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# Editor's Note

We are pleased to present the fourth issue of the Greater Mekong Subregion (GMS) Journal for Development Studies published under the auspices of the Phnom Penh Plan for Development Management. This issue deals with subjects as diverse as the challenges that the subregion faces. In recent years, the transformation of the GMS economies has been dramatic, witnessed by solid GDP growth, substantive policy initiatives, and significant outcomes. With rapid development, and quicker economic integration, policy makers increasingly face tougher choices and need to weigh trade-offs carefully. It is here that research provides the much-needed analysis to enable informed policy choices. The GMS Journal provides an interface between scholars and policy makers to help make that better choice.

In the article “Forest Capital Disinvestments and Sustainable Development in the Greater Mekong Subregion: Making *Visible* the *Invisible*,” Javed Hussain Mir and C. Chandrasekharan suggest a new approach for estimating the rate of forest loss. Using comparative data, they provide new estimates of forest degradation based on area loss (quantitative factor) and the rate of decline of growing stock or degradation (qualitative factor). Degradation has been called “ecological metastasis”; its onset is barely perceptible but the spread of decay accelerates the slide toward deforestation and irreversible damage. The implications of this for policy are far-reaching—requiring a forest management strategy of resource creation, conservation, and enhancement, as well as sustainable value-added utilization.

In the article on “Cross-border Transport Infrastructure, Regional Integration, and Development: Implications for the Greater Mekong Subregion,” Manabu Fujimura applies the framework of economic geography in analyzing the impacts of GMS cross-border infrastructure. He presents evidence from literature that positively correlate reduction in transport cost to trade flows and economic growth. However, because the distribution of benefits from cross-border transport infrastructure is likely to be asymmetric—as illustrated in the case of the GMS Northern Economic Corridor—effective institutional arrangements and compensation mechanisms are needed to align cost-sharing arrangements with the incentives and expected benefits.

As reflected in the article's title “Would You Like to Pay in Dollars, Baht, or Kip?: Economic Consequences of Multiple Currencies in the Lao People's Democratic Republic,” Jayant Menon investigates the multicurrency phenomenon (MCP) in the Lao PDR—its costs and benefits, and the policy options. Menon argues that MCP, a common feature in most transition economies, has proven more costly than beneficial to the Lao PDR. And even the mandated use of the kip, legislated in 1997, has proven counterproductive. Menon suggests that, in the short term, it may be a better option to remove the distinction among the three currencies and allow citizens a free choice. In the end, however, the sustainable solution is to build confidence in the kip through

stable economic growth, sound monetary policies, and well-developed legal and institutional systems.

Rural financial policy in Thailand is examined by Visit Limsombunchai, Christopher Gan, and Minsoo Lee in the article “Determinants of Bank Lending in Thailand Rural Financial Markets.” Using a credit-scoring model, Limsombunchai, Gan and Lee were able to establish key factors in determining the creditworthiness of the borrowers and the probability of a good loan. Among others, the model revealed that banks emphasize asset value alone when making lending decisions. The authors suggest that banks should also consider the potential of the borrower’s capability to repay the loan, and that policy makers need to accelerate property rights reform and the land titling program to promote the development of credit accessibility to farmers in rural regions.

The burgeoning tourism industry in the People’s Republic of China (PRC) is comprehensively analyzed by Wen Zhang, Yuli Huang, and Weixia Zhu in the article “The People’s Republic of China Factor in Mekong Tourism.” Based on a research project conducted by the Social Research Institute of Chiang Mai University, the article discusses the major trends in inbound and outbound tourism, the factors underpinning these major trends, and the opportunities and challenges. The article dwells on PRC tourism in the GMS, focusing on Thailand as the major destination country. The results of a research survey on PRC tourists in Thailand—their purpose of travel, spending patterns and preferences, and assessment of tourism services—are presented and analyzed. The paper concludes with some recommendations for strengthening regional collaboration in promoting the tourism industry.

Finally, Trevor Sofield navigates us through myriad perspectives on tourism shopping in a review of the book by Dallen Timothy titled, *Shopping Tourism, Retailing, and Leisure* (Channel View Publications, Clevedon UK: 2005). Timothy provides a holistic academic treatment of tourism shopping, in contrast to its usual treatment as simply “background noise.” The relationships between tourism, leisure, shopping, and retailing are examined within a critical framework that juxtaposes the utilitarian and hedonistic forms of shopping. The degree of research that underpins the book is manifested by a list of more than 600 references that are multidisciplinary in origin, and drawn from economics, sociology, psychology, business management, retailing, geography, and tourism and leisure studies, among others. It should appeal not only to tourism researchers and practitioners, policy makers and planners but to geographers, sociologists interested in consumer behavior, psychologists, marketers, development studies specialists, and management experts.

We hope that these articles will help promote a better understanding of issues on a wide range of subjects of interest to policy makers, practitioners, and scholars. We are grateful to the authors for their contribution and for expanding the breadth and depth of knowledge on the GMS.

Arjun Thapan  
Editor-in-Chief

# The People's Republic of China Factor in Mekong Tourism

Wen Zhang<sup>1</sup>, Yuli Huang<sup>1</sup>, and Weixia Zhu<sup>1</sup>

Influenced by the slow recovery of the world economy, the instability of world politics, and the “9-11” terrorist act, world tourism has entered a period of slow growth and gradual recovery. However, there are still bright spots in tourism statistics. In 2002, global tourist arrivals exceeded 700 million for the first time, realizing 715 million, which is an increase of 3.1% over the year before. The factor sustaining this growth rate is the strong increase of the Asia and Pacific tourism, which has realized a rise of 7.9%, representing a sharp contrast with the slowed-down rate of tourism in Europe and America (China National Tourism Authority [CNTA] 2003). At the same time, the position of world tourist destinations has changed. The proportion of inbound arrivals to the Asia and Pacific region has exceeded that of the United States (US), ranking second to Europe. Within this context, the People's Republic of China (PRC)—spurred by rapid economic growth in recent years—has emerged as a major originating country for tourism.

This paper consists of two major parts. Part I describes PRC tourism: the major trends in inbound and outbound tourism, the factors underpinning these major trends, and the opportunities and challenges. Part II describes PRC tourism in the Greater Mekong Subregion (GMS), focusing on Thailand as the major destination country. The results of a research survey on PRC tourists—their purpose of travel, spending patterns and preferences, and assessment of tourism services—are analyzed. The paper concludes with some recommendations for strengthening regional collaboration in promoting the tourism industry.

## Major Trends in PRC Inbound and Outbound Tourism

During 2001–2004, tourism in the PRC made remarkable progress. All three sections of PRC's tourism—domestic inbound, and especially outbound and domestic—maintained a spectacular growth momentum (Table 1). The PRC is regarded one of the most dynamic destinations and originating countries in the world. Total income from PRC's tourism

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<sup>1</sup> School of Tourism Management, Beijing International Studies University, Beijing, the PRC. This paper was written as part of a research project conducted by the Social Research Institute of Chiang Mai University with support from the National Research Council of Thailand and the Rockefeller Foundation. This article is printed with the permission of Chiang Mai University. Copyright Chiang Mai University.

\* Note: Exchange rate used in this report: \$1.00 = yuan (CNY)8.287.

was 4.18% of the country’s gross domestic product (GDP) in 2003. Statistics from the China National Tourism Administration (Available: [www.cnta.gov.cn](http://www.cnta.gov.cn)) showed that foreign exchange income from inbound tourism maintained an annual average increase of about 18.8% from 1979–2004, and the income from domestic tourism realized an annual average increase of 16.0% from 1991–2004.

**Table 1: Tourism Statistics of the PRC, 2001 and 2004**

	2001	2004	Annual average increase (%)
Tourist receipts (\$b)	60.123	82.58	13.2
Inbound arrivals (\$m)	89.01	109.04	7.6
Domestic arrivals (\$m)	784	1,100.00	12.5
Outbound departures (\$m)	12.13	28.85	33.8

PRC = People’s Republic of China, b = billion, m = million, % = percent, \$ = US dollar.  
 Source: China National Tourism Administration; The Yearbook of China Tourism, 2002–2004. Available: [www.cnta.gov.cn/32-lydy/2004/12.htm](http://www.cnta.gov.cn/32-lydy/2004/12.htm).

During 2000–2004, the PRC economy maintained a vigorous growth momentum of an average increase rate of more than 7%. Along with this growth trend, the social and economic mobility of the Chinese has increased. The PRC is a big country with a population of 1.3 billion. The present outbound tourists only make up 2% of the total population. A conservative estimate, according to the increased rate of outbound departures, shows that if 5% of the PRC’s population in the next few years has the economic and social mobility to make an overseas trip, the number of Chinese outbound tourists will reach 65 million.

The year 2003 was a special year for PRC tourism. The first 2 months saw very good momentum, but the spread of SARS and the attendant warning from the World Health Organization (WHO) tremendously affected PRC tourism. From March to June, tourism almost stopped. After the WHO ban was lifted on 24 June 2003, recovery was first seen in domestic tourism, and then outbound tourism. The inbound market was slow in building up confidence and recovery. From Table 2, we can see that the rate of PRC’s inbound and domestic tourism decreased, while outbound tourism increased by 22% in 2003. However, by 2004, all three sections had realized increases. Given the present growth of PRC tourism, some experts say that the World Tourism Organization’s (WTO) vision of the PRC becoming the largest tourist destination country and the fourth largest originating country (WTO 2003) in the world would be realized earlier than 2020.

**Table 2: Tourism Statistics of the PRC, 2003 and 2004**

	2003	2004	Increase over the year, in (%)	
			2003	2004
Tourist receipts (\$b)	58.81	82.58	(12.3)	40.4
Inbound arrivals (\$m)	91.6621	109.04	(6.4)	19.0
Domestic arrivals (\$m)	870	1,101.42	(0.9)	26.6
Outbound departures (\$m)	20.2219	28.85	21.8	42.7

PRC = People's Republic of China, b = billion, m = million, % = percent, \$ = US dollar, ( ) = negative.

Source: China National Tourism Administration; The Yearbook of China Tourism, 2002–2004. Available: [www.cnta.gov.cn/32-lydy/2004/12.htm](http://www.cnta.gov.cn/32-lydy/2004/12.htm).

## Development of PRC's International Tourism

Since the implementation of reform and the opening up of the PRC in 1978, the country's tourism industry has developed at such a rapid pace and has played an increasingly important role in the national economy. In the past 26 years, the PRC has transformed its rich tourism resources to become a big tourist destination country in Asia. The position of the PRC's tourism as a new development sector in the national economy has been further confirmed by recent trends in the PRC's international tourism, (i.e., inbound and outbound tourism).

Until 2004, the PRC's inbound tourism had maintained a good growth momentum (Table 3). There are at least two reasons for this growth besides the marketing initiatives that the PRC Government and the industry made. First, the concern for safety has led to a change in the choice of destinations among tourists. Because of terrorist threats, more tourists are choosing to visit the PRC because it is perceived to be more politically stable and safe relative to some well-visited destinations, such as the US, Europe, and some Southeast Asian countries. In 2002, the global increase of tourist arrivals was 3.1%. Among the top five destinations in the world, the US saw a decline of 0.1%; France registered an increase of 2.0%; Spain, 3.3%; and Italy, 1.0%. Only the PRC maintained a 2-digit increase (CNTA 2003). The sustained growth of the PRC's economy has encouraged the increase of inbound tourists, especially business travelers. According to CNTA's sample survey of inbound tourists, inbound arrivals for the purpose of business, conferences, and cultural–scientific–technological exchanges accounted for 31.9% in 2001 and 32.6% in 2002 (Zhang, Wei, and Liu 2003).

**Table 3: Inbound Tourism of the PRC, 2001–2004**

	2001	2002	2003	2004	Increase over the year, in %			
					2001	2002	2003	2004
Total arrivals (m)	89.0129	97.9083	91.6621	109.0382	6.7	10.0	(6.4)	19.0
Total income (\$b)	17.792	20.385	17.406	25.739	9.7	14.6	(14.6)	47.9
Foreign visitors (m)	11.2264	13.4395	11.4029	16.9325	10.5	19.7	(15.2)	48.5
Those staying overnight (m)	33.1667	36.8026	32.9705	41.76	6.2	11.0	(10.4)	26.7

PRC = People's Republic of China, b = billion, m = million, % = percent, \$ = US dollar, ( ) = negative.

Source: China National Tourism Administration; The Yearbook of China Tourism, 2002–2004. Available: [www.cnta.gov.cn/32-lydy/2004/12.htm](http://www.cnta.gov.cn/32-lydy/2004/12.htm).

However, SARS greatly affected the PRC's inbound tourism in 2003 (Table 3). The recovery of inbound tourism is the slowest among the PRC's three markets and long-distance markets are slower in recovery than short-distance markets. Business travel is recovering faster than leisure travel.

In 2002, all the top 10 tourist markets of the PRC expanded—nine of them realizing a 2-digit growth rate, and five of them increasing more than 20%. Inbound arrivals from Asian countries made up 64.3% of the PRC's total foreign tourists (CNTA 2003). In 2003, because of SARS, inbound tourism from the PRC's major markets declined, but by 2004, arrivals from seven of the top 10 countries almost reached the 2002 level, and the structure of the PRC's inbound tourism was restored. Although a number of incidents affected citizens in the US, Great Britain, and Japan who are traveling abroad for tourism, the rank of these countries in the PRC's inbound markets remained unchanged. This could be accounted for by the efforts of the PRC to establish the image of the country as a safe destination for tourism.

**Table 4: Rank of Top 10 PRC Tourist Markets by Arrivals and Rate of Increase**

Country	Rank				Increase over the year, in %			
	2001	2002	2003	2004	2001	2002	2003	2004
Japan	1	1	1	1	8.4	22.6	(22.9)	47.9
Republic of Korea	2	2	2	2	24.8	26.5	(8.4)	46.2
Russian Federation	3	3	3	3	10.7	6.3	8.6	29.8
United States	4	4	4	4	5.9	18.1	(26.6)	59.1
Malaysia	5	5	6	5	6.3	26.4	(27.4)	72.5
Singapore	6	7	8	6	3.9	19.8	(24.0)	68.4
Philippines	7	6	5	8	12.1	24.6	(10.0)	20.0
Mongolia	8	8	7	7	(3.0)	17.1	(7.7)	32.4
England	9	10	9	10	6.6	13.4	(15.9)	45.1
Thailand	10	9	10	9	23.8	29.5	(28.7)	68.5

PRC = People's Republic of China, % = percent, ( ) = negative.

Source: China National Tourism Administration; The Yearbook of China Tourism, 2002–2004. Available: [www.cnta.gov.cn/32-lydy/2004/12.htm](http://www.cnta.gov.cn/32-lydy/2004/12.htm).

The prospects of inbound tourism can be summarized as follows: Inbound arrivals from intra-regional and neighboring countries will maintain a growth momentum; Hong Kong, China and Macau, China—the largest inbound markets of the PRC—are likely to maintain this position in anticipation of a strong economic recovery. The number of tourists from Japan and Republic of Korea—the first two largest originating countries for the PRC—has been increasing in recent years and the PRC’s recent marketing and promotion initiatives in these markets are expected to generate good results. The recovery of Southeast Asian economies is also expected to spur tourist arrivals. The explosion and outbreak of epidemic diseases could bring negative impacts to some extent, but an increase will be seen generally. Meanwhile, growth in the long-distance markets, such as Europe and the US, will likely slow down because of risks associated with terrorist threats, SARS, and economic recession. Safety will be the first consideration of long-haul tourists. In recent years, arrivals from Europe and the US made up 30% of the total inbound foreign tourist arrivals, and this market share is expected to remain.

The PRC has become a new tourist originating country in Asia with the fastest growth rate in outbound tourists. By the end of 2004, the PRC’s outbound tourism had maintained a rapid and sustained increase (Table 5), indicating a great potential for growth. World tourism experts estimate that the PRC’s outbound tourism is now at the beginning stage of a strong development.

Several factors account for the rapid increase in the PRC’s outbound tourism. The sustained growth of the economy and favorable government policies are among the key factors. The State Council has enacted the Measures on the Management of Outbound Tourism by Chinese Citizens that has improved the management of outbound tourism, provided better protection for the rights and interests of outbound tourists, and ensured that enterprises running outbound tourism businesses are operating well. It stipulates clearly the destination countries and regions of the PRC’s outbound tourism, tourist qualifications, approval procedures, business processes of travel agencies running outbound tourism business, responsibilities of tour leaders, the rights and obligations of tourists, as well as methods of penalty and punishment for illegal and extended operations. Passport application procedures have been simplified and foreign currency exchange management and controls have been readjusted.

**Table 5: Departures of PRC Outbound Visitors, 2000–2004**

	2000	2001	2002	2003	2004	Increase over the year, in %				
						2000	2001	2002	2003	2004
Total (m)	10.47	12.13	16.60	20.22	28.85	13.43	15.9	36.8	21.8	42.7
Departures										
Private (m)	5.63	5.18	10.06	14.81	22.98	31.99	23.3	44.9	47.2	55.2
Business (m)	4.84	6.94	6.54	5.41	5.87	(2.5)	7.2	(6.1)	(17.3)	8.5

PRC = People’s Republic of China, % = percent, m = million, ( ) = negative  
Source: China National Tourism Administration; The Yearbook of China Tourism, 2001–2004. Available: [www.cnta.gov.cn/32-lydy/2004/12.htm](http://www.cnta.gov.cn/32-lydy/2004/12.htm).

Because of the rapid increase in the PRC's outbound tourism, several problems calling for improvements in the overall management of the outbound tourism business have emerged. First, cases of illegal operations by some enterprises, organizations, individuals, and foreign representative offices have been encountered; some travel agencies conduct outbound tours without a license and some licensed agencies organize tours to non-approved destination status (ADS) countries. Second, some tour operators in the PRC and receiving agencies in destination countries collude to handle business in irregular ways. Some PRC tour operators offer low prices to attract business from outbound tourists, but receiving agents charge high commissions and expensive rates for excluded items and often provide low service quality standards at destinations. Tour operators sometimes provide special offers (e.g., "special-price," "zero-price," or "negative-price" tours), but employ strong-handed tactics to persuade tourists to go shopping and buy. Third, the safety of Chinese outbounders is a problem, for few of them can speak a foreign language and most carry a large amount of cash instead of using credit cards. Therefore, they are often targets for attacks and robbery. Furthermore, the image of Chinese outbound tourists needs to be improved. They often appear in large groups at destinations, so they tend to dominate the local people and other tourists. Cultural differences are evident. The overall quality and education level of the average Chinese tourists are generally lower than tourists from developed countries. Finally, terrorism, wars, and outbreak of epidemic diseases (e.g., SARS and bird flu) have brought, to some extent, undoubtedly negative effects to PRC outbound tourists.

Despite these problems, however, the PRC will see strong growth in outbound tourism due to its sustained economic growth and a series of favorable policies. The market will be better managed and operations will be further improved. A series of regulations, laws, and policies by the Government will change the management approach, improve services, and encourage growth of outbound tourists. These include adjustments in the outbound destination markets, and the opening of tourism services to foreign enterprises. Until the end of 2004, there were 90 ADS countries and PRC outbounders could visit 63 of them. The rush to Southeast Asian countries will decline (Table 6). The purpose of travel has become diversified and the consumption pattern of PRC outbound tourists is changing—with sightseeing packages slowly giving way to holiday packages and "self-arranged" tourism. Financial and banking institutions are perfecting their systems for offering services to PRC outbounders. During the May Day holiday in 2004, the percentage of PRC outbound tourists using credit cards greatly increased. Destination countries are taking active measures to attract tourists from the PRC. These measures include simplification of visa applications, circulation of the yuan, and enhancement of tourism promotions. Enterprises and destinations are attaching greater importance to the needs of PRC outbound tourists through updating and improving tourism products.

**Table 6: Top 10 First Destinations of PRC Outbound Tourists, 1999–2003**

Destination	1999	2000	2001	2002	2003
Hong Kong, China	1	1	1	1	1
Macau, China	2	2	2	2	2
Thailand	3	3	3	5	7
Japan	4	5	4	3	3
Russian Federation	5	4	5	4	4
Republic of Korea	7	7	6	6	6
United States	6	6	7	7	8
Singapore	8	8	8	8	9
Korea PDR	9	9	9	9	
Australia	10	10	10		
Malaysia				10	10
Viet Nam					5

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

Source: China National Tourism Administration; The Yearbook of China Tourism 2000–2004.

