of qualified teachers. This is reflected in Cambodia’s very high student-teacher ratio; at close to 50, the average number of students per teacher in primary schools in Cambodia is the highest among the GMS countries (Figure 16).

Figure 16: Pupil-Teacher Ratio, Primary, 1997/2000-2011



Source: World Bank-World Development Indicators 2012, 2013; UNDP-Human Development Report 2013

As is to be expected, overall schooling and educational attainments are lower in rural areas than they are in urban centres. In Cambodia, for example, the median number of years of schooling for rural youth is 3.7 – about half that of urban youth; also, the youth living in the hard-to-reach northeastern mountainous region have far fewer educational attainments than those in the rest of the country (CDRI 2013). Similarly, in many GMS countries, especially the CLMV countries, the poor have education levels that are lower than those of the rich. For example, in Cambodia, the number of mean years of schooling among children from the poorest 20 percent of households is a little more than one-tenth of that enjoyed by children from the richest 20 percent; indeed, there is a marked negative correlation between the mean years of schooling and household income (Roth and Lun, chap. 2). Moreover, on average, poor Cambodian children are 3.4 times more likely to be out of school than their rich counterparts. Although the rich-

poor gap in mean years of schooling is lower in Vietnam, members from the poorest 20 percent of households have significantly lower enrolment rates in secondary education. The difference in enrolment numbers is marked for upper secondary education – the poorest 20 percent have only a little above 50 percent of the enrolment rate of the richest 20 percent (Nguyen *et al.*, chap. 5). Similar differences in educational attainments across rural-urban and rich-poor sectors seem to exist in China and Thailand, although to a somewhat lesser extent (Xiong *et al.*, chap. 4; Paitoonpong *et al.*, chap. 7).

In recent years there has been a growing consensus among education experts that schooling does not necessarily mean learning (Center for Global Development 2013). The quality of education is key in translating schooling into learning. Comparable data on learning assessments across GMS countries is not available, making it difficult to assess the extent of learning at the various stages of schooling among the GMS countries. However, there are concerns that increases in enrolment rates and years of schooling have not been accompanied by commensurate improvements in learning; indeed, concerns over the quality of education seem to emerge as a key policy challenge even in countries that have made the most progress in enrolments and schooling.

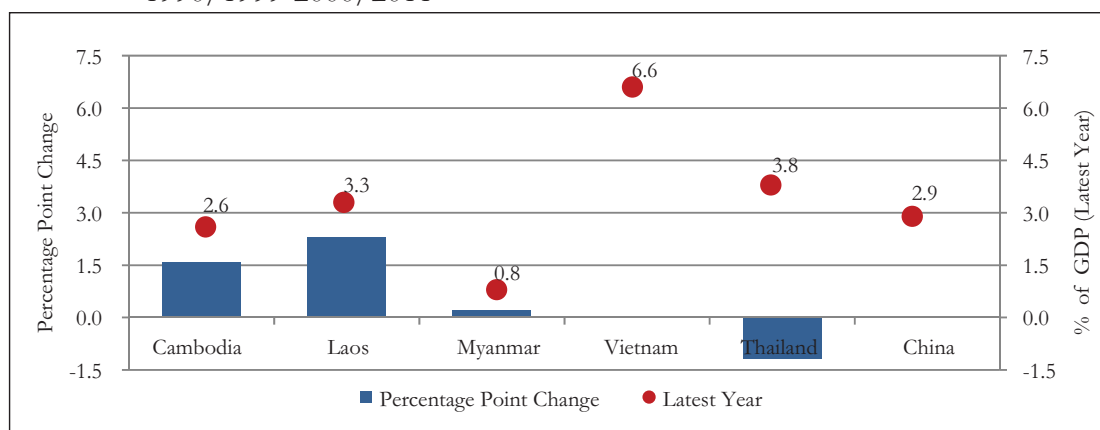
That poor children are likely to have a lower quality of education further exacerbates the problem. Take, for example, Thailand's primary education: "Although all children are able to enrol in primary schools, the schools differ greatly in quality. Poor children are more likely to end up in a lower quality school, which is usually a state school that offers free tuition but lacks important resources such as high-quality teachers and school equipment" (Paitoonpong *et al.*, chap. 4, p. 144). In Vietnam, "... although the millennium goal of universal education has been fulfilled ... the quality of education remains low and insufficient to meet the country's new development requirements" (Nguyen *et al.*, chap. 5, p. 183). Other GMS countries share similar concerns over the quality of their education.

