Setting the Scene: Driving Forces of Change in Southeast Asia

B.P. Resosudarmo\textsuperscript{1}
D.A. Nurdianto\textsuperscript{1}
Abdurohman\textsuperscript{1}

1. The Arndt-Corden Division of Economics, College of Asia and the Pacific, The Australian National University, Canberra, ACT, 2000, Australia

Introduction
Southeast Asia is made up of 11 countries with a total population in 2008 of around 584 million people. Geographically, Southeast Asia consists of two geographical regions: the mainland and the archipelago. Mainland Southeast Asia consists of Myanmar, Cambodia, Laos, Thailand, Vietnam and the Malaysian peninsular; while archipelagic Southeast Asia comprises Brunei, East Timor, Indonesia, Malaysian Borneo, the Philippines and Singapore. The area includes some of the most densely populated regions in the world with Indonesia the fourth most populous country and Java the most densely populated island in the world. The major religions are Buddhism, Islam and Christianity. There are hundreds of ethnic groups in the region with their own languages and customs, making Southeast Asia one of the most diverse regions in the world.

Southeast Asian countries also have diverse economic conditions, as shown in Table 1. An examination of their gross domestic product (GDP) per capita shows Singapore to be a rich country, while Cambodia, Laos, Myanmar and Vietnam are relatively poor. Poverty is one of the main problems in the region. Although the number of poor people\textsuperscript{1} has declined significantly in the region, around 104 million people are still considered to be poor, particularly in Indonesia, Philippines, Vietnam and Myanmar. The highest percentages of poor people are in Cambodia, Laos, Myanmar and Philippines.

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per Capita 2008 (thousand USD)</th>
<th>Population 2008 (million)</th>
<th>Year</th>
<th>% of poor people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei</td>
<td>35.62</td>
<td>0.40</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cambodia</td>
<td>0.76</td>
<td>14.66</td>
<td>2004</td>
<td>40.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.24</td>
<td>228.52</td>
<td>2005</td>
<td>21.4</td>
</tr>
<tr>
<td>Lao</td>
<td>0.92</td>
<td>5.76</td>
<td>2002</td>
<td>43.9</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7.99</td>
<td>27.86</td>
<td>2004</td>
<td>0.5</td>
</tr>
<tr>
<td>Myanmar</td>
<td>0.46</td>
<td>58.51</td>
<td>2000</td>
<td>25.0</td>
</tr>
<tr>
<td>Philippines</td>
<td>1.84</td>
<td>90.46</td>
<td>2006</td>
<td>22.6</td>
</tr>
<tr>
<td>Singapore</td>
<td>38.05</td>
<td>4.84</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.12</td>
<td>66.48</td>
<td>2004</td>
<td>0.4</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1.05</td>
<td>86.16</td>
<td>2006</td>
<td>21.5</td>
</tr>
</tbody>
</table>

Source: ASEAN Secretariat (2009); World Development Indicator Databases

Except for Singapore, all Southeast Asian countries can be considered as rich in natural resources. Twenty percent of the world’s tropical forest is concentrated in Southeast Asia, scattered throughout Indonesia, Malaysia, Thailand and Vietnam. Indonesia alone has over 50 percent of the tropical forests in this region and more than 10 percent of the total tropical forest of the world (Barbier 1998).
These tropical forests provide resources for millions of people. They are home to a rich diversity of flora and fauna and serve ecological and environmental functions, such as climate regulation, soil protection and the provision of watersheds. Environmentalists also emphasise the high intrinsic value of these forests (Pearce & Brown 1994). Currently, the existence of large tracts of tropical forest is under constant threat, particularly due to the world’s increasing demand for timber and inappropriate management of this resource. The rate of deforestation in tropical forests has aroused international concern. Southeast Asia is the region with the highest rate of deforestation per year at around 2 million hectares (ha) annually in the 1980s and early 1990s (Barbier 1998). This rate is expected to be higher in the 2000s (Coxhead 2005).

