

Technical Paper 2

# **The Role of Thailand in the Framework of Regional Economic Cooperation with Neighbouring Countries**

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**Japan International Cooperation Agency**

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**International Consultancy Network Co., Ltd.**

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## **Technical Paper 2:      The Role of Thailand in the Framework of Regional Economic Cooperation With Neighbouring Countries**

### **1                      Factors Likely to Induce Economic Cooperation Between Thailand and Neighbouring Countries.**

#### **1.1                  Recent Political Economic Development in the Neighbouring Indochinese Economies Including Myanmar**

Political changes in Indochinese centrally planned economy may have been spared the turmoil experienced by the fore runners in the Soviet Union and the Eastern European countries. The valuable lesson learnt has been that it is less politically risky to initiate changes from above rather than have changes being pressured from below. The economic reform under the Doi Moi policy of Viet Nam, the New Economic Mechanism adopted by the Government of Laos and similar adjustments in Kampuchea and Myanmar all reflect a policy to relax central control as well a more liberalized policy which led to the opening of these economies to international trade and investment opportunities.

China is no exception to this direction of change. China's interest, as will be discussed in the subsequent section of this paper, is a combination of economic-political objectives. China also has intentions to create sea outlets for formerly landlocked countries in the South and the Western parts of the country. As such the economic interests of China has been spatially southwards and have met with positive and cooperative responses from Indochinese countries and Thailand in particular.

Given the aggregate size of the 10 countries in Southeast Asia and their population, there is the general anticipation that their economic unification can be developed into a strong bargaining power. One is after all talking about approximately 4.5 million km<sup>2</sup> of land and a population of 470 million. The possibility of expanding economic links with China to the north creates even higher

potential for development and prospects of emergence of a powerful Region with high political and economic bargaining power.

In many respects, the regionalisation of China and Indochinese countries are complementary rather than against the economic interests of ASEAN or Japan. The higher cost structure of industrial operations in Japan have necessitated decentralisation of production of parts and assembly lines to countries with lower operating costs particularly countries with lower labour costs. At this juncture of economic development where there are significant changes in comparative advantages, countries such as Singapore, Malaysia and Thailand may have to start making the same moves. The decision to move towards China, Indochinese countries and Myanmar will be mainly based on considerations over the availability of resources and raw materials and abundance of still cheaper wage labourers. Countries such as Myanmar, South China and Laos PDR are also wealthy in energy supply resources, e.g. hydroelectric power projects, lignite, oil, natural gas, etc.

Fuller economic cooperation can only be realistically envisaged in the medium and long run, however, given the acute need to step up production and construction of basic physical infrastructures, the need for formulation of rules and regulation as well as the production of manpower to effectively undertake all aspects of economic transactions.



## **2 POLICY FRAMEWORK FOR REGIONAL ECONOMIC COOPERATION**

### **2.1 Regional Cooperation**

The concept for Regional Cooperation between these countries originated as a reaction to the adjustments of East Asian Countries particularly Japan and the newly industrialized economies, i.e., Hong Kong, South Korea and Taiwan. The internal adjustments in these countries have created expansion of trade and investment in ASEAN and the Indochinese countries.

#### **2.1.1 ASEAN Free Trade Area**

After its initiation, the Association of South East Asian Nation: (ASEAN) has been active in trying to promote economic cooperation with various incentives i.e., ASEAN Preferential Trading Arrangement, the ASEAN Industrial Project, the ASEAN Industrial Joint Venture (AIJV). The objectives of these initiatives are to promote trade and investments among members of ASEAN. The general assessment has not been positive in that the scope of the cooperation has been generally considered to be too broad and lacking in specific details to render any benefits to member countries.

With the Regional cooperation of the Industrialised countries, ASEAN member countries, in the meeting in 1991 agreed that an ASEAN Free Trade Area should be set up as an umbrella for building economic cooperation under collective and unified directions.

The concept of AFTA is that import duties will be reduced to between 0-5% within a period of 15 years starting from January 1993 onwards. This applies to all produce with the exception of unprocessed agricultural commodities. Reduction of import duties can be done by 2 methods.

- **Normal Track:**

Commodities which has a tariff rate higher than 20% should reduce tariff rates to only 20% within a period of 5-8 years starting from January 1993. Tariffs should be reduced to between 0-5% within the next 7 years. (or reduced to 15% by 2003 and to 10% to less 2007.

Commodities which has a current tariff rate of 20% should reduce the rate to between 0-5% within a period of 7 years starting from January 1993.

- **Fast Track.**

Altogether 15 groups of commodities have been ratified as the Fast Track Group meaning that they require an accelerated pace of reduction of tariff rates. These include cement, fertilizer, paper pulp, wood and bamboo based furniture, leather and leather products, ornaments, textile, electronics, vegetable oils, chemicals, plastic, rubber products, ceramics and glassware.

- Commodities which has a tariff rate higher than 20% should reduce tariff rates to between 0-5% within the next 10 years starting from January 1993. The member countries must announce straight-away a reduction of tariff rates as well as inform member countries of the schedule for reduce the rate to between 0-5%. Member countries are entitled to reserve rights not to abide by this rule for some commodities.

- Commodities which have a current tariff rate of 20% or less should reduce the rate to between 0-5% within a period of 7 years starting from January 1993.

Non-tariff measures under AFTA include:

- Quantitative restrictions should be removed as soon as tariff rate is reduced to 20%.
- Any other non-tariff restrictions must be reduced as soon as tariff rate is reduced to 20%.

As a gesture of Thailand's intention to fully support AFTA, Thailand has announced that to reduce tax for most types of industrial goods to not more than 30% on January 1, 1993.

Among the expected benefits from AFTA are:

- ***Expansion of trade volume among the member countries.*** Based on preliminary estimates of the 7 groups of commodities, i.e., wood and wood products, leather and leather products, clothing, jewelry and ornaments, cement and electrical appliances. The aggregate value of trade of these 7 groups of commodities amounted to 7,000 million US\$, approximately one fourth of the value of trade among ASEAN countries. It is estimated that reduction of tariff rates to not more than 20% will increase trade volume by around 1%.
- ***Production Restructuring.*** The reduction or elimination of trade protection and tariffs will lead to increasing competition among producing countries. This will necessitate restructuring of production to ensure greater efficiency or switching to the

production of other producing with greater comparative advantages. This is expected to have an overall impact in increasing efficiency in resources utilization.

- ***Expansion of investment.*** Economic cooperation may mean expansion of the market which in turn provides incentives for both domestic and international investors (as opposed to producing for only one single market). Indeed, in total one is talking of a consumers market with a population of approximately 324 million
- It will ensure greater collective bargaining power for ASEAN countries

### 2.1.2 APEC

The Asia-Pacific Economic Cooperation (APEC) was set up in 1989 in response to the growing competition in the world market and to the moves of many industrialised countries into Regional Groups. APEC originally started off with a membership of 12 countries, i.e., 6 ASEAN country members, the US, Japan, Canada, Australia, New Zealand and South Korea. Presently, there are altogether 18 countries in APEC with the addition of China, Hong Kong, Taiwan, Mexico, Papua New Guinea and New Zealand.

APEC member countries have come together under the common objectives and mutual benefits of trade, investment, technology transfer and human resource development. APEC also provides a forum for exchange of experiences and discussions over economic issues of member countries with the intention of helping each other solve problems.

As stated earlier, Thailand was one of the founding members of APEC. Presently, Thailand functions as secretariat to 3 out of the 10 joint projects, i.e., those

relating to trade (Ministry of Commerce), human resource development (NESDB) and fisheries (DOF).

Achievement to date, in relation to promotion of trade, APEC has prepared a handbook with details of procedures and regulations for investment in each of the member countries; studies have been commissioned which aim at identifying non-tariff impediments and ways of dealing with them. Feasibility studies are being carried out on the establishment of an electronic central data base system containing information relevant to trade and tariff system in the member countries.

In human resource development, an institutional network for cooperation has been established in the areas of development economics, business management and industrial technology.<sup>1</sup> Bilateral relations have also been formulated between the US and APEC members and, similarly, between Japan and member countries for cooperation in fields of education.

Under APEC, the Eminent Persons Group (EPG) has been set up comprising of leading personnel's from member countries which are lead persons with experiences in economic policy and trade. The EPG has prepared a series of documents such as the '*A Vision for APEC: Towards an Asia Pacific Economic Community*' and the document entitled '*Achieving the APEC Vision: Free and Open Trade in the Pacific*'. The principles of these two documents endorses the promotion of free trade and cooperation under the framework of GATT. The document also promotes the setting up of investment rules and regulation in the Asia and Pacific Region which would reduce uncertainty and costs in negotiation process to establish trade linkages and business investments. Relatedly, reference is made to the need for common arbitration to settle disputes that may arise in trade and investment in member countries.

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<sup>1</sup> In terms of joint activities between the member countries, such as seminars and researches.

### 3 **POLICY FRAMEWORK FOR SUB-REGIONAL ECONOMIC COOPERATION**

Under the umbrella of the subregional cooperation, development is visualized beyond the boundary of nation states, development of any one nation state is not bounded by the demand and supply situation within that country but cooperation might make it possible to explore greater possibilities in the scale of production and market prospects.

#### 3.1 **Indonesia-Malaysia-Thailand Growth Triangle. (IMTGT)**

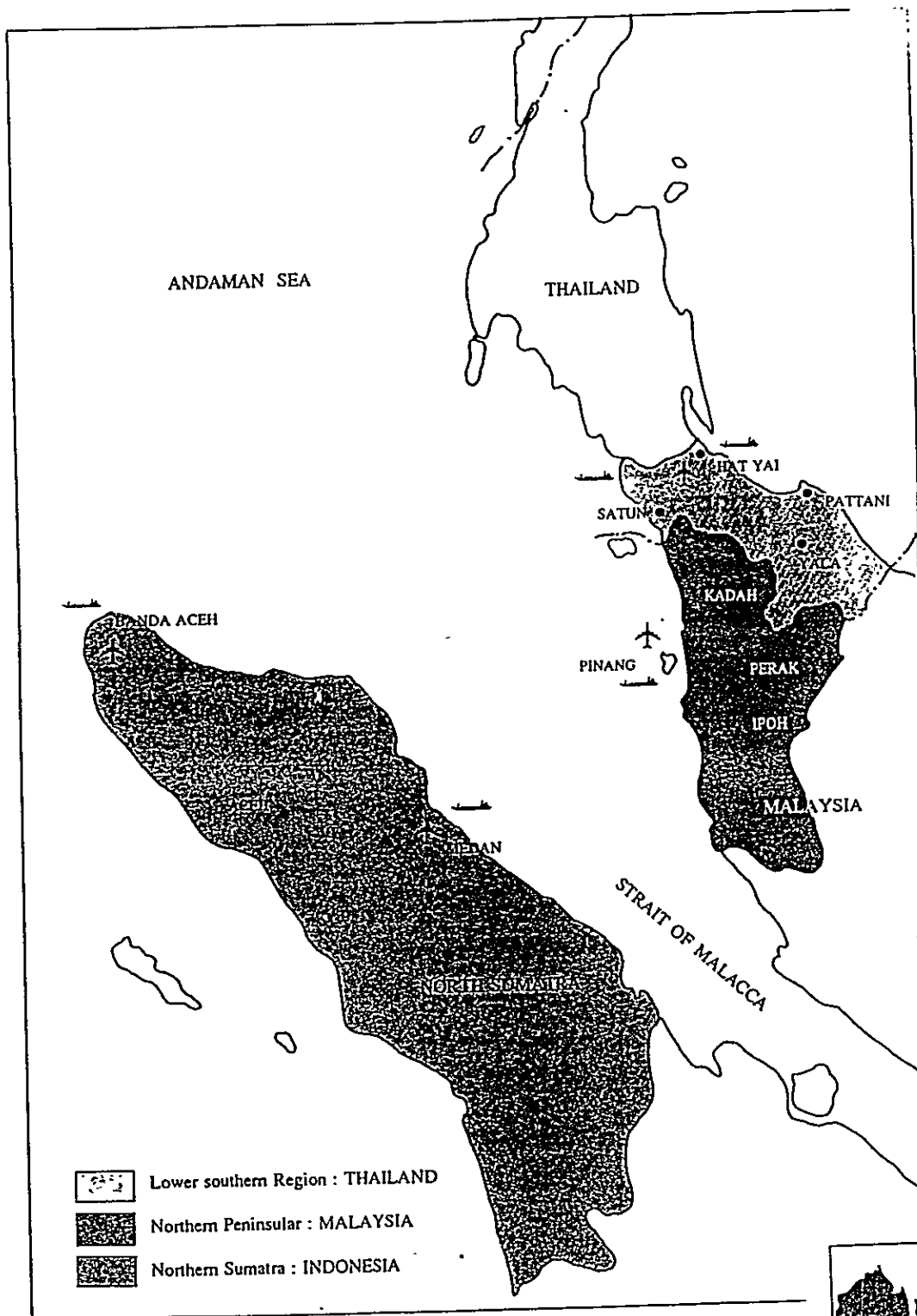
The IMTGT is the third Asian sub-regional cooperation and is the most recent in the area. <sup>2</sup>

The development triangle concept was initiated by Malaysia primarily because Malaysia was facing labour shortages in four of her western provinces. Malaysia needed therefore to relocate industries to locations where there were still supply of cheaper labour, land availability at affordable prices and supply of resources and raw material. Indonesia's Sumatra and certain parts of Thailand can still fulfill these need. Given the geographical proximity, the cultural affinity of the three country and common and compatible economic objectives, there appeared to be much opportunities for cooperation on a sub-regional basis (See Map 1)

Within this context, the three countries formerly endorsed the concept of the Indonesia-Malaysia-Thailand Growth Triangle in the conference held at Langawi between July 19-20, 1993.