## **New Trends in PRC International Tourism**

With sustained social and economic development, living standards in some parts of the PRC—especially along the coastal areas—have greatly improved. Per capita GDP has reached \$4,500 in Shanghai, \$3,500 in Guangdong Province, and \$3,000 in Beijing. This was the same level of per capita GDP in Hong Kong, China, Republic of Korea, and Japan, 15 years ago. At that time, tourism saw strong growth in these countries. In areas with well-to-do living standards, tourism is popular for about 70–80% of the population in general, and tourists usually have higher expectations for service quality as they acquire more traveling experiences and become more mature in their consumption. Today's tourism consumers in the PRC are becoming increasingly more sophisticated, more experienced, and more demanding. The result of a recent sample survey by VISA supported these trends (Zhang, Wei, and Liu 2002).

The adoption of the annual three 7-day holidays in the PRC has not only encouraged greater tourist consumption, but also offered time for the citizens to travel. Favorable policies for tourism, simplified approval measures for passports, diversified destinations and products, and changes in foreign currency management have greatly improved the environment for outbound tourism.

Events and convention tourism are becoming a new form of tourism in the PRC. After the success of the Kunming Expo'99 and Beijing's bid for the 2008 Olympic Games, many big cities in the PRC are attaching importance to promoting and holding big events and conventions. In 2003, WTO had its general assembly in Beijing; in 2004, the World Heritage Conference was held in Suzhou; in 2006, Hangzhou hosted the World Leisure Exposition; and in 2010, the World Expo will be held in Shanghai. By 2010, many technical conventions, exhibits, and sports events would also take place in the PRC.

SARS has not only made the Government and enterprises realize the importance of crisis management and the establishment of a system to meet with crises in the tourism industry but has also given people new perspectives and demands for life and health. Therefore, "clean tourism"—that is, freedom from pollution, a safe and sanitary environment, healthy tourist products, fair and proper operations, and self-discipline of tourists—has become a new pursuit.

The consumption pattern of Chinese tourists is changing. Sightseeing tourism, which consists of visiting as many places as possible, is giving way to visiting one destination and staying longer there. (Research Project on Behavior Patterns of Chinese Outbound Tourists 2003).

As the 21<sup>st</sup> century unfolds, great changes will be taking place in and outside the PRC. The rapid pace of economic globalization, PRC's entry into the WTO, Beijing's hosting of the 2008 Olympic Games, and PRC's increased interaction with the West have opened many opportunities for the PRC's tourism industry. At the same time, these have brought many challenges as well. The impact of the Olympics could be multifaceted. The tourism industry may be the biggest beneficiary for it can help increase the fame of the city, promote the construction of infrastructure, attract tourists, increase information channels, and optimize tourist products. Regional economic integration and the internationalization of enterprise operations are important embodiments of economic globalization. The Association of Southeast Asian Nations (ASEAN) has already made a step forward in this aspect through the establishment of an ASEAN Free Trade Area. Regional economic integration and economic globalization will promote exchanges and collaboration among countries and regions, and encourage standardization of products and services, while maintaining competitiveness as the key to development. Standardization of tourist products and services is the foundation for developing the tourism industry and could help establish the nation's identity and promote diversity in enterprise competitiveness. Culture plays a very important part in maintaining industry competition. In fact, the future development of the PRC's tourism industry lies in finding ways to reach international standards while preserving the unique advantages of Chinese culture, and cultivating and maintaining its identity in the international markets. Quality standards for tourism should combine features plus visitor satisfaction. The PRC customers are becoming increasingly concerned about the price-value relationship and "quality."

The PRC's entry into the WTO is beneficial for optimizing the environment for tourism industry development and establishing an operational system more aligned with international practice. It would help improve the image of the PRC in the international community, increase international exchanges, and enlarge the PRC's share of the international tourism market. Under the WTO framework, foreign investors and enterprises will be able to get into new areas of tourism services, such as car rental, tourist insurance, travel agency, banking sector, and consultancies. At the same time, PRC tourism enterprises will be able to run businesses outside the PRC and offer services to outbound tourists in destination countries. The PRC's membership in the WTO also means that the country can open its market to the world, thus bringing greater challenges to tourism enterprises especially the small and less competitive ones.

The PRC's strategy to expand its development into the western parts of the country has created a favorable environment for tourism development in these areas. The construction of highways, railways, and airports will make traveling more convenient. There are abundant natural and cultural tourist resources in the western part of the PRC, where tourism development is still relatively slow. Western PRC thus offers new tourism opportunities not only to domestic but also to ASEAN tourists.

## **PRC's Share of GMS Tourism**

Since the 1990s, with the speedup of economic globalization, cooperation in the GMS has developed rapidly and has aroused world attention, and attracted wide participation. It has become an important part of economic collaboration between the PRC and the ASEAN.

GMS has rich tourist resources, diversified cultures, and many world-famous cultural and natural heritages. Climate varies from temperate, subtropical, and tropical. Although nature, history, and social conditions have nurtured diversified cultures in GMS, people in the region continue to have close links and cultural and commercial contacts.

The PRC's tourism promotion strategy in GMS will primarily involve developing tourist resources and products in Yunnan Province which shares borders with GMS countries. Among the measures being undertaken are the simplification of visa procedures for GMS countries and the joint promotion of tourism destinations. Yunnan Province will expand the areas for border tourism and strive for the realization of a single visa and free flow of visitors within the region in 10 years. In recent years, tourists from the other five GMS countries have made up 60–70% of the tourist arrivals in Yunnan Province, and the trend is increasing. In October 2002, the government of Yunnan Province proposed to establish the Lancang–Mekong Tourist region together with Cambodia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, Singapore, Thailand, and Viet Nam. Dali,

Kunming, Lijiang, the Stone Forest, and Xishuangbana of Yunnan Province have been listed as attractions of the “Mekong Pearl.” Places such as Dali, Diqing, Lijiang, and 31 tourist projects in Yunnan Province have been integrated into the conceptual planning of GMS tourism. Many PRC tourists would like to take a cruise along the Mekong River to Thailand and Cambodia, and tourists from Cambodia, Thailand, and Viet Nam would like to come to Yunnan Province by river (Yunnan Tourism Administration 2003).

Difficulties and challenges facing GMS tourism cooperation include relatively poor infrastructure, lack of investment, low level of quality of human resources, and lack of communication and information exchanges among enterprises. Simplification of visa procedures, protection of traditional cultures and the environment, and sharing of information resources need to be addressed urgently.

The PRC’s collaboration with other GMS countries includes:

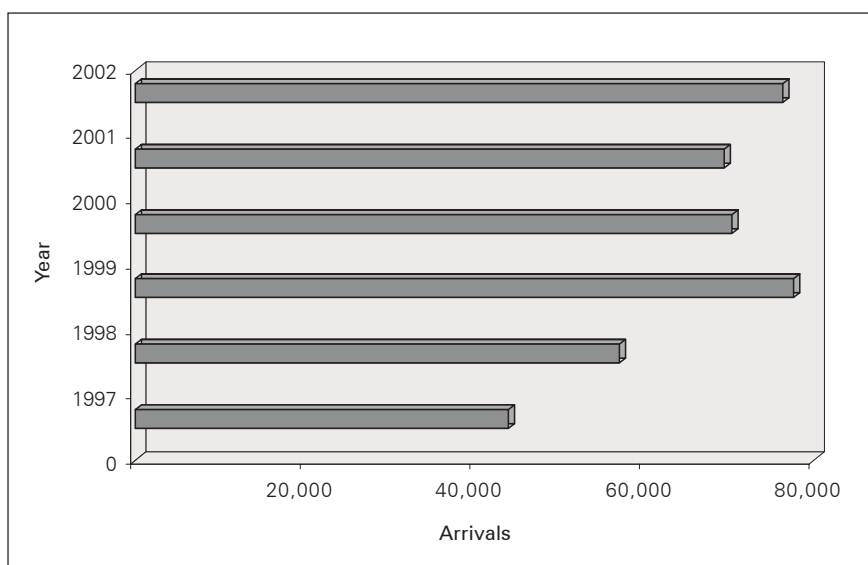
- Visas – free visas for border tourism among Yunnan Province of the PRC, Myanmar, Lao PDR, and Viet Nam;
- Highway – the construction of the Kunming–Bangkok Highway;
- Railway – the construction of the Pan–Asian Railway;
- Water transportation – the opening of the Lancang River–Mekong water course in June 2001;
- Air transportation – opening of direct flights from most major cities in the PRC, especially Kunming, to GMS countries; and
- Tourism – marketing of GMS as a single destination, promotion of village-based tourism, promotion of subregional events, training of human resources in tourism, management of natural and cultural resources, Mekong–Lancang River tourism development, facilitation of travel, and overall promotion to increase GMS tourism flows.

## PRC Tourists’ Assessment of Tourist Attractions and Services in the GMS

Thailand became the third country to receive the ADS for PRC outbound tourists in 1988 after Hong Kong, China and Macau, China. Since 1997, PRC tourists to Thailand increased from 439,795 to 763,139 (See Figure 1), up by 1.74 times. The 2002 figure made up about 7% of Thailand inbound arrivals and 4.5% of the PRC’s outbound visitors (Tourism Authority of Thailand [TAT] 2002; and CNTA 2002).

Thailand has become a very important tourist destination country for the PRC. According to CNTA (2002), Thailand was consistently the third-ranked destination of PRC outbound tourists from 1999–2001 (Table 6). Considering that Hong Kong and

**Figure 1: Arrivals of PRC Tourists in Thailand, 1997–2002**



Source: Based on data from the Tourism Authority of Thailand, 2001–2001 and The Yearbook of China Tourism, 1998–2003.

Macau, top two destinations, are Special Administrative Regions of the PRC, Thailand actually ranked first as the destination of choice among PRC tourists.

As a prominent destination for PRC tourists, Thailand offers many advantages: proximity of geographical location, cheaper costs, difference in climate with most parts of the PRC, and relatively lower tour prices. For these reasons, it has become the first stop for PRC outbound tourists taking the classical route of Thailand–Malaysia–Singapore. A relatively cheaper price for this tour package is likely to be more acceptable to the potential market. Furthermore, to attract more tourists, the Thai Government has adopted several measures, such as the opening of direct flights and simplifying visa procedures for tour groups. From five direct flights in 2002, more than 10 cities in the PRC now have direct flights to Thailand. (TAT 2002).

There is close collaboration between the PRC and Thailand in handling crises (CNTA 2002). For example, during the dengue fever, SARS, and bird flu epidemic periods, information was exchanged and published in a timely manner. Further, since the Lancang–Mekong River connects four countries—PRC, Lao PDR, Myanmar, and Thailand, the opening of the river course in June 2001 has greatly encouraged tourism development in the GMS (Guang and Liang 2004).

However, compared with other destinations, tourism between the PRC and Thailand has experienced many problems. Starting from the latter part of the 1990s, as the number of ADS countries increased and competition became more severe, irregular business

operations began to appear. Some Chinese tour operators and Thai receiving agencies promoted “zero-dollar tours” or “negative-price tours” to attract guests but negate the benefits of low price offers by inducing tour members to buy extra items and undertake extraneous activities in Thailand. These irregular operations have disrupted the tourist market, violated the legal rights and interests of the tourists, damaged the image of tourism between the two countries, and had a general negative impact on the healthy growth of PRC’s outbound tourism.

Both the PRC and Thailand Governments have carried out rectification measures on irregular tour operations. They have performed joint inspections and cracked down on illegal operations, standardized the “extra items” in tour packages, and implemented campaigns and education programs for potential tourists. Thailand has stipulated a minimum tour price of \$18 per day per person.

Despite many setbacks to tourism between the two countries—the financial crisis, epidemic diseases (dengue fever, SARS, and bird flu), and overpriced, low quality tours by some operators—the joint efforts of the two governments to continuously improve the tourist market have resulted in an increasing number of PRC’s tourists to Thailand. However, as the PRC outbound market becomes more mature and choices of destinations for potential outbound tourists increase, the question is whether the number of departures to Thailand would still be sustained. As shown in Table 6, Thailand’s ranking as destination country for PRC outbound tourists slipped to number 5 in 2002, and to number 7 in 2003. What changes should Thailand as a destination country do to adapt to the changing trends in PRC tourism?

In an effort to address this question, a study was conducted to elaborate on the features of the PRC tourist marketing in Thailand. The research findings have important implications to both the PRC and the Thailand Governments, supervision departments, and practitioners in the tourism industry. These implications are beneficial for the different sets of players to understand the demands, behavior, and consumption patterns of PRC tourists; the current issues they face at the destination, the requisite market changes; and future development trends so that better planning, product development, and efficient management can be made.

The study employed both qualitative and quantitative analytical methods. Secondary data were obtained from three sources: statistical reports during 1997–2002, by TAT; the Yearbook of China during 1997–2003, by the State Statistical Bureau of the PRC; and the Yearbook of China Tourism during 1997–2004, by CNTA. Primary data were obtained by a survey questionnaire on PRC tourists to Thailand and interviews with travel service managers. The top 15 out of the 41 travel services engaged in outbound business in Beijing were interviewed in January 2004 concerning the features, demands, and travel pattern of niche tourism in Thailand, tourism products, and evaluation of the destination country. Questionnaires were distributed in February 2004 during the Spring Festival, for it is one of the “golden weeks” for tourism in the PRC and the peak season for PRC visitors

to Thailand. The questionnaires were distributed by tour group leaders and collected on return flights. Passengers who were not group members were welcome to also fill in the questionnaires. One thousand copies were distributed, of which 89.3% were valid. The method of comparing means and percentages was used in analyzing the features and demands of the market.

The following are the results:

### **1. Thailand Satisfies the Desire to Travel Abroad at a Reasonable Price**

Thirteen out of the 15 travel services interviewed pointed out that natural and cultural resources are not the most important attractions for PRC tourists. They cite the following reasons for visiting Thailand: first, going abroad is fashionable; and second, Thailand tourism is good value for money. The average price of a 7-day tour to Thailand is about \$362, a price PRC tourists can afford to satisfy their vanity of being an outbound tourist. Compared with big cities in the PRC, such as Beijing and Shanghai, prices of travel to Thailand are lower. Although PRC living standards have improved with sustained economic growth, PRC tourists are generally well-to-do and tourism decisions are made according to the disposable income, i.e., where they can afford to go, rather than where they want to go. Therefore, Southeast Asian routes, which are relatively priced lower, are popular products in the PRC market. This also explains the spread of “zero-price” or “negative-price” tours.

### **2. Tours to Thailand are Popular Mass Products**

The results of the survey questionnaire showed that 58.9% of the respondents' monthly income was below \$602 with 29.4% below CNY3,000 (\$362); 29.5% between CNY3,001–5,000 (\$362–603); 27.8% between CNY5,001–10,000 (\$603–1206); and 13.3% above CNY10,000 (\$1,206). The monthly per capita income in Beijing and Shanghai in 2003 was CNY1,156.90 (\$139) and CNY1,239 (\$149), respectively. Based on monthly incomes, the statistical analysis indicated that tours to Thailand are popular mass products because these are affordable to the general public. Moreover, all 15 travel agencies interviewed rated Thailand tours as popular mass products with prices that are generally acceptable to the public. The quality of Thailand products compares with prices. PRC tourists to Thailand do not have high expectations of service and quality.

### **3. First-time Visitors Make Up the Majority of the Market**

Based on 2002 statistics from the TAT, the number of first-time visitors accounted for 81.2% of total PRC tourists to Thailand. The results of the survey questionnaire

confirmed this data, showing that first-time visitors comprised 75.5% of total visitors. This can be explained by the fact that PRC tourists have limited disposable income and seek to travel mainly for the “prestige” of having gone abroad. As mentioned earlier, PRC tourists are attracted by the relatively cheap tours in Thailand (even cheaper than some domestic PRC tours).

#### **4. Most Tourists are Young and Middle-aged but the Proportion of Older People is Increasing**

Statistics from TAT (2001 and 2002) indicate the following age profile of PRC tourists to Thailand: the age group below 25 is 10.3%, 25–44 is 55.8%, 45–54 is 20.1%, and above 55 is 16.1%. The average age of the PRC tourists is 40. Compared with 2001, the number of tourists between 45 and 54 increased by 20.9%, and the number of tourists above 55 increased by 16.0% in 2002. PRC tourist arrivals increased by 9.8% from 694,886 in 2001 to 763,139 in 2002. The survey questionnaire showed that tourists above 45 made up 30.1% of total tourists.

According to government statistics, the PRC is becoming an aging society, and with the sustained development of the economy, the number of older tourists is sure to grow. Besides, with the increase in disposable income, the younger generation would most likely buy tours for their parents, in the spirit of the Chinese tradition of respecting the old.

#### **5. Thailand is Viewed as a Holiday Resort in the PRC Market**

Based on the research survey, tourists visit Thailand for different reasons: relaxing, 41.9%; increasing knowledge, 29.5%; seeking novelty, 15.4%; being with relatives and friends, 10.8%; shopping, 1.7%; and others, 0.8%.

The attraction of Thailand is its natural landscape (43.6%), cultural heritage and customs (41.9%), “people-made” attractions (7.9%), and shopping (2.5%).

Tourists like to take part most in sightseeing (73.0%), entertainment (20.7%), adventure (3.7%), and others (2.5%).

Twelve of the travel services interviewed pointed out that Thailand was a destination for sightseeing and relaxation.

#### **6. Consumption Features of PRC Tourists in Thailand**

According to the TAT (2002), per capita spending of PRC tourists was \$94.38 per day in 2002, compared with the average per capita spending of international tourists of \$87.38 per day. The average length of stay of Chinese tourists was 6.18 days with an average spending of \$583 per trip.

A 7-day tour to Thailand is sold at only about CNY3,000–4,000 (\$362–482) in the PRC. Deducting CNY2,000 (\$241) for the air ticket, the per capita spending should be \$120–\$240 per trip. However, compared with the TAT figure of \$583, the PRC tourist could spend only about \$300 per person per trip on extra items and shopping.

TAT's 2001 statistics indicated the composition of the PRC tourist spending as follows: shopping, 38.5%; accommodation, 21.3%; entertainment, 13%; food, 12.5%; transport, 5.9%; and sightseeing, 5.7%. Although the research survey found that 41.9% of the respondents said that their purpose of visiting Thailand was relaxing, and only 1.7% indicated shopping, the actual amount of spending on shopping was much greater than other items. Cai Jiacheng (2000) explained that since most outbound tourists were first-time visitors, they would buy gifts for relatives and friends. Furthermore, the spending of most PRC tourists on hotels is very limited. They seldom have meals at hotels, do not use the hotel telephone, and do not consume from the mini-bar, with many bringing their own tea (Bachman 2003). This pattern of spending could change as the market becomes more mature.

## **7. Length of Stay and Mode of Travel**

The average length of stay of PRC tourists in Thailand has been 6.18 days in recent years, compared with 6.25 days of Japanese tourists and 4.88 days of tourists from the Republic of Korea (TAT 2002). However, PRC tourists differed with Japanese and Korean tourists in that they tend to visit more places in Thailand, with Bangkok–Pattaya–Phuket as the most preferred itinerary for a 7-day tour.

Among Thailand's inbound arrivals, an average of 45.7% joined group tours and 54.3% were nongroup tourists. PRC tourists took the highest share of group tours among Thailand's international tourists. The interviewees of this study explained that PRC tourists prefer to join group tours because they visit several places in Thailand, and it was more convenient to let the travel agencies make all the arrangements. The interviewees anticipate that this trend of seeing as many places as possible would change (toward holiday and relaxation) as the PRC market becomes more mature. Actually, some changes have already begun to appear when spa tours, golf tours, and tours to a single destination were well received during the Spring Festival in 2004. The traditional route of Singapore–Malaysia–Thailand is no longer as popular as before. More and more tourists are choosing one destination country instead of several countries for one trip.

## **8. Evaluation of Thailand's Tourism Products and Services**

Survey results revealed that respondents' evaluation on accommodation, food, transportation, entertainment, shopping facilities, tour guides, and attractions was not

high, with statistical means of between 2.50 to 3.00. The evaluation on food was especially low with a mean of 1.98. Chinese food and Thai food greatly differ in taste and variety. In general, PRC tourists are not particular about service quality and facilities because they recognize that quality and price are related.

As disposable income increases and the PRC tourist market matures, the present trend of seeking low-priced tours will change. Leisure and holiday travel will replace the current preference for sightseeing tours. Table 6 shows that the position of Thailand as one of the top-rated destinations of PRC outbound tourists dropped from third to fifth in 2002 and seventh in 2003. This indicates that the traditional routes and tour packages are losing their appeal, and new products adapted to new trends need to be developed. Furthermore, as the PRC's social norms and concepts develop, the number of older tourists will increase. Developing products adapted to this niche market will be necessary.