Historically, the fast water area of Southeast Asia was a rich fisheries resource. In the last 50 years, regional fishery development has exploded. This is mainly due to fast-growing populations (more mouths and more fishermen), the adoption of modern fishing technology and expansion of international trade. By the early 2000s it was estimated that nearly 100 million people in the region depended on fisheries resources for their livelihoods (Williams 2007). Annual fish production was worth more than USD 11 billion (around 10 percent of world fish production) and the income of fish exports amounted to around USD 7 billion. By then, most, if not all, fishing grounds in Southeast Asia had been over exploited (Butcher 2004).

Several Southeast Asian countries are also rich in mining resources. Mining provides significant revenue to the governments of Indonesia, Brunei, East Timor and Malaysia. Records in early 2000 showed that Indonesia supplied around 30 percent of the world's tin, 11 percent of its nickel, 6 percent of its copper and 5 percent of its gold (Resosudarmo et al. 2009). Indonesia is the third largest coal producer after Australia and China (US Commercial Service, 2007) and in 2007, it was predicted Indonesia would supply approximately 26 percent of the world’s coal.

Before the Asian economic crisis in 1997–1998, investments in the mining sector in Southeast Asia showed a relatively steady increasing trend, indicating an increasing trend of mining extraction activities in the region. Nevertheless, many mining activities in this region are also coloured by various socio-economic conflicts: i.e. conflicts among mining operators; between mining operators and local communities; between mining operators and authorities; among relevant authorities at various levels of government; between local authorities and local communities; and within local communities (Resosudarmo et al. 2009). These conflicts have slowed the flow of mining investments in some Southeast Asian countries since the early 2000s.

The increasing rate of natural resource exploitation in the region is worrying. Better management and utilisation of natural resources is needed. Improving efficiency and managing domestic demand for these resources is important. Nevertheless, there are external driving forces with important implications for the trends of natural resource exploitation in the region that need to be understood. We argue that they are: (1) the growth of China which changes patterns of trade and energy consumption within the region; (2) the growth of India and its energy consumption; and (3) the Asian and World economic crises which alter the relative importance of the Southeast Asian economy in a global context and induce a movement through the region to adopt a more democratic and decentralised system of government, particularly on the part of Indonesia and Thailand (Resosudarmo 2005; Coxhead 2005; Dupar et al. 2002; Osteria 1999). This chapter will describe these driving forces and how they are related to the pattern of natural resource utilisation in the region.
Growth of China
Since economic reform began in the late 1970s, China has achieved spectacular economic growth and industrialisation, with average annual Gross Domestic Product (GDP) growth of about 9–10 percent. The two components in the high economic growth of China that have important implications for Southeast Asian countries are its patterns of trade and energy consumption.

1. China’s trade pattern
An important aspect of China’s high growth GDP has been its trade component. The export share of GDP in particular, increased from around 25 percent in the early 1990s to around 40 percent by the mid 2000s. The import share of GDP also increased from around 29 percent in the early 1990s to around 38 percent by the mid 2000s (World Bank 2005).

China and Southeast Asian countries are competing in global markets to sell their products, mainly but by no means exclusively, labour-intensive, low-tech products. China’s WTO accession, which increased its market access and reduced the cost of imported goods; and implementation of the Agreement on Textiles and Clothing (ATC), the process for an orderly dismantling of the Multifiber Arrangement (MFA), undermined the international competitiveness of key Southeast Asian manufacturing sectors (Coxhead 2005).

Measures of revealed comparative advantage (RCA, Balassa 1965) provide more detailed indications of multilateral trade intensity. Coxhead (2005) calculated the average RCA measures for China and Southeast Asian countries during the 2000–2003 period and found China’s agricultural and natural resource products have been relatively less competitive than those from Southeast Asian countries, particularly those from Indonesia, Thailand and Vietnam. On the other hand, China’s electrical equipment, electronics, computers and components; office equipment and furniture; and garments, including footwear and accessories have been much more competitive than those from Southeast Asian countries. Furthermore, if new investment flows match the shifting pattern of production, then China’s lead in these sectors can be expected to widen further in the longer run (Coxhead 2005).