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<sup>2</sup> The first successful experience in sub-regional cooperation was the South China Triangle involving Hong Kong, Taiwan and the coastal provinces of Southern China. The second is the Southern Growth Triangle, or SIJORI composing of Singapore, the Malaysian State of Johore and the Riau islands of Johore.



Map 1: Indonesia-Malaysia-Thailand Growth Triangle

Source: National Economic and Social Development Board



## POLICY FRAMEWORK FOR SUB-REGIONAL ECONOMIC COOPERATION

As a result of the above analysis, the following policy framework is suggested for the sub-regional economic cooperation:

### Indonesia-Malaysia-Thailand Growth Triangle (IMTG)

Indonesia, Malaysia and Thailand are the three largest countries in the region. They are also the three largest economies in the region. The three countries have a long history of cooperation in the region. In 1976, the three countries signed the Indonesia-Malaysia-Thailand Growth Triangle (IMTG) Agreement. The agreement was aimed at promoting economic cooperation and development in the region. The IMTG has since become a major platform for sub-regional economic cooperation.

The IMTG has been successful in promoting economic cooperation and development in the region. It has led to the establishment of many joint ventures and investment projects. It has also led to the development of infrastructure in the region.

As a result of the IMTG, the region has become more economically integrated. It has also become more attractive to foreign investment. The IMTG has played a major role in the economic development of the region.





Map 1 Indonesia-Malaysia: Total and Growth Forests

Source: Ng and O'Loughlin, 1984, and Secondary Development, 1984



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The means are mainly through agreement to mutually ease regulations concerning trade and investment. The private sector is seen as the core of such development while the public sector is expected to fulfill primarily a supporting role to improve efficiency in trade, to encourage joint ventures and technological exchange with neighboring countries.

The spatial dimension of the Triangle amounts to 230,000 km<sup>2</sup>, essentially, the northern part of Sumatra, the four states of west Malaysia and the five southern most provinces of Thailand comprising of Songkhla, Pattani, Yala, Narathiwat and Satun. This sub-region has a total population of approximately 23 million and an aggregate GDP of 750,000 million Baht.

Measures that could be undertaken immediately include:

- Within the agricultural sector, it is possible to jointly formulate a common production and marketing strategy, joint research and technology dissemination. To support the objectives of the agricultural sector, it is also feasible to set up an export processing zone which may allow for reduction of bureaucratic red tapes which slows down operational processes and generating economic losses.
- Tourism. Joint efforts are envisaged in areas of marketing, PR through setting up the Triangle's regional tourism information centre. One activity which will create tourism attraction as well as generate downstream economic activities is the setting up of a Free Trade Area between the Malaysian-Thai Border.
- To support the common needs for human resource development, it is proposed that a Tripartite Committee be set up to oversee the needs in respects of training and educational programmes for upgrading skills.

- In relation to the industrial sector, the concept endorsed is to foster effective coordination between the Board of Investments of the 3 countries with similar promotional measures and privileges.
- Within this umbrella and through the functional contribution of the IMT-GT Business Council, it is also envisaged that private sector coordination can be strengthened.

Policy makers have placed emphasis on joint investment in basic services, such as power supply, coastal shipping and road transport services, construction of natural gas pipelines, promotion of establishment of export processing zones.

Preparatory measures undertaken by Thailand included the allocation of 98 million Baht for expansion of industrial areas in Pattani and for the establishment of Training centre for industrial skills in Pattani as well as in Yala. The Committee for Promotion of Decentralisation and Employment has provided 100 million Baht for the expansion of public utilities and amenities in the Industrial Estates of Yala and Songkhla as well as budgets for dredging the Pattani river course in anticipation of relocation of some of the labour intensive industries from Malaysia to this area.

A Business Council of the 5 Southern Provinces of Thailand has also been set up as have those of Malaysia and Indonesia and exchanges of the members' names of each countries Business Council have already been made.

The planned concept of building an economic land bridge also harbours the intentions to link up the Southern Region with that the Eastern Seaboard and ultimately to the Indochinese countries.

### **3.2 Economic cooperation in the Mekong Sub-Region.**

With the transition of the formerly planned economies of the Mekong Basin towards a more liberalised, the possibility of regional cooperation for expansion of trade and investment opportunities generally takes on a more realistic dimension.

Similar to IMT-GT, historical and cultural ties and geographical proximities render the prospects of sub-regional economic cooperation all the more plausible. Unlike the relationship between Thailand with ASEAN member or IMTGT where country members have comparable levels of economic development, Regional economic cooperation among the Mekong Sub-Region Countries cannot take-off immediately given the discrepancy in the levels of development in each country. Cooperation in the short and intermediate stage is more in areas of technical assistance from the stronger partner to the weaker partners. That is, the formerly centrally planned economies in the Mekong basin have a lot of catching up to do by way of rehabilitation of their internal economies. There are also urgent needs for mobilization of finance and technology to construct the basic development infrastructures be it in the field of transport and technology, energy, trade and human resource development.

The benefits in whatever time scale, is clearly visible in the existence of vast and untapped resources and an abundance in supply of labour to man labour intensive industries. The sub-region's estimated population of million and the combined GDP reaches 38 billion US\$ renders it a considerably attractive market to venture into

Moreover, in terms of resources, the region is one of the largest production area for agricultural commodities and fisheries resources. The main focus of external economies is likely to be less on the agricultural and fisheries resources but more on the vast potential in the development of the energy sector. Based on ADB's data, only 1% of the Regions' 58,000 MW have been tapped.

Given that there are already economic transactions among the countries, the Regional Economic Cooperation of this Sub-Region will be formalize and endorse these spontaneous developments. The so-called Baht zone referring to

the border trade areas between South China, Lao PDR, Myanmar, Viet Nam and Thailand has been expanding rapidly as shown in Tables 1 and 2

All these factors combine to reduce the risks and to make all initial investments and long negotiation processes all the more worthwhile. In the next section, a brief overview of each of the countries in the Mekong Sub-Region will be described.

### **3.2.1 Overview of Internal Situation in the Mekong Sub-Region and Country Interests in Forming a Regional Economic Cooperation.**

#### **3.2.1.1 Laos PDR**

The smallest of the four and one of the poorest in Southeast Asia, Laos PDR is a landlocked country bordered by China to the North, by North and South Vietnam to the northeast and east, by Cambodia to the south and by Thailand and Myanmar to the west

Economically, Laos PDR can be divided into three different regions: the Vientiane area the commercial center of the country, Luang Prabang an agricultural and forested area, and the third area is Savannakhet-Pakse, also forested but with mineral resources and other forest product industries.

The projected GDP growth rate for the fiscal 1993/94 year is about 7%.

<sup>3</sup> Public investment is expected to increase approximately 31.4% in 1994 from the 1993 base most of which will be concentrated in restructuring the country's communications, transports, posts and telecommunications and service sectors. Almost all public investment expenditure is being funded by foreign aid. Inflation in

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<sup>3</sup> EIU Country Report 1st quarter 1994 pg 35.

Table 1 . Greater Mekong Subregion Total Foreign Trade (Recorded and Unrecorded) by country in 1993 (Tons)

Country/Country	Yunnan	Viet Nam	Cambodia	Lao PDR	Thailand	Myanmar	Rest of the World
Yunnan		Rice 1,500 Agric 3,000 Minine 4,500 Other 4,500		Agric 4,500 Construct 19,500 Other 1,500	Agric 12,000 Other 4,500	Rice 2,000 Agric 244,000 P.O.L. 65,000 Construct 248,000 Other 141,000	Value \$447m
Viet Nam	Agric 6,000 Mining 1,500		Agric 12,000 Construct 12,000 Other 1,500	Rice 4,500 Agric 3,000 P.O.L. 82,500 Construct 57,000 Other 36,000	Agric 13,500 Forestry 37,500 Construct 12,000 Other 25,500		Total 3,868,856
Cambodia		Agric 10,500 Forestry 202,000		Agric 7,500 Other 7,500	Agric 6,000 Forestry 665,000 Other 3,000		Total 480,000
Lao PDR	Agric 9,000 Forestry 10,500	Agric 6,000 Forestry 34,500 Mining 208,500 Construct 3,000 Other 3,000	Agric 3,000		Agric 15,000 Forestry 271,500 Mining 4,500 Other 43,500	Agric 6,000	Total 268,000
Thailand	Other 3,000	P O L 25,500 Other 60,000	Agric 7,500 Other 15,000	Rice 21,000 Agric 22,500 P O L 102,000 Construct 40,500 Other 75,000		Agric 4,500 P.O.L. 1,500 Construct 3,000 Other 150,000	Value \$33,000m
Myanmar	Agric 279,000 Forestry 75,000 Other 66,000			Other 1,500	Agric 66,000 Forestry 121,500 Mining 1,500 Other 90,000		Total 1,197,000
Rest of the World	Value \$651m	Total 3,043,975	Total 630,000	Total 300,000	Value \$41,330m	Total 1,313,000	

Source Subregional Transport Sector Study-Draft Final Report, PADECO Co., Ltd June 1994

Table 2 : Greater Mekong subregion total Foreign Trade (Recorded and Unrecorded) by Country in 1993 (Tons)

Country/Country	Yunnan	Viet Nam	Cambodia	Lao PDR	Thailand	Myanmar	Rest of the World
Yunnan		Rice 1,000 Agric 2,000 Mining 1,000 Other 3,000		Agric 3,000 Construct 13,000 Other 1,000	Agric 8,000 Other 3,000	Rice 2,000 Agric 244,000 P.O.L. 65,000 Construct 248,000 Other 141,000	Value \$447m
Viet Nam	Agric 4,000 Mining 1,000		Agric 8,000 Construct 8,000 Other 1,000	Rice 3,000 Agric 2,000 P.O.L. 55,000 Construct 38,000 Other 24,000	Agric 9,000 Forestry 25,000 Construct 8,000 Other 17,000		Total 3,868,856
Cambodia		Agric 7,000 Forestry 21,000		Agric 5,000 Other 5,000	Agric 4,000 Forestry 69,000 Other 2,000		Total 480,000
Lao PDR	Agric 6,000 Forestry 7,000	Agric 4,000 Forestry 23,000 Mining 139,000 Construct 2,000 Other 2,000	Agric 2,000		Agric 10,000 Forestry 181,000 Mining 3,000 Other 29,000	Agric 4,000	Total 268,000
Thailand	Other 2,000	P.O.L. 17,000 Other 10,000	Agric 5,000 Other 10,000	Rice 14,000 Agric 15,000 P.O.L. 68,000 Construct 27,000 Other 50,000		Agric 3,000 P.O.L. 1,000 Construct 2,000 Other 100,000	Value \$33,000m
Myanmar	Agric 279,000 Forestry 75,000 Other 66,000			Other 1,000	Agric 44,000 Forestry 81,500 Mining 1,000 Other 60,000		Total 1,197,000
Rest of the World	Value \$651m	Total 3,043,975	Total 630,000	Total 300,000	Value \$41,330m	Total 1,313,000	

Source : Subregional Transport Sector Study-Draft Final Report, PADECO Co., Ltd. June 1994

1993 was about 6% last year and may rise to around 8% but go as high as 10%. (Table 3)

Table 3: Laos PDR Basic Economic Indicators.

	1988	1989	1990	1991	1992	1993	1994
GDP %	2.4	8.9	8.4	4.0	7.0	6.0	7.0
Agriculture	NA	NA	6.3	4.0	8.3	5.0	5.0
Industry	NA	32.0	19.0	12.0	7.5	9.2	9.0
Service	NA	NA	NA	NA	3.9	6.9	10.0
Inflation %	12.0	68.0	19.0	15.0	10.0	5.8	10.0
	-94.0	-95.0	-129.0	NA	-70.0	NA	NA
	824.0	949.0	1,062.0	1,150.0	1,130.0	NA	NA
International Trade (million)							
Imports	155.0	230.0	276.0	293.0	330.0	385.0	465.0
Export	104.0	112.0	146.0	151.0	166.0	220.0	234.0
	-51.0	-118.0	-130.0	-142.0	-164.0	-165.0	231.0
Foreign Investment (million \$US)	3.3	64.4	85.3	161.4	176.0	151.3	225.0
Foreign Exchange	357.0	540.0	699.0	712.0	710.0	730.0	720.0

Both Laos PDR and Vietnam are very eager to become part of ASEAN. There is a general agreement that solidarity between Laos and Viet Nam will carry both countries through the challenge of rapid changes and increasing competition in the world market.<sup>4</sup> There is a felt need for solidarity among themselves as well as the recognized importance of establishing development relations with ASEAN.<sup>5</sup>

The two countries have mutual interest in improving transportation and communication systems which can also be utilized to improve the linkages between themselves and with Indochina countries. In this connection, cooperation has materialised for a number of road construction projects. During 1994, for example, joint funds are utilized for Road 8 and the Nam Theun Bridge and Road 1 on the Lao side. Also roads 7, 9, 12, 18, and 42 will be repaired.