## **Assessments of PRC Tourists on Other GMS Countries**

The other four GMS countries—Cambodia, Lao PDR, Myanmar, and Viet Nam—have also shown great interest in encouraging PRC tourists to visit them, and have adopted active measures to promote the excursions of PRC tourists. The four countries were listed as ADS in 2000.

Fifteen travel agencies with licenses to run outbound business in the PRC were interviewed in August 2004. Samples were chosen from different parts of the PRC to get an overall view of the outbound tourists to the four GMS countries. The travel agencies are in Beijing – 6, Yunnan – 3, Shanxi – 1, Shandong – 1, Guangxi – 2, Xinjiang – 1, and Helongjiang – 1. The general managers or managers of the outbound divisions were interviewed. The summary of the interviews is as follows:

**Lao PDR:** The Lao PDR Government has further simplified the application procedures for visas. Tourists can get their visa at Vientiane airport and other border ports on the same day. For the convenience of PRC tourists, Lao PDR, Thailand, and Viet Nam, have increased the number of entry ports along their borders with the PRC. In addition, the Lao PDR Government is actively constructing highways to the PRC, Myanmar, and Viet Nam, expanding airports and opening international and domestic flights. The Lao PDR has signed tourism cooperation agreements with other GMS countries.

Currently, most PRC outbound tourist agencies have no business in the Lao PDR. The number of tours sent to the Lao PDR by agencies in Yunnan and Guangxi are very limited. The majority of the business is border tourism.

**Myanmar:** The Myanmar Government has adopted active measures to relax control over visa application and foreign currency management, to increase investment on

construction of infrastructure and airports, and to open more flights to the PRC. Other measures involve promoting border tourism. With the development of border trade in recent years, the Myanmar Government has established five entry ports along its border with the PRC, and constructed tourist destinations and attractions around the ports. For example, a special zone was set up on the border with Yunnan Province to encourage the Chinese to visit and shop there. Border tourism has become a hot tourist product between the PRC and Myanmar. What used to be day tours now extend from 5–7 days. PRC border tours to Myanmar are estimated to be over hundreds of thousands per year (Zheng 2000). Representative offices in the PRC have also been established to open up tourist markets. The PRC has also cooperated closely with the Lao PDR and Thailand in developing tourism products. A cruise was initiated from Chiang Mai, Thailand to Yunnan Province along the Mekong–Lancang River. Since 2002, the Myanmar Government has issued many policies to encourage PRC tourism to the country, namely, allowing PRC tourists to use renminbi (RMB); reduction of the visa fee from \$20 to \$10; and reduction of the airport fee from \$10 to \$5.

Organized package tours to Myanmar are in very small numbers. Tourism consists mainly of border tourism, usually 1-day tours. PRC tourists travel to Myanmar mainly for sightseeing and enjoying the exotic natural environment and culture, as well as satisfying their desire to go abroad. In general, prices, services, and facilities are considered acceptable. Only agencies in Yunnan Province have regular organized tours to Myanmar, with prices ranging from CNY2,800 to 5,000 (\$337–603).

***Viet Nam:*** The Vietnamese Government attaches great importance to cooperation in tourism development with the PRC, which is one of the largest markets for Viet Nam. From 1995–2002, the number of PRC tourists (including border tourists) increased from 60,000–700,000. Both the PRC and Viet Nam Governments have relaxed control over tourism development and have created a favorable environment for it. The cruise ship, Princess Minghui, came into operation in 2003, and the tourist express from Tianjin, PRC to Viet Nam via the PRC’s Guilin and Nanning started to carry passengers in April 2004 (CNTA 2003).

Prices of package tours to Viet Nam range from CNY3,000–5,000 (\$362–603), with a length of stay of 4–7 days. However, most tours are multidestinational to Vietnam and Cambodia with a price of CNY5,000 (\$603) and a length of stay of 6–7 days. Majority of PRC outbound tourists to Vietnam are border tourists from Guangxi Province. Their purpose is mainly sightseeing and enjoying the exotic natural environment and culture. The most visited city is Ho Chi Minh. Assessments of facilities and services at the destinations are generally good. However, infrastructure development is still uneven and is being improved. In general, prices are found to be reasonable. Most tourists would like to spend more money but find nowhere to do so.

**Cambodia.** To attract more PRC tourists and facilitate visa applications, the Government of Cambodia has increased the number of consulates in the PRC. The PRC is one of the top five tourist markets of Cambodia. The number of tourists increased every year from 1999–2003. It is estimated that the number of PRC tourists will exceed Japanese tourists in 2006. In December 2003, the Chinese Yunnan Airline opened direct flights from Kunming to Siem Reap, site of the famous Angkor Wat. This will greatly promote the growth of tourism between the PRC and Cambodia (CNTA 2003).

Compared with Thailand, the tourism business in Cambodia is small. There is almost no tour to Cambodia as a single destination. Tour packages which are priced around CNY5,000 (about \$620), with a length of stay of 5–7 days, usually include Cambodia and Viet Nam. The groups usually stay 2–3 nights in Cambodia. The most visited places are Siem Reap and Phnom Penh. PRC tourists to Cambodia usually sightsee, are mostly attracted to the cultural heritage, and usually buy carvings, arts, and craft as souvenirs. Assessments of facilities and services of the destinations are generally good.

## **Recommendations for Future Regional Research and Collaboration**

“Collaboration promotes development” is well-recognized. In the development of international tourism, home countries and destination countries should collaborate closely in marketing and promotion, management and operation, and products and services development to increase tourism and improve quality. In Western Europe, for example, which has enjoyed a leading position in tourism development worldwide, the top three destinations (Spain, France, and Italy) have closely collaborated to develop their tourism industry. Citizens of member countries of the European Community are also free to travel without visas, hence offering great convenience to tourists.

Although tourism has developed very rapidly in Asia in recent years, there is still a large gap compared with Europe in terms of utilization of tourist resources, level of development of the tourist industry, and the extent of tourism’s contribution to the national economy. The international tourist income of Asia only accounts for one fifth of the world’s total, and is about one third that of Europe.

Asian countries have collaborated in various ways in pursuing their common desire to speed up tourism development. Since the Asian financial crisis in 1997, countries in the Asia and Pacific region have carefully discussed ways and measures to deal with crises cooperatively at various international and regional tourism conferences. In the wake of the SARS epidemic, people have become even more aware of the importance of regional cooperation. In 2003, many important regional tourism conferences were held, such as the First Tourism Forum of the Asia Dialogue Cooperation Organization; the Third Tourism

Conference of ASEAN, PRC, Japan, and Republic of Korea; the Boao Forum of Asian Tourism Industries; and the ASEAN 10+3 Tourism Ministers' Summit. During these conferences, discussions focused on the future and development of the Asian tourism industry, the strengthening of regional cooperation in tourism, and measures to promote collaboration. These initiatives have generated positive effects on the growth of regional tourism. The ASEAN 10+3 Beijing Declaration on Rejuvenating the Tourism Industry points out that measures should be adopted to eliminate all barriers within the region, to simplify visa procedures according to ASEAN agreement, and to facilitate intra- and interregional tourism. Since ASEAN, Japan, and Republic of Korea are major destinations of PRC outbound tourists, the establishment of the "10+3" tourism cooperation system would create a more favorable environment for the further growth of regional tourism in general and PRC tourism in particular.

In the wake of terrorist incidents, wars, political instability, and epidemic diseases, safety has become the number one concern of tourists. Therefore, intra-regional and short-haul traveling will be the choice of most tourists. At present, about 80% of outbound tourists are traveling in the Asia and Pacific region.

To further develop regional tourism, scholars, researchers, practitioners, and policy makers need to do a great deal more. Some recommendations are given below:

- **Establish a mechanism for dialogue at the governmental level to eliminate barriers for international tourism development.**

The elimination of barriers would guarantee the free flow of visitors and generate greater growth for the tourism industry. At present, the PRC has adopted a series of measures to relax controls over insurance, finance, and foreign currency management. Passport application procedures have been simplified. However, more efforts should be made to decentralize and relax certain procedures. For instance, tourist visa procedures could be further simplified or even waived for travel within the region. The PRC should encourage outbound business to all countries and destinations without the limitation of government's approval of destination status.

Governments should collaborate in regulating tourist markets and apprehending irregular tour operators. Recent actions by the PRC and Thailand Governments to rectify illegal tour operations have generated good results.

- **Strengthen collaboration in the regional tourism industry.**

Regional collaboration at the industry level, including investment and the establishment of transnational and joint venture enterprises would be mutually beneficial. This will help expand markets, strengthen competitiveness, and accumulate experiences in international tourism operations; thus, contributing to the faster growth of regional tourism.

With constant changes in the international situation, the tourism industry should find ways to respond and adapt to different travel trends prevailing in the Asia and Pacific region. A reappraisal of tourism forecasts, reorientation of tourism policy and marketing, and establishment of strategic tourism planning on a regional, industry-to-industry basis should be established to promote continuous improvement of industry practices. A closer policy and planning network could be developed and interaction between the network and other intergovernmental organizations and nongovernment organizations should be promoted. A tourism framework should be formulated that would outline a systematic approach for strengthening the capacity of destination countries to compete effectively and to increase quality in the international marketplace. In particular, convenient transportation means should be provided, including the construction of better highways and railways and the opening of more air and water routes to stimulate and facilitate travel and tourism in the region.

As the PRC is a new tourist originating country, destination countries would need to understand better this huge market—its cultural patterns, traveling behavior, and consumption preferences. Studies and research would be needed to provide products and services adapted to the needs of the PRC market. Furthermore, financial collaboration to provide more convenient and safer ways to settle payments for tourism services is urgently needed.

- **Enhance communication and information exchange.**

Enhancing information exchanges and communication within the region is necessary. Such need has been proven during and after the outbreak of SARS. Issues should be discussed and resolved based on the principle of mutual respect, seeking common points, and reserving differences. Countries in Asia have different histories, cultures, political systems, and economic practices; the level and mode of tourism development are different; and tourism resources and products have their own features. However, they all have accumulated successful experiences in tourism development in its different aspects. Exchanging experiences can help promote improvements in the overall level of tourism development in the region. Furthermore, there is also a strong need for regional cooperation in tourism education, training, and research exchanges.

- **Set up a balanced approach for development.**

To promote sustainable development, a balanced approach to tourism should be formulated and pursued—giving equal importance to social, economic, cultural, and environmental aspects. This is especially important in areas with fragile ecological systems. Appropriate development policies, planning, and approaches should be adopted. At the

same time, there should be effective measures to monitor the progress of development in destination areas to ensure the overall well-being of local residents, as well as to cultivate small- and medium-tourist enterprises.

- **Establish a security system.**

Since 2001, safety and crisis management have become top considerations for travelers, practitioners, and governments. Safety is the number one primary factor for the development of tourism. Therefore, governments in the region should collaborate and support each other in building up a system to ensure the safety of tourists and to respond effectively to crisis situations. Because of language barriers, a system should be established to handle emergencies and assist tourists when traveling within the region. Tourists should be advised what to do in case they find themselves in difficult situations. Assistance should be provided for medical situations, including medical consultation, a list of recommended hospitals and doctors, and coordination for emergency helicopters, etc. It should also cover personal assistance including visa application, interpreters, lawyers, as well as consultation concerning insurance, credit cards, travel information, and information on transportation and entertainment.

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# Forest Capital Disinvestments and Sustainable Development in the Greater Mekong Subregion: Making *Visible* the *Invisible*

Javed Hussain Mir<sup>1</sup> and C. Chandrasekharan<sup>2</sup>

## Abstract

Forests form a linchpin for national economies and rural livelihoods in much of the Greater Mekong Subregion (GMS). Sustainable forest management requires that the nature and dynamics of forest resource change be fully understood. Using the most recent comparative data (for 1990 and 2000), we present information on the extent of forest loss in countries of the GMS and estimate the effective rate of forest loss, taking into account both the quantitative (area loss or deforestation) and qualitative (decline of growing stock or degradation) aspects. Qualitative degradation is the less visible but more lethal threat emerging in GMS forests. When qualitative aspects are taken into account, the extent of forest loss becomes much more alarming than is already evident in existing reports—an equivalent of about 5.4 million hectares (ha) annually, compared with the net visible deforestation of about 0.7 million ha, and representing an annual forest capital disinvestment of between \$27–54 billion, depending on the capital value assigned per hectare of forest. For sustainable forest management, both the quantity and quality of forests must be maintained. Forest management activities can qualify as sustainable only if they do not reduce the production potential of the asset base and the set of opportunities for future generations.

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<sup>1</sup> Senior Natural Resources Specialist (Forestry), Southeast Asia Department, Asian Development Bank.

<sup>2</sup> Forest Economist and former Chief of Nonwood Products and Energy Branch in the Forestry Department of the Food and Agriculture Organization (FAO) of the United Nations.

## Roles of Forests<sup>3</sup>

Forests help maintain ecological balance and biodiversity, protect watersheds and wildlife, store carbon, and influence weather and climate patterns. They maintain a self-sustaining process of nutrient recycling. Forest products are vital for the welfare of rural—including ethnic minority—communities, helping to meet their basic needs for wood, food, fuel, forage, fiber, and organic fertilizer. As an inseparable component of the total land-use system, forestry has significant interrelationships with agricultural, pastoral, and food producing systems. Through soil and water protection and maintenance of soil fertility, forestry provides critical support for agricultural development. In addition, forest-based enterprises help increase rural employment, incomes, and the living standard of rural people. Forestry has a great potential for promoting people's participation, and for helping in the empowerment of disadvantaged sectors of society.

The immediate stakeholders in forest management are many: upland communities, farmers practicing agroforestry, communities near forest areas, forest-based processing industries, forest labor, environmentalists, policy makers, forestry professionals, and the scientific community. The integrity of forests as a resource or capital stock depends on the stakeholders' awareness of forest benefits and their commitment to long-term forest sustainability.

However, the diversity of forest products, benefits, and the resulting conflicts, make sustainable management of forests considerably complex. Forests' long gestation period and investment horizon do not often match social timescales. The difficulty in distinguishing between forest capital and incremental growth often leads to overexploitation and capital consumption. The high level of externalities, which are often ignored in private business decisions, further adds to the complexity.

Some other benefits of forests (e.g., as a carbon sink and reservoir of biodiversity) have been recognized only recently. Ironically, as more information about the potential contributions of forests becomes available, more of them are disappearing due to deforestation and forest degradation.

## Forest Resources of GMS Countries

The Food and Agriculture Organization's (FAO's) report of the United Nations Global Forest Resources Assessment of 2000 (FRA 2000) (FAO 2001) revealed that forest covers in Cambodia, Lao People's Democratic Republic (PDR), Myanmar, Thailand, and Viet

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<sup>3</sup> In the conventional sense, a forest is defined as a plant association, predominantly of trees and other woody vegetation; forestry is the scientific management of forests and trees for the continuous production of goods and services.

Nam are 80.9 million ha, or 42.5% of these countries' land area. Average per capita share was 0.4 ha. National differences in percentage share of forest in total land were wide: from 54.4% in the Lao PDR to 28.9% in Thailand. Per capita share of forest varied between 0.1 ha in Viet Nam and 2.4 ha in the Lao PDR (Table 1).

**Table 1: Forest Resources of GMS Countries, 2000**

Country	Land area ('000 ha)	Total forest ('000 ha)	Forest area, 2000		Forest plantation ('000 ha)	Wood volume in forests (m <sup>3</sup> /ha)	Biomass in forests (t/ha)
			Percentage of land area (%)	Area per capita (ha)			
Cambodia	17,652	9,335	52.9	0.9	90	40	69
Lao PDR	23,080	12,561	54.4	2.4	54	29	31
Myanmar	65,755	34,419	52.3	0.8	821	33	57
Thailand	51,089	14,762	28.9	0.2	4,920	17	29
Viet Nam	32,550	9,819	30.2	0.1	1,711	38	66
<b>Total</b>	<b>190,126</b>	<b>80,896</b>			<b>7,596</b>		
<b>Average</b>			<b>42.5</b>	<b>0.8</b>		<b>31</b>	<b>50</b>

GMS = Greater Mekong Subregion, ha = hectare, Lao PDR = Lao People's Democratic Republic, m<sup>3</sup> = cubic meter, t = ton, % = percent.

Source: FAO, 2001.

Overall, 90.6% of these forests are still natural growth, the remainder being plantation forests, with Thailand accounting for a third of the latter. The Lao PDR's plantation area is the smallest at 0.4%. Average wood volume in 2000 was at 31 cubic meters per hectare (m<sup>3</sup>/ha). Average wood biomass was estimated at 50 tons per hectare (t/ha). These were already far below the averages for Asia of 63 m<sup>3</sup>/ha and 82 t/ha, both of which were far below the world averages of 100 m<sup>3</sup>/ha and 109 t/ha.

Capital value of the forests in the five countries in 2000 is estimated at \$800 billion. This assumes a capital value (potential) of \$10,000 per ha—about half the average estimated value for Asia. Even if this already modest assessment is discounted further by half, due to remoteness and marketing constraints, forest capital in 2000 was still about \$400 billion. This asset, however, is steadily depreciating due to deforestation, inadequate protection, and unscientific management practices.

## Forest Loss and Degradation

Changes in the forest resource situation take place through quantitative (area) loss and qualitative (growing stock) degradation. There is a mistaken tendency to assume that deforestation alone represents forest resource change; and accordingly to claim improvement in forest management based on a reduction in the rate of deforestation.

## Quantitative Loss—Deforestation

The annual net deforestation of GMS countries in 1990–2000 amounted to 687,000 ha, an annual net rate of 0.8% (Table 2), varying from 0.4% in Lao PDR to 1.4% in Myanmar. The annual net deforestation rate of 0.8% in these countries during 1990–2000 far exceeds that of Asia (0.1%) and the world (0.2%).

**Table 2: Changes in Forest Area in GMS countries, 1990–2000**

Country	Total forest, 1990 in '000 ha	Total forest, 2000 in '000 ha	Forest cover change	
			Annual change, in '000 ha	Annual rate of change, in %
Cambodia	9,896	9,335	(56)	(0.6)
Lao PDR	13,088	12,561	(53)	(0.4)
Myanmar	39,588	34,419	(517)	(1.4)
Thailand	15,886	14,762	(112)	(0.7)
Viet Nam	9,303	9,819	52	0.5
<b>Total</b>	<b>87,761</b>	<b>80,896</b>	<b>(687)</b>	<b>(0.8)</b>

GMS = Greater Mekong Subregion, ha = hectare, Lao PDR = Lao People's Democratic Republic, % = percent, ( ) = negative, no ( ) = positive.

Source: FAO, 2001.

The gross loss (deforestation) of natural forests—without considering the gains in afforestation—was higher if the newly added area of forest plantations during the 1990s is subtracted. The total annual loss of natural forests in these countries was then 1,222,000 ha, equivalent to an annual loss rate of 1.45%. Even this deforestation rate masks the severity of forest resource change caused by forest degradation because of the low level of crown density adopted for defining a forest.<sup>4</sup>

The total forest area in 2000 shown in Table 2 includes 7.6 million ha of plantations, of which more than 5.3 million ha were added during 1990–2000. Of the latter, 2.6 million ha were rubber plantations, which were previously not counted as forests (Table 3). If this artificial (and questionable) gain is set aside, as it should be (including only real forest plantations in calculating the net area of forests), then the real annual deforestation rate in the period was 1.1% rather than 0.8%.

<sup>4</sup> The Forest Resources Assessment 2000 (FAO 2001) defined forest as land with tree crown cover or equivalent stocking level of more than 10% and an area of more than 0.5 ha, and carrying trees capable of reaching a minimum height of 5 m at maturity in situ.

**Table 3: Changes in Forest Plantation Area in GMS Countries, 1990–2000**  
(‘000 ha)

Country	Plantation area		Plantation area added during 1990–2000	Share of rubber in the increase in plantation area during 1990–2000
	1990	2000		
Cambodia	7	90	83	73
Lao PDR	4	54	50	–
Myanmar	235	821	586	111
Thailand	529	4,920	4,391	2,115
Viet Nam	1,470	1,711	241	300
<b>Total</b>	<b>2,245</b>	<b>7,596</b>	<b>5,351</b>	<b>2,599</b>

GMS = Greater Mekong Subregion, ha = hectare, LAO PDR = Lao People’s Democratic Republic.  
Source: FAO, 1995 and 2001.

## Forest Degradation

The less visible, but more threatening, aspect of forest resource change in these GMS countries is qualitative degradation, which gradually leads to the disappearance of forests. It is seen in such characteristics as low stocking, damage to residual stock, imbalance in distribution of species and age classes, slumps in growth and productivity, lack of ground cover, and soil erosion. Substandard management of forest plantations exacerbates these problems.