5.4. Public Expenditure on Education

As in the case of health, education achievements in a developing country depend on public spending on education and the efficiency with which such spending is utilised. Latest available data indicates that today, public spending on education among the GMS countries ranges from less than 1 percent of GDP in Myanmar to 6.6 percent in Vietnam. Thailand has the second highest figure (3.8 percent), followed by Laos, China and Cambodia (Figure 17).

Interestingly, Thailand has seen a decline in its public expenditure over time. Other countries seem to have stepped up such expenditures. At current levels, Myanmar seems to be the most in need of a major increase in public spending on education, while the task seems to be more modest for the other GMS countries. All the GMS countries would benefit from public spending efficiency in the education sector.

Figure 17: Trends in Public Expenditure on Education (% of GDP), 1990/1999-2000/2011



Source: World Bank-World Development Indicators 2012, 2013; UNDP-Human Development Report 2013

6. GENDER, WATER, SANITATION AND OTHER BASIC NECESSITIES

6.1. Gender Equality

Greater gender equality – in access to productive employment, healthcare and education, and the development process more generally – is both an end in itself and a means for more inclusive growth and development. In terms of the commonly used gender equity indexes – UNDP’s gender inequality index and the World Economic Forum’s (WEF’s) gender gap index – Cambodia and Laos seem to lag considerably behind China, Thailand and Vietnam (Table 10). However, in terms of the social institutions and gender equity index, recently introduced by the Organization for Economic Cooperation and Development (OECD), Cambodia ranks far ahead of the rest. While the UNDP’s and WEF’s gender indexes mostly measure gender equality outcomes, the OECD’s index measures both the outcomes and the legal and institutional frameworks that are in place to foster gender equality (CDRI 2013). These discrepancies in aggregate measures of gender equality make it difficult to make strict comparisons in gender equality across the GMS countries. Despite this, it seems that most GMS countries are making significant efforts to bring about greater gender equality.

Gender-neutral access to education is the foundation of sustained gender equality. GMS countries do score well on this account. Even in Cambodia, where the two aggregate outcome measures of gender equality rank the country behind others, there has been little gender inequality in education (World Bank 2013). In Laos, too, the ratio of female to male students is showing strong signs of converging towards unity, having risen from 0.76 in the mid-2000s to about 0.84 now (Xiong *et al.*, chap. 3). Similarly, in Thailand the gap between males and females has narrowed considerably; on average, males now receive only about five months of schooling more than females (Paitoonpong *et al.*, chap. 4). Similar trends in closing the gender gap in education are evident in both China and Vietnam (Xiong *et al.*, chap. 5; Nguyen *et al.*, chap. 7). Political empowerment of women has proceeded at a slower pace, but is gathering momentum. In terms of women’s

representation in national parliaments, it is only about 5 percent in Myanmar and in the range of 16 percent in Thailand to 25 percent in Laos and Vietnam (CDRI 2013).