<sup>4</sup> Based on a statement made when the Vietnamese President Le Duc Anh and the Foreign Minister Manh Cam visited Laos PDR.

<sup>5</sup> EIU Country Report 1st quarter 1994 pg 44



With China, an official agreement has been made concerning introduction of regulations which will apply to the 550 kms of common border between the two countries

With Thailand, apart from the Nong Khai -Vientiane link, other border points were opened up between Savannakhet and Mukdahan and between Houai Sai-Chiang Khong and Chiangrai. The anticipated second bridge connecting Laos PDR to Thailand between Savannakhet-Mukdahan Bridge is hoped to be beneficial to Laos, Thailand and Vietnam in terms of trade and potential for expanding tourism network.

Foreign investment is becoming increasingly important to the economic stabilization of the recently opened up Indochinese Countries. Estimated foreign investment for 1994 was 225 million \$US dollars. Foreign exchange earnings has been fairly stable for the last four years or so averaging about 714 million \$US since 1990. In 1992 the three most important investors in Laos were Thailand, USA, and Taiwan. An overview of the foreign investment profile can be seen in the following Table 4.

Table 4: Licensed Investments by Industrial Sector

Type	January to March 1994
<b>A. Agribusiness</b>	
• Number of Investments	6
• Aggregate Value (\$US1000)	22,057
<b>Farming and Husbandry</b>	
• Number of Investments	2
• Aggregate Value (\$US1000)	3,686
<b>Wood-based Industries</b>	
• Number of Investments	4
• Aggregate Value (\$US1000)	18,371
<b>B. Industries/Handicrafts</b>	
• Number of Investments	15
• Aggregate Value (\$US 1000)	15,255
<b>Garments/Textiles</b>	
• Number of Investments	6
• Aggregate Value (\$US 1000)	6,390
<b>Other Manufacturing</b>	
• Number of Investments	9
• Aggregate Value (\$US 1000)	8,865
<b>C. Services</b>	
• Number of Investments	22
• Aggregate Value (\$US1000)	78,778
<b>Import-Export</b>	
• Number of Investments	3
• Aggregate Value (\$US1000)	1,156
<b>Hotels/Tourism</b>	
• Number of Investments	3
• Aggregate Value (\$US1000)	2,475
<b>Banking/Insurance</b>	
• Number of Investments	1
• Aggregate Value (\$US1000)	5,000
<b>Consulting</b>	
• Number of Investments	2
• Aggregate Value (\$US1000)	212
<b>Construction/Trans repair</b>	
• Number of Investments	5
• Aggregate Value (\$US1000)	5,795
<b>Telecommunications</b>	
• Number of Investments	1
• Aggregate Value (\$US1000)	61,000
<b>Other Professional Services</b>	
• Number of Investments	7
• Aggregate Value (\$US1000)	3,140
<b>Total licensed Investments</b>	
• Number of Investments	43
• Aggregate Value (\$US1000)	116,000

Information Quoted from "Vientiane Times, provided by the Foreign Investment Management Committee

### 3.2.1.2 Cambodia

Although still plagued by violence and unsettled differences with the Kmer Rouge, Cambodia, again under the guidance of King Sihanouk, is determined to accomplish some actual reforms. Private sector participation under a liberalised economic framework is seen as a vehicle to fast economic recovery although selected economic sectors are to remain under management and control of the government such as energy, minerals, railways, and post, and telecommunications.

Cambodia has a population of around 9.8 million<sup>6</sup>, an area of 66,606 sq. miles of land and an average population density of approximately 147 people per square mile.

Based on UNTAD statistics, in 1991 47% of Cambodia's GDP was derived from the agricultural sector, the remaining 53% being revenues generated by industries and services sectors with respective sector shares to GDP of 16% of the GDP and 37%. In the short and medium term, focus appears to be directed to the tourism sub-sector as an instrument of economic recovery. In 1993, the number of tourists visiting Cambodia reached 103,000, a 30% increase from 1992 visits.

GDP growth rate for 1993 was around 5.7%. This is a fall from 8.0% of 1992 and 13.5% of 1991. (Table 5) Respectively for the year 1993 the Industry sector had a rate of 6.6 %, Agriculture 2.5%, and the services sector the highest of 8.5%

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<sup>6</sup>Taken from statistics from the year 1993

Table 5: Basic Statistics for Economics Factors of Cambodia

	1990	1991	1992	1993
Citizens (million)	8	8.3	8.8	9.8
GDP %	-0.1	13.5	8.0	5.7
Industry	-2.4	8.4	13.7	6.6
Agriculture	-0.9	17.2	3.1	2.5
Service	1.8	11.1	11.9	8.5
Inflation %	210.0	200.0	177.0	171.0
Foreign Debt (million \$US)	900.0	1,000.0	1,000.0	-
Foreign Trade (million \$US)				
Imports	140.0	180.0	455.0	-
Exports	40.0	80.0	55.0	-
	-100.0	-100.0	-400.0	-
Exchange	315.0	700.0	1,500.0	4,500.0

Details from the same table indicate a trade deficit of 400 million \$US in the same year. Their foreign exchange has been steadily increasing rising from 315 mil. US\$ in 1990 to 4,500 mil. US\$ in 1993.

Of the newly passed national budget, 38% is being spent on communications, mining, agriculture, and industry. Another 28% is being allocated to defense. Spending on social welfare will constitute about 20% of the budget.<sup>7</sup>

Table 6 : Trade Between Thai and Cambodia

	Unit: million Baht	
	2536	2535
Total Amount	3,837.0	1,363.0
Export	1,889.1	430.8
Import	1,947.9	932.2
	-58.8	-501.4

<sup>7</sup> EIU Country Report 1st quarter 1994 pg 64

Trade between Thailand and Cambodia can also be considered a contribution to the latter's improved economic performance. In 1993, value of trade between the two countries reached 3,837 million \$US.

### 3.2.1.3 Viet Nam

With China on her Northern border Vietnam is bounded on the east and south by the Gulf of Tongking and by the South China Sea on the west. With a population of almost 72 million people in 1993 Vietnam also has a large labour force, an industrial work force of approximately 30 million, which can be utilized along side its vast natural resources.

In 1991, the agricultural (combined with forestry) sector generated a value added share of more than 51% percent of the country's GDP. Revenue generated by the Industry, Commerce, and Construction sectors in the same year were respectively 22%, 18% and 4%.<sup>8</sup>

Up until about the end of 1989 Vietnam's major trading partner and aid donator was Russia. In 1990, the USSR still had a substantial share on the Vietnam's major exports included agricultural (35%), heavy industries and minerals (34%) , fisheries (13%) , and light industry (11%) and handicrafts. . Up until 1990 Vietnam was still importing a large amount of fuel and raw materials at 57.8%. Machinery and equipment constitute another 27.4% and consumer goods are picking up at around 15%. (Table 7)

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<sup>8</sup>EIU Country Report 1st Quarter 1994

About 80% of all exports were sent to Eastern Europe. Russia's own internal eventually resulted in cutting off aid to Vietnam accelerating the latter's need to identify other sources of financial and technical assistance.

Table 7 Exports and Imports

Principal Exports 1991	% of total	Principal Imports 1990	% of total
Agricultural	35.0	Fuel and Raw materials	57.8
Heavy Industries and minerals	33.8	Machinery and equipment	27.4
Fisheries	13.4	Consumer goods	14.9
Light industry and handicrafts	11.3		

Source: EIU Country Report 1st Quarter 1994

Table 8: Destination and origin of exports and imports 1990

Main destinations of exports 1990	% of total	Main origins of imports 1990	% of total
To non-convertible area: USSR	77.1	From non-convertible area: USSR	82.6
To convertible area.		From convertible area	
Japan	22.3	Singapore	37.8
Singapore	8.6	Japan	7.5
Hong Kong	3.7	Hong Kong	3.7
France	3.3	France	3.1

Source: EIU Country Report 1st quarter 1994

The main principle of the "DOI MOI" is an open door policy to attract foreign investors. Accompanying changes were made in the areas of legislation and human resource development to support such changes. For example, foreign

investment may be allowed 100% ownership.<sup>9</sup> This has inspired many foreign investors, including Thai, to come to Vietnam for economic investment.

The GDP growth rate for 1993 was 7.5% and is predicted to increase to 9.5% for both the years 1994 and 1995. (Table 9) Exports for 1993 totaled 3.7 billion \$US and is expected to increase to 3.7 billion US\$ in 1994. With internal economic restructuring, Viet Nam expects a boost in export performance and target exports to increase substantially from 1994 to the year 2000, i.e., Rice, 2.5 million tons a year, silk and silk products, 7,000 tons a year, fruits and vegetables \$100 million a year (from no exports at all), shoes, 50 million pairs a year, crude oil, 20 million tons a year, coal, 30 million tons a year, electronic goods \$100 million a year.

The amount of imports is still higher than their exports, a trend for all the Indochina countries so far. Imports in 1993 were 2 billion \$US higher than the exports and in 1994 the Vietnamese are expected to take in about 4 billion \$US in imports.

Table 9 Economic Statistics for Vietnam

Category	1991	1992	1993	1994*	1995*
Citizens (million)	67.99	69.82	71.71	73.86	76.00
GDP/head (\$US)	170	200	220	230	220
GDP real %	2.4	8.3	7.5	9.5	9.5
	67.0	17.6	5.2	6.0	7.0
Interest for loans	5.00	5.00	5.00	5.00	5.00
	9,750	10,470	10,850	10,750	10,000
Value of Exports (fob Billion\$US)	1.89	2.46	3.00	3.70	4.60
Imports (fob Billion\$US)	2.20	2.48	3.20	4.00	5.00
Trade deficit	-0.31	-0.02	-0.20	-0.30	-0.40

Source: Thai Seminar

\*World Bank funding, International financing, and Asia Development Bank

<sup>9</sup>Translated from Thai seminar pg.57

Viet Nam holds a vast development potential both in terms of natural resources, raw material and manpower. Her economic take-off will require overcoming a few basic hurdles which Viet Nam appears to be well aware of and is seemingly moving along that direction

One of these hurdles is to amend old severed ties namely with China and with the United States of America. Positive moves have been made to reestablish political and economic relations with China. In 1991, both Beijing and Hanoi agreed to open their common frontier to trade. China is mainly exporting manufactured goods and clothing Vietnam in return is trading seafood and a variety of raw materials. The shared territory of 1, 150 km. provides an elongated stretch for both legal and black market trade, albeit against the interests of local manufacturers who generally find themselves unable to compete with the cheaper influx of goods from China. Lang Son, for example is now seeing trade estimated at about \$US1 billion a year.<sup>10</sup>

The Clinton administration's decision to lift the US trade embargo is expected to increase investment by 15%. More sponsors are also envisioned due to the US's lifting of the embargo including IMF funding from the World Bank.

The second hurdle is to accelerate the development of both internal transport networks as well as the routes which will link Viet Nam to other countries in the Sub-Region. The general expectation on the Thai side is that the loosened borders between Vietnam, Laos, and Thailand may open up new trades routes and roads to export goods from Danang, Haiphong, and Vinh, near Nakorn Phanom. Some analysts believe using this route, through Laos into Vietnam, will save \$40 a metric ton in freight charges rather than traveling all the way to Bangkok. Railways are

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<sup>10</sup> Asia, Inc. February 1994, Vol.3, No.2, "Indochina: Battlefields into Marketplaces." pg 47.



also another mode of transportation helping to increase the flow between countries. There is a 800 km narrow gauge rail connecting Kunming with the port of Haiphong. This has been closed from the Vietnamese side since 1979 but both sides are now working to reopen it. Another link in process is the route through so-called "Friendship Pass " Only a 20 km section needs to be reestablished, connecting Dong Dang and Pingxiang. However, some territorial disputes will have to be settled first.

Vietnam is already expecting neighboring countries to utilize their ports' capacities. Danang's Tien Sa port has been under utilized lately due to its lack of trade with the Soviet Union but officials have "ambitions of increasing port capacity from 3 million to 10 million metric tons to service Thailand and Laos "<sup>11</sup>

Vietnam is receiving more and more support from foreign institutions for the development of their road systems. The European Investment Bank is cooperating with funding for a road to Hanoi and between other provinces as well.

One of Viet Nam's strength and comparative advantage vis a vis other countries in Indochina as well as ASEAN, is the large oil reserves. In 1992, the Bat Hoe well supplied 5.7 million tons, a supply volume which is expected to increase to 21.7 million tons in the year 2000 when production starts from other drilling sites in Rong, and Dai Hung.

Singapore is currently Vietnam's largest trading partner with bilateral trade worth more than \$1.3 billion.<sup>12</sup> In terms of actual investments, Taiwan and Hong Kong accounted for \$1.5 billion and \$1.2 billion respectively equivalent to more than 40% of target investment.

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<sup>11</sup> "pg.48

<sup>12</sup> : pg.49.