Meanwhile, China-East Asia trade is also on the rise and becoming an increasingly important component of intraregional trade, rising from less than 1 percent of the total in 1975 to 7 percent in 2001. China, with 43 percent of regional GDP in 2001, also accounts for 30 percent of the region’s exports. China’s growth is a major driver of increased intraregional trade. Southeast Asia’s share in China’s total imports rose from 6 to 9 percent in the 1990s, a 390 percent increase in value terms. Southeast Asian economies saw big increases in the share of their regional trade going to China, and the value of their exports to China rose much faster than total exports. This pattern of growth is expected to continue, albeit not necessarily at the same rate, for at least the next decade (Coxhead 2005).

The bilateral trade data between China and Southeast Asia in the early 2000s displays a very clear pattern in which Southeast Asian countries have a relative advantage in agricultural and natural resource industries and in a few processing sectors intensive in the use of natural resource or agricultural inputs. Meanwhile China dominates in heavy industry and most light assembly operations. Current trade trends suggest Southeast Asian countries can expect to become major suppliers of natural resource products to the Chinese market, importing a wide range of manufactured products in return, and with continued growth of the size of the China market, these patterns will become increasingly dominant in Southeast Asian trade overall.
Prepare for Impact

The clear example would be China-Southeast Asian trade in forest products. China’s imports of forest products—logs, lumber, pulp and paper, plywood, veneer, woodchips and other products—have more than doubled since 1997. Flows have increased faster since China imposed a ban on domestic logging in 2001. Much of the new trade has been met by increased imports from Russia, but Indonesia, Malaysia and Thailand continue to supply a large fraction of total imports. Indonesia, for example, has increased its forest product exports to China by about 60 percent since 1997, but the largest increases by far have come in logs and lumber; plywood, once the major export, has declined, and Malaysia and Thailand have had similar experiences (Sun et al. 2004).

A similar situation applies in the case of fisheries. China’s fish processing industry grew rapidly from an annual production of 2.8 million tonnes in 1993 to 9.3 million tonnes in 2006. The industry is based primarily in Shandong and Liaoning Provinces, where approximately 9,000 re-processing plants are located. Though the majority of these fish might come from Russia, a significant amount comes from Southeast Asia (Clarke 2009).

2. China’s energy consumption pattern

Another important aspect of China’s high economic growth is its increase in energy consumption, despite the fact that China has been able to improve its energy use efficiency. China’s energy consumption per GDP in early 2000 was only around one quarter to one third of its energy consumption per GDP in the early 1980s. However, its energy consumption has been growing. In 1980 the total China energy consumption was around 17 quadrillion Btu, while in 2003, it increased to around 45 quadrillion Btu. This makes China the second largest consumer of energy in the world after the United States, with its consumption of around 11 percent of the world total (EIA 2006; Yang 2005). This energy is primarily sourced from coal (approx. 65 percent in 2003) and oil (approx. 25 percent in 2003), with renewable energy sources such as hydro and gas providing only 3 to 6 percent of China’s total energy use (EIA 2006; Yang 2005).

China’s growth and pattern of energy consumption seems set to continue for at least the medium term if not longer. Southeast Asia will have to compete with China in finding their sources of energy, particularly in regional markets and this could increase regional prices for coal, oil and gas. The increased price will certainly speed up coal, oil and gas exploitation in the region. Relatively poor Southeast Asian countries who are not able to compete with China in buying coal, oil and gas in regional markets might have to sell as much of their energy resources as possible to China or other developed countries and will have to depend more on other sources of energy, such as hydropower, wood and bio-diesel. For countries such as Indonesia, Vietnam, Philippines and Thailand the pressure to develop plantations for bio-diesel has been strong, and this has often been at the expense of natural forests or food generating land uses.