Table 10: Gender Equity

Country	Gender Inequality Index, 2012*		Gender Gap Index, 2012**		Legal and Distribution Discrimination Against Women, 2012***	
	Rank	Value*	Rank	Score**	Rank out of 86 countries	SIGI score***
Cambodia	96	0.473	103	0.6457	13	0.1213
Laos	100	0.483	NA	NA	49	0.2599
Vietnam	48	0.299	66	0.6867	43	0.2393
Thailand	66	0.360	65	0.6893	25	0.1475
China	35	0.213	69	0.6853	42	0.2388

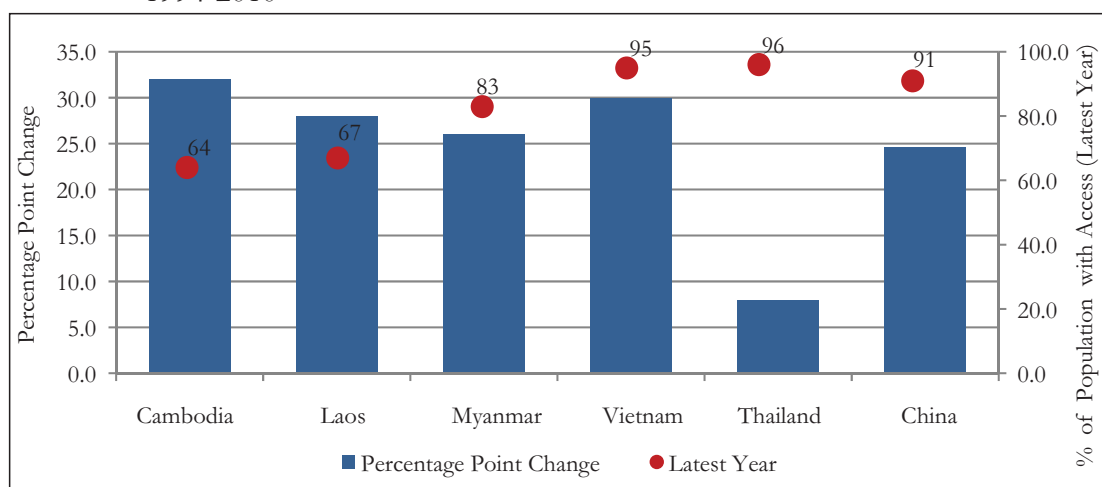
Note: * 0=when women and men fare equally, 1=where one gender fares as poorly as possible in all measured dimensions; ** the highest possible score is 1 (equality) and the lowest possible score is 0 (inequality); *** 0 = low discrimination, 1 = high discrimination

Source: 1. UNDP-Human Development Report 2013; 2. World Economic Forum-Global Gender Gap Index Report 2012; 3. OECD-Social Institutions and Gender Index 2012

6.2. Improved Water

Access to safe drinking water at affordable prices makes as great a contribution to the overall health of individuals and societies as a balanced diet does. In the mid-1990s, Thailand had the highest percentage of the population with access to improved water at 88 percent, while Cambodia had the lowest percentage at 32 percent. Vietnam and China, with about 65 percent of the population having access to improved water, were closer to Thailand's level. They were followed by Myanmar (57 percent) and Laos (39 percent). Although that relative ranking has remained more or less unchanged, by 2010, most GMS countries had made significant progress in improving access to safe drinking water. As a result, more than 90 percent of people have access to improved water in Thailand, Vietnam and China. The corresponding figure for Myanmar is an impressive 83 percent, while both Cambodia and Laos have doubled the percentage of people with access, to 67 percent and 64 percent, respectively (Figure 18). The key challenge ahead for Cambodia, Laos and Myanmar is to bring about further increases in the coverage of improved drinking water sources, most importantly in their rural areas and the poorer regions. The challenge for China and Vietnam is to build on the current robust levels of coverage and work towards universal access to safe drinking water.