Evidence of extremely serious qualitative degradation abounds in these countries. Wood volume in 2000 had shrunk to 31 m<sup>3</sup>/ha, less than a third of the global average of 100 m<sup>3</sup>/ha. Biomass volume was only 50 t/ha compared to the world average of 109 t/ha. Stock of wood per ha during 1990–2000 slumped from 121 m<sup>3</sup> to 31 m<sup>3</sup>, a drop of 74.4%. Biomass tumbled from 187 t/ha to 50 t/ha, or 73.2%.

During the 1990s, minor gains in reducing the rate of deforestation of the 1980s were made. These, however, were wiped out by the high—and still growing—rate of quality degradation. The difference in total forest growing stock volume of wood and biomass during 1990–2000 shows the magnitude of growing stock loss through forest degradation (Table 4).

**Table 4: Forest Stock Density in GMS Countries, 1990–2000**

Country	Wood volume in forests, m <sup>3</sup> /ha		Biomass in forest, t/ha	
	1990	2000	1990	2000
Cambodia	122	40	178	69
Lao PDR	128	29	193	31
Myanmar	145	33	217	57
Thailand	62	17	125	29
Viet Nam	119	38	183	66
<b>Average</b>	<b>115</b>	<b>31</b>	<b>179</b>	<b>50</b>
<b>Asia</b>	<b>125</b>	<b>63</b>	<b>171</b>	<b>82</b>
<b>World</b>	<b>114</b>	<b>100</b>	<b>131</b>	<b>109</b>

GMS = Greater Mekong Subregion, ha = hectare, LAO PDR = Lao People's Democratic Republic, m<sup>3</sup> = cubic meter, t = ton.

Source: FAO, 1995 and 2001.

## Analytical Approaches to Assessing Forest Loss and Degradation

One analytical approach to assess the effective rate of forest loss is to convert the loss of growing stock of wood and biomass into “area equivalent” based on the quality benchmark defined by stock volume of wood or biomass per hectare in the base year of 1990. The difference in the stock volume of wood or biomass in 1990 and 2000 (as reported in FAO 2001) is the magnitude of stock loss, reflecting the degradation caused by the absence of sustainable forest management (Tables 5 and 6).

### Loss of Wood Volume

The loss in terms of wood volume during 1990–2000 was about 6,637 million m<sup>3</sup>. This, when converted by using the “average wood volume per hectare” in 1990 (121 m<sup>3</sup>/ha) gives an area equivalent of 54.9 million ha or an equivalent annual deforestation of 5.5 million ha, representing an annual forest resource loss of 9.1%. This rate is considerably higher than the annual deforestation reported by FRA 2000 of only 0.7 million ha, accounting for an annual resource loss of about 0.8%.

The situation in individual countries can be seen in Table 5. Viet Nam has the highest share of forest degradation in terms of total resource change, followed by the Lao PDR and Cambodia. Extensive areas of young (or poor quality) plantations can contribute to the declining growing stock. But that does not appear to be a factor in these GMS countries because new plantations account only for about 6.7% of total forest area. When the area equivalent of 54.9 million ha of loss in wood volume is deducted from the recorded

**Table 5: Forest Degradation, 1990–2000, in Terms of Wood Volume<sup>a</sup>**

Country	Total wood volume (million m <sup>3</sup> )		1990 quality benchmark m <sup>3</sup> /ha	Degradation reduced into area equivalent of annual loss		Annual deforestation rate, 1990–2000 reported in FRA 2000		Share of forest degradation in total resource change, in %
	1990	2000		million ha/year	annual loss rate, in %	million ha/year	annual loss rate, in %	
Cambodia	1,484	376	122	(0.908)	17.0	(0.056)	0.6	93.8
Lao PDR	1,686	359	128	(1.037)	13.1	(0.053)	0.4	94.9
Myanmar	4,184	1,137	145	(2.101)	7.2	(0.517)	1.4	75.4
Thailand	790	252	62	(0.868)	7.5	(0.112)	0.7	87.1
Viet Nam	989	372	119	(0.518)	7.7	0.052	0.5	110.0 <sup>b</sup>
<b>Total</b>	<b>9,133</b>	<b>2,496</b>	<b>121</b>	<b>(5.485)</b>	<b>9.1</b>	<b>(0.687)</b>	<b>0.8</b>	<b>87.5</b>
<b>World</b>	<b>383,727</b>	<b>386,352</b>	<b>114</b>	<b>2,303</b>	<b>0.06</b>	<b>(9,391)</b>	<b>0.22</b>	<b>c</b>

FRA = Forest Resources Assessment, GMS = Greater Mekong Subregion, ha = hectare, LAO PDR = Lao People's Democratic Republic, m<sup>3</sup> = cubic meter, % = percent, ( ) = negative, no ( ) = positive.

<sup>a</sup> Because of rounding off at various stages and adjustments for consistency (with respect to area deforested, area under plantation, etc.), the averages may not add up.

<sup>b</sup> An increase in forest area along with a decrease in growing stock indicates a higher level of forest degradation.

<sup>c</sup> Improvement in total growing stock in spite of loss in forest area indicates increasing productivity and effective gain in resource capital.

Source: FAO, 2001.

forest area of 1990, the remainder, 32.9 million ha, was the level of forest resources in the GMS in 2000 in terms of 1990 quality standards.

## Loss of Biomass Volume

Biomass loss can also be converted into area equivalent to estimate the extent of forest loss due to degradation. As reported in FRA 2000, the magnitude of biomass loss during 1990–2000 was 9,994 million tons. This biomass loss, when converted by using the average biomass density (187 t/ha) in 1990, gives an area equivalent of 53.4 million ha, representing an annual deforestation equivalent of 5.3 million ha or a loss rate of 8.8%. This means that the effective forest area in 2000 was 34.3 million ha in terms of 1990 quality standards.

The situation in GMS and individual countries, based on changes in wood volume and biomass is very similar (Tables 5 and 6). Globally, there was an increase in wood volume during 1990–2000, even though there was an area loss due to deforestation of 0.22% per year (Table 5). There, however, has been a decrease in biomass volume at a rate higher than that of deforestation (Table 6).

The estimates of forest loss above are summarized in the Box. It has been shown that the extent of forest loss—already alarming as it is in existing reports—is further exacerbated if the extent of degradation is taken into account. The spiraling rate of forest degradation, if unchecked, can reach disastrous proportions and can damage the Mekong River itself. The consequent unraveling of the region’s ecosystems will impact on the lives of people and hobble member countries’ development efforts.

Degradation has been aptly called “ecological metastasis”—the onset is barely perceptible but the spread of decay accelerates the slide toward deforestation and irreversible damage. Thus, the adverse impact of little-noticed degradation can be several times more severe than the already starkly visible deforestation.

## Extent of Disinvestment in Forestry

Deforestation and forest degradation are cases of disinvestment. Both have escalated year after year, representing losses in forestland and growing stock, including their multiple benefits. These slippages have exceeded the inflow of new investments (Table 7). Accordingly, the net drain on forest resources has now reached between \$27 billion and \$54 billion annually, depending on valuation criteria.

In contrast, the estimated annual net negative investment in Asian forestry was about \$6 billion in the early 1990s, which did not consider forest degradation.<sup>5</sup> In spite of the

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<sup>5</sup> Estimated by adjusting the disinvestments and considering the gross investment.

**Table 6: Forest Degradation, 1990–2000, in Terms of Biomass**

Country	Total wood volume (million m <sup>3</sup> )		1990 quality benchmark t/ha	Degradation reduced into area equivalent of annual loss		Annual deforestation rate, 1990–2000 reported in FRA 2000		Share of forest degradation in total resource change, in %
	1990	2000		Volume change	million ha/year	annual loss rate, in %	million ha/year	
Cambodia	2,163	648	178	(0.851)	15.1	(0.056)	0.6	93.4
Laos PDR	2,544	391	193	(1.116)	14.9	(0.053)	0.4	95.3
Myanmar	6,259	1,965	217	(1.979)	6.7	(0.517)	1.4	73.9
Thailand	1,585	434	125	(0.921)	8.2	(0.112)	0.7	87.8
Viet Nam	1,524	643	183	(0.481)	7.0	0.052	0.5	110.8 <sup>a</sup>
<b>Total</b>	<b>14,075</b>	<b>4,081</b>	<b>187</b>	<b>(5.344)</b>	<b>8.8</b>	<b>(0.687)</b>	<b>0.8</b>	<b>87.1</b>
<b>World</b>	<b>440,479</b>	<b>422,256</b>	<b>131</b>	<b>(13.911)</b>	<b>0.36</b>	<b>9.391</b>	<b>0.22</b>	<b>32.5</b>

FRA = Forest Resources Assessment, GMS = Greater Mekong Subregion, ha = hectare, LAO PDR = Lao People's Democratic Republic, t = ton, % = percent, ( ) = negative, no ( ) = positive.

<sup>a</sup> An increase in forest area along with a decrease in growing stock indicates a higher level of forest degradation.

Source: FAO, 2001.

**Box: Estimates of the Extent of Forest Loss in GMS Countries:  
Capturing the Invisible Factors in the Dynamics of Forest Resource Change**

**Rate of forest loss due to deforestation**

Annual net deforestation rate (1990–2000): 0.80%

(accounting for the offsetting effects of afforestation from plantations, including rubber)

Annual net deforestation rate (1990–2000): 1.12%

(accounting for the offsetting effects of afforestation from plantations, excluding rubber)

Gross annual deforestation rate: 1.45%

(not accounting for gains in afforestation from plantations)

**Rate of forest loss due to deforestation and degradation of growing stock**

Accounting for loss in wood volume, converted to area equivalent: 9.1%

Accounting for loss in biomass volume, converted to area equivalent: 8.8%

**Effective forest area in 2000, based on 1990 quality standards**

- based on area (FRA 2000): 87.76 million ha
- based on 1990 quality of wood volume: 32.91 million ha
- based on 1990 quality of biomass volume: 34.32 million ha

Source: Authors.

nature of these estimates, the trends clearly indicate that the disinvestment rate increased considerably during the 1990s due to an unprecedented level of forest degradation.

**Table 7: Disinvestment of Forest Capital in GMS Countries, 1990–2000**

Country	Annual average resource loss in area equivalent (million ha)	Value of annual net capital loss or disinvestments (billion \$)	
		At \$10,000 per ha <sup>a</sup>	At \$5,000 per ha <sup>b</sup>
Cambodia	0.9	9.0	4.5
Lao PDR	1.1	11.0	5.5
Myanmar	2.0	20.0	10.0
Thailand	0.9	9.0	4.5
Viet Nam	0.5	5.0	2.5
<b>Total</b>	<b>5.4</b>	<b>54.0</b>	<b>27.0</b>

GMS = Greater Mekong Subregion, ha = hectare, LAO PDR = Lao People's Democratic Republic, \$ = US dollar.

<sup>a</sup> This value (potential) is about half the average estimated capital value for Asia.

<sup>b</sup> Capital value further discounted by half to reflect remoteness and marketing constraints.

Source: Authors' estimates.

## **Conclusion: Implications for Sustainable Development in the GMS**

### **Causes and Consequences of Forest Loss**

Deforestation and forest degradation are caused by a host of interlocking factors: planned and unplanned land-use changes, shifting cultivation, forest encroachments, expansion of subsistence and commercial agriculture, uncontrolled fuelwood collection, excessive and illegal logging, timber smuggling, management deficiencies, nonobservance of silvicultural prescriptions, forest fires, excessive grazing, pests and diseases, use of injurious chemicals, inadequate protection measures, surge of refugees from neighboring countries, infrastructure development, widening gap between supply of and demand for forest products, political instability, and institutional weaknesses. Data on damage caused by natural hazards, such as floods, cyclones, and drought are scanty, particularly on how they have affected forest resources and/or how forests have helped reduce the impact of such natural hazards.

Impacts of deforestation and forest degradation include forest capital loss, decline in wildlife, soil erosion and loss of watershed values, loss of soil fertility and capacity for nutrient recycling, lowering of productivity and growth, decline of ecosystems, erosion of genetic wealth and biodiversity, fall in agricultural productivity, unhealthy condition of forests, and reduced value of the residual resource. The social and environmental costs of these impacts are very high.

The governments of GMS countries have formulated policies, strategies, plans, and programs to address the situation. But strong political will and commitment are needed to translate these plans into action and to achieve adequate performance standards of implementation. For example, the Government of Viet Nam has set a long-term target of achieving a forest cover of over 19 million ha through intensive afforestation and tree planting activities. There have been achievements in terms of area covered, but the plantations themselves are of poor quality with low productivity.

Available information indicates that since 2000, there has been progress in addressing deforestation and forest degradation, and in promoting sustainable forest management. Initiatives under the GMS Economic Cooperation Program, such as the Biodiversity Conservation Corridor Initiative and other core programs, are expected to spur this positive trend.

### **The Challenge of Sustainable Forest Management**

The state of the forests in the GMS countries considered clearly indicates the need for sustainable forest management. From a policy point of view, sustainability is not an option; it is an imperative. Sustainable development, the central theme of the United

Nations Conference on Environment and Development (UNCED) Agenda 21, underscores the need to link growth to environmental quality and conservation. Without sustainability, environmental deterioration and economic decline will feed on each other, leading to under-performing investments and economies, unsustainable communities, and social instability.

Within the broad framework of sustainable development, sustainable forest management in GMS countries should ensure that values derived from forests meet present day needs, while ensuring that the quality and quantity of forests are maintained for sustained contribution to the long-term development needs of the region. This implies the need for consistent improvement in the condition and productivity of forests so that future generations can continue to receive the same levels of benefits as those enjoyed by the present generation.

This calls for a forest management strategy of resource creation, conservation, and enhancement, as well as sustainable value-added utilization. Forest management activities can only be qualified as sustainable if they do not reduce the production potential of the asset base and the set of opportunities open to future generations. To reverse the current disinvestment trend and to ensure sustainable development in GMS countries, forestry will require an increased and sustained infusion of investments, both technological and financial. Given the nature and scale of investments needed by the sector, an enabling environment for the participation of a broad-based coalition of both public and private stakeholders is needed, and this requires participation of stakeholders across national and regional boundaries.

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# Would You Like to Pay in Dollars, Baht, or Kip?: Economic Consequences of Multiple Currencies in the Lao People's Democratic Republic

Jayant Menon<sup>1</sup>

## **Abstract**

The multiple currency phenomenon (MCP) in the Lao People's Democratic Republic (Lao PDR) takes the form of the use of foreign currencies such as dollars and baht in the presence of a domestically issued currency, the kip. MCP has both costs and benefits. The costs include the social loss associated with seigniorage, the inability to conduct an independent monetary policy, and the relative ineffectiveness of the exchange rate as an adjustment mechanism. The benefits of MCP include the discipline imposed on the government by limiting its capacity to finance spending through inflation tax, and the stability and certainty induced by an effectively fixed exchange rate. Since the costs appear to exceed the benefits, how should the Government of the Lao PDR respond? Enforcing the use of the kip is not the answer, and may well be counterproductive. This is because MCP is not the problem, but is merely a symptom. The problem is a lack of confidence in the kip, while the symptom is the use of another currency such as the dollar or baht. The causes of the problem emanate from an underdeveloped monetary system, macroeconomic instability, and weak legal and institutional systems. These are the problems that need to be addressed directly. When these problems are addressed, then the symptom, which is MCP, will also cease to be a constraint.

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<sup>1</sup> Senior Research Fellow, Asian Development Bank Institute, Tokyo, Japan.

## Introduction

The monetary situation in most transitional economies is characterized by the multiple currency phenomenon (MCP). Literature on the use of multiple currencies in a domestic economy distinguishes between two concepts: currency substitution and dollarization (Bruno 1993; Calvo and Vegh 1995; Sahay and Vegh 1995). Currency substitution is defined as the use of a foreign currency as a medium of exchange in the domestic economy. Dollarization is defined as the widespread use of the United States (US) dollar as both a medium of exchange and a store of value in the presence of the national currency. Generally, MCP takes the form of dollarization.

The Lao PDR provides an almost unique case study of MCP because two foreign currencies, US dollar and Thai baht, are widely used as a substitute for the national currency, kip. In addition, the dong and the yuan are also used in cross-border trade in the provinces that border Viet Nam and Yunnan Province of the People's Republic of China, but only as a medium of exchange. Both the baht and dollar serve all the three functions of money in the Lao PDR: they are widely used as a medium of exchange, store of wealth, and unit of account. Thus, although the situation in the Lao PDR is more complicated than that implied by dollarization, it is closer to this definition than it is to currency substitution. The kip also serves all the three functions of money, but its use as a store of wealth is arguably less significant than with the foreign currencies.

Literature to date has focused on the experience of Latin American and South American countries (e.g., Sahay and Vegh 1995; Berg and Borensztein 2000; Salvatore et al. 2003) and generally ignored the Asian transitional economies (see Menon 1998 for an exception). In this paper, a careful analysis is made of the implications of MCP in the Lao PDR and what policy the Government should pursue in response.

## Costs of MCP

### Seigniorage

The first and perhaps most significant cost of MCP is the loss in seigniorage by the national monetary authority. Basically, seigniorage is the difference between the face value of currency and the cost of producing it. The ability of governments to issue token or paper money generates a very large social saving in the use of resources.<sup>2</sup> There are both stock and flow components associated with the social cost of MCP.

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<sup>2</sup> During the Gold standard for instance, this saving resulted from resources that would otherwise have to be expended in mining and smelting large quantities of metal, such as gold. Similarly, MCP deprives governments of this social saving to a large extent.

The stock component can be best understood by looking at how the dollar or baht were brought into circulation. Every baht and dollar note currently in circulation in the Lao PDR, apart from unilateral transfers in the form of fund flows, was obtained by exchanging goods, services, or claims on assets, equivalent to the face value of the stock of foreign currency in circulation. Thus, the seigniorage does not accrue to the Lao PDR, but only to Thailand and the US.

There is also a flow aspect related to the stock component in the form of holding cost. The holding cost associated with the current stock of baht and dollars used for transaction purposes is the income foregone on interest-bearing assets. This is the income that could have been earned if the stock of foreign currency currently held for transaction purposes were invested in income-bearing assets, such as bank deposits or bonds.<sup>3</sup> The interest foregone on holding domestically issued currency for transaction purposes has no net effect on the domestic economy; it only has a distributional effect within the economy. That is, there is a transfer between citizens, but no net change in overall income or welfare.<sup>4</sup>

If the stock component of seigniorage involved a one-off process of recouping the baht and dollars currently held for transaction purposes, then the costs associated with the flow component relate to the demand for money over time. With economic growth, there will be an increasing demand for money for transaction purposes.<sup>5</sup> To increase the stock of baht and dollars in the Lao PDR, there must again be an exchange of goods, services, or claims on assets to bring additional foreign currency into the country. In effect, the Lao PDR will have to run a balance of payments surplus to increase its money supply.

It is easier to understand the flow component in terms of the benefits of being rid of MCP. Consider a case where the Lao PDR's gross domestic product (GDP) grows by 6% in a given year. Assume further that as a result the transactions, demand for money also increases by 6%. Without MCP, this would mean that the Government could run a budget deficit (or reduce its budget surplus) by 6% without increasing inflation. That is, the growth in the economy allows the Government to finance the budget deficit, or reduce the budget surplus, by printing money in a noninflationary way. Indeed, without MCP,

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<sup>3</sup> Note that this holding cost applies only in the case where a foreign currency is used to serve the function of domestic money. The holding cost does not apply when the domestically issued currency is held for transaction purposes. This is because there is no, or little, cost associated with meeting the transactions demand for domestically issued money. The central bank could simply print the amounts required for transaction purposes, and the only cost incurred in this instance would be the cost of printing money (rather than the cost equal to the face value of the money).

<sup>4</sup> To illustrate, consider the current situation in the Lao PDR. If kip is held for transaction purposes, then the net effect (in terms of interest foregone) is zero because kip cannot be invested in banks or bonds overseas. If it could be so invested, then there would be a net inflow of income to the Lao PDR economy (equivalent to the income foregone by not investing the kip overseas). If US dollars are held for transaction purposes, the net effect (in terms of interest foregone) is equivalent to the income foregone by not investing the US dollars in banks or bonds overseas.

<sup>5</sup> In theory, the demand for money should decrease over time as financial development results in a reduced need for currency to effect transactions. Given the low level of development of the financial system in the Lao PDR, this is unlikely to happen for some time.

the Lao PDR Government could increase its budget deficit or reduce its budget surplus by the amount of the increase in transactions demand for money simply by printing money and without any increase in inflationary pressures.