Growth of India

Aside from China, India is the only other country with more than a billion people. Similarly, both are in Asia and both have opened up to international trade and capital flows in the past three decades. India, too, has demonstrated sustained and enviable economic growth since 1980. Nevertheless, China and India today are at different stages of development. The two countries may have had similar average incomes in the late 1970s but their subsequent growth trajectories have changed the situation materially. India’s 4 per cent average annual growth in per capita GDP since 1980 is commendable and has brought enormous benefits to her population. However, it pales in comparison with China’s spectacular growth in per capita income of more than 8 percent a year, which has transformed the living standards of her people and made the country a major economic power. By 2007 average incomes in China were about two and a half times higher than in India, at official exchange rates, and about twice as high in internationally comparable PPP prices (Acharya
2009). Nonetheless, with its growth rates in the 1990s and 2000s, India is certainly a potential giant in the world economy, and it has undoubtedly had some impact on the Southeast Asian economy.

1. India’s energy consumption pattern
As in the case of China, one important aspect of India’s steady growth is its energy consumption. India and China are the emerging giants of the world economy and international energy markets. Together, they transform the global energy system by dint of their sheer size and their growing weight in international fossil-fuel trade. Similarly, both countries are increasingly exposed to changes in world energy markets. The staggering pace of Chinese and Indian economic growth in the past few years, outstripping that of all other major countries, has dramatically increased their energy needs, a growing share of which has to be imported (IEA 2007).

With high rates of economic growth and over 15 percent of the world’s population, India has become a significant consumer of energy resources. In 2006, India was the sixth largest oil consumer in the world. The world financial crisis and credit crunch in 2008–2009 have slowed India’s significant economic growth particularly in the manufacturing sector, and GDP growth rates have declined from 9.3 percent in 2007 to 5.3 percent in the fourth quarter of 2008. Despite a recently slowing economy, India’s energy demand continues to increase (EIA 2009).

Coal accounts for more than half, followed by oil, which comprises 31 percent of India’s total energy consumption. Natural gas and hydroelectric power account for 8 and 6 percent of consumption, respectively. Although nuclear power comprises a very small percentage of total energy consumption at this time, it is expected to increase in light of recent international civil nuclear energy cooperation deals. According to the Indian government, 30 percent of India’s total energy needs are met through imports (EIA 2009).

India is not only experiencing an electricity shortage but is also increasingly dependent on oil imports to meet demand. In addition to pursuing domestic oil and gas exploration and production projects, India is also stepping up its natural gas imports, particularly through imports of liquefied natural gas. The country’s ability to secure a reliable supply of energy resources at affordable prices will be one of the most important factors in shaping its future energy demand (EIA 2009).

India’s increasing demand for coal, oil and gas, together with China’s, will further increase regional prices for coal, oil and gas and stimulate more exploitation of these resources. Finding cheap energy sources will certainly be very competitive in the region.

Southeast Asian Economic Crisis
Southeast Asia experienced rapid economic growth in the 1990s. However in 1997–1998 several of the Southeast Asian countries were hit by the Asian economic crisis and in 2008–2009 by the World economic crisis. We will discuss these two crises and their impact on the Southeast Asian economy.

1. Asian Economic Crisis
The crisis started with the weakening value of the Thai bath in mid 1997. The inability of the Thai central bank to control the value of the bath created some doubts concerning the exchange rate stability of other East Asian countries, particularly Southeast Asian countries. The direction of capital inflows started to reverse. By the end of 1997, the value of other Southeast Asian currencies had also dropped. The low value of Southeast Asian currencies created panic among domestic corporations with large exposure to overseas loans, and also international investors with local denominated assets. Due to the stability of Southeast Asian currencies in the past, these debts were
largely unhedged. As they scrambled to buy USD, it put further pressure on the currencies, so that their value continued to drop until around mid 1998 (Goldstein 1998; Aghevli 1999; Resosudarmo & Kuncoro 2006). It can be seen in Figure 1 that the average annual values of Southeast Asia’s currencies in 1998 were much lower than they were in 1996. The Indonesian Rupiah and Laos Kip dropped the most.