Figure 18: Trends in Access to Improved Water Sources (% of population with access), 1994-2010

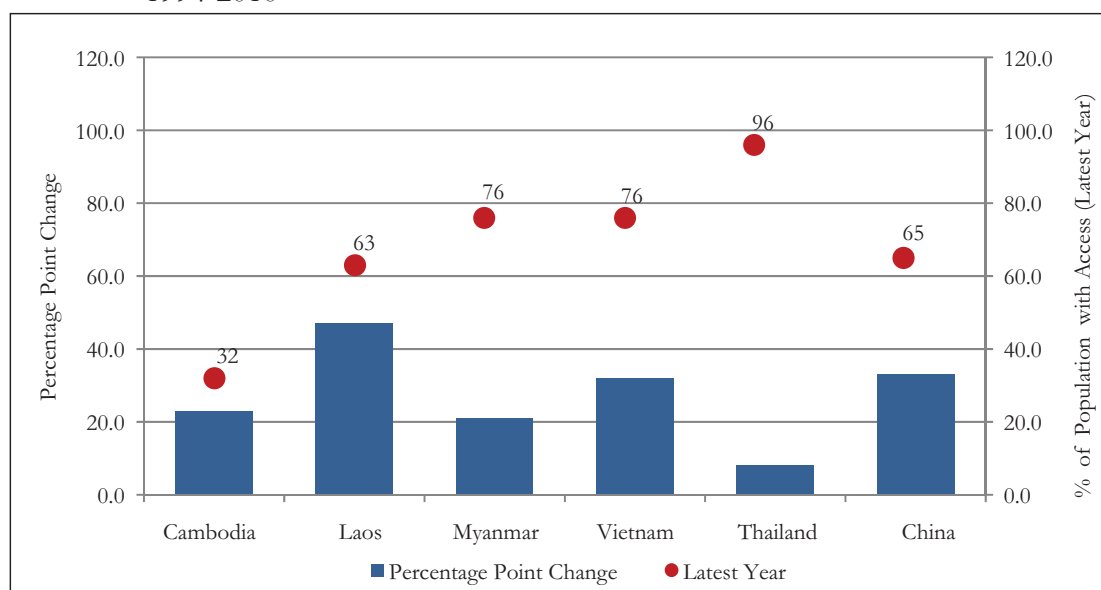


Source: World Bank-World Development Indicators 2013

6.3. Improved Sanitation

Achievements in providing improved sanitation have been more uneven across the GMS countries than progress in the provision of safe water. In the mid-1990s, Thailand had the highest percentage of the population with access to improved sanitation (88 percent) and Cambodia had the lowest at only 9 percent. Myanmar had the second highest sanitation access rate of 55 percent, followed by Vietnam (44 percent), China (32 percent) and Laos (16 percent). Once again, although that relative ranking among the GMS countries had remained largely unchanged by 2010, some GMS countries have made big strides in increasing the access rates, while others have lagged behind. With a 47 percentage point increase, Laos now has an access rate closer to that of China, and Vietnam has now reached the access rate of 76 percent and caught up with Myanmar (Figure 19). Despite more than tripling the access rate, Cambodia lags far behind the other GMS countries in the provision of improved sanitation. Similarly, despite a doubling, China's current sanitation access rate is less impressive compared with the other GMS countries as well as relative to China's per capita income. Going forward, Cambodia faces a daunting task in improving the provision of modern sanitation facilities. Cambodia's rather high number of deaths due to water pollution is largely attributable to the low levels of access to sanitation and safe water and the very high percentage of people living on degraded land. The challenge seems to be more manageable yet significant for countries such as Laos and China, while Vietnam and Myanmar appear to be on course to catch up with Thailand's close to universal sanitation access rate. Once again, as in the case of safe drinking water, with the exception of Thailand, the key challenge lies in bringing better sanitation within the reach and use of rural and poorer households.