Table 10 shows the number of investors and value by country and the amount which these investments total in US dollars

Table 10: Profile of Foreign Investments in Viet Nam

Country	Projects (investors)	Amount in US dollars (million)
1. Taiwan	96	1,441
2. Hong Kong	121	843
3. South Korea	40	441
4. Australia	32	426
5. Japan	38	33
6. France	37	325
7. England	12	291
8. Ireland	5	238
9. Singapore	42	201
10. Netherlands	7	196
11. Malaysia	23	165
12. Thailand	41	134

Viet Nam's industrial policy is that industries will either be located in Export Processing Zones (EPZ) or industrial park to allow for cost effective investment in supportive industrial infrastructures

Vietnam is also looking into cashing in on the Southeast Asian tourist market. An official report from Vietnam stated that in the first three months of 1994 the number of foreign tourists reached 220,000 people a record 56% increase over the same period of time in 1993.<sup>13</sup> Vietnam's general Department of Tourism has predicted that the number of tourists will increase to 1 million in 1994 reaching 3 million by the year 2000. The projection calls for immediate attention on mobilization of foreign investments for the development of adequate supportive tourism infrastructure and services

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<sup>13</sup> The Nation, Monday July 4, 1994, pg B2.

#### 3.2.1.4 Myanmar

Myanmar shares an elongated expanse of border territory with Thailand of 2000 kms ending at its southern most point which correlates with the Thai province of Ranong. Myanmar has a population of about 41 million, land area of 676 6 thousand sq. km and a population density of about 96 people per sq km.

The economic indicators do not portray a positive picture with given the decline in GDP growth rate, i.e., from a rate of 3.6% in 1990 with a GDP growth rate of 3.6% to 1.2% in 1993.

Myanmar has almost doubled its foreign debt in the past two years. Foreign debt in 1994 reached \$US 8,600 million, almost double the value in 1992 which was \$US 4,853. It is also importing almost twice as many commodities as it is exporting, only continuing this trend of debt. Currently, Myanmar is importing goods worth a total of \$US 1,130 million. At the same time its exports total \$US 652 million creating a trade deficit of \$US 478 million. (Table 11)

Table 11. Basic Statistics for Economics Factors of Burma

	1989	1990	1991	1992	1993	1994
GDP %	-11.4	3.6	2.7	1.3	1.2	2.5
Industry	-16.8	15.4	4.2	1.5	6.0	NA
Agriculture	-12.5	4.4	2.0	1.3	3.5	NA
Service	-8.2	-0.4	3.2	1.3	4.1	NA
Inflation %	16.1	27.2	17.6	32.3	21.9	25.0
Foreign Debt (million \$US)	4,414	4,171	4,673	4,853	-	8,600
Foreign Trade (million \$US)						
Imports	523	510	888	845	1,009	1,130
Exports	333	428	476	646	607	652
	-190	-82	-412	-199	-402	-478
Exchange	6.39	6.70	6.34	6.28	6.10	6.30

Source: Thai Seminar, abstract from UNTAC

Details in Table 12 show the composition of Myanmar's GDP in 1992.

Agriculture is the main source of labor employment and income accounting for 50 percent of the total contribution. The second highest contributor, wholesale and retail trade, accounts for about 23 percent. Livestock and manufacturing, fishing and forestry account for 9.9 percent and 8.0 percent respectively. Of less significance are construction and utilities, transport and communications, and banking and finance.

Table 12 Composition of Myanmar's GDP in 1992.

	%
Agriculture	50.0
Livestock	9.9
Manufacturing, fishing, & forestry	8.0
Construction & utilities	2.0
Transport & communications	2.1
Banking & finance	0.2
Wholesale & retail trade	22.5
Other	5.4

Source: EIU Report 1st quarter 1994

Agricultural products account for about 35 percent of the total export value of \$US 478 million in exports.<sup>14</sup>

Myanmar's principal imports can be categorized into 5 different types of import commodities. These are raw materials, transport equipment, tools and spares, machinery and equipment, and construction materials. Raw materials account for 19 percent of the imports with transportation taking a second at 12 percent. Tools and spare account for 9.2 percent while machinery and equipment and construction materials about 7.7 percent. Myanmar's major trading partners include Thailand, China, and Japan (Table 13)

In 1991, 19.4% of exports were sent to Singapore, 15% were exported to China and 12.7 percent to Thailand. (Table 14)

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<sup>14</sup> EIU Report 1st quarter 1994

Table 13: Myanmar's Principal Imports 1991

Raw materials	19.4
Transport equipment	12
Tools and spares	9.2
Machinery and equipment	8.8
Construction materials	7.7

Source: EIU Report 1st quarter 1994

Table 14 Profile of Myanmar's Export and Imports by Country

Main destinations of exports 1991	% of total	Main origins of imports 1991	% of total
Singapore	19.4	Japan	21.1
China	14.8	China	16.8
Thailand	12.7	Thailand	14.8
India	10.9	Singapore	12.4
Hong Kong	7.0	EC	10.8
Japan	5.8	Malaysia	6.8
Pakistan	2.3	South Korea	3.3

Source: EIU Country Report 1st quarter 1994

More so than Thailand's other neighboring Indochinese governments, Burma's SLORC ruled junta creates one of the least hospitable economic and political environment. Moreover, the allegation over Thailand's support of the opposition Karens, Mons and other ethnic groups which are persistent worries for the military junta has been the underlying political tension between the two governments despite headways made in economic negotiations under the approach of the much criticized "*constructive engagement*."

The constructive engagement is viewed by the international community as Thailand's support for the military junta. Indeed, the strategy has been influenced more by economic concerns over Myanmar's decision to terminate fishing and logging

concessions at the end of 1993. Other than fishing resources, Thailand has needs for natural resources, particularly wood to supply her expanding industries. As part of Thailand and ASEAN's "constructive engagement" policy towards Burma, for example, Thailand will be buying natural gas from Burma's Martaban Gas field that is being developed by both Total CFP (France) and UNOCAL Corp.

It should be noted that Thailand's 'constructive engagement' was not against the principles of ASEAN, nor with what Developed Countries who did not appear to have hesitated being among the earlier comers in making investments in Myanmar, whilst still proclaiming its ideology to protect human rights<sup>1</sup>

Even prior to the release of Opposition Leader Ang Sung Su Kyi, it was evident that foreign investments were flowing in from outside to rehabilitate the countries economy albeit under very cautious and uncertain circumstances.

The leaders are US oil companies followed by Thai, Singaporean, and Japanese firms. Investment in the oil and gas sectors accounts for more than one-third (\$381m) of total foreign investment, followed by hotels and tourism (\$287m) and mining (\$155m).<sup>15</sup>

One of Burma's biggest potential industries is its national forest reserves. Burma contains over 75% of the worlds teak reserves which make it Burma's largest foreign exchange earner. Between 1989 and 1993 Thai logging firms dominated foreign investment with 47 logging concessions. However due to illegal logging and deteriorating political relations between the two governments the concessions were terminated in 1993. Logging concessions have now been granted to China in exchange for Chinese- manufactured goods and aid.

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<sup>15</sup> EIU Country Report 1st quarter 1994 pg 33

As part of its attempt to correct transportation problems and increase trade Burma has signed a contract with the Sukanand Company of Thailand to construct 163 km of the road linking Chiang Rai with the border town of Kung Ton in Myanmar. The estimated cost is around \$13m and it will take at least a year and a half. Revenue will be shared on a 60-40 basis between the junta and the Sukanand Company for 15 years after which the road will be transferred to Burma.

Currently the type of foreign investment which has received investment development are goods production, oil and gas production, minerals, fisheries, and hotel and tourism. (Table 15)

Table 15 Foreign Investment Which has Received Investment Development

Type of Activity	No. of Businesses	Value of Investment on \$US
1. Goods Production	16	39.4
2 Oil and Gas Production	16	355.6
3. Mineral	5	78.4
4. Fisheries	4	78.3
5 Hotel and Tourism	7	96.4
Total	48	648.1

Table 16 shows a breakdown of the various countries of origin of the 48 different businesses investing in Burma's economy. Thailand, Singapore, and the United States have the highest number of investors. Their investment totals \$US78.3 million. Singapore has a combined amount of investment money totaling \$US28.7 million. The United States is the also the leading country with the highest amount of investment with a total investment value of \$US 163.7 million, followed by Japan \$US 100.7 million.



Table 16: Breakdown of Foreign Investment

Country	No. of Businesses	Amount in \$US million
Australia	1	25.2
Bangladesh	2	3.0
Canada	1	22.0
France	1	10.0
Hong Kong	5	12.1
Indonesia	2	20.0
Japan	4	100.7
Malaysia	1	8.6
Netherlands	1	80.0
South Korea	5	57.3
Singapore	7	28.7
Thai	7	78.3
England	5	38.7
US of America	6	163.7
Total	48	648.3

Source: Thai Seminar

Table 17: Number of Foreign Investment Projects by Country

Country	No. of Projects
Thai	70
Singapore	28
Japan	20
Hong Kong	14
United Nations	13
South Korea	12
US of America	7
England	6
Australia	6
France	4
Sweden	3
Netherlands	3
China	3
Switzerland	3
Germany	2
Bangladesh	2
Canada	2
Israel	1
Indonesia	1
India	1
Australia	1

### 3.2.2 Overview of the Development Programmes in the Mekong Sub-Region

Formal cooperation among the countries in the Lower Mekong river basin dates back as far as 1957 with the establishment of the Lower Mekong Committee (MC). The four countries comprising of Thailand, Lao PDR, Cambodia and Viet Nam at that time signed a statute endorsing the MC's responsibility in monitoring and supervision of planning work and study projects on water resource development in the Lower Mekong Basin.

With political changes in three of four member countries, i.e., Lao PDR, Viet Nam and Cambodia, activities relating to the joint cooperation halted. In 1977, however, Thailand, Viet Nam and Lao PDR agreed to set up an Interim body to operate under the name of "The Interim Committee for Coordination of Investigation of the Lower Mekong Basin until political situations in Cambodia were resolved. It was not until 1992, that Cambodia rejoined the group and the MC was once again established under the new name of the Mekong Commission.

The development projects in the Lower Mekong River Basin can be divided into two categories. The first are basinwide projects which are international. The second is the country project. IMC lays emphasis on program oriented approach with considerations being given to environmental issues, socio-economic objectives of the sub-region, human resource development and the role of women.

The composition of the budget in 1993 is shown below in Table 18.

Table 18: Number of on-going and proposed projects in 1993.

Year	Basinwide		Country Projects		Total
	No. of Projects	%	No. of Projects	%	No. of Projects
1985	37	33	75	67	112
1992	50	48	54	52	104
1993	60	52	56	48	116

Table 19. Financial requirements of on-going and proposed projects in 1993.

Year	Basinwide		Country Projects		Total
	No. of Projects	%	No of Projects	%	No of Projects
1982	30	9	287	91	317
1992	69	45	85	55	154
1993	88	45	108	55	196

Financial assistance is provided by UNDP, member countries, international aid agencies and developed countries. The total amount of funding in 1993 reached 9,838,851 US\$, around 40% are provided by the EC, 15% from the UN and the UNDP in particular and 7% from Finland

While the philosophy for joint cooperation for sustainable development of the Mekong Basin is there, the reality may be somewhat different. Four member states may be trying to pool in sources of funding to finance country projects with primarily country interest the sub-region's. The breakdown of this sum by source of financial assistance are shown in Tables 20 and 21

#### 4 PLANNING INITIATIVES AND INITIATIVES UNDERTAKEN

In 1993, a series of international conferences were held in Thailand involving participants from foreign affairs, finance, planning and central banking officials from Cambodia, Laos, Viet Nam and Thailand. The objective has been to jointly identify areas of common concern, sharing of policy experiences and consideration of future approaches for cooperation.

Human resource development was identified as being an area of critical concern and also an area where practical opportunities exist for sub-regional level cooperation, e.g in exchange of information, training and joint research projects.

**Table 20 : Summary of Development Assistance Indicator (1992-1993)**

Country	HDI Rank (of 173)	ODA in US\$m		ODA, % GNP		ODA, \$/capita		ODA, \$ per poor person (1992)
		1992	1993	1992	1993	1992	1993	
Cambodia	147	148	319	8.4	n/a	17	35	n/a
Lao PDR	133	173	227	17.6	n/a	39	49	n/a
Viet Nam	116	586*	287	4	n/a	8	4	16
Myanmar	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ASEAN	54-108	219-2080	n/a	0.4-3.7	n/a	11-27	n/a	44-71
All DCs				1.3	n/a	11	n/a	32
LDCs				13.6	n/a	30	n/a	42

**Note :**

1) Source for 1992 is 1994 Human Development Report except Viet Nam ODA as % GNP estimated.

2) Source for 1993 are 1993 draft UNDP Development Co-operation Reports.

3) "ASEAN" excludes Brunei and Singapore.

4) "ALL DCs" refers to all developing countries; "LDCs" to least developed countries

5) \* Ignoring a 1992 Japanese balance of payment commodity support loan of \$ 359 m, Viet Nam's aid disbursements grew by 45 % from 1992-1993.