Figure 1: The Value of Southeast Asian Currencies against the US Dollar (1996 exchange rates = 100 as an index).

Source: ADB, Asian Development Outlook 2009

This panic also further encouraged a larger amount of capital outflow from Southeast Asia. This capital outflow, together with the inability of domestic corporations to meet loan repayments and the inability of domestic industries to buy required imported inputs, created an economic crisis in Southeast Asia. The gross domestic product (GDP) of most Southeast Asian countries dropped. Figure 2 shows that Indonesia, Malaysia, Thailand, Philippines and Singapore experienced a negative economic growth in 1998. Indonesia, Thailand and Malaysia however suffered the most. The manufacturing sector was affected more than any other sector.
Since 1999–2000, the economy of Southeast Asia has started to recover. Malaysia, Singapore and the Philippines in general recovered faster than Indonesia and Thailand. By 2004, it was safe to say that the crisis was over. In that year, the GDPs of Southeast Asian countries had reached the same level or greater than in the pre-crisis year (1996). All of the countries hit by the crisis had been able to grow by more than 5 percent, inflation was relatively under control, and prudent fiscal policies seemed to have been implemented.

The importance of this crisis to Southeast Asian development is as follows. First of all it set Southeast Asia back for a while and so decreased, though not much, the relative importance of Southeast Asia in the world economy. This increased the significance of those developing countries that continued to grow fast, namely China and India. Second, it is significant that employees laid off from the contracting manufacturing sector moved to the natural resources sector. This created the pressure of an increasing rate of resource extraction. Third, it increased the rate of transformation in many Southeast Asian countries to a more decentralised system of government, particularly in Indonesia and Thailand.

2. World Economic Crisis
The world economic crisis has its roots in the US subprime mortgage crisis in 2007–2008, a sector which had the weakest capital support, least transparency, and poorest due diligence (El-Erian 2008). The subprime mortgage crisis then evolved to a severe disruption of the financial market as many large financial institutions in major industrial countries had high exposure to mortgage backed securities. Several major financial institutions collapsed. In September 2008 the US Government had to take over mortgage giants Fannie Mae and Freddie Mac, but allowed their major investment bank Lehman Brothers and the global insurance company AIG to collapse. The solvency of many other established financial institutions then came into question. Market confidence dropped significantly causing huge demand for liquidity. The consequence was the evaporation of wholesale funding which prompted a disorderly massive deleveraging which spilled over across the rest of the global financial system. The subprime mortgage crisis followed by the
severe disruption in the financial sector transmitted to the real sector. Limited available consumer credit combined with the huge job losses drove down consumer demand. Aggregate demand fell sharply dragging the US economy into recession. The real GDP contracted by 6.3 percent at annualised rate in the fourth quarter of 2008. In 2009, it is projected to contract by 2.8 percent (IMF 2009).

With the rapid global integration and deep and complex interconnections between financial institutions, the crisis quickly moved across assets, markets, and economies. Housing bubbles in the UK and the European investor’s toxic assets became clear immediately after the subprime crisis began in the US and added to the gloom. In 2009, the UK economy is predicted to contract by 4.1 percent while the European economy will decline by 4.2 percent. Though the financial system in Japan was in good condition with limited exposure to toxic assets, the economy has been weakening since late 2007. GDP growth fell sharply from 2.7 percent in 2007 to a contraction of 0.6 percent in 2008, and is predicted to decline further in 2009 by 6.2 percent, caused mainly by the decline of private consumption and investment (IMF, 2009).