In an economy with only foreign currencies in use, the increase in the transactions demand for money caused by economic growth can only be met by a balance of payments surplus. That is, there must be an increase in the stock of dollars or baht in circulation equivalent to the increase in the transactions demand for money. If this increased demand for transactions balances cannot be met, then it is likely to be deflationary. Meeting this increased demand for transaction balances involves a waste of resources equivalent to the loss in seigniorage.

The kip is estimated to constitute about 50% of the money stock in the Lao PDR. The baht is estimated at 30% and dollars apparently make up the remaining 20%.<sup>6</sup> If the Government exercises monetary discipline and increases the stock of kip by a percentage equivalent to GDP growth times the share of kip in the money stock, it will earn seigniorage on these new notes on a continuing basis. If GDP growth is 6%, and transactions demand for money increases by 6%, then the Government can print money in a noninflationary manner (and earn seigniorage) in the amount of:

$$0.5 \times 0.06 \times \text{the money stock}; \quad (1)$$

where 0.5 = the share of kip in the money stock

and 0.06 = the growth in transactions demand for money (driven by economic growth).

What if the share of kip in the money stock could be increased over time from 50% to 60%? Based on the example above, such an increase could result in quite substantial social gains from seigniorage, from both the stock and flow components. The stock component implies that about 10% of the foreign currencies in circulation can be exchanged in a one-off recouping transaction for goods, services, etc., because these notes will no longer be required for exchange. The Lao PDR will be able to recoup the original cost incurred in obtaining the stock of baht and dollars in circulation.

The one-off benefit from the stock component would equal:

$$0.2 \times 0.5 \times \text{the money stock}; \quad (2)$$

where 0.2 = the percentage increase (0.1/0.5) in the share of kip from 50% to 60%

0.5 = the original share of foreign currency in the money stock.

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<sup>6</sup> This estimate was provided by the Bank of the Lao PDR. The IMF estimate of foreign currency deposits as a share of broad money in 1995 was 35%.

The benefits from the flow component would equal:

$$0.6 \times 0.06 \times \text{the money stock}; \quad (3)$$

where 0.6 = the new share of kip in the money stock

and 0.06 = the growth in transactions demand for money (driven by economic growth).

This benefit from the flow component can be earned on a continuing basis. Increasing the share of kip in the money stock over time will continue to yield social gains from both the stock and flow components. The gains from the stock component will cease when the Lao PDR is completely free of MCP. The gains from the flow component will accrue indefinitely, as long as the transactions demand for money grows with economic growth, and the Government exercises monetary discipline.

### Monetary Policy and Lender of Last Resort Function

MCP impairs the ability of the Bank of the Lao PDR to conduct an independent monetary policy because capital inflows or outflows automatically change the money supply when a foreign currency can be used as a medium of exchange. An outflow of baht or dollars contracts the money supply, while an inflow expands it. An outflow of baht or dollars could be deflationary, while an inflow could be inflationary.

The impact of these movements of capital on the money supply and domestic activity could be offset if the Bank of the Lao PDR could conduct open market operations, for instance. The lack of monetary instruments in the form of kip-denominated interest-bearing assets prevents the bank from conducting open-market operations. Even if the bank could issue kip-denominated interest-bearing assets, the lack of confidence in the kip would limit their subscription. Other monetary instruments, such as changes to the reserve requirement, are likely to be blunt instruments of monetary policy because MCP allows capital inflows to become part of the money stock while bypassing the financial system. Thus, the ability to maintain an independent monetary policy depends on both addressing MCP and improving the financial system.

The lender-of-last-resort function of the Bank of the Lao PDR is also somewhat impaired by MCP. In the case of a generalized loss of confidence in the banking system, the monetary authorities would not be able to guarantee the whole payments system or to fully back bank deposits. The ability to print money as required is, after all, what allows a central bank to fully guarantee that all claims in domestic currency will be met. MCP reduces the capacity of the central bank to print money, and thus also impairs its ability to perform its function as guarantor and lender of last resort.

## The Exchange Rate Mechanism and Policy

MCP complicates the definition and the measurement of the exchange rate in the Lao PDR. There are three possible definitions of the nominal exchange rate to consider: (i) the kip/US dollar exchange rate; (ii) the kip/baht exchange rate; and (iii) a “no exchange rate” case.

The kip/US dollar exchange rate is the benchmark definition and is the exchange rate that would be most relevant in the absence of MCP. Accordingly, it is also perhaps the least relevant definition in the Lao PDR at present given MCP. The kip/baht exchange rate is the closest (bilateral) proxy to a trade-weighted exchange rate in the Lao PDR because most of the Lao PDR’s trade is conducted with Thailand. Again, this exchange rate is less important in the Lao PDR than it would be in the absence of MCP.

Regarding the “no exchange rate,” MCP could produce an outcome similar to that of having a permanently fixed exchange rate. How could such a situation arise? If prices charged by exporters to the Lao PDR are set in dollars (or baht), and the prices of these goods in the domestic market are also set in dollars (or baht), then movements in the value of the kip/US dollar exchange rate, the kip/baht exchange rate, or any other definition of the exchange rate do not enter into the pricing decision of imports in the Lao PDR market. Similarly, if prices of the Lao PDR’s exports are determined in world markets in US dollar or baht terms, movements in the exchange rates described above will not affect prices.<sup>7</sup> In these situations, even the term “exchange rate” is a misnomer because trade occurs as if without an exchange rate.

First, the implications of the “fixed” or “no exchange rate” definition are considered because it is likely to be the most relevant to the Lao PDR. If this definition applies, then adjustment to economic shocks will require changes to prices directly because the nominal exchange rate cannot adjust. In other words, the real exchange rate movements required to move the economy back toward equilibrium following an economic shock will have to be induced by price changes rather than nominal exchange rate changes. This will have to involve changes in the rewards paid to factors of production, although it is most likely that wages will have to bear the brunt of this adjustment.

If the adjustment to economic shocks must occur through changes in wages, rather than through changes in the nominal exchange rate, there are policy implications. For one thing, there are likely to be nominal rigidities in labor markets that limit, or at least slow down, the adjustment to external shocks. Even if there is significant unemployment, wages rarely adjust quickly, or indeed fully, to demand-supply imbalances. There might also be an asymmetry in the response of wages. Depending on labor market conditions and such factors as the level and strength of unionization, nominal wages may be rigid

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<sup>7</sup> For a detailed discussion on the relationship between exchange rates and the prices of internationally traded goods, see Menon (1996a, b).

downward. If nominal wages are initially close to subsistence levels, then any downward adjustment in response to an external shock will be difficult. Thus, the adjustment mechanism that requires changes in wages instead of changes in nominal exchange rates is a relatively inefficient instrument. It could result in social costs involving increased unemployment of resources, such as labor and capital.

If the more relevant exchange rate in the Lao PDR is the kip/baht or trade-weighted index, then economic and financial conditions in the country's trading partners, rather than domestic conditions, will be the main determinant of the Lao PDR's international competitiveness. Domestic policy autonomy is greatly compromised as a result.<sup>8</sup>

It should be noted that irrespective of which definition of the exchange rate is relevant, exchange rate policy is not an effective policy option for the Lao PDR in the presence of MCP. Even if the exchange rate were not "fixed," the loss in domestic autonomy associated with the trade-weighted index implies that any discretionary power in conducting exchange rate policy would be limited. Another way of looking at this issue is to recognize that the inability of the Bank of the Lao PDR to maintain an independent monetary policy, as noted above, implies that it is pointless pursuing an exchange rate policy.

Although the kip/US dollar exchange rate is unlikely to affect the Lao PDR's terms of trade, retail prices in domestic markets might respond to changes in the value of this rate. Changes in the kip/US dollar exchange rate will affect the purchasing power of incomes, depending on whether they are paid in kip or dollars. Over the recent past, there has been a trend of depreciation of the kip against the dollar. If domestic prices are determined (or fixed) in dollar terms, then the purchasing power of workers or owners of capital receiving their wages/revenues in US dollars will remain unchanged, while that of workers/capitalists receiving their incomes in kip will fall (in the absence of indexation). If domestic prices are set in terms of kip, then the purchasing power of workers or owners of capital receiving their wages/revenues in US dollars will increase, while that of workers/capitalists receiving their incomes in kip will remain unchanged. In either case, income distribution is likely to become more unequal, favoring those paid in US dollars, than before the depreciation of the kip. Thus, MCP may be contributing to increasing inequality in the distribution of income in the Lao PDR.

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<sup>8</sup> While very few small trading nations are insulated from economic and financial conditions in the global economy, the situation implied by this exchange rate involves close to no domestic autonomy whatsoever. The loss of autonomy is much greater than that implied by being "small" in the international trading sense.

## Benefits of MCP

### Inflation Tax

An issue related to seigniorage, and which operates through the ability of governments to issue money that is accepted by the public, is inflation tax. Inflation tax, which is a hidden tax, results in a redistribution of resources away from the public and toward the government (but without any net change in the economy as a whole). For example, assume that the Lao PDR is free of the MCP, and kip is the only money used in the economy. The Government decides to run a budget deficit, and chooses to finance it by printing money rather than by raising taxes. In a kip economy, the Government can now purchase additional goods and services without increasing taxes because it would be the first to spend the money that it prints. The additional purchases of the Government are paid for by citizens who hold their wealth in nominal balances.

If the printing of money results in a doubling of the money supply, then eventually the general price level will also have to double. Citizens who hold nominal balances or who have incomes that are not indexed to the inflation rate will find that their purchasing power has halved as a result of the doubling of the price level. In an economy characterized by MCP, such as the Lao PDR, the capacity of governments to finance spending through inflation tax is limited. MCP, in this respect, imposes discipline by limiting the ability of governments to finance spending by printing money. It also avoids distributional or equity concerns associated with the impact of government-induced inflation on different groups in society.

### Price Effects

Floating exchange rates have displayed considerable variability. Variability is often discussed in terms of short-run volatility (sometimes on a day-to-day basis) and medium- to long-term misalignment of the currency. Both effects can increase the perceived risk associated with international trade and investment (Williamson 1983 and IMF 1984). Some of the benefits of a fixed exchange rate are conveyed in a dollarized economy. These include exchange rate and price stability. Thus, to the extent that domestic and international transactions are conducted using the same currency, MCP dampens the effects of short-run volatility associated with floating exchange rates. It does not, however, deal with the medium- to long-term misalignment issue, which relates to its role as an adjustment mechanism, discussed in the section on the exchange rate mechanism and policy.

## Larger Stock of Reserve Currency

Few currencies are freely accepted in payment for goods and services traded internationally. The currency of such countries as the Lao PDR is not accepted in exchange for imported goods and services, or for repayment of liabilities. Indeed, it appears that even Thai traders will not accept kip in cross-border trade. More important, however, the kip is not convertible outside the Lao PDR. In this context, the capacity to import is limited by export receipts and capital inflow. MCP alleviates this constraint to some extent. With a stock of dollars (or baht) in circulation, the liquidity constraint associated with hard currency is reduced during periods of low exports or reductions in capital inflow. Thus, dollars (or baht) in the hands of the public can be used to finance imports during crisis.

However, the stock of foreign currency is all used in serving the function of domestic money, for domestic transactions, on a day-to-day basis. As discussed earlier, there is a holding cost in the form of foregone earnings associated with the use of foreign currency as the medium of exchange. Thus, it is unclear if MCP does indeed serve as a safeguard in terms of the capacity to finance imports, except perhaps during crisis or severe shortage of reserve currency. If the stock of foreign currency is run down to finance imports during a crisis, it will have to be built up again to continue serving the function of a medium of exchange. If it is not built up again, the money supply will contract and this will be deflationary. Thus, MCP might allow, at best, a temporary trade-off that cushions the economy during crisis, but that is all.

## Policy Responses to MCP

From the discussion above, it would appear that MCP in the Lao PDR has more costs than benefits. If so, how should the country attempt to reverse MCP or increase the use of kip in the economy? The only sustainable solution is to increase confidence in the kip. In this sense, MCP is not the problem, only a symptom. The problem, or cause, is lack of confidence in the kip, while the symptom, or effect, is the use of another currency, such as the US dollar. The problem emanates from an underdeveloped monetary system, macroeconomic instability, and weak legal and institutional systems. Moreover, the lack of monetary instruments in the form of kip-denominated interest-bearing assets further limits the use of kip as a store of value. Most of these problems are long term in nature, and are characteristic of an economy in transition. When these problems are addressed, the symptom, MCP, will also disappear.

The Lao PDR Government tried to address the symptom directly in June 1997, when the Bank of the Lao PDR moved to enforce a decree (Decree No. 53 of 7 September 1990) stipulating that only the kip can be used as a medium of exchange in all domestic transactions in the Lao PDR.

The increased policing of the use of the kip has probably resulted in an increase in its use in domestic transactions. Nevertheless, there is no doubt that the baht and dollar continue to be used in domestic transactions. It is also unclear if this enforcement measure has increased the share of the kip in the money stock. It is claimed that the enforcement measures were introduced in response to the depreciation of the kip against both the baht and the dollar (and concerns regarding an increase in illegal blackmarket dealings). Instead of stemming the depreciation, the enforcement measures corresponded with further depreciation of the kip.

Although several factors may have been involved in the depreciation of the kip, it appears that one important factor was the uncertainty associated with—and resultant loss of confidence in—the kip after the enforcement measures were announced. Indeed, the kip was perhaps the only currency that fell in value against the baht when the baht was depreciating against every other currency during the early phase of the Asian financial crisis of 1997.

The depreciation of the kip against the baht and the dollar since the enforcement measures were announced may have more than offset any increase in the volume of kip used in domestic transactions. Thus, the enforcement policy may have been counterproductive. It has also probably led to a further weakening of confidence in the kip, with concerns (irrespective of their validity) regarding future actions by the Government.

To see how the depreciation of the kip could have reduced its share in the money stock, consider the following case. Assume that the share of the kip in June 1997, prior to the enforcement measure, was 50% of the money stock. The baht constitutes 30%, and the remaining 20% are US dollars. For simplicity, assume that the value of the money stock in June 1997, measured in US dollars, is equivalent to \$1 million. That is,

$$\begin{aligned} \text{Money stock} &= \$1 \text{ million} \\ &= S(\text{kip}) (\$1 \text{ m}) + S(\text{baht}) (\$1 \text{ m}) + S(\$) (\$1 \text{ m}) \end{aligned} \quad (4)$$

$$\begin{aligned} \text{where } S(\text{kip}) &= \text{share of kip in the money stock} &= 0.5 \\ S(\text{baht}) &= \text{share of baht in the money stock} &= 0.3 \\ S(\$) &= \text{share of US dollars in the money stock} &= 0.2 \end{aligned}$$

Between May and December 1997, the kip depreciated against both the baht and the dollar. The extent of the depreciation, based on average buy/sell rates in the parallel market, was as follows. The kip fell by about 10.3% against the baht, with the kip/baht exchange rate changing from kip (KN)43.58 in May 1997 to KN48.08 in December 1997. The fall against the US dollar was about 82.3%, with the kip/US dollar exchange rate changing from KN1,135 in May 1997 to KN2,069.5 in December 1997. How did these exchange rate movements affect the shares of kip, baht, and dollars in the money

stock? Assuming no change in the volumes of the respective currencies, the new shares (denoted as  $S_n$ ) in the money stock would be:

$$\begin{aligned} S_n(\text{baht}) &= 0.3 (1.103) &= 0.331 \\ S_n(\$) &= 0.2 (1.823) &= 0.365 \\ S_n(\text{kip}) &= 1 - (0.331 + 0.365) &= 0.304 \end{aligned}$$

Under these assumptions, the depreciation of the kip caused its share in the money stock to fall from 50% to about 30%. While kip used to have the highest share in the money stock, the valuation effect from the depreciation reduced it to the smallest share. Due to the massive depreciation of the kip against the US dollar, dollars now have the highest share in the money stock, when they used to have the smallest share. To the extent that the depreciation was caused by the uncertainty introduced by the enforcement measure, the outcome has been counterproductive.

To return the share of the kip in the money stock to 50%, usage of the kip would have to increase by about 65%.<sup>9</sup> It is unlikely that the enforcement measure would have resulted in a 65% increase in the usage of the kip. It should be noted, however, that this is purely an illustrative example. While the magnitudes of the changes in the relative shares of the currency may not be precise, the overall direction of change is accurate.

The magnitudes of the changes in the relative shares of the currencies would also be affected by currency substitution effects. For instance, discussions with the Lao PDR officials indicate that there has been a substitution away from both baht and kip and toward the dollar after the depreciation of both currencies following the Asian financial crisis. Although the baht continues to be used in cross-border trade along the Mekong Basin, there has been some shift from baht toward dollars following large fluctuations in the relative value of the baht since March 1997. These currency substitution effects are likely to affect the relative shares of baht and dollars in the money stock; they are unlikely to affect the share of kip in the money stock to any significant extent.

Thus, imposing or forcing the use of the kip is not the answer. Perhaps the best way of reducing the use of foreign currencies in the Lao PDR is to reduce the distinctions between the kip and these currencies. Enforcing the use of kip is likely to add to the distinctions, or perceived differences, rather than reduce them. If citizens are given the free choice to use kip, baht, or dollars in any and all transactions, then the perceived differences between them are likely to slowly diminish over time.

Reducing the distinction between the currencies will involve, as a fundamental requirement, the assurance that kip can be converted into dollars freely and in any quantity. With the current situation, where confidence in the kip is low, this policy would effectively limit the Government to issuing kip on an almost one-to-one basis with foreign reserves.

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<sup>9</sup> That is,  $\{(0.5 - 0.303) / 0.303\} \times 100 = 65\%$ .

It could be argued that the present stock of kip—estimated at about 50% of the money supply—currently reflects this aspect of convertibility already. Thus, the transition from an economy characterized by MCP to a kip-based economy will depend on the willingness of the Lao PDR's citizens to hold the kip. This willingness will require an assurance of free convertibility initially, and confidence in the value of the kip eventually. In the interim, however, measures that impose the use of kip should be removed to help reduce the distinctions, whether perceived or real, between the currencies. The root causes of MCP need to be addressed directly; there is no other long-term solution to the problem.

## **Summary and Conclusions**

The MCP in the Lao PDR takes the form of the use of US dollars and Thai baht in the presence of a domestically issued currency, the kip. MCP appears to have more costs than benefits. The costs include the social loss associated with seigniorage, the inability to conduct an independent monetary policy, and the relative ineffectiveness of the exchange rate as an adjustment mechanism. The benefits of MCP include the discipline imposed on the Government by significantly limiting its capacity to finance spending through inflation tax, and the stability and certainty induced by an effectively fixed exchange rate. The stock of dollars or baht in circulation is sometimes also viewed as a significant benefit of MCP, but is at best a cushion that alleviates the short-term effects of a crisis.

In June 1997, the Bank of the Lao PDR moved to enforce Decree No. 53, which stipulates that only the kip can be used as a medium of exchange in all domestic transactions. It is argued, however, that an enforced measure is likely to be counterproductive because it will increase the perceived differences between the currencies, rather than reduce them. Although it might be possible to increase the use of the kip in domestic transactions through increased policing, any such increase could be reversed by the depreciation of the kip. Since the enforcement measures have been in place, the kip has depreciated to such an extent that its share in the money stock has fallen. Indeed, the share of the kip in the money stock following the enforcement measures resulted in it being lower than it has ever been, and lower than the shares of dollars or baht in the money stock.

The underlying problem is lack of confidence in the kip, caused by an underdeveloped monetary system, macroeconomic instability, and weak legal and institutional systems. When these issues are addressed directly, MCP will also cease to be a constraint.

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# Cross-border Transport Infrastructure, Regional Integration, and Development: Implications for the Greater Mekong Subregion

Manabu Fujimura<sup>1</sup>

## Abstract

The economic geography literature indicates that reduction in transport costs contributes to increased regional trade, investment, and economic development, particularly for geographically disadvantaged members of the region. However, the benefits and costs of cross-border transport infrastructure and economic integration are not necessarily distributed equitably among participating economies, therefore requiring careful institutional and financial arrangements to ensure successful provision. An example from the Greater Mekong Subregion (GMS) is given, using a benefit-cost distribution analysis. The paper discusses salient features of each of these aspects related to cross-border transport infrastructure, with particular attention to the implications for GMS.

## Introduction

As developing economies become increasingly integrated with the global economy, governments must ensure that such integration contributes to national development objectives. In so doing, public goods that cross borders have a critical role to play in bringing benefits that domestic public goods alone cannot provide. Public goods that cross national boundaries include peacekeeping, environmental protection, prevention of infectious diseases, basic research and development, and cross-border transport infrastructure.

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<sup>1</sup> Department of Economics, Aoyama Gakuin University, 4-4-25 Shibuya, Shibuya-ku, Tokyo 150-8366 Japan.