**Table 21 : Distribution of ODA by Percentage (1993)**

Sector	Cambodia	Lao PDR	Viet Nam	Myanmar
Economic Management	-	16	9	n/a
Development Administration	20	3	2	n/a
Natural Resources	-	1	2	n/a
Human Resources Development	7	6	7	n/a
Agriculture, Forestry and Fisheries	5	17	14	n/a
Area Development	14	5	3	n/a
Industry	-	1	6	n/a
Energy	4	5	4	n/a
Trade	-	0	-	n/a
Transport	13	23	3	n/a
Communications	4	8	5	n/a
Social Development	7	12	10	n/a
Health	13	3	19	n/a
Disaster Preparedness	-	0	1	n/a
Humanitarian Aid and Relief	13	1	15	n/a

Note : Total may not equal 100% as numbers have been rounded off. A dash (-) indicates nearly zero.

Source : Draft 1993 UNDP Development Co-operation Reports for Cambodia, the Lao PDR & Viet Nam

The purpose of the second was to monitor the progress of the cooperation programmes, identify alternative approaches for cooperation and mechanisms for improvement of approaches being executed

A general consensus was reached that sub-regional cooperation is instrumental for increasing development potential of the participating countries, seeing the region (comprising of the participating countries) as the entity for a unified development approach given the spatial proximity, cultural understanding, the means was through multi lateral cooperation between the countries, of partnership based on mutual trusts and long term commitments, capitalisation of comparative advantages, sharing of information, costs and risks, transfer of knowledge and know-how through effective networking between aid-coordination agencies within the Region

The concepts and the areas of cooperation can be understood by details in the following table prepared by the UNDP in the document entitled Compendium on Technical Cooperation in Capacity Building in Human Resource Development Regarding Cambodia, Lao and Viet Nam, 1995

#### **4.1 Transport and communication**

One of the basic prerequisites and priority area for sub-regional cooperation is the rehabilitation of the land transport network. Commercial transactions, industrial investment and tourism development rests on timely rehabilitation of road and water transport routes as well a establishment of air route links.

In early 1993, the Asian Development bank has commission studies to identify areas with potential for economic cooperation. In connection with the transport sector, the ADB Phase I study has proposed the following:

**(1) Road Transport**

- Improvement of road condition between Bangkok, Ho Chi Minh City and Phnom Penh with the possibility of extending to Wang Tao, Viet Nam's port.
- Road linking Thailand-Lao PDR and Viet Nam
- Road linking Thailand, Myanmar and China (Chiang Rai, Chiang Tung, Ta Lua and Chiang Rung).
- Road linking China and Myanmar (Khun Ming-La Siew)
- Road linking Thailand, Lao PDR and China. (Chiang Rai, Luang Nam Tha, Bor Ten and Chiang Rung)

**(2) Airports**

Investments for improvement and upgrading of international airports of Cambodia, Lao PDR, Myanmar, Viet Nam and Yunnan. Presently, work has been completed for Luang Phra Bang airport and it is expected that Chiang Rai-Chiang Rung air route is going to be open soon

**(3) Rail transport**

Studies have been commission to assess the feasibility of two rail routes, these being:

- Den Chai-Chiang Rai linking up with China's Khun Ming-Chiang Rung
- Nakhon Ratchasima-Maharakham-Roi Et, Mukdahan, Nakhon Phanom rail line which is expected to facilitate transportation of goods from Laos PDR and Viet Nam to Thailand

It should be noted that beyond the immediate interests of the countries in the Sub-Region, the improvement and expansion of existing road and water transport network is also of beneficial to other countries such as China and Malaysia.

From the point of view of China, the development of the sub-region's land transport would create access to sea outlet to the Gulf of Thailand as an alternative to the present outlet at Canton, saving a traveling distance of some 4,000 kms. Negotiations have already taken place whereby Thailand will open Consulate Office in Kunming and vice versa, China will open a Consulate Office in Songkhla. At the same time, it is compatible to the interests of Malaysia and Singapore to use the land transport network to link up with the markets in Laos PDR and China.

## **4.2 Water Resources Development**

In April 1995, the Agreement on Cooperation of the Sustainable Development of the Mekong Basin was signed by the four country member states where the countries agree to abide by the regulatory framework for the use of water resource from the river.

A general relaxation of the tighter regulatory control over the usage of the water from the Mekong whereby member countries do not need to seek approval but only need to notify the commission of the intentions. One other facet has been the agreement for use of the river for all purposes of river transport which creates potential for creating networks of tourism and facilitates transportation of goods and

services of the industrial and trade sectors. While direct and indirect economic impact are apparent from industrial, tourism and forward and backward linkage activities can be easily visualized there are far reaching cultural, ecological and environmental repercussions that needs careful considerations.

### **4.3 The energy sector**

To provide an overview of the vast potential for the development of the energy sector in the Mekong Sub-Region, details in Table 22 shows the basic statistics and technical data pertaining to the Mekong-Lan Xeang river. In Table 23 presents findings from the ADB study in respect to the exploitable hydropower in the sub-region is described Table 24 and 25 provide information on the coal reserves as well as oil and natural gas. A summary is given of the energy resources of Indochinese countries including south of China and Myanmar in Table 26.

Findings from feasibility study suggests that some 200 projects are technically possible which would generate an aggregate of 60,000 megawatt. The 10 large scale projects alone would generate 13,000 megawatts

The ADB Study proposed the development of a grid system for power supply taking into consideration the environmental considerations, the issue of price and the role of the private sector. Presently, the Electricity Generating Authority of Thailand buys electricity from two of Lao PDR's hydro-electrical power project, i.e., the 150 megawatt Nam Gnum power plant and the 45 megawatt Selek power plant. Altogether 8 studies have been commissioned to assess the feasibility of constructing Hydro power plants along the borders of Thailand and Myanmar. The aggregate supply if all of the 8 projects were to be executed would reach 6,397 megawatts. Three exploration projects is also underway for natural gas deposits in the Mortaban bay of Myanmar which is (funded by the Petroleum Authority of Thailand). Another planned project for construction of gas pipe line (between the common border of Thailand and Myanmar which will provide supply for the power plant in Rachaburi.



**Table 22 : Greater Mekong Subregion Key Technical Data on the Lancang - Mekong River**

Length :	4,880 Km
Annual Discharge :	475 billion m
Catchment Area :	165,000 km in China (21%) 24,000 km in Myanmar (3%) 202,000 km in lao PDR (25%) 184,000 km in Thailand (23%) 155,000 km in Cambodia (20%) 65,000 km in Viet Nam(8%) 795,000 km in the six countries (100%)
Average Flow :	2,410 m /sec in China 300 m /sec in Myanmar 5,270 m /sec in lao PDR 2,560 m /sec in Thailand 2,860 m /sec in Cambodia 1,660 m /sec in Viet Nam
Slope in Mountainous Areas :	0.323
Slope in Plains Areas :	0.023
Slope in Delta Area :	0.0085
High Water Period :	September to November
Low Water Period :	February to April

Source : BCEOM, Reconnaissance Study on the Role of the Mekong River in Regional and Subregional Transport Development, May 1991.p. 183.  
and Mekong Secretariat, Annual Report 1992, December 1993. -

**Table 23 : Exploitable Hydropower capability of the Subregion**

Country	Estimated Exploitable Waterfall Resources	
	Total Resources (TWh/yr)	Developed Resources (TWh/yr)
Cambodia	41	-
Lao PDR	102	1.1
Myanmar	366	1.1
Thailand	49	4.6
Vietnam	82	5.8
Yunnan	450	7.9
<b>TOTAL</b>	<b>1,090</b>	<b>20.5</b>

Source : ADB " Subregional Infrastructure Projects in Indochina and  
the Greater Mekong Area" 1995

**Table 24 : Proved Recoverable Coal Reserves (Mtonnes) in Greater Mekong Subregion**

Country	Bituminous including anthracite	Sub-bituminous	Lignite	Total
Cambodia	Data missing			
Lao PDR	56	-	170	226
Viet Nam	2,258	-	31,000***)	33,260
Myanmar	2	-	-	256
Thailand	63*)	1,857**)	350	2,270
Yunnan Prov. of PRC	7,558	213	14,452	23,580

\*) Bituminous/Lignite \*\*) Lignite/Subbituminous \*\*\*) Brown coal and peat coal

Source : ADB " Subregional Infrastructure Projects in Indochina and the greater Mekong Area" 1995

**Table 25 : Greater Mekong Subregion : Oil and Natural Gas Resour**

Oil and Condensate, millions of barrels (1,000 mill barrels of oil = 136 Mtonnes)

Country	Initial Oil in Place				Recoverable Reserves				
	Proven	Probable	Possible	Total	Produced	Remaining Reserves			
						Proven	Probable	Possible	Total
Cambodia				?					?
Lao PDR				?					?
Viet Nam	2,103	5,758	4,474	12,335	110	1,471	0	0	1,471
Yunnan, PRC	0	0	1,670	1,670	0	0	0	0	0
Myanmar	1,770	390	1,750	3,910	509	114	54	124	292
Thailand	0	0	0	0	152	218	105	285	608
Subregion Total					770	1,803	159	409	2,371
Natural Gas, billions of cubic feet (1 billion cubic feet = 0.02835 GM )									

Country	Initial Oil in Place				Recoverable Reserves				
	Proven	Probable	Possible	Total	Produced	Remaining Reserves			
						Proven	Probable	Possible	Total
Cambodia				?					?
Lao PDR				?					?
Viet Nam	1,870	6,900	0	8,770	0	520	4,400	0	4,920
Yunnan, PRC	0	0	1,120	1,120	0	0	0	0	0
Myanmar	7,368	125	2,560	10,053	343	4,159	45	1,101	5,305
Thailand	0	0	0	0	2,228	6,162	2,806	6,378	15,346
Subregion Total					2,570	10,841	7,251	7,479	25,571

## Comments

\* Quantities given in oil industry units rather than SI units.

\* Yunnan figures not confirmed

Source ADB "Subregional Infrastructure Projects in Indochina and the greater Mekong Area" 1995

Table 26 : Energy Sector Basic Data

	Cambodia	Lao PDR	Viet Nam	Myanmar	Thailand	Yunnan Province PRC	Sum
Energy Resource							
-Hydropower	41	102	82	366	49	450	1090
-Coal :		226 1/	2258	256	2270	9128 2/	
-Oil :			199	39	119		357
-Natural Gas :			2	150	435		724
Power Demand	0.09	0.05	15.8	0.5	9.8	2.00	14.5
GW 1993							
GW 2020	0.8	0.3	12.4	2.5	61.8	11.2	92.3
Electricity Demand .	0.6	0.3	93.00	3.2	61.6	12.9	91
TWh 1993							
TWh 2020	4.9	1.8		14.5	411.3	72.3	597.3
Electrification 1993 :							
- No. of household with el. supply (1000)	38	98	1300	560	8160	530	
- Electrification ratio 3/	(47)%	13%	10%	7%	72%	8%	19%
- EL consumption : total resident TWh/year	0.04	0.1	2.8	0.7	11.00	0.7	
- Consumption/household kWh/year	1,100	1,200	2,100	1,300	1,300	1,300	
- Electricity price US\$/kWh	6	1.6-2.7(1991)	4.0(1991)	4/ 1.0, 7.7	6.5 (1993)	2	
- Consumption per capita of total population kWh/year	55	55	140	60	900	260	219

1/ In addition : 31000 Mtonnes of lignite

2/ In addition : 14450 Mtonnes of brown coal and peat coal

3/ Number of household supplied of total number of household

4/ Depending on currency conversion factor

Source : ADB "Subregional Infrastructure Project in Indochina and the Greater Mekong Area" 1995

Feasibility is also being assessed on construction of dam across the Lan Xeang river (in China) for hydropower plant which would supply electricity to sell to Thailand. The focus is given to small and medium scale projects.

Recommended energy projects include the proposed hydropower project in Lao PDR, the Salawin Project, the construction of the gas pipe line from Mortaban bay.