From the Southeast Asian countries’ perspective, the global financial crisis dealt two main external blows to the economy; a “sudden stop” of the capital inflows as a consequence of a massive deleveraging process and a sharp and abrupt decline of export demand associated with the weakening economic activity of the major counterparts. These lead to a tighter domestic credit market and the fall of aggregate demand. In the financial and exchange markets, as a consequence of the massive deleveraging process, these countries also had to confront the sharp fall of equity prices, widened Bond spreads, and heavy pressure on exchange market. In the real sector, the impact varies depend on the degree of the dependence to the external economy. The most severe impact was in Singapore. The real GDP growth fell sharply from 7.8 percent in 2007 to 1.1 percent in 2008. It is predicted to contract by around 10 percent in 2009. Malaysia and Thailand are the other two countries that got a lot of trouble with the crisis. Their GDP growth slowed down steeply in 2008 compared to 2007, and is projected to contract by 3.5 and 3.0 percent respectively in 2009 as shown in Table 2. Though the economy was slowing down slightly in 2008, according to the latest IMF projection, Indonesia could still manage positive growth in 2009 of around 2.5 percent. Large domestic demand is believed to have significant impact preventing the economy from further contraction. The other member countries such as Vietnam, Cambodia, Lao PDR and Myanmar, though slowing down still recorded positive growth.

The importance of this crisis to Southeast Asian development is as follows. As the US and European economy significantly slowed down and possibly grew negatively in 2009, China and India grew relatively well. China and India could still manage positive growth during the crisis and are predicted to accelerate faster compared to other parts of the world as shown in Figure 3 below. The map of the world economy will certainly change in the near future. China and India will become much more important for Southeast Asia and, in general, for the world.
Decentralisation
In the last decade or so many Southeast Asian countries have exercised a decentralisation policy; i.e. shifting greater authority, including regarding natural resource management, from central to regional/local governments. The main drive for this has been that development communities have altered decisively in favour of devolved approaches to economic growth and even to environmental and natural resource management (e.g. World Bank 1999). The devolution trend has been welcomed in principle by many development specialists, especially as it coincides with and is reinforced by a general trend towards democratisation at national and sub-national levels (Coxhead 2005). The Asian economic crisis weakened the power of central governments in many Southeast Asian countries and so opened up an opportunity for them to adopt a more decentralised system of government.

Observing the short and medium term implementation of decentralisation policy in Southeast Asia so far, there are clear problems, particularly related to natural resource management. Incomplete democratisation of local governments is a critical constraint on the effectiveness of local management: where local administrations are not accountable to their constituents, devolving authority may merely result in accelerated degradation. Four more important reasons for this are the following.

First, there is a strong indication that decentralisation has also meant a decentralisation of corruption. The nature of centralised corruption is gone, replaced by a more fragmented bribe collection system where ministerial and local government officials, military/police and legislative members, both at the national and local level, are demanding bribes. For example, the Indonesian chamber of commerce (KADIN) has publicly registered their complaints concerning the rise of corruption at the local government level as well as regarding various new local regulations. These especially concern taxes, levies and various types of permits that created many artificial complementary regulations, immediately after the enactment of the decentralisation laws. Combining this situation with weak implementation of law and order has been proven to accelerate illegal extraction of natural resources in the country (Resosudarmo 2005).
Second, there is a strong temptation for local governments to create various new nuisance local taxes to increase their own local revenues and create jobs rather than to protect the environment. The main reason for this tax creation is that local governments face increasing expenditure responsibilities. Although on the one hand local governments are happy with decentralisation, they also feel overwhelmed by an increase in responsibilities due to the transfer of several central government functions, such as the payment of all civil servant salaries, and providing full public services previously performed by the central government, such as primary and secondary education, health clinics, local and regional roads, water supply and sewerage systems. Hence local governments are more likely to allow rapid extraction of natural resources to increase local revenues (Resosudarmo 2004; Resosudarmo 2005).