Figure 19: Trends in Improved Sanitation Facilities (% of population with access), 1994-2010

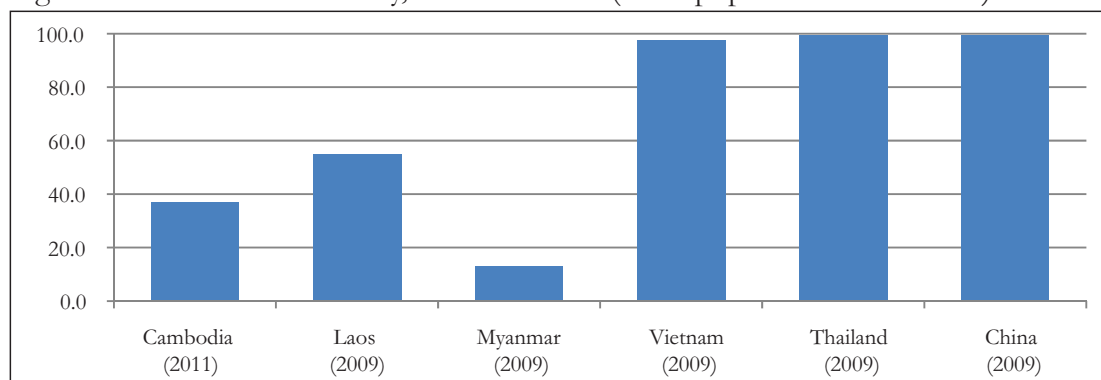


Source: World Bank-World Development Indicators 2013

6.4. Electricity and Cooking Fuel

Achievements in providing access to other basic needs such as electricity and modern cooking fuels – which have a huge bearing on the health of the people – vary a great deal across the GMS countries. For example, while most people in China, Thailand and Vietnam have access to electricity, this is true for only 37 percent of people in Cambodia, while the figure for Laos is 55 percent (Figure 20). Close to two-thirds of households in Thailand have access to modern cooking fuel, whereas only about 3 percent of homes in Laos and 10 percent in Cambodia have such access. Even in Vietnam, only one-third of households use modern cooking fuels. As is to be expected, the key challenge is one of increasing the access to electricity and modern cooking fuels for poorer households in rural areas.

Figure 20: Access to Electricity, 2009 and 2011 (% of population with access)



Source: World Bank-World Development Indicators 2013; GMS-DAN country study for Cambodia only

The heavy reliance on traditional fuels such as wood and charcoal results in excessive indoor air pollution that leads not only to respiratory and related health problems but also

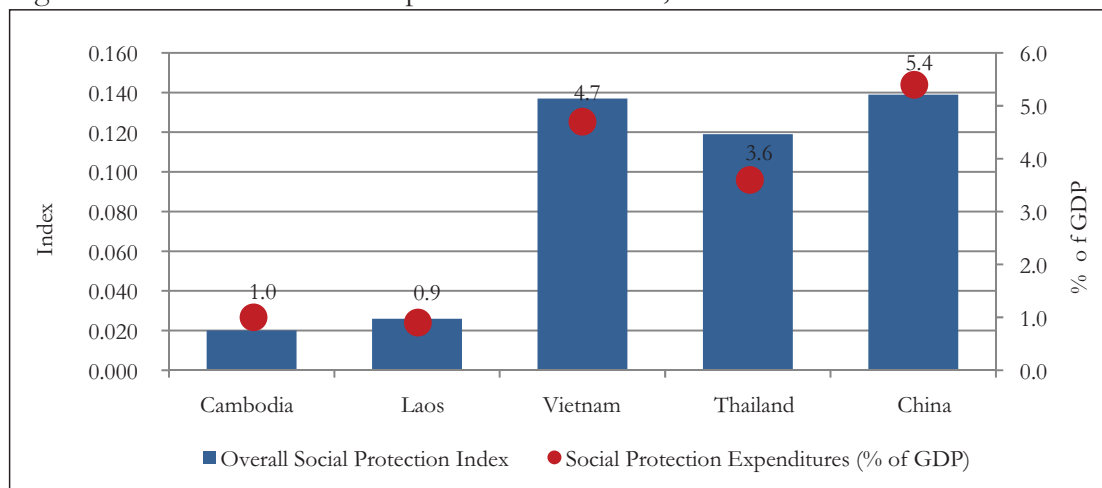
to human fatalities. Not surprisingly, the number of deaths due to indoor air pollution (per million people) in the GMS countries is almost inversely related to access to modern cooking fuels. In China, in addition to indoor air pollution, outdoor air pollution causes a large number of respiratory diseases and deaths.