On the energy sector, it must be noted that Thailand's planned projects inevitably stir uneasiness among the member states. It is explicit to all that Thailand's interest is primarily in the field of energy supply. Presently, Thailand import around 70% of the country's use of energy, a ratio that is likely to expand rapidly given the pace of the country's industrialisation and urbanization. Lao PDR is one of the major source of energy supply to Thailand and it is estimated that one third of Laos PDR's foreign exchange earnings is derived from exporting electricity power supply to Thailand. If and when the planned hydropower projects of Nam Ngum, Nam Ngiep and Nam Theun materialise, the ratio of export earnings to Thailand is likely to increase

Details in Table 27 can give an overview of the significant importance of the Mekong Sub-Region to Thailand's energy supply situation. The picture may be that Thailand puts its need for energy sources from exploitation of the river before the objectives of sustainability. The grand scheme projects include:

- The intra-basin Kong-Chi-Mool project to divert water to partially irrigate the drought ridden Northeastern Region of Thailand as well as energy source for the Department of Energy Promotion(DEDP);
- The Kog-Ing-Nan Project of the Royal Irrigation Department, a large investment project in the order of some 200,000 million Baht similar to the above project. The planned scheme is to divert water from the Mekong to the Chao Phraya basin to increase the level of water in the Sirikit dam with 10 downstream smaller scale

Table 27 : Power Plant Projects with Thailand's Neighbouring Countries

Project	No.	Project	Type of Fuel	Capacity (MW)	Investors	Price EGAT purchases	Present Status of Project
Lao PDR	1	Theun-Hinboun	Hydro	210	- Gov of Lao (GOL)	43 cent/unit or approx 1 baht/unit	Agreements on price and trading principles have been made with EGAT
	2	Nam Theun 2	Hydro	681	- Nordic Group - MDX (Thai) - Transfield - EDF - Italian-Thai Development - Jasmine International - Phatoua Thanakut	455 cent/unit	Agreements on price and trading principles have already been made with EGAT
	3	Houay Ho	Hydro	126	- Daewoo - GOL - Ioxley	EGAT proposed at 4.2 cent/unit	Completion schedule for 1999
	4	Hongsa Lignite	Lignite	600	- Thai-Lao Lignite		Completion schedule for July 2000
	5	Nam Theun 1	Hydro	520	- Susco - GOL	NA	Studying feasibility
	6	Nam Cha 1	Hydro	120	- Hydro Electric Commission Enterprise Corporation (Australia)	NA	-
	7	Nam Cha 2	Hydro	70		NA	-
	8	Xe Kaman 1	Hydro	60-100		-	Result of initial study has already been proposed to EGAT
	9	Nam Theun 3	Hydro	190	- Heard Energy Corporation	-	The investing company has made Memorandum of Understanding (MOU) with Lao PDR and with make a proposal to EGAT later
	10	Nam Leuk	Hydro	60	- GOL - STDA (Sweden) - GECF (Japan)	-	GOL has already proposed its hydrology report to EGAT
	11	Nam Ou	Hydro	950	- Pacific Rim Energy	-	EGAT will purchase power after the year 2000
	12	Se Kong	Hydro	470	- Modura of Thailand	-	EGAT will purchase power after the year 2000
	13	Nam Ngiep 1	Hydro	440	NA	-	-
	14	Nam Ngum 2	Hydro	330	- Ch. Kamchang - Sri-U Thong - Shalapak Development - Bilfinger + Berger - J M Voith Guebh - Noell GmbH - Siemens AG	-	Investor is being introduced to CECD-L
Malaysia	1	Transmission System	Natural Gas	300	- TTP&TND	-	Proposing feasibility report to EGAT for consideration
	2	Purchase of natural gas from co-development zones	Natural Gas	-	-	-	PTT is forming a co-development zones agreement with Malaysia
China	1	Manwan	Hydro	1,500	NA	-	-
	2	Jinzhong	Hydro	1,350	Thai private companies	-	-
	3	Namarehaekao	Hydro	4,200	Thai private companies	-	-
	4	Chuangwan	Hydro	600	NA	-	-
	5	Talaosam	Hydro	1,250	NA	-	-
	6	Chuangrung	Hydro	1,350	- MDX	-	-
	7	Kongkowcheow	Hydro	750	NA	-	-
	8	Nuozhadu	Hydro	5,000	NA	-	-
	9	Lunpa	Hydro	150	NA	-	-
	10	Namare	Hydro	600	NA	-	-
Myanmar	1	Purchase of 525 cu feet of natural gas for Ratchaburi Power Plant	-	-	PTT will install a 317 km gas pipeline	US\$ 2.7-2.8/million BTU	The Thai Cabinet approved the urgent opening of the project on 29 Nov 94
	2	Khlongkra	Hydro	130	NA	-	EGAT has already completed the initial survey
	3	Mae Sai	Hydro	12.8	Electric Power (Japan)	-	EGAT has already completed the initial survey
	4	Upper Salween	Hydro	4,540	-	-	EPDC has already completed the initial studies.
	5	Lower Salween	Hydro	792	-	-	
	6	Nam Moel	Hydro	110	-	-	
	7	Nam Moel	Hydro	231	-	-	
	8	Nam Moel	Hydro	228	-	-	
	9	Mae Kok	Hydro	290	-	-	

\* CECD-L The coordinating Committee on Electricity Cooperation and Development in Lao PDR

Information sources Business Venture Department, EGAT  
Development and Planning department, EGAT

irrigation projects being planned together with additional investments in secondary canals to divert water to the target area

In addition the fundamental agreement as to whether how many projects can satisfy economic, social and environmental considerations, there remains details regarding management responsibilities, division of rights as well as those relating to pricing. All of these issues warrant careful and detailed consideration, not only from the point of view of the need to mobilize involvement of the private sector but also to recognition of the needs to balance economic growth objectives against that of environmental and other social considerations.

#### **4.4 Human resource development**

The focus is given to formulation of training programmes to upgrade manpower in the field of planning, agriculture, health, energy, finance and banking, hotel.

#### **4.5 Trade and investment.**

The principle is to promote greater trade and joint investment under the framework of economic liberalisation. A number of permanent border trade areas have been approved and transaction hours has been extended from 6.00 am to 21 00 pm

#### **4.6 Tourism sector**

The aim is to link to the natural, cultural and historical sites in the Sub-Region within a complementary tourism network.

## **4.7 Telecommunication**

The intention is to promote joint public and private sector investment in telecommunication facilities.

# **5 INITIATIVES TAKEN BY THAILAND**

## **5.1 Opportunities Seen From the Thai Perspective**

For Thailand, the interest is to acquire the status of the regional economic centre for the Mekong Sub-Region comprising of 6 countries, her position within the Indonesia-Malaysia-Thailand Growth Triangle.

The perceivable advantages are

- Firstly, the potential for market expansion which has far reaching benefits extending beyond the increase in trade volume but also scope for linking up basic infrastructure networks primarily the transport and communication network.
- Secondly, from the Thai perspective, there is an interest in seeing a more open door policy particularly in areas where Thailand and her neighbouring countries have common borders. Increasing trade volume may create investment incentives in regions that physically adjoins neighbouring countries rendering more realistic the objectives of decentralization and better dispersion of economic activities and benefits.
- Thirdly, large capital investments are expected to provide the basis for economic development. Sub-regional economic



cooperation will force national governments to focus, at more or less the same time, on development of seaports and airports, road and rail networks. A good example is the case of the 5 southern most provinces of Thailand where investments, prior to 1994-95 has been more or less piecemeal. But in 1994/5, a total of 800 million Baht has been invested in interrelated projects, laying the physical and economic foundation for the so-called big-push.

- Fourthly, macro economic policies cannot materialize unless it is transformed into tangible micro policy measures such as the steps undertaken by Thailand, Malaysia and Indonesia.
- Lastly, investments must have considerable economy of scale to become feasible. For example, power generation projects, airport transport network, fishing in international waters. The multi-purpose irrigation projects in Laos for example, is believed to have taken off due to the existence of demand on the Thai side

Among the six countries which form the Mekong River basin, the economic development of Thailand can be said to be the most advanced and could fulfill the role as the regional economic centre linking up other economies in the Basin with the world market.

From the Thai side, there is a perception that she has a key role to play in the revival of the formerly centrally planned economies. With the opening up of the Indochinese countries, Thailand responded with a declared intention to change a former war zone into a trade zone. Past and present involvements have been both in

the form of bilateral and multilateral nature.<sup>16</sup> The areas which Thailand has taken some concrete actions are described in the final paragraphs of this paper.

## **5.2 Areas of Involvement**

### **5.2.1 Financial Infrastructures**

A recent development is that Financial Trust Companies are allowed to set up branch offices in other countries mainly to attract foreign investors to invest in the Thai Stock Exchange market. Thailand has set up Indochina Development Funds . Internal adjustments were made in the financial sector to support such a change by relaxation of control over foreign exchange and raising the ceiling on the amount of capital for investment purposes in neighbouring countries.

### **5.2.2 Rehabilitation and Development of Transport Infrastructures**

There is a degree of consensus that the development of basic infrastructures, particularly the development of the road transport network both within and connecting the countries constitutes a fundamental prerequisite. More technical assistance and financial support may be needed to upgrade other modes of transport such as rail, air links and seaports within these countries, the purpose being to link up with existing transport networks. Such developments will allow for faster and more cost-effective movements of goods and services linking up these national economies to the world markets.

On the western side, Thailand has committed a sum 79.2 million Baht for the construction of the Mae Sot Myawadi Bridge between Mae Sot district of Tak province and Myanmar's Myawadi. (the construction being incidentally halted and presently left uncompleted due to political problems relating to border areas which

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<sup>16</sup> See Technical Paper 3 for specific details

underlies the tension in Thailand's political and economic negotiations with Myanmar). Another 300 million Baht has been committed to the repairing Tha-Khi Lek and Chiang Tung Road also in Myanmar.

For Lao PDR, Thailand has allocated 50 million Baht towards the construction of the Luang Prabang airport, another 35 million for improvement of road conditions.

### **5.2.3 Human Resource Development**

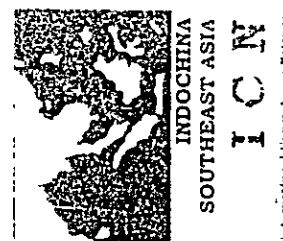
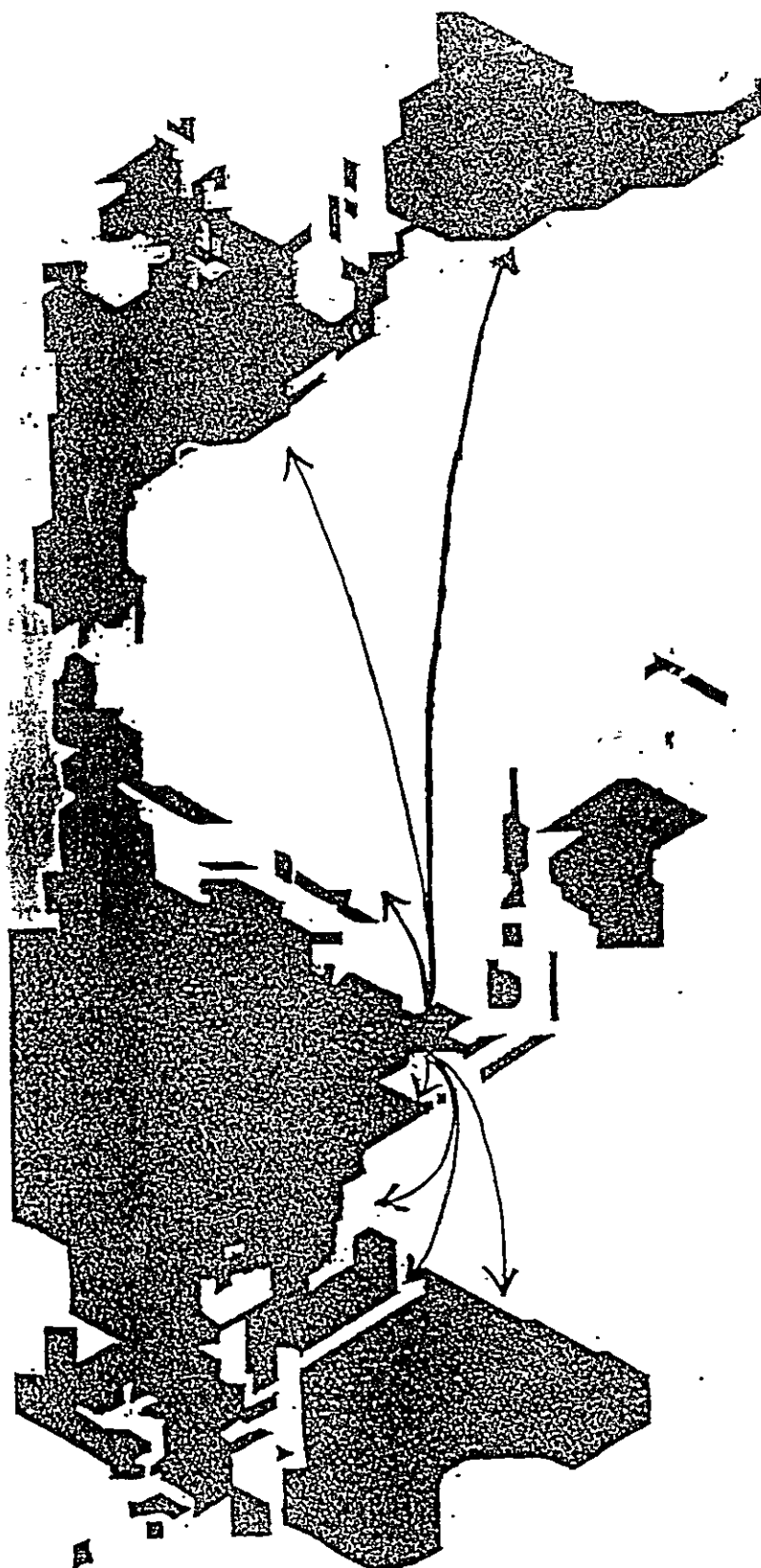
The shortage of manpower of all types, i.e., unskilled, semi-skilled, skilled, technicians, entrepreneurs, professionals will be a critical hurdle which newly opened up economies will have to confront. It is also an areas where Thailand, given the spatial proximity and cultural similarity can provide beneficial assistance and she can do this with technical back-ups and professional from industrialised economies such as Japan, NICs, ASEANs and western countries.

### **5.2.4 Spatial Planning**

Both private and public sector in Thailand are discussing the possibility of fostering economic cooperation in the Economic Quandrangle involving Thailand, Lao PDR, Myanmar and South China. Another framework for intercountry cooperation is the proposed ADB funded project and other grand schemes for Mekong river basin but which may prove to be a deadlock if the pros and the cons and the merits and demerits for countries of the Mekong Basin cannot be clearly spelled out.