Third, limited local capacity has been a serious constraint, even of the best and most sincere local administrations, to developing the quality of local development and natural resource management. On many occasions, it is simply that local government is too small to cover the fixed costs of specialists in resource management, legislative design, enforcement, or other critical development areas (Rola and Coxhead 2005).

Fourth, when implementation of decentralisation is not coupled with clear administrative regulations, the policy has caused increasing conflict among various levels of government. There has been an increase in conflicts between central and local governments in cases where the centre wishes to assert its dominance, which it does by limiting its commitment to many aspects of the decentralisation process. There has been an increase in disputes among local governments; typically occurring over trans/near-boundary natural resource exploitation. These conflicts also often involved local people. In many cases all these conflicts then induce a lack of control of natural resource exploitation (Resosudarmo 2004).

In summary, although decentralisation held out the promise of better management of the country’s natural resources, in the short and medium terms it has accelerated natural resource exploitation leading to environmental degradation. In the case of Indonesia, after implementing its decentralisation policy for 10 years, one can certainly observe some improvement in its management of natural resources, but it is still not significant enough to totally alter the trend of natural resources exploitation in the country. Hence, the on-going decentralisation process in Southeast Asia is another important challenge to better manage natural resource utilisation in the region.

Concluding remarks
This chapter aims to provide a snapshot of the Southeast Asian economy and describe the main driving forces for change in natural resource utilisation in the region. Although this is not a detailed analysis, several broad conclusive arguments can still be made, as follows.

First, Southeast Asia is a very diverse region in terms of its geography, people and cultures. The level of economic development also varies considerably. Some countries in Southeast Asia can be categorised as rich countries, such as Singapore and Brunei; but others are very poor, such as Myanmar, Cambodia and Lao.

Second, Southeast Asia as a whole is a region rich in forest, fisheries, and mining resources. These resources, however, have been intensively exploited since the 1980s. The pattern of resource exploitation has become alarming, so that much better management of natural resources is urgently needed in the region.
Third, there are external driving forces behind the pattern of natural resource utilisation in Southeast Asia. This chapter argues that the four main driving forces are the growth of China and India, the 1997–1998 Asian and 2008–2009 world economic crises, and the on-going implementation of decentralisation policies.

Fourth, China’s high economic growth puts heavy pressure on Southeast Asia to exploit more of its natural resources through two major mechanisms. Trade between China and Southeast Asia is moving more in the direction of Southeast Asia sending raw materials to China and China sending processed goods to the region. The growth in energy consumption, particularly coal, oil and gas, is absorbing the region’s resources and in the near future the region will have to utilise other resources, such as wood and bio-fuel that will impose even higher pressure on forest covers.

Five, the steady growth of India with its significant increase in energy consumption, though not as great as China’s, does tend toward similar exploitation of natural resources in Southeast Asia.

Six, the Asian economic crisis weakened the Southeast Asian economy and so created the changing pattern between China and Southeast Asia. Further more, the Asian economic crisis accelerated the implementation of a decentralised system of government in Southeast Asia. The world economic crisis magnified the importance of China’s and India’s economy in the world and for Southeast Asia.

Finally, rapid implementation of a decentralisation policy in several Southeast Asian countries, at least in the short and medium terms, makes it more challenging for them to try to manage their resources better. In the long run, a decentralisation policy might be better for natural resource management, but it remains to be seen.

References
Prepare for Impact


Prepare for Impact


Endnotes

1 Poor people are those living below their country’s poverty line. The poverty line, generally speaking, is the amount of cash needed to buy the minimum required daily calorie intake — typically around 2,100 calories — plus an allowance for other-non food basic necessities. It is around 25 US cents per day in Laos, around 35 US cents per day in Vietnam, around 40 US cents per day in Indonesia, around 45 US cents per day in Cambodia, around 70 US cents per day in Thailand and Philippines, and around 90 US cents per day in Malaysia.