This paper focuses on the role of cross-border transport infrastructure in regional economic integration, which is one of the priorities identified by regional development institutions and their member governments. In Asia, both the Greater Mekong Subregion (GMS) and the Central Asian Republics Economic Cooperation (CAREC) Programs—promoted and supported by the Asian Development Bank (ADB)—have highly prioritized transport investments and trade facilitation. Examples elsewhere include the South American Regional Infrastructure Plan being assisted by the Inter-American Development Bank (IDB). There seem to be a shared recognition that regional integration cannot proceed without regional transport and infrastructure.

Section 1 of this paper presents the conceptual framework for understanding the relationship among transport infrastructure, trade, investment, and growth while Section 2 reviews empirical findings in the literature on these linkages. Section 3 discusses the benefits and costs of cross-border transport infrastructure and coordination mechanisms in their investments, while Section 4 discusses the implications of the preceding sections for GMS. Section 5 concludes the paper with a brief note on further research areas.

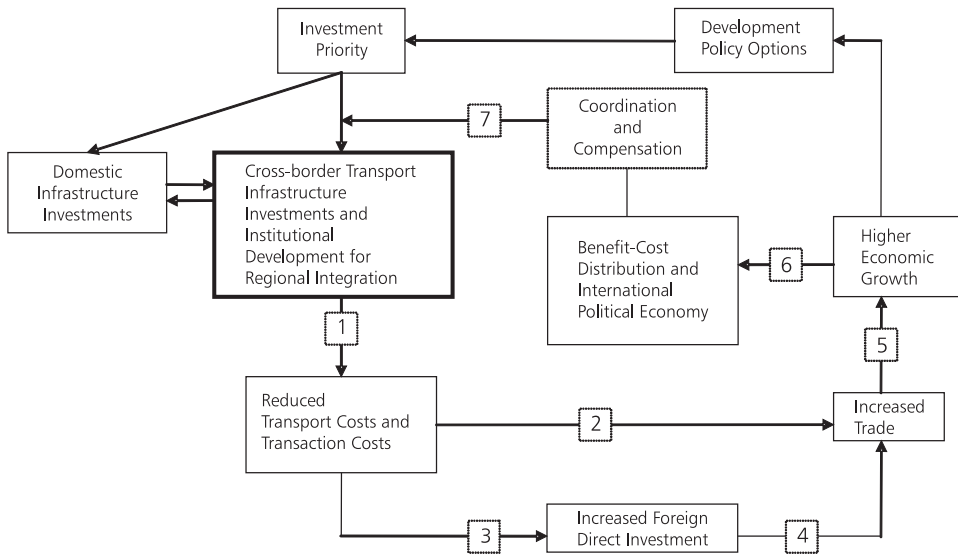
## Conceptual Framework

Figure 1 conceptualizes the relationships among cross-border transport infrastructure, trade and investment, and development. Although governments have their own development policies and investment priorities that best suit their circumstances, physical infrastructure development—particularly in the transport sector—is often high in their priority list. Transport infrastructure does not normally end at national boundaries, but is developed to link across borders to maximize its economic benefits.

Cross-border and domestic transport infrastructure together can reduce transport costs (relationship 1 in Figure 1), leading to increased trade (relationship 2). Reduced transport costs are also likely to induce increased foreign direct investment (FDI) to advance intra-firm vertical integration across borders, exploiting comparative advantages of each location (relationship 3), and further increasing regional trade (relationship 4). There can be mutually reinforcing effects among cross-border infrastructure, trade, and investment. Increased international flows in goods and services, in turn, induce higher economic growth (relationship 5), which enlarges the “fiscal space” in which governments can consider policy options.

Investments in cross-border transport infrastructure and associated institutional efforts for trade facilitation involve the political economy of the distribution of benefits and costs that may be perceived to be inequitable by the parties concerned (relationship 6). Thus, there is a need for special arrangements to address potential issues that may arise in this regard—such as self-enforcing mechanisms, third-party coordination, or compensation schemes—among the concerned parties (relationship 7). Unless such arrangements are successful, the envisaged positive cycle will not materialize (relationship 1).

**Figure 1: Cross-border Transport Infrastructure, Trade, and Development**



## Effects of Transport Costs on Trade, Investment, and Growth: Empirical Findings

### Geography Matters

Traditional theory of international trade ignores transport costs and geographic considerations in determining trade patterns. But recent literature on economic geography suggests that these factors have become increasingly important in explaining trade and development. Economies near coastlines have an advantage over hinterland economies because sea-based trade is normally cheaper than land- or air-based trade. While this is common sense, economic geographers have provided quantitative information by using economic modeling on detailed geographical information that is becoming increasingly available. For example, Redding and Venables (2004) applied their model to cross-section data on trade flows, geographical characteristics, gross domestic product (GDP), and population, and found that access to the coast, pursuit of open-trade policy, and halving a country's distance from all its trading partners, raise predicted income per capita by 25%. Their results are robust, with a wide range of control variables, including resource endowments.

## Determinants of Transport Costs

Radelet and Sachs (1998) used CIF/FOB<sup>2</sup> ratios as a proxy variable for transport costs and found that overland transport costs tend to be considerably higher than sea transport costs, implying the importance of cross-border road transport infrastructure in reducing transport costs for landlocked countries. Furthermore, transport costs in landlocked countries can be increased further by the bureaucratic and often political costs of crossing borders, implying the need for institutional arrangements for cross-border transport.

Limao and Venables (2001) investigated determinants of transport costs using two measures (i) the cost of shipping a 40-foot container from Baltimore to various destination cities, and (ii) CIF/FOB ratios derived from the International Monetary Fund Direction of Trade Statistics.

Advantages of the container movement measure are that transport costs can be broken down into components, allowing the estimation of the effects of land and sea distance separately; and that the goods shipped are homogeneous, thus, avoiding compositional problems that can occur in aggregate data like CIF/FOB. A disadvantage is that this type of data is difficult to get. From available data, Limao and Venables found that being landlocked raises mean transport costs of the container by \$3,450. The mean cost in non-landlocked countries was \$4,620. An extra 1,000 kilometers (km) by sea added only \$190, whereas, a similar increase in land distance added \$1,380. For landlocked economies, own infrastructure explains 36% and transit infrastructure explains 24% of the transport cost.

Using CIF/FOB ratios as the measure of transport costs, Limao and Venables (2001) found that if a country could improve its transport infrastructure from the median to the top 25<sup>th</sup> percentile, its CIF/FOB ratio would fall from 1.28 to 1.1, equivalent to becoming 2,358 km closer to all its trading partners.

## Transport Costs and Trade

For firms in small open economies that have no influence on world prices, the higher the transport costs, the more they will have to pay for imported intermediate goods, and the less able they will be to compete in export markets. Countries with higher transport costs are also less likely to attract foreign investment in export activities. Radelet and Sachs (1998) showed that geographical attributes strongly influence the growth of manufactured exports: the longer a country's coastline, the higher is the growth of manufactured exports; countries with high transport costs will find it more difficult to promote export-led development even if they reduce tariff rates, remove

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<sup>2</sup> CIF stands for cost, insurance, and freight, which is the value of traded goods at the border of an importing country. FOB stands for free on board, which is the value of traded goods at the border of an exporting country.

quantitative restrictions, and follow prudent macroeconomic policies. Particularly in labor-intensive export sectors, high transport costs could easily wipe out export profitability even if wage levels fell substantially. Geographically disadvantaged countries, such as Bolivia, Burundi, Mongolia, and Rwanda may not realistically be able to replicate the East Asian model of export-led growth.

Limao and Venables (2001) used a gravity model to estimate the impact of transport costs on trade flows.<sup>3</sup> They found that doubling overall transport costs from the median value reduces trade volume by 45% and moving from the median value of transport costs to the 75<sup>th</sup> percentile cuts trade volume by two thirds. One of their notable findings was the strong influence of transport infrastructure variables, such as road density. Moving from the median to the top 25<sup>th</sup> percentile in the infrastructure variable raises trade volumes by 68%, equivalent to being 2,005 km closer to other countries. For landlocked countries, improvement in transport infrastructure from the median to the 25<sup>th</sup> percentile increases trade volume by 13%, improvement in transit infrastructure increases trade volume by 2%, and simultaneous improvement increases trade volume by 15%, implying the importance of complementary national investments in cross-border transport infrastructure.

## Transport Costs and the Trade–Foreign Direct Investment Nexus

Venables (2001) argued that vertical FDI is a complement to trade and may even create flows that are much larger than the value of the final goods produced. This point has a natural link with the so-called “trade–FDI nexus.”

Two types of FDI are related to transport costs in a contrasting way. Domestic market-oriented FDI replaces home-country exports by production in the destination country and is induced by high transport costs. This type of FDI was dominant in developing economies in the 1950s–1970s, when governments adopted import-substitution industrialization policies that induced developed country-manufacturing firms to jump tariff barriers. In recent years, the same type of FDI has increased among developed countries for reasons of jumping mainly nontariff trade barriers.

The other type of FDI, export-oriented or “vertical” FDI, is motivated by factor price differences among countries and is greatly induced by reduction in transport costs. It is associated with intra-firm trade that exchanges intermediate and final goods across locations in different stages of manufacturing. For example, while product planning and research and development can be kept in the high-income home country, production of intermediate goods can be moved to middle-income countries with some level of production technologies, and final assembly can be moved to low-income countries with abundant unskilled labor. This type of FDI by multinationals creates a distinct

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<sup>3</sup> In gravity models, the level of trade flows are determined by the economic sizes of the trading partners and their geographic conditions, particularly distance between them.

“vertical” type of intra-industry trade (Fukao, Ishido, and Ito 2003). As transport costs are reduced, this type of intra-industry trade would become more dominant.

## Transport Costs, Trade, and Economic Growth

Transport costs, via their impact on trade, are likely to affect long-run rate of economic growth of countries. A number of empirical studies point to the positive impact of increased trade and openness on economic growth. These studies appear to share an understanding that a common thread in the “East Asian Miracle” story is the openness of the economy and the virtuous cycle of increased trade, economic growth, and investments in export-oriented manufacturing industries. Reduction in transport costs provides the key to this virtuous cycle. Radelet and Sachs (1998) argue that lower transport costs would lower the price of imported capital goods, which tend to raise real investment and hasten the process of technology transfer. They find a strong negative relationship between transport costs and economic growth after controlling for other variables. For example, doubling shipping costs from 8%–16% is associated with reduction in annual growth of slightly more than 0.5%. All else being equal, a landlocked country with shipping costs 50% higher than a similar coastal economy could expect its growth to be slower by about 0.3% a year.

The literature discussed in this section indicates a significant gain to be derived by geographically disadvantaged or historically lagging economies through improvements in cross-border transport infrastructure. In the context of GMS, countries like Cambodia, Lao People’s Democratic Republic (Lao PDR), and Myanmar stand to gain more from economic integration through the development of cross-border road infrastructure.

## Coordination Mechanisms

### Incidence of Benefits and Costs

While trade-creation benefits from cross-border transport infrastructure and regional economic integration can be significant in the aggregate, the resulting benefits and costs may not be distributed equitably. A notable example in the GMS is the road project along the North–South Economic Corridor that links Kunming (Yunnan Province of the People’s Republic of China) to Chiang Rai (Thailand), with a planned construction period of March 2002–February 2007 (ADB 2002). At the time of the project’s conceptualization in the late 1990s, it was envisaged that most of the benefits would accrue to Yunnan Province and Thailand, while major investments would be required in environmentally and socially sensitive areas of the Lao PDR (ADB 1999). The project had to be reassessed in 2002, partly because of the diminished prospect for private

investment due to the impact of the 1997 Asian financial crisis, and partly because of distributional concerns.

Cross-border infrastructure projects are generally much more complex and riskier than national ones. Synchronizing project phases in different countries can be difficult. Participating countries face different political and economic circumstances and cycles, and may proceed at different paces. Structural characteristics of poor neighboring economies may limit the economic gains that can be achieved and may cause these to be distributed unevenly. Experience with integration agreements among poor countries suggests divergent economic outcomes and an absence of mechanisms to distribute gains equitably. Examples of setbacks and conflict resulting from real or perceived asymmetry abound (Ferroni 2002).

### Taxonomy of Regional Public Goods

Regional public goods (RPGs), such as cross-border infrastructure and regional economic integration, differ in their characteristics. One is the degree to which they are truly public when there is an absence of exclusion and rivalry. Cross-border transport infrastructure (“transport RPG” hereafter) can be considered a “club” good because it has features of both exclusion (e.g., toll roads can limit users; regional agreements are essentially clubs) and rivalry (congestion causes rivalry; too many members in a regional agreement may dilute integration benefits).

The public nature of an RPG is also reflected in how the regional supply structure of the RPG is assembled (aggregation technology) from individual supplies of the members. The aggregation technology used will depend on the incentives for each member, which in turn will depend on how efficiently each member can obtain the returns from its contribution. Among several types of aggregation technology that Sandler (2001) provides, transport RPG would fit best in either the weakest link, in which the smallest contribution fixes the effective RPG supply level for the entire region, or the weaker link in which smaller contributions determine the overall provision. An example of the weakest link would be when the weakest transport infrastructure and institutions in a region determine the reliability of the whole regional transport system. In the case of the weaker link, there may be an incentive to contribute beyond the smallest contribution because doing so has some additional benefits. The real issue may be that of capacity to some extent and also coordination problems with respect to who contributes more.

The supply of some types of transport RPG could be described as the weighted sum, in which alternative weights are applied to countries’ efforts in aggregating them, or best or better shot in which the largest or larger contributors determine the overall level of the RPG supply. An example of the weighted-sum case would be air traffic hubs. The overall efficiency of a hub will depend on the quality of the lesser airports,

but the specific impact of each “spoke” or “feeder” airport will vary according to its relative importance in the network. While delays in a high-volume route will affect most other routes, delays in a little-traveled route will have little impact on the overall hub operation. An example of the best-shot case would be a regional seaport: the quality of a region’s maritime transport to and from other regions will depend on the choice of the location for the seaport, its capacity, and operational efficiency (Ruffin 2004).

## Financing and Institutional Arrangements

The issue of financing is important in the supply of transport RPGs. In most cases, there is no supranational entity authorized to impose taxes on individual nations—with the exception of the European Union. Thus, alternative mechanisms of financing RPGs are required. When conditions are conducive to the formation of “clubs,” as may often be the case for cross-border transport infrastructure, there is less need or rationale for direct financing by multilateral agencies. Financing instruments for club goods include tolls that reflect willingness to pay by users and which could therefore internalize congestion externalities. In such arrangements, public “coaxing” can be minimal. Mainly information provision and facilitation by multilateral agencies may be sufficient. To ensure an agreed level of equity, external assistance could subsidize club-related charges (toll charges for roadways and waterways; transmission charges for electricity, etc.) when some members cannot afford them.

Institutional arrangements and capacity building are also critical issues in the supply of transport RPGs. For example, differences in domestic organization in the transport sector may translate into difficulties in agreeing on a common framework. National rules that favor domestic over foreign transport companies create significant delays at border crossings. In these instances, formal regional agreements can lock members into reciprocal requirements for cooperation. First, long-term commitment is necessary. Second, participating countries must take the required complementary national measures, such as reforming their customs procedure in line with the regional standard. Third, in the interest of sustainability, members who are perceived to gain less relative to their contribution must be compensated to keep the coalition. Fourth, contracting parties should bind themselves with treaties or agreements that are self-enforcing wherever feasible in the absence of higher authorities or courts of appeal (Ferroni 2002).

Countries can also differ substantially in their financial and technical capacity to maintain their part of the infrastructure. The governments of less-developed countries like Cambodia and the Lao PDR face major hurdles in mobilizing or even finding skilled workers and engineers to plan and execute cross-border infrastructure projects. In these instances, external technical assistance is essential in devising and implementing regional cooperation agreements.

Once institutions for coordination and capacity building are in place, the provision of transport RPGs can generally be assigned to the private sector through a variety of arrangements, such as concessions, build-operate-transfer, and privatization. An example is the railway running between the capitals of Côte d’Ivoire and Burkina Faso. After a long history of poor performance of the two separate national railway companies, the governments decided to seek greater efficiency by turning over the railway line operation to a private concessionaire. The concessionaire sets its own rates and pays a usage fee to the two “railway landlord corporations” owned by the respective governments. This arrangement enabled it to cut redundant staff, restructure passenger services, and drop loss-making operations in both countries (Schiff and Winters 2002).

The key to successful provision of transport RPGs is to set up institutions that align cost-sharing arrangements with the incentives arising from expected benefits perceived by member countries. The members could form a fee-based coordination agency, such as the International Maritime Organization and International Telecommunications Union (both are specialized UN agencies financed by membership fees). Table 1 summarizes RPG aggregation typology and corresponding institutional implications.

**Table 1: Strategic Considerations and Institutional Implications for RPGs**

Supply technology	Strategic considerations	Institutional implications
Weakest or Weaker link	Well-endowed players have an incentive to assist those less well off. Actions and/or contracts are self-enforcing. General rationale for foreign funding.	Rich countries may contribute the public good directly to increase aggregate supply levels. Regional agencies, such as ADB, can channel funds and direct actions to raise public good levels to acceptable standards. Capacity building required in poor countries.
Best or Better shot	Focus on the best or better-endowed members who are dominant in determining the RPG level. Problems arise when these nations derive less than proportionate benefits from the action.	Regional agencies may focus on the dominant nations and encourage or support their provision of RPGs.
Weighted sum	Some participants receive greater (or less) private benefits and thus have greater (or less) inducements to contribute. Captures pure public and private good representations as special cases.	Regional agencies need to support only those nations with less country-specific benefits. They could also collect and provide information on the benefit-cost matrix to encourage independent financing.

ADB = Asian Development Bank, RPG = regional public good.

Source: Adapted from Sandler, 2001.

## Implications for GMS

The economies of GMS appear to be adequately diverse so that there is a large room for benefits to be gained from increased subregional trade based on the member economies' varied comparative advantage (e.g., the Lao PDR exporting resource-based goods to Thailand and Yunnan Province while importing manufactured goods). The share of intra-GMS trade in total trade increased from 5.7% in 1992 to 12.6% in 2002, with the Lao PDR having the highest share at over 60% (Menon 2005, p. 25). While "unrecorded" intra-GMS trade is considered to have always been significant, a notable recent trend is the growing formal subregional trade.

A critical question in this regard is whether cross-border transport infrastructure has played a positive role in this development and, if so, how large its effect has been. Preliminary results in Fujimura and Edmonds (2006) indicate that cross-border road infrastructure has had a distinctively positive association with "recorded" intra-GMS trade in the last 2 decades and that there is a limited evidence of a trade-FDI nexus vis-à-vis the effects of cross-border road infrastructure on them. It is conceivable that such interlinkage has had some positive impact in recent years on the economies of less developed members of GMS, such as the Lao PDR and Cambodia. As wages rise in the more developed economies of GMS, the less developed countries are well placed to receive FDI flows that contribute to further economic development.

However, a common concern over any regional (subregional) economic integration is that its trade "creation" effects might be more than offset by trade "diversion" effects in which trade with more efficient producer countries outside the region might shift to trade with less efficient producer countries within the region. On this point, Menon (2005) argues that "subregionalism" in GMS is a "building," rather than "stumbling," block toward regionalism and also toward multilateralism because GMS is a classic case of market-driven integration that had been ongoing in the Mekong region. Trade and investment facilitation measures being taken in GMS are nondiscriminatory and complementary to those pursued in the Association of Southeast Asian Nations (ASEAN) Free Trade Area (FTA). Tariffs in GMS countries have fallen sharply for a wide range of commodities as they get closer to target dates when 0.5% tariffs will apply to most intra-ASEAN trade.

Furthermore, the ASEAN–China Free Trade Area (ACFTA), which came into effect in 2005, will bring the Chinese economy—particularly the Yunnan Province—closer to the ASEAN members of GMS. By integrating more closely with the original ASEAN members, the newer GMS members will increase their opportunities for trade and investment with the rest of the world. Thailand and Myanmar have been members of the World Trade Organization (WTO) for many years. The PRC and Cambodia joined WTO in 2001 and 2003, respectively. Viet Nam is scheduled to join WTO in January 2007, while the Lao PDR is actively seeking membership.

Provided that cross-border, particularly road transport, infrastructure contributes to subregional economic integration and bring large benefits to GMS economies as a whole without adverse trade diversion effects, the next question is how to ensure adequate supply of such infrastructure. As discussed earlier, transport RPG would best fit in either the weakest-link or weaker-link supply technology, in which the least- or lesser-developed transport infrastructure in a region determines the overall level of the infrastructural service. In the context of GMS, the weaker or weakest link would be located in Cambodia, Lao PDR, Myanmar, and Viet Nam (the so-called CLMV countries), which have been historically and/or geographically disadvantaged. Investments in road infrastructure that cover these countries would raise the overall quality of the road network in GMS.