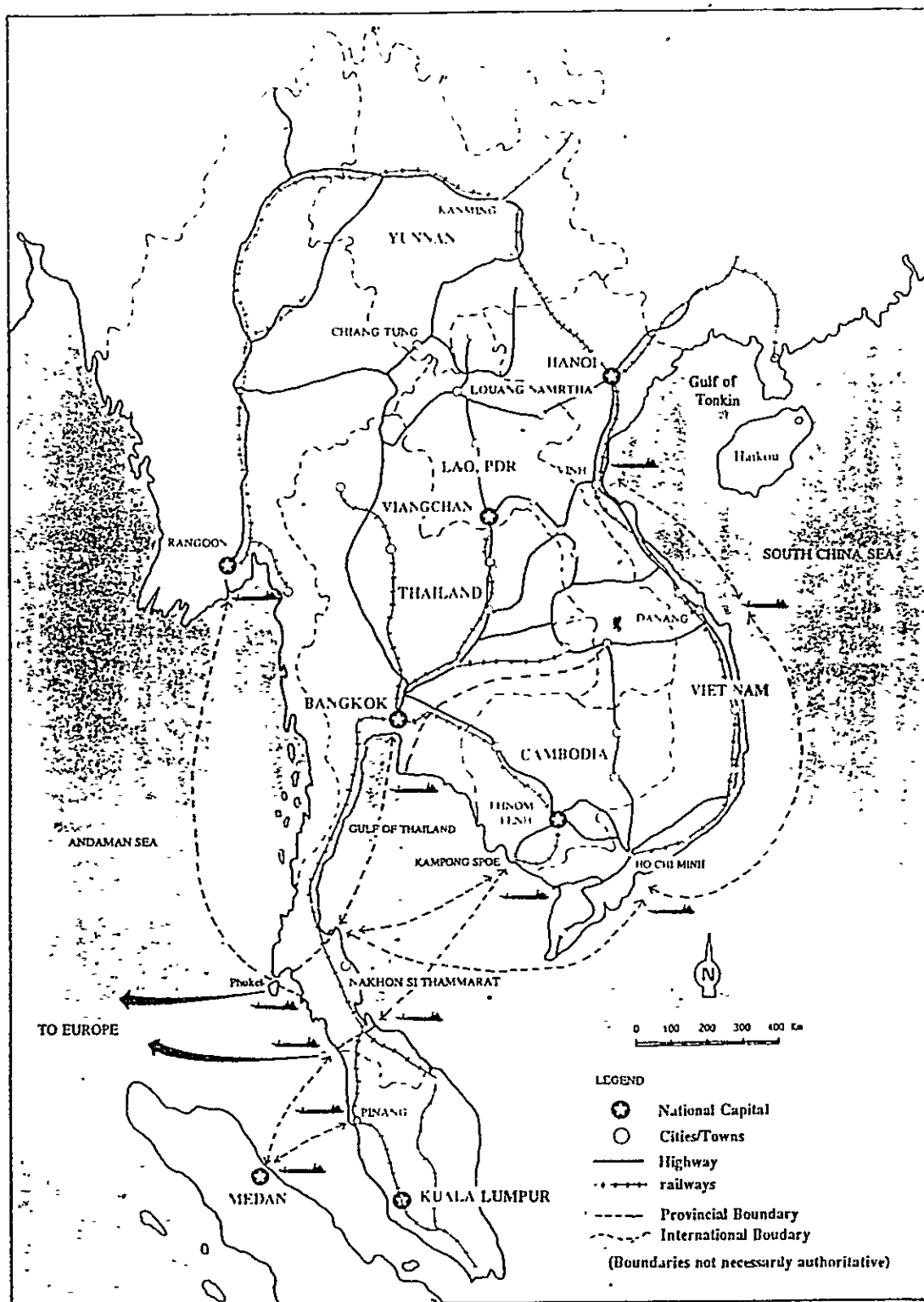
Thailand has committed a considerable sum of financial resources towards the design and economic analysis of scope for economic cooperation at the sub-Regional Level.

Some of the earlier visions are shown in the Map attached Map 2 indicates the perceived comparative advantage in terms of location. Map 3 and 4



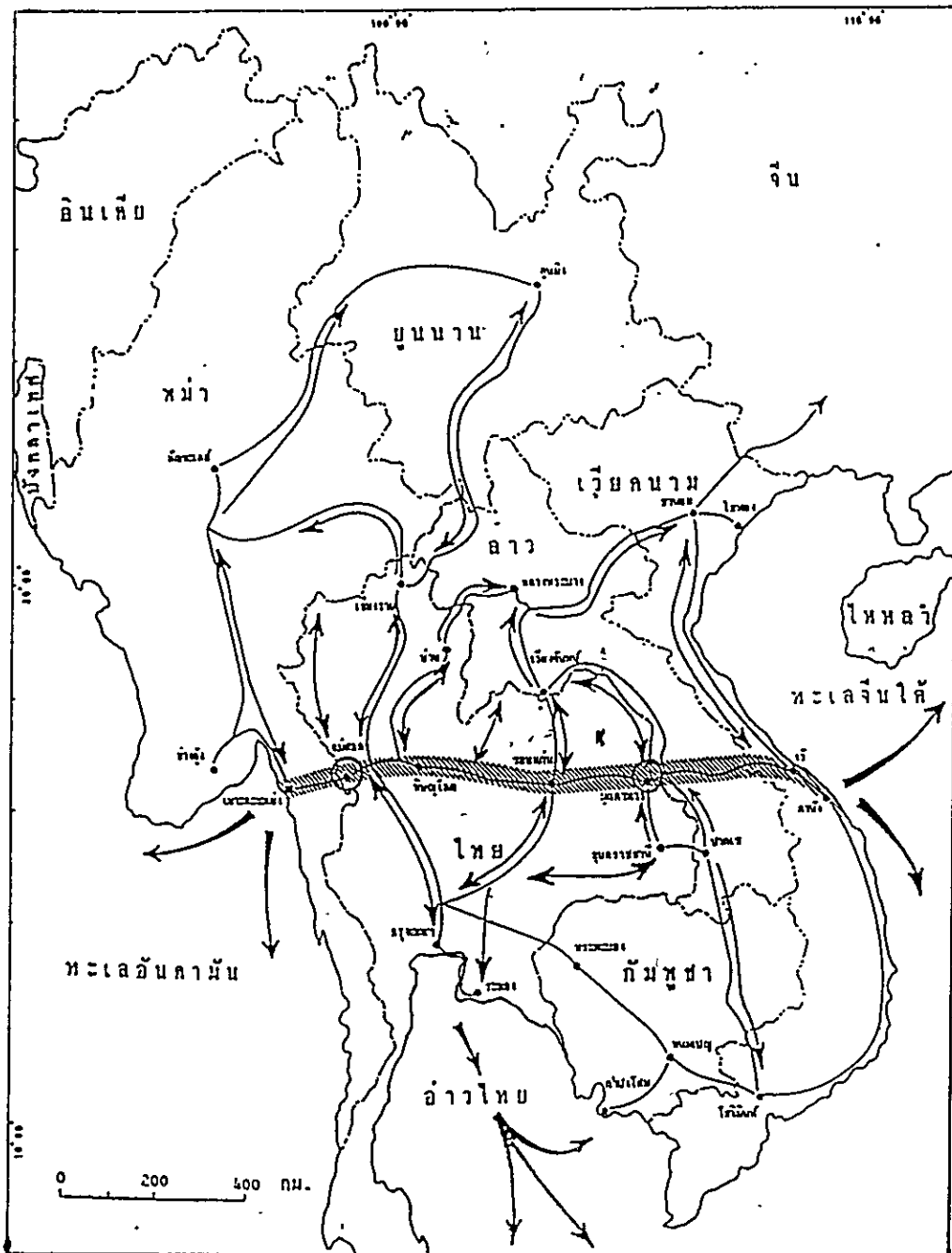
Map 2: Strategic Location of Thailand for Economic Cooperation at the Regional and Sub-Regional Level

Source: International Consultancy Network, The Special Economic Border Zones Between Thailand, Myanmar and Laos PDR, A Study Commissioned by the Department of Industrial Economics, Ministry of Industry



Map 3: Sub-Regional Transport Routes

Source: National Economic and Social Development Board



Map 4: The Concept of the Land Bridge Between Myanmar, Thailand and Laos PDR.

Source: International Consultancy Network, The Special Economic Border Zones Between Thailand, Myanmar and Laos PDR, A Study Commissioned by the Department of Industrial Economics, Ministry of Industry



shows the vision of the likely impact from the construction of the second bridge across the Mekong linking Laos PDR's Savannakhet with Nong Khai on the Thai side and to the west the completion of the bridge over the river Moei which will link Thailand's Mae Sot district in Tak with Myanmar's Myawaddi province.

Lastly, in addition to the physical aspects of development, development adjustment of institutional and legal aspects which presently impedes and delays the processes of commercial transactions must also be looked into. Some of these include issues of property ownership, tariffs, customs procedures, double taxation, etc. There needs to be a degree of efficiency, and of complementarity under the mutual objectives of expanding sub-regional economic cooperation activities.

An ingredient of successful cooperation is also the existence of mutual trust beyond written words. The relationship between Thailand and Myanmar has been shown in the earlier paragraphs to be less than rosy. The same hint of mistrust exists between Laos, Cambodia of Thailand's intention. Beneath all policies, one may not be far from the truth to conclude that it maybe unavoidable that the countries in the Regions and Sub-Regions perceive each other as potential threats, potential investors in addition to being the much desired potential friends

**Table 28 : Potential Area for Sub-Regional Cooperation****AREAS OF FOCUS:****SPECIFIC TOPICS FOR POSSIBLE DEVELOPMENT  
CO-OPERATION WITHIN THE FOUR AREAS OF FOCUS :**

1.Economic, Legal and Public Institution Reform for Transition to a Market Economy	Policy Issues in the Transition to a Market Economy*	Public Service Improvements & Civil Service Reforms	Capacity for Infrastructure Transportation & communications	Management of Public Sector Industries & Enterprises
	Preparation for Entry to ASEAN Community	Aid Management Co-ordination	Essential Frameworks for Sustaining a Market Economy	
2.Development of the Private Sector	Successful Initiatives for Promoting a Private Sector	Management Development for the Private Sector	Tourism . Development , Management & Training	Trade Promotion & Investment
	Development of Small-Medium Scale Industries & Enterprises			
3.Environment and Natural resources Management	Environment & Development Policies , Legislation & Institutions	Shifting Cultivation Watershed Management & Reforestation	Agriculture and Food Security	Biodiversity Issues
	Capacity for Infrastructure Water and Energy	Contingency Planning and Disaster Management		
4 Social Policy , Investment and Adjustment	Education Primary , Secondary , Tertiary and Vocational	Role of Women in the Process of Development	Initiatives for Ethnic Minorities	Poverty Alleviation and Employment Generation
	Public Health and Nutrition	Co-operation in Combating HIV/ AIDS	Co-operation in Drugs Control	Urban Management
	National Heritage and Culture			

**FIGURE 1 · A FRAMEWORK FOR CO-OPERATION**

Source UNDP "COMPENDIUM ON TECHNICAL COOPERATION IN CAPACITY BUILDING IN  
HUMAN RESOURCES DEVELOPMENT REGARDING CAMBODIA , LAO PDR , VIET NAM &  
MYANMAR"



## **APPENDIX A :**

### **Basic Information of the Countries in the Mekong Sub-Region**

Table 1 : Cambodia : Basic country Information

	1989	1990	1991	1992	1993
<b>Demographics</b>					
Population (million)	8.3	8.6	8.8	9.00	9.3
Age distribution (%) a/					
0-14 yrs	41.6	-	40.3	-	40.7
15-64 yrs	55.6	-	56.9	-	56.6
65 and over	2.8	-	2.8	-	2.7
Adult literacy rate (%)	-	35	-	38	-
<b>Economy</b>					
GDP (US\$ million)	1,288	1,304	1,861	1,909	1,913
Real GDP growth (%)	3.5	1.2	7.6	7.00	4.1
Agriculture (%age share)	52.3	52.3	51.8	49.4	47.4
Industry (%age share)	15.4	14.9	15.1	16.3	17.2
Services (%age share)	32.3	32.8	33.1	34.3	35.4
Imports of goods and services (US\$ million)	190	182	258	373	432
of which Merchandise imports	176	164	245	351	404
Petroleum imports	41	45	44	91	53
Consumer goods	-	-	31	62	76
Exports of goods and services (US\$ million)	81	88	227	314	291
of which Merchandise exports	79	86	213	265	219
Re-exports	38	53	145	213	181
Rubber	7	5	19	13	9
Timber	5	5	21	25	9
<b>Debt</b>					
External debt outstanding (US\$ million)	1,423	1,559	1,605	1,554	-
By type (% of total)					
Long-term b/	97.6	96.2	96.3	97.1	-
Short-term	1.3	2.2	2.0	1.9	-
Use of IMF credit	1.1	1.7	1.7	1.0	-
By sector (% of total)					
Public and publicly-guaranteed	100.00	100.00	100.00	100.00	-
Private	-	-	-	-	-
By source (% of total long-term debt)					
Multilateral	0.6	0.5	0.5	0.5	-
Bilateral	99.4	99.4	99.5	99.4	-
Private	-	0.1	-	0.1	-
Interest payments (US\$ million)	12.00	31.00	-	0.1	-
<b>Leverage</b>					
Current account balance (deficit (-) )					
in US\$ million	-89	-50	-25	-45	-41
as % of GDP	-7.9	-4.3	-1.6	-2.6	-2.3
Foreign direct investment net flows (US\$ million)			20.0	40.1	58.7
External debt/exports (%)	1,763.30	1,775.60	708.6	494.6	-
External Debt/GDP (%)	128.8	156.3	62.5	123.9	-
Debt-service ratio (% of exports)	14.9	33.0	-	-	-
Gross international reserves ( months of imports)	-	-	-	2.6	2.5