6.5. Social Protection

How a country takes care of its most vulnerable people and households is a further indicator of the inclusivity of its development process. Social safety nets, such as benefits for the sick, disabled and unemployed, extra help for the poor, and pensions for the elderly, are essential components of a modern, inclusive society. Broadly, such social protection measures include social insurance (pension, health insurance, unemployment benefits and severance payments); social assistance (social transfers, i.e. social assistance for those in extreme need, such as health assistance, child welfare, assistance for the elderly, disability programmes, disaster relief); and labour market transfers (cash or food-for-work programmes, assistance for skill development and training). Government expenditure on these programmes is one measure of social protection. An index of social protection that adjusts such social protection expenditure to levels of per capita income and poverty of a country is an alternative measure (ADB 2013c). In terms of both of these measures, China provides the highest social protection among the GMS countries, followed by Vietnam, Thailand, Cambodia and Laos (Figure 21).

The challenge of providing effective social protection is thus most formidable for Cambodia and Laos (CDRI 2013; Nolintha *et al.*, chap. 3). For the other GMS countries, it is important to gradually sustain the current levels of social protection, with continuous fine-tuning of their social protection programmes to meet changing needs as their development process matures in the coming years (Nguyen *et al.*, chap. 4; Paitoonpong *et al.*, chap. 5; Xiong *et al.*, chap. 7).

Figure 21: Social Protection Expenditure and Index, 2009



Source: ADB 2013c

7. CONCLUSIONS

In general, past growth in the GMS countries has been robust and inclusive in that poorer GMS countries have grown at faster rates. This has led to notable income convergence among them. The most remarkable income convergence has been achieved by China, which, by 2011, had replaced Thailand as the richest GMS country. Cambodia, Laos, Myanmar and Vietnam have also narrowed their income gaps with Thailand, although they still have a long way to go to completely catch up. Myanmar's catching-up process, which is already underway, could accelerate in the years to come.

GMS countries have also undergone substantial structural changes. The share of agriculture in their national output and employment has declined and the shares of the industrial and service sectors have gone up. Hence, GMS countries have also seen notable structural convergence. These structural changes and convergences are likely to continue. In the process, people who are now employed in low-productivity agricultural occupations could move to higher paying industrial and service sector jobs, and even those who still remain in agriculture could enjoy more productive employment. If this process of structural change is well managed, it has the potential to make future growth highly inclusive.

Past growth among the GMS countries has been accompanied by significant poverty reduction, irrespective of the poverty line chosen. Growth has generally been pro-poor and inclusive, although achievements have varied quite a bit across the countries. With the exception of Thailand, which had substantially reduced poverty by the mid-1990s, China and Vietnam have made the most progress in poverty reduction. While Cambodia, Laos and Myanmar have all seen significant reductions in poverty in the past, they still have an equally long way to go before eliminating it. Furthermore, as the poor and the near-poor are more exposed to economic and environmental vulnerabilities that threaten their livelihoods and general quality of life, there is the added challenge of reducing these vulnerabilities. In almost all countries, including China and Thailand, the remaining poor are mostly in rural areas and live in hard-to-reach mountainous regions; in Laos and Vietnam, they also belong to ethnic minority groups.

In terms of broader inequality and polarisation measures of income inclusiveness, past experience has been much more varied than that relating to pro-poorness of growth. Countries with higher income inequalities in the mid-1990s, for example Thailand and Cambodia, have seen a decline in inequalities – more than those whose inequalities were initially lower, such as Laos and Vietnam. Indeed, those latter countries have seen a rise in inequalities. China's rise in income inequality and polarisation has been the most dramatic. China thus has the daunting task of reducing income inequality and polarisation, followed by Laos and Vietnam. Meanwhile, the key challenge for Cambodia and Thailand seems to be one of preserving the past gains and keeping inequality and polarisation from rising. Unlike the other GMS countries, the increase in inequality in China has been due mostly to a rise in the rural-urban income differential. This adds an intra-country regional dimension to China's challenge.