The above observations reinforce the rationale for the initial focus of the GMS program on overcoming inadequate transport linkage, represented by the three transport corridors: East–West (linking Lao PDR, Myanmar, Thailand, and Viet Nam); North–South (linking Yunnan Province of the PRC, Lao PDR, and Thailand); and Southern (linking Cambodia and Viet Nam) corridors. Nonetheless, as discussed earlier, infrastructure investments would require careful coordination among the participating governments, often with institutional support from third parties, such as ADB.

As the road network improves and GMS countries continue to open their economies, their governments have recognized the need to address nonphysical impediments, such as restrictions on the entry of motor vehicles; different standards pertaining to vehicle size, weight, and safety requirements; driver qualifications; customs procedures and assessment of duties; and visa requirements. To mitigate these impediments, the Cross-border Transport Agreement was signed by the Lao PDR, Thailand, and Viet Nam in 1999. Cambodia acceded to the agreement in 2001, the PRC in 2002, and Myanmar in 2003. The agreement was designed to complement similar agreements in ASEAN and to be consistent with applicable international conventions. All annexes and protocols of the agreement are scheduled to be signed by 2007/2008 (see ADB [2006] for details).

While the aggregate benefits from improvements in cross-border transport infrastructure are supported by empirical evidence and institutional mechanisms are forthcoming, individual transport infrastructure projects still require an assessment of their own. As emphasized earlier, it is important to identify and assess the project benefits and costs accruing to the participating stakeholders and ensure that the outcome of the assessment is satisfactory to all parties. A challenge on the analytical front is how to build in a quantitative assessment of the distribution of benefits and costs, ideally from the inception of the projects. Where benefit-cost incidence appears ill-balanced, some remedial mechanisms—in which net gainers compensate net losers—are called for to realize the benefits from regional public goods.

The final arrangement for the Northern Economic Corridor Project (part of the North–South Economic Corridor) provides an interesting case in which implicit compensation mechanisms are put in place. Table 2 provides a summary economic appraisal of the

project using current practice methodology.<sup>4</sup> While the physical construction (upgrading to all-weather paved road) is within the Lao PDR—228 kilometers from Houayxai in Bokeo Province to Boten in Louang Namtha Province—the road benefits will also reach stakeholders in Thailand (particularly Chiang Rai Province) and the PRC (particularly Xishuangbanna District of Yunnan Province).

**Table 2: Economic Analysis of the Northern Economic Corridor Project, using Current Practice Methodology**  
(\$ million, in 2002 present value)

Benefit/ Cost item	Net Benefit by item	Lao PDR				Thailand				PRC			
		Corporation	Consumer	Labor <sup>2</sup>	Government/ Rest of economy <sup>3</sup>	Corporation	Consumer	Labor <sup>2</sup>	Government/ Rest of economy <sup>3</sup>	Corporation	Consumer	Labor <sup>2</sup>	Government/ Rest of economy <sup>3</sup>
Saved VOC <sup>1</sup>													
Normal traffic	40.10	6.66	9.05		6.23	13.26	0.95		0.78	1.42	0.97		0.78
Generated —	12.21	6.64	0.87		2.21	0.59	0.18		0.40	0.63	0.21		0.48
Diverted —	33.92					4.04	7.10		5.82	4.04	7.10		5.82
Transit fee	30.20				30.20								
Construction costs													
Labor	(7.30)				(7.30)								
Equipment	(20.80)				(20.80)								
Material	(13.50)				(13.50)								
Other	(10.40)				(10.40)								
O & M	(7.60)				(7.60)								
Finance <sup>4</sup>	0				34.60				(17.30)				(17.30)
Net Benefits	56.83	13.3	9.92		13.64	17.89	8.23		(10.30)	6.09	8.28		(10.22)
By Country	56.83				36.86				15.82				4.15
Share, in %	100				64.90				27.80				7.30

ADB = Asian Development Bank, Lao PDR = Lao People's Democratic Republic, O & M = operations and maintenance, PRC = People's Republic of China, VOC = vehicle operating cost, % = percent, \$ = US dollar, ( ) = negative, no ( ) = positive.

<sup>1</sup> Savings on VOC are estimated based on projected traffic growth and operating costs by vehicle type (various sizes of buses and trucks).

<sup>2</sup> To the extent that the project labor is drawn from "surplus" labor whose opportunity cost is lower than the paid wage rate, the project labor would have positive benefits. In this case, it was assumed that no surplus labor exists.

<sup>3</sup> This group can be considered as the residual stakeholders who cannot be particularly identified. It is assumed that the benefits and costs accruing to government are eventually borne by taxpayers or the rest of the economy.

<sup>4</sup> Without the knowledge of the loan terms, it is assumed that Thailand and the PRC share an equal amount of financial transfer. ADB also provides a concessional loan to the Government of the Lao PDR, but ADB's net benefit is not included in the table as it would not count toward economic criteria for project decision.

Source: Modified from ADB, 2003 (pp. 4–66).

<sup>4</sup> To make the points clear in this paper, Table 2 was modified from the original consultant report (ADB 2003) and is different from the presentation in the official loan document (ADB 2002). Accuracy of the numbers entered in the table is not guaranteed.

The purpose here is not to explain the details of the economic analysis, but rather to illustrate which economies are likely to gain or lose and through what channels. To be noted particularly in Table 2 are two compensation mechanisms assumed in the project arrangement that make up for the otherwise unfavorable distributional outcome for the Lao PDR. The first mechanism is the transit fee to be collected by the Government of the Lao PDR from the road users, including those originating from Thailand and the PRC. The second mechanism is the concessional loans (net financial transfer due to the favorable terms than the market-based loans) provided by the Governments of Thailand and the PRC to the Government of the Lao PDR. The analytical procedure in Table 2, however crude and tentative it might be, is useful in ensuring that there will be a win-win outcome of the investments in cross-border infrastructure and in ensuring an adequate supply of regional public goods.

## Conclusion

Findings from the economic geography literature indicate significant gains from reducing transport costs by investing in cross-border transport infrastructure and associated regional integration. Practice in cross-border economic cooperation also indicates benefits from regional transport facilitation, including the elimination of nonphysical barriers. However, the distribution of benefits and costs of such initiatives is likely to be asymmetric across participating members, necessitating mutually acceptable coordination and/or compensation arrangements.

A key to adequate supply of cross-border transport infrastructure seems to be the transparent sharing of knowledge of the anticipated benefits and costs by all stakeholders. In the case of the road project illustrated in the paper, limitations of the current practice (see Table 2) are clear: the benefits captured are limited to savings on vehicle operating cost while the costs captured are limited to those of road construction and operation and maintenance. Broader benefits from the project would include (i) increased flows of commodities, goods, and passengers among the three countries; (ii) improved access to public services and distant labor/goods markets and, therefore, improved welfare of households along the road; (iii) increase in ecotourism visitors; and perhaps, (iv) induced investments in small-scale manufacturing or processing facilities. Possible negative impacts of the road would include (i) rising land value, which may displace poor households, depriving access to forest resources for subsistence; (ii) increase in unsustainable logging and commercial cultivation of industrial tree crops (e.g., rubber); (iii) increase in illegal wildlife trade; and (iv) increase in transmission of communicable diseases and human trafficking. Most of these effects cross national boundaries and their assessment requires (sub) regional perspectives. With adequate time and resources allocated to data collection and analysis—which may well be justified for (sub) regional projects—some of these benefits and costs could be identified and quantified, or at

least simulated. This is an area in which professionals from different disciplines could bring their expertise together and improve the knowledge base to better inform preparation of all cross-border infrastructure projects.

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# Determinants of Bank Lending in Thailand Rural Financial Markets

Visit Limsombunchai,<sup>1</sup> Christopher Gan,<sup>2</sup> and Minsoo Lee<sup>3</sup>

## Abstract

Agricultural credit is important and necessary for the survival of the agricultural sector in Thailand. Farms are generally undercapitalized: most farmers are small-scale peasant farmers who face such problems as indebtedness, high interest rates, lack of collateral, limited sources of funds, shortage of credit services, and lack of financial management knowledge and skills. This paper examines the determinants of bank lending decision behavior on agricultural lending in Thailand rural financial market using a credit-scoring model. The results show that total farm asset value, efficiency (capital turnover ratio), and duration of bank-borrower relationship are important factors in determining the creditworthiness of the borrowers. The results also indicate that a higher value of farm assets implies a higher creditworthiness and a higher probability of being granted a loan.

## Introduction

Agricultural credit is important and necessary for the survival of the agricultural sector in Thailand. Most farms are undercapitalized: most farmers are small-scale peasant farmers who are poor and lack investment funds. According to the National Statistics Office's 1999 socioeconomic survey, poverty is mostly concentrated among farm households. For example, 5.3 million households or 54% are poor and about 72% of the 4.2 million households that are ultra-poor (those below 80% of the poverty line) are small farm owners or farmworkers. They borrow heavily to finance farm production, investment, and private consumption.

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<sup>1</sup> Faculty of Economics, Kasetsart University, Chatujak, Bangkok, Thailand 10900, Tel: +66 2 942 8649-51, Fax: +66 2 942 8047, E-mail: fecovil@ku.ac.th.

<sup>2</sup> Corresponding author, Commerce Division, PO Box 84, Lincoln University, Canterbury, New Zealand 8150, Tel: 64 3 325 2811, Fax: 64 3 325 3847, E-mail: ganc1@lincoln.ac.nz.

<sup>3</sup> School of Business and Management, American University of Sharjah, Sharjah, United Arab Emirates, Tel: 971 6 515 2369, Fax: 971 6 558 5066, E-mail: mlee@aus.edu.

The proportion of agricultural households in Thailand with outstanding debt increased gradually from 25.38% in 1988 to 59.88% in 1999 (Table 1). The average outstanding debt per household rose from baht (B)6,046.78 in 1988 to B37,231.00 in 1999. The average loan size increased from B3,830.98 per household in 1971 to B18,493.14 per household in 1999, an increase of nearly 500% over 28 years. The majority of loans were primarily for agricultural production (about 70% on the average) (Table 2).

**Table 1: Number of Households, Households with Outstanding Debt, and Average Outstanding Debt in the Agricultural Sector of Thailand**

Year	Households (no.)	Households with outstanding debt (no.)	Households with outstanding debt (%)	Average debt (baht/household)
1988	5,040,132	1,279,000	25.38	6,046.78
1990	5,073,471	1,408,000	27.75	7,828.94
1991	5,130,531	1,729,831	33.72	12,771.74
1995	5,502,782	2,857,993	51.94	24,672.13
1998	5,513,855	3,050,412	55.32	37,019.35
1999	5,642,890	3,379,163	59.88	37,231.00

B = baht, % = percent.

Source: Office of Agricultural Economics, various years.

**Table 2: Average Loan Size, Sources of Loan and Borrowing Purposes**

Year	Average Loan size (baht/household)	Sources of loan (%)		Borrowing purposes (%)	
		Informal	Institution	Agriculture	Non-agriculture
1971	3,830.98	36.35	63.65	70.30	29.70
1976	2,187.07	36.97	63.03	79.44	20.56
1978	3,053.63	36.12	63.88	73.67	26.33
1980	4,360.63	42.10	57.90	76.53	23.47
1982	4,788.86	33.81	66.19	74.33	25.67
1986	3,206.43	29.55	70.45	76.49	23.51
1988	5,137.27	28.12	71.88	81.49	18.51
1990	6,759.27	17.95	82.05	77.99	22.01
1991	8,924.59	18.97	81.03	81.27	18.73
1995	15,048.83	9.01	90.99	70.39	29.61
1998	17,854.48	16.96	83.04	69.03	30.97
1999	18,493.14	16.10	83.90	67.30	32.70

B = baht, % = percent.

Source: Office of Agricultural Economics, various years.

The major problems facing Thailand's rural finance are similar to those experienced by most developing countries: indebtedness, high interest rates, lack of collateral, limited sources of funds, shortage of credit services, and lack of financial management knowledge and skills (Davis, et al. 1998; Thailand Development Research Institute 1998). Commercial banks in Thailand prefer to lend to large commercial farmers who are more profitable than small farmers. Commercial farmers generally acquire large loans with long repayment periods that are more profitable for the banks, while small farmers tend to acquire small loans that incur high transaction and administration costs with high default

risks. As a result, most rural households are denied access to formal credit and resort to informal borrowing at very high interest rates.

The credit market in rural areas is characterized by state-owned financial institutions, such as the Bank of Agriculture and Agricultural Cooperatives (BAAC), Government Saving Bank (GSB), and Government Housing Bank (GHB), private commercial banks, cooperatives, informal institutions—such as production credit groups, credit unions, savings groups, and village funds—and traditional informal sources, such as relatives, neighbors, and moneylenders (Poramacom 2001).

The proportion of institutional credit increased from 63.65% in 1971 to 90.99% in 1995, but declined to 83.90% in 1999 because of the 1997 Asian financial crisis (see Table 2). BAAC provides financial assistance to farmers, farmer associations, and agricultural cooperatives, and is the only formal credit source with a significant share in Thailand’s agricultural credit market. In 1999, 63.07% of total loans in the agricultural sector came from BAAC (Table 3); only 13% came from agricultural cooperatives, and 8.00% from commercial banks (Table 4).

**Table 3: Outstanding Credit Classified by Types of Financial Institutions**

Year	Commercial Banks <sup>a</sup>		BAAC		Finance Companies		Total	
	billion baht	%	billion baht	%	billion baht	%	billion baht	%
1987	45.80	63.79	25.10	34.96	0.90	1.25	71.80	100
1992	131.00	65.43	65.20	32.57	4.00	2.00	200.20	100
1996	159.20	47.49	176.00	52.51	–	–	335.20	100
1997	156.60	44.92	192.00	55.08	–	–	348.60	100
1998	148.30	41.62	208.00	58.38	–	–	356.30	100
1999	133.80	36.93	228.50	63.07	–	–	362.30	100

BAAC = Bank of Agriculture and Agricultural Cooperatives, – = not available, % = percent.

<sup>a</sup> Including the Government Saving Bank and Government Housing Bank.

Source: Bank of Thailand, various years.

BAAC’s outstanding credit increased from B25.10 billion (34.96%) in 1987 to B228.50 billion (63.07%) in 1999, a more than ninefold increase. However, the proportion of outstanding credit relative to the total commercial bank debt decreased from 63.79% to 36.93% in the same period (Table 3). This demonstrates the important role of BAAC in Thailand’s agricultural credit market relative to that of other formal credit institutions.

A well-developed rural financial market could lead to sustainable development in the rural sector. In this study, a credit-scoring model was used to examine the determinants of bank decision-making behavior on agricultural lending in the Thailand rural financial market.

**Table 4: Sources of Loan in 1996 and 1999**

Item	1996 (%)	1999 (%)
<b>Informal</b>	15.40	16.10
Relatives	3.10	3.80
Neighbors	2.20	2.50
Landlord/moneylenders	2.90	6.80
Rice-mill owner	0.20	1.20
Farmer saving groups	1.40	0.90
Others	5.70	0.90
<b>Institutional</b>	84.60	83.90
BAAC	59.70	61.80
Agricultural cooperatives	12.30	12.60
Commercial banks	12.30	8.30
Finance companies	0.30	1.20

BAAC = Bank of Agriculture and Agricultural Cooperatives, % = percent.  
Source: Office of Agricultural Economics (OAE) 1996, 1999.

## **Bank Lending Decision Making: Subjective Evaluation versus Credit Scoring**

A bank’s lending decision depends on the borrower’s default risk. Credit analysis includes the valuation of the borrower’s financial history, financial statements, and past credit background. The objectives of credit analysis are to determine the financial strength of the borrowers, to estimate the borrower’s probability of repayment, and to reduce the risk of nonpayment to an acceptable level. There are two major problems in credit analysis: the assessment of all important factors about a borrower simultaneously and the evaluation of all borrowers objectively (Plata and Nartea 1998; Sinkey 2002).

Two main methods are used to evaluate borrower creditworthiness (Crook 1996): loan officer subjective assessment (or evaluation) and credit scoring. The subjective assessment of a borrower’s creditworthiness is based on the 6Cs—character, capacity, cash, collateral, conditions, and control (Rose 1993). Lewis (1992), Crook (1996), and Glassman and Wilkins (1997) argue that subjective assessment methods are inefficient, unexplainable, inconsistent, and nonuniform. Thus, credit-scoring models have become the preferable way of evaluating a borrower’s creditworthiness and credit risk.

### **Credit-scoring Method**

The credit-scoring model is straightforward. A large historical loan sample of similar loan types is divided into good and bad loans. Based on statistical probabilities, the combination

of good and bad borrowers' characteristics generates a score (or probability) serving as an estimate of the risk level of each new loan request (Crook 1996).

Credit history information and other data regarding repayment ability, which borrowers generally provide, are analyzed by computer. The model attempts to predict the applicant's likelihood of default based on previous experience with borrowers with similar loan profiles. In some systems, the score is compared with a certain critical value (cutoff point) and the result is either to accept or to reject the loan application. To develop a good credit-scoring model, sufficient historical data are needed to reflect loan performance in all economic conditions. There is no perfect scoring model.

Credit scoring has been broadly applied in consumer lending, especially in credit cards, and it is becoming more commonly used in mortgage lending. Credit scoring has not been widely applied in business lending because business loans substantially differ across conventional borrowers and make it more difficult to construct an accurate scoring method. However, the flexibility of statistical models and computing technology has made such scoring method feasible. Several financial institutions use a cost-effective, credit-scoring model to assess loan applications (Mester 1997).

Credit-scoring models can reduce the variability of credit decisions and add efficiencies to credit risk assessment process. Furthermore, the models not only assist financial institutions in loan approval, but also in loan pricing, loan monitoring, determining the amount of credit, managing credit risk, and assessing loan portfolio risks (Turvey and Brown 1990).

## Variables in Credit-scoring Models

The pragmatism and empiricism of credit scoring imply that any characteristic and environment of the borrower that has connections with default risk should be used in the scoring system and that there is no need to justify the case for any variable (Lewis 1992). However, some characteristics are excluded from credit-scoring models because they are legally discriminatory—such as race, religion, and gender—or culturally unacceptable, such as health and conviction records.

The major factors used in lending decision models include borrowers' liquidity (i.e., current ratio, quick ratio, and networking capital), profitability (i.e., return on assets and return on equity), solvency (i.e., leverage ratio and debt-to-equity ratio), efficiency (i.e., gross ratio and capital turnover ratio) and repayment capacity (i.e., interest expense ratio, interest coverage ratio, and debt repayment ratio). For example, Miller and LaDue (1989) used combinations of profitability, solvency, and efficiency, in their credit assessment models for a bank case focusing on dairy farms in New York; Turvey and Brown (1990) used liquidity, profitability, solvency, efficiency, and repayment capacity in estimating the credit scoring for Canada's farm credit corporation; and Barney, et al. (1999) used

them to estimate the farm debt failure prediction model for the farmers' home administration in the United States.

Several statistical methods have been used to estimate credit-scoring models, including discriminant analysis (Turvey 1991; Altman, et al. 1994), linear probability models (Turvey 1991; Barney, et al. 1999), logit models (Turvey 1991; Altman, et al. 1994; and Turvey and Weersink 1997), and probit models (Lufburrow, et al. 1984; Turvey 1991). The logit model has dominated the literature, and has been widely used because of its simplicity. Turvey (1991) empirically compared agriculture credit-scoring models using four parametric methods with a single data set. Turvey recommended the logistic model over the probit model, linear probability model, and discriminant analysis based on predictive power and ease of use, in addition to its consistent statistical properties.

## **Data and Methodology**

### **Data and Sample Selection**

The data in this research were obtained from BAAC, a major lender in the agricultural sector with a high significant share in the agricultural financing market (more than 55% of total loans in 2003). The credit files were retrieved from the Credit Business Process Reengineering (Credit BPR) database in June 2004. About three to five provinces that had credit files available on Credit BPR database during the 3 years, 2001–2003, were randomly selected from each region. The data set was retrieved from 99–136 branches in 17 provinces.

The total number of observations on the available data set was 242,168. The data set included missing data on many variables due to the recent implementation of the database system. Samples without personal details (such as age, education, home address, etc.), financial details (such as asset, farm income, expense, net income, etc.), and debt repayment history were deleted. The usable data set consisted of 16,560 agricultural loan contracts, with 14,383 good loans and 2,177 bad (or default) loans. Due to the unavailability of information on borrowers' current assets, current liabilities, and debt repayment, borrower's liquidity and repayment capacity were not included in the estimation.