Since the mid-1990s, GMS countries have made substantial progress in the various

dimensions of health. Overall life expectancy has increased, maternal and child mortality rates have declined, and the incidence of contagious diseases has fallen. Outside of Thailand, improvements in health have been the most impressive in China and Vietnam. Going forward, despite their past successes, Cambodia and Laos face major challenges in bringing about further advancements in health – from improving maternal and child health to combating contagious diseases. Myanmar’s challenges are even more formidable, particularly given its very low public expenditure on health. Other GMS countries are more likely to face challenges in dealing with changes in disease patterns, away from primary health ailments and contagious diseases to more life-style and environment-related ones. China is a case in point, which is already seeing such changes in disease patterns and the consequent policy challenges (Yang *et al.* 2013; Lancet Commission 2013). Irrespective of the disease patterns, all GMS countries will need to pay increased attention to making access to affordable healthcare more equitable and inclusive – across geographic regions (by reducing rural-urban gaps in access) and across the different segments of the society (by reducing the rich-poor gaps in access).

GMS countries have also taken big strides in educating their youth. Even Cambodia and Laos are now close to achieving universal primary education. Achievements in secondary and tertiary education have, however, been much more varied across countries. In terms of secondary enrolments, while China and Vietnam have closed their gaps with Thailand, Cambodia and Laos are lagging far behind the rest of the GMS countries. In tertiary enrolment rates, despite a dramatic improvement, even China lags far behind Thailand. Once again, Cambodia, Laos, and Myanmar seem to have much more work to do in further educating their people – by making education more accessible and affordable to rural and poorer youth. That said, other countries, too, face huge challenges in improving access to higher education, not to mention the task of enhancing the quality of education at almost all levels.

Meeting basic needs – electricity, safe water, improved sanitation, modern cooking fuels – on a more universal level is another priority for the GMS countries. Once again, this challenge is most pressing, as well as daunting, for the poorer GMS countries: Cambodia, Laos and Myanmar. The challenge for China and Vietnam is primarily one of building on the current robust levels of access to these basic facilities and working towards universal access in the coming years. Since these basic services have such a huge potential to promote good health, there is a need to coordinate interventions in these areas with programmes and policies for fostering wellbeing among the population at large. In terms of providing social protection, China tops the GMS table, with Vietnam and Thailand having reasonable degrees of social protection in place. The challenge of providing effective social protection is more formidable for Cambodia, Laos and Myanmar. At the same time, it is important to keep in mind that no amount of social safety nets and cash transfers is a substitute for facilitating better access at affordable prices to health, education and basic services from which even the most impoverished can benefit.

In both the income and non-income dimensions of inclusiveness, GMS countries are making significant progress in bringing about gender equality, although political empowerment of women has proceeded more slowly. Overall, it appears that Cambodia

and Laos are lagging behind China and Vietnam on this front. Irrespective of the exact ranking of the GMS countries in gender equality, all would benefit vastly from working towards gender-neutral access to healthcare, education and other basic services.

In addressing these challenges for making growth and development more inclusive in the region, GMS countries need to recognise the nexus between poverty, health and education. Global development experience shows that the problems of poverty are magnified by the lack of access to healthcare and quality education experienced by the poor. Similarly, increasing educational opportunities should go hand in hand with better access to healthcare at affordable prices. Educated people, in turn, are better able to understand and follow healthy lifestyle practices and hence benefit from better healthcare facilities. Thus, policy actions and institutional reforms in each of these areas need to be well coordinated to maximise the impact of each individual set of interventions. Moreover, while many GMS countries need to step up public spending on health, education and other basic needs, they should also pay more attention to increasing the efficiency of these expenditures through better governance and institutional reforms.

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