## Bank Lending Decision Model

The bank lending decision (credit scoring) model is given as follows (Gujarati 1995):

$$P_i = E(Y_i = 1 | X_{ij}) = \frac{1}{1 + e^{-Z_i}} = \frac{1}{1 + e^{-(\alpha + \sum_j \beta_j X_{ij} + \varepsilon_i)}} \quad (1)$$

where  $Y_i$  equals 1 if the loan is paid (good loan); 0 if the loan is defaulted (bad loan);

$P_i$  is the estimated probability of a good loan (high value of  $P_i$  implies low default risk) and

$$Z_i = \alpha + \sum_j \beta_j X_{ij} + \varepsilon_i$$

Where  $X_{ij}$  represents the borrower's characteristics, credit risk proxies, relationship indicators and dummy variables; and  $\hat{\varepsilon}_i$  is the error term.

Equation (1) represents the cumulative logistic distribution function. If  $P_i$  is the probability of a good loan, then the probability of a bad loan ( $1 - P_i$ ) is:

$$(1 - P_i) = \frac{1}{1 + e^{Z_i}} \quad (2)$$

The odds ratio in favor of a good loan  $\frac{P_i}{(1 - P_i)}$  can be written as:

$$\frac{P_i}{(1 - P_i)} = \frac{1 + e^{Z_i}}{1 + e^{-Z_i}} = e^{Z_i} \quad (3)$$

Taking the natural logarithm on both sides, the equation (3) becomes:

$$Z_i = \ln\left(\frac{P_i}{1 - P_i}\right) = \alpha + \sum_j \beta_j X_{ij} + \varepsilon_i \quad (4)$$

The maximum likelihood estimation technique is applied to the logistic regression. The likelihood function  $L$  is given as follows (Maddala 2001).

$$L = \prod_{Y_i=1} P_i \prod_{Y_i=0} (1 - P_i) \quad (5)$$

We assume that the probability of a good loan follows the logistic distribution and is a function of the borrower's characteristics, credit risk proxies, relationship indicators, and dummy variables. The reduced form of credit-scoring model for the agricultural loans in Thailand can be described in the following ways:

$$\text{Lending decision} = f(\text{Borrower characteristics, Credit risk proxies, Relationship indicators, Dummy variables}) \quad (6)$$

where:

Lending decision = 1 if loan is paid (good loan); 0 if loan is default (bad loan)

Borrower characteristics include:

Asset (+) = total asset value (baht)

Age (+) = age of borrower (years)

Education (+) = 0 if the attainment of the borrower is primary school or lower, 1 otherwise

Credit risk proxies include:

Collateral (+) = value of collateral (baht)

Return on asset (+) = net return / total assets

Leverage ratio (-) = total liability / total asset

Capital turnover ratio (+) = gross income / total asset

Relationship indicators include:

Borrowing from other (-) = 1 if the borrower has an outstanding debt with other financial sources; 0 if the borrower has a loan from BAAC only

Duration (+) = the duration of bank-borrower relationship prior to the credit decision (years)

Dummy variables include:

Province (Province 1–17), farm type (horticulture, orchard/vegetable, livestock/aquaculture, and others), loan type (cash credit loan, short-term loan, medium-term loan, and long-term loan), loan size (small, medium, and large), and lending year (2001–2003).

Priori hypotheses are indicated by (+) or (-) in the above specifications. For example, assets, age, education, collateral, return on asset, capital turnover ratio, and duration are

positively related to the probability of a good loan (loan contract approval). The probability of a good loan is negatively related to leverage ratio and borrowing from others.

Dummy variables, such as province, farm type, loan type, loan size, and lending year, are included to describe systematic effects relating to the type of borrowers and the type of contracts, and are hypothesized to influence the borrowers' credit risk and the probability of a good loan. For example, borrowers who have cash crops (horticulture) as their major production would require a smaller amount of credit (small loan) than other farm types, and the contract term for the cash crop production is short term (short-term loan). Thus, this group of borrowers would more likely be granted a loan than others because short-term loans are less likely to default than are medium- or long-term loans and the lending risk is relatively lower for short-term loans than for long-term loans. In contrast, if the major production of the borrowers is orchard crops or livestock, which may need a large long-term loan, they would be expected to have higher credit risks and their loan contracts would have a lower probability of being good loans.

## Empirical Results

The results of the credit-scoring models are shown in Table 5. Overall, Model I (without duration) and Model II (with duration) fit the data fairly well. The chi-square statistics reject the null hypothesis that all the parameter estimates for the models are insignificant. Both models correctly predict the lending decision above 85%. However, Models I and II exhibit 93.98% and 90.70% of Type I error (incorrectly reject  $H_0$ , or accept a bad loan as a good loan), respectively. Model I exhibits a higher overall correct prediction rate; Model II predicts a bad loan more accurately than Model I.

Although the results showed Models I and II could correctly predict a bad loan in only 6.02% and 9.30% of cases, respectively, the models could still benefit the bank in reducing loan losses. Given that the average loan size in this study is about B140,739 and there are about 2,177 bad loans, Model I would probably reduce the loan loss by up to B18 million.

In Model I, the estimated coefficients of asset, education, leverage ratio, and capital turnover ratio are found to be significant at the 5% level (Table 4). Loan applicants would have higher probability of good loans and receiving their loans if they have larger physical capital assets and higher human capital assets. However, that probability decreases as loan applicants increase their leverage ratio (solvency) and capital turnover ratio (efficiency), which contradicts the hypothesis on capital turnover ratio showing that the borrower who has a higher gross income to total assets has a higher probability to default on debt repayment. It seems that when borrowers earn more, they prefer spending the extra income on other activities or purposes rather than on repaying their debt.

**Table 5: Bank Lending Decision Model (Credit Scoring)**

Variable <sup>a, b</sup>	Model I			Model II		
	Coefficient	Marginal effect <sup>c</sup>		Coefficient	Marginal effect <sup>c</sup>	
Log (asset)	0.3197*	0.0289		0.3719*	0.0387	
Age	(0.0009)	(0.0001)		(0.0016)	(0.0002)	
Education	0.1686*	0.0161		0.1769	0.0190	
Log (collateral)	(0.0339)	(0.0030)		(0.0689)	(0.0072)	
Return on asset	0.0383	0.0030		0.0050	0.0005	
Leverage ratio	(0.9629 <sup>†</sup> )	(0.0874)		(0.8326)	(0.0868)	
Capital turnover ratio	(0.0634 <sup>†</sup> )	(0.0060)		(0.0596 <sup>†</sup> )	(0.0062)	
Borrowing from others	0.1081	0.0095		0.0329	0.0034	
Duration				(0.1915 <sup>†</sup> )	(0.0199)	
Province, farm type, loan type, loan size, lending year dummies <sup>d</sup>	yes	yes		yes	yes	
Constant	yes	yes		yes	yes	
No. observations		16,560			3,965	
LR statistic ( $\chi^2$ )		1,446.85 *			398.97 *	
Degrees of freedom		34			35	
Log likelihood		(5,720.45)			(1,489.09)	
McFadden R <sup>2</sup>		0.1123			0.1182	
Prediction classification <sup>e</sup>	BL	GL	Overall	BL	GL	Overall
% Correct	6.02	99.48	87.19	9.30	98.90	85.30
% Incorrect	93.98	0.52	12.81	90.70	1.10	14.70

BL = bad loan, GL = good loan, % = percent, ( ) = negative, no ( ) = positive.

<sup>a</sup> Dependent variable is lending decision (paid/default).

<sup>b</sup> Maximize using logistic likelihood function and quasi-maximum likelihood standard errors and covariance.

<sup>c</sup> Marginal effect is at the mean value. For dummy variable, marginal effect is  $P|1 - P|0$ .

<sup>d</sup> To avoid singularity problem, a dummy variable is dropped from each group.

<sup>e</sup> Cutoff point = 0.50.

\* Significant at the 5% level.

When the length of the bank-borrower relationship (duration) is included in the model (Model II), the results show that asset and capital turnover ratio is significant at the 5% level, while education and leverage ratio is insignificant. Furthermore, the estimated coefficient on capital turnover ratio is negative, which is consistent with the estimated result in Model I. However, the relationship between duration and lending decision contradicts the postulated hypothesis. The estimated coefficient is negative and significant at the 5% level. This suggests that a borrower with a longer relationship with the bank have a higher probability of default on debt repayment and banks should deal cautiously with these borrowers.

The significant negative sign on the 2002 dummy variable on both models signals an abnormal default rate on debt repayment from borrowers. This is because the Thai Government at the time implemented a 3-year debt suspension program in 2001. Some previously good debtors were encouraged to default on debt repayments in anticipation of the program.

The marginal effects represent a quantitative change in conditional probability that results from the change in the independent variable (Table 5). For example, a one-unit increment in the borrower's total asset value and capital turnover ratio would increase and decrease the probability of a good loan by 0.0387 and 0.0062, respectively (see Model II). Furthermore, the marginal effect on the length of the bank-borrower relationship shows that when the relationship between the bank and the borrower increases by 1 year, the probability of a good loan (default risk) decreases (increases) by 0.0199 on the average.

The estimated coefficients of province, farm type, loan type, and loan size dummy variables are not presented here, but the results show that horticultural production, short-term loan, and small borrowing are less risky and have a lower credit risk than others. Therefore, the probability of a good loan to the borrower (farmer) in this group is relatively higher than for the others. Furthermore, the estimated coefficients of the provinces show that the probability of a good loan and the likelihood to grant a loan to a farmer differ according to the residential province.

## Conclusion

The results of the logistic credit-scoring model verify the importance of total asset value, capital turnover ratio (efficiency), and length of the bank-borrower relationship (duration) in determining the creditworthiness of borrowers and the probability of a good loan (loan contract approval). The results show that a higher value asset implies a higher creditworthiness and a higher probability of a good loan. However, the negative signs in both capital turnover ratio and duration, which contradict the hypothesized signs, suggest that the borrower who has a longer relationship with the bank and who has a higher gross income to total asset has a higher probability of default on debt repayment.

In addition, the results show that a good credit-scoring model with the ability to detect a bad loan could help a bank reduce loan losses from bad borrowers. Such a model should be developed and used to support credit officers in screening loan applications.

The results from the bank lending decision model also show that banks pay considerable attention to only one factor when making their lending decisions: total asset value. Focusing on a single factor might cause over-lending and underpricing problems when there is a financial crisis or a high depreciation on the land or asset price. Hence, banks should consider the potential of the borrower's capability to repay the loan.

Policy makers need to accelerate property rights reform and the land titling program to promote the development of credit accessibility to farmers in rural regions. To date, the titling program has progressed slowly, but this asset plays a very important role in determining a bank's lending decision.

Since the default risk in 2002 is higher than the other years, research findings show that the 3-year debt moratorium program that the Thai Government under Prime Minister

Dr. Thaksin Shinawatra and his Thai Rak Thai Party introduced distorts the country's credit culture and encourages the good debtors to default on debt repayments. An inappropriate rural financial policy is not only inefficient in achieving the key goals of improving the farmers' welfare, but also distorts the country's monetary and financial culture. Therefore, the policy makers should be more concerned about this issue when implementing or introducing a new rural financial policy.

Rural credit markets in other Greater Mekong Subregion (GMS) countries (Cambodia, Lao People's Democratic Republic, Myanmar, People's Republic of China, and Viet Nam) are also characterized by imperfect information, the coexistence of formal and informal credit institutions, weak property rights, limited access, high interest rates, and lack of collateral and collective organizations. All these deprive the poor of the power to compete on equal terms in the marketplace. Poor rural households tend to have larger families, less education, and higher underemployment. Their access to credit is severely limited. Lenders, especially informal lenders, provide loans to rural households for various purposes at interest rates normally higher than that charged in the formal sector. The interest rate is influenced by the size and maturity of the loan. Shorter-term loans are subject to higher interest rates because those who take loans closer to the repayment date have relatively more inelastic demand for credit.

The problem of insufficient financial services in the development of the rural economy results both from the financial industry itself and from rural economic development and policies. Proper institutional design and adherence to appropriate policies have the potential to generate substantial achievements, both in terms of self-sustainability and greater institutional outreach to accelerate the development of the agriculture sector, which remains the predominant sector in most of the GMS. Thus, the principal challenge for GMS governments is promoting efficient rural financial markets that recognize the links among the farmers' ability to access credits, their repayment capacities, and sound lending policies. This requires a clear definition on the type of rural credit program to be established; lending policies should be tailored according to the specific characteristics of the intended borrowers. The success of the credit program relies not only on its ability to reach the intended population, but also on its capacity to strengthen beneficiary local organizations.

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# Book Review

*Shopping Tourism, Retailing, and Leisure* by Dallen Timothy.  
Clevedon UK: Channel View Publications. 2005. 187p.

While shopping has been acknowledged for some time as an important part of the holiday experience, and many books have been written about retail activities, purchasing, market demand, service quality, and management, few books about shopping from the perspective of tourism, recreation, and leisure have been written specifically. This is all the more unexpected when one considers that a number of national tourism organizations (NTOs) have tourism shopping divisions, such as the Singapore Tourist Board; and many destinations will market “shopping” as a key attraction (e.g., Hong Kong, China). Tourism policy makers and planners will also include provision for “shopping streets” in their blueprints for tourism development—the People’s Republic of China being a good example, where some old towns have rejuvenated centers constructed around new shopping facilities.

Numerous studies have been made into the specific shopping habits, activities, and expenditure levels of some segments of the market, such as the Japanese international traveller, because of their cultural requirement to purchase a wide range of gifts for relatives and colleagues back in Japan. Many community-based tourism projects, particularly those that have a poverty reduction objective, focus on the possibility of indigenous arts and craft being utilized for tourist souvenirs. Most studies into shopping, however, have focused on very specific market segments or narrow economic benefits for a particular destination, and are limited in scope.

Perhaps because shopping is so pervasive and universal in the world of travel and tourism, it has been accepted without being subjected to a more holistic academic treatment. It is just something that most tourists will take time to do, whatever the nature of their holiday and underlying motivations for travelling to a particular destination may be. However, given the centrality of shopping to the Asian tourism experience by both non-Asian international travellers coming into the region and by Asian travellers themselves—not only for souvenirs but for a wide range of consumer products—and in bustling metropolises, capital cities, and airports as well as isolated rural ethnic destinations, shopping clearly provides enormous benefits for the host countries. The relative neglect of a comprehensive analysis of shopping in the tourism literature is somewhat surprising.

The eight chapters of this book examine the relationships between tourism, leisure, shopping, and retailing within a critical framework that juxtaposes the utilitarian (daily necessities) and “hedonistic” (purely for pleasure) forms of shopping against each other. It examines shopping as both a primary and a secondary attraction in tourist destinations

and issues associated with these roles. The degree of research that underpins the book is manifested in the author's list of more than 600 references that are multidisciplinary in origin, being drawn from economics, sociology, psychology, business management, retailing, geography, and tourism and leisure studies, among others. While the contents are global in their reach, the astute reader will have no difficulty in relating many of the findings and observations to their national or regional situation. It should appeal not only to tourism researchers and practitioners, policy makers, and planners but also to geographers, sociologists interested in consumer behavior, psychologists, marketers, development studies specialists, and management experts.

The introductory chapter explores the rise of consumerism historically, setting out five clear stages in the study of this topic. All types of tourism and tourism activity are forms of consumption—tourists “consume” the culture of another country; they “consume” the wildlife in a national park; they “consume” the experience of a tropical island and, of course, they consume the cuisine available at their destination. Shopping is the consumption of a wide variety of objects but consumerism is not only about products: it is about consuming places, spaces, and time. Moreover, it is the consumptive activity of shopping that is of concern in this book. The author reviews “the notion of consumption as the foundation of the relationships between tourism, leisure, and shopping” (p. 1) and makes the valid point that “modern mass consumerism is based almost entirely on desires rather than needs and thus, at its very core, consumption is as much social and cultural as it is economic” (p.3). In this context, the relationships between leisure, tourism, and shopping are exemplified by the development of malls planned as “hybrids” that combine shopping, accommodation, entertainment, cinemas, restaurants, and activities. Many Asian cities have followed the European and North American trend and such hybrids are now common in such cities as Bangkok, Guangzhou, Hong Kong, Kuala Lumpur, Shanghai, Singapore, and Tokyo.

The second chapter examines these multifunctional malls as attractions in their own right, a new construct of social space designed for both residents and travellers. Many of these malls have stages specifically constructed for entertainers and a full-time department to map out a program of entertainment 12 months or more in advance, with performances by rock bands or cultural troupes, magicians or circus artists, beauty pageants, and other such shows that are provided free of charge to shoppers to attract more customers. The smart national tourism organization will have links into such malls-as-attractions and promote the shows to visitors, thus, adding value to the shopping.

Consumer psychology is a well-studied aspect of retailing but it is invariably focused on resident behavior and rarely moves its spotlight onto the psychology of tourist shopping, which has many different characteristics. The third chapter examines shopping as a primary travel motivation, analyzing tourist preferences for different kinds of merchandise, a range of destinations known for particular products (Bangkok and Phnom Penh for silk, People's Republic of China for porcelain, Bali for handicrafts, Switzerland

for watches, etc.), and price advantages. In the case of the latter, duty-free shopping has been a major motivating factor for many tourist purchases, and price differential is a major motivation for much cross-border shopping in those places where goods are cheaper in a neighboring country, or where the choice of goods and range of items are much greater than at home. The author details motivators such as these that provide solid justification for making shopping tourism an area for more serious attention by NTOs across a broader spectrum of understanding than is often the case.

The fourth chapter flows naturally into a detailed discussion of the purchases of gifts for relatives, friends, and colleagues as a major component of all tourism shopping. In this context, the author adds another motivation for shopping at a destination—relief from boredom. This chapter concludes with a discussion of the economic importance of tourism shopping to many countries and destinations within countries.

The place of the “souvenir” in tourism shopping is explored in detail in the fifth chapter. The role of “novelty” and “authenticity” in this form of tourist consumerism is also discussed, especially by examining the processes of modification of traditional items to suit the consumer tastes of foreign visitors, the problematic question of whether such modified objects remain “authentic,” and the commoditization of arts and craft into oft-derided “tourist art.” The other side of the coin is also visited, that is, in some circumstances, tourism shopping will be the key factor in a revitalization of traditional skills, helping to halt a declining interest by host communities in maintaining customary arts and craft. It is important to note here that modernization, not tourism, may be considered the more dominant factor in the decline of such traditional skills and art forms, although tourism is often singled out as the main causative factor (under the aegis of “the adverse impacts of tourism as a destroyer of traditional material culture”).

In terms of tourism planning, the sixth chapter constitutes a blueprint for matching different types of shopping venues with different markets and the often specialized forms of merchandise typically available in different settings. The author takes the reader on a journey through the history of development of malls, airports, duty-free outlets, craft markets, street vendors, tourist shopping villages, ethnic stalls, museums, art galleries, etc. He then links each type of venue with types of merchandise and the propensity of tourists to buy particular purchases. It is this analysis of types of venues/markets/merchandise that could be applied in tourism planning when site developments or tourism precincts are under consideration.

The seventh chapter continues synthesizing areas that are rarely brought together. This chapter examines retailing management issues that relate specifically to tourists and tourism and leisure-time shoppers. Included is a discussion on the importance of the location of different types of shopping venues for tourism although large markets established primarily for residents may attract significant numbers of tourists without due reference to their accessibility for tourists. Other venues that focus on retailing for tourists, however, will succeed or fail largely because of their location. Managers must be

cognizant of the critical importance of security, design, and type of merchandising when international tourists are targeted primarily. They must also ensure that their staff are suitable for working in a cross-cultural retail environment, able to provide a quality of service, and demonstrating a capacity to deal with foreign visitors in an empathetic manner, where language skills are often important.

This discourse on shopping is rounded off with an outline of the need for further research on shopping tourism, including the gendered nature of some shopping, cultural factors, and class distinctions. It is a topic normally covered as just one element among many activities that tourists undertake. However, the reach and value of shopping opportunities and experiences and the contribution that these can make to community, local, and national economies as demonstrated in this book, highlight the need for tourism planners to elevate its importance from its usual understated position. Overall, the value of this book rests on the way in which disparate aspects of the tourist shopping experience and planning for shopping tourism have been assembled between the one set of covers on the back of extensive research across a range of different disciplinary fields.

Dr. Trevor Sofield, Professor of Tourism,  
University of Queensland, Australia and Team leader,  
ADB Mekong Tourism Development Project,  
Cambodia and Viet Nam