" " mean data not available " " means zero

a/ Figures for 1975, 1985 and 1990 repective

b/ All long term debt for Cambodia are public and guaranteed debt

Sources: Cambodian authorities ADB Key Indicators for Developing Asian and Pacific Countries and  
World Bank World Debt Tables

Table 2 : Cambodia : Key Economic Indicators

	1989	1990	1991	1992 a/	1993 b/
<b>Economic Growth (%)</b>					
Real GDP growth	3.5	1.2	7.6	7.00	4.1
Agriculture	7.1	1.2	6.7	1.9	0.00
Industry	1.6	-2.2	8.8	15.6	10.1
Service	-1.1	2.7	8.5	11.1	7.2
Growth of per capital real GDP	0.7	-1.7	4.7	4.6	0.7
<b>Structure of Output (% of real GDP)</b>					
Agriculture	52.3	52.3	51.8	49.4	47.4
Industry	15.4	14.9	15.1	16.3	17.2
Service	32.3	32.8	33.1	34.3	35.4
<b>Structure of Expenditures (% of real GDP)</b>					
Consumption	96.4	97.7	92.1	92.6	92.3
Private	88.7	90.5	84.7	83.1	85.3
Public	7.7	7.2	7.4	9.5	7.00
Gross fixed investment	11.00	8.2	9.4	9.8	15.5
Private	9.5	7.1	9.00	9.5	11.1
Public	1.5	1.2	0.4	0.3	4.4
<b>Measures of Macroeconomic Stability</b>					
Inflation rate (% change in CPI)	63.8	141.8	197.00	75.00	114.3
Government deficit (% of GDP, deficit-)	-2.7	-4.5	-3.4	-3.6	-6.00
Money supply growth (%)	69.8	240.6	28.7	214.00	32.5
External current account deficit (% of GDP, deficit-)	-7.9	-4.3	-1.6	-2.6	-2.3
<b>External Accounts</b>					
Merchandise exports (\$ million)	79	86	213	265	219
Growth rate (%)	76.8	8.3	147.7	24.5	-17.2
Merchandise import (\$ million)	176	164	245	351	404
Growth rate (%)	4.00	-7.1	49.8	43.1	15.2
Trade balance (\$ million)	-97	-78	-33	-86	-185
Current account balance (\$ million)	-89	-50	-25	-45	-41
Gross official reserves (\$ million)	-	-	0.3	29.9	46.6
In months of retained imports	-	-	-	2.6	2.5
Official exchange rate (riels per \$)	187	459	718	1,314	2,830
Market exchange rate (riels per \$)	224	537	856	1,522	2,997

a/ Preliminary estimates

b/ Provisional estimates

Source : Cambodia authorities

Table 3 : Cambodia : Key Social Indicators

Population (1993) :	9.3 million
Land area :	181,035 sq km
GDP (1993) :	\$ 1.8 billion
Real GDP per capital, PPPS (1991)	\$1,250
GDP per capita (1993)	\$205
Real GDP growth rate (1993) :	4.10%

		Earlier	Latest
		Period	Period
<b>Population and Labor Force</b>			
Total population (million)	1988/1993	8.2	9.3
Male	1990/1993	4.0	4.5
Female	1990/1993	4.6	4.8
Annual growth rate of population (%)	1988/1993	4.6	3.3
Estimated population by year 2000 (million)		-	10.6
Estimated annual population growth rate (%)	1992/2000	-	2.4
Urban population (% of total)	1960/1992	10	12
Total labor force (% of population)	1988-90/1990-92	47	43
Female labor force (% of labor force)	1988-90/1990-92	39	56
<b>Sectoral distribution of labor force (%)</b>			
Agriculture	1965/1990-92	80	74
Industry	1965/1990-92	4	7
Services	1965/1990-92	16	19
<b>Education, Health and Nutrition</b>			
<b>Adult literacy rate (% of aged 15+)</b>			
Total	1985/1992	29	38
Male	1985/1992	41	52
Female	1985/1992	17	24
<b>Mean year of schooling (age 25+)</b>			
Total	1980/1992	2.0	2.0
Male	1980/1992	2.3	2.3
Female	1980/1992	1.7	1.7
Secondary school completion rate (%)	1986-89/1992-93	20	31
Life expectancy at birth (years)	1980/1992	31	50
Infant mortality rate (per 1,000 live births)	1989/1992	127	117
Access to health care (% of population)	1985-91	-	53
Access to adequate sanitation (% of population)	1985-91	-	15
Access to safe water (% of population)	1985-91	-	37
Tuberculosis cases (per 100,000 people)	1990	-	235
Malaria cases (per 100,000 people exposed to malaria-infected environments)	1991	-	5,040
Population per physician	1965/1993	22,412	9,309
Daily calorie supply (% of requirements)	1981-90	-	96

Table 3 : (Continued)

		Earlier Period	Latest Period
<b>Public expenditure on education :</b>			
as % of budget	1989/1993	18.4	12.2
as % of GDP	1989/1993	1.4	0.9
<b>Public expenditure on health</b>			
as % of budget	1992/1993	2.3	2.00
as % of GDP	1992/1993	0.2	0.1
<b>Natural Resources, Environment and Energy Consumption</b>			
Population density (person per sq km)	1993	-	514
Arable land (% of land area)	1987-90	-	16.5
Irrigate land (% of arable land area)	1987-90	-	3
Forest area (% of land area)	1987-90	-	76
Annual rate of deforestation (%)	1981-85	-	0.2
Internal renewable water resources	1990	-	10.7
per capital (1,000 cu m per year)			
Annual fresh water withdrawals	1980-89	-	70
per capital (cu m)			
Share of global emissions (greenhouse index per 10 million people)	1989		0.09
Commercial energy consumption	1965/1991	19	-
per capital (kg of oil equivalent)			

Source : Cambodian authorities and UNDP, Human Development Report, various issues

Table 4 : Lao People's Democratic Republic : Basic Country Information

	1989	1990	1991	1992	1993
<b>Demographics</b>					
Population (million)	4.1	4.1	4.2	4.40	4.5
Age distribution (%) a/					
0-14 yrs	42.1	-	42.7	-	43.6
15-64 yrs	55.2	-	54.4	-	53.4
65 and over	2.7	-	2.9	-	3.00
Adult literacy rate (%)	-	-	-	50	-
<b>Economy</b>					
GPD (US\$ million)	727	865	1,028	1,185	1,332
Real GPD growth (%)	13.4	6.7	4.00	7.00	5.9
Agriculture (%age share)	59.6	60.7	57.3	58.00	56.2
Industry (%age share)	13.2	14.4	16.6	16.7	17.3
Services (%age share)	27.2	24.9	26.1	25.3	26.5
Imports of goods and services (US\$ million)	152	143	256	308	421
of which Merchandise imports	136	131	223	266	375
Machinery and raw materials	11	29	61	95	180
Petroleum	12.2	7.3	21	24	21
Tied-aid import	57	55	87	64	77
Exports of goods and services (US\$ million)	71	84	134	194	292
of which Merchandise exports	42	58	94	130	206
Electricity	15	19	21	17	20
Garments/textiles	4	7	15	27	37
Wood products including timber	16	19	41	43	47
<b>Debt</b>					
External debt outstanding (US\$ million) b/	932	1,043	1,079	1,147	1,202
By Source (% of total)					
Convertible currency area	25.5	29.6	31.4	36.00	39.2
Bilateral	6.7	5.6	3.00	2.6	2.00
Multilateral	18.8	23.9	28.4	33.40	37.2
Nonconvertible currency area	74.5	70.4	68.6	64.00	60.8
Interest payments (US\$ million) c/	3.1	3.2	4.4	4.3	4.1
<b>Leverage</b>					
Current account balance (deficit (-) ) d/					
in US\$ million	-135	-102	-116	-140	-117
as % of GDP	-18.6	-11.7	-11.3	-8.8	-8.8
Foreign direct investment approvals (US\$ million)	46.6 e/	94.8	154.5	159.8	151.3
External debt/exports (%)	1321.80	1242.00	804.9	592.9	412.4
External debt/GDP (%)	128.2	120.6	104.9	96.9	90.3
Debt-service ratio (%)	16.00	103.00	11.2	6.4	4.7
Gross international reserves (months of imports)	3.4	3.9	3.00	3.9	4.8

" " mean data not available

a/ Figures for 1975, 1985 and 1990 respectively

b/ Refers to medium and long term debt

c/ For convertible current area only

d/ Excluding official transfers

e/ Including investment in 1988

Sources : Lao PDR authorities ADB Key Indicators for Developing Asian and Pacific Countries

Table 5 : Lao People's Democraticreepublic : Key Economic Indicators a/

	1989	1990	1991	1992 a/	1993 b/
<b>Economic Growth (%)</b>					
Real GDP growth	13.4	6.7	4.0	7.0	5.9
Agriculture	9.9	8.7	-1.7	8.3	2.7
Industry	35.0	16.2	19.9	7.5	10.3
Service	10.2	-0.5	6.5	3.9	8.0
Growth of per capital real GDP	10.3	4.5	1.4	4.3	3.2
<b>Structure of Output (% of real GDP)</b>					
Agriculture	59.6	60.7	57.3	58.0	56.2
Industry	13.2	14.4	16.6	16.7	17.3
Service	27.2	24.9	26.1	25.3	26.5
<b>Measures of Macroeconomic Stability</b>					
Inflation rate (% change in CPI)	59.6	35.7	13.4	9.8	6.3
Government deficit (% of GDP, deficit-)	-16.6	-14.4	-11.3	-10.7	-7.8
Money supply growth (%)	89.3	7.8	15.7	49.0	64.6
External current account deficit (% of GDP, deficit-)	-14.8	-7.7	-3.6	-2.8	-0.3
<b>External Accounts</b>					
Merchandise exports (\$ million)	63	79	97	133	209
Growth rate (%)	9.5	24.3	22.7	37.3	57.8
Merchandise imports (\$ million)	211	202	228	266	375
Growth rate (%)	29.8	-4.3	13.1	16.5	41.4
Trade balance (\$ million)	-148	-123	-131	-133	-166
Current account balance (\$ million)	-135	-102	-116	-104	-117
Gross foreign reserves (\$ million)	60	65	57	86	151
In months of retained imports	3.4	3.9	3.00	3.9	4.8
External debt outstanding (\$ million)	932	1,043	1,079	1,147	1,202
Debt-service rate (% of exports)	16.00	10.3	11.2	6.4	4.7
Official exchange rate (kips per \$)	583.75	706.42	702.00	715.09	716.00
Market exchange rate (kips per \$)	618.25	725.17	713.77	731.12	723.98

a/ There are no official figures on saving and investment in Lao PDR

b/ Preliminary estimates

c/ Provisional estimates

Source : Lao PDR authorities

**Table 6 : Lao People's Democratic Republic : Key Social Indicators**

Population (1993) :	4.5 million
Land area :	236,800 sq kg
GDP (1993)	\$ 1.3 billion
Real GDP per capital, PPP\$ (1991)	\$1,760
GDP per capita (1993)	\$297
Real GDP growth rate (1993) :	5.90%

		Earlier Period	Latest Period
<b>Population and Labor Force</b>			
Total population (million)	1970/1992	3.6	4.5
Annual growth rate of population (%)	1980-85/1990-93	2.5	2.6
Estimated population by year 2000 (million)			5.6
Estimated annual population growth rate (%)	1992-2000		2.8
Urban population (% of total)	1970/1992	10	20
Age dependency ratio (%)	1960/1990	80.00	92.7
Working age population (% of population)	1985/1992	46.7	46.7
Total labor force (% of population)	1988-90/1990-92	55	55
Female labor force (% of labor force)	1988-90/1990-92	46	44
Average annual growth labor force (%)	1988-90/1990-92	1.3	2.0
Expected annual growth of labor force (%)	1993-2000	-	2.1
Sectoral distribution of labor force (%)			
Agriculture	1965/1990-92	80	76
Industry	1965/1990-92	5	7
Services	1965/1990-92	15	17
Employed labor force (% of total)	1985/1992	97	97
Sectoral distribution of employment (%)			
Agriculture	1985/1992	89.2	87.00
Industry	1985/1992	2.5	3.6
Services	1985/1992	8.3	9.4
Average monthly salary (kip)			
Productive sector	1988/1992	4,800	30,000
Nonproductive sector	1988/1992	3,400	23,000
<b>Education, Health and Nutrition</b>			
Adult literacy rate (% of aged 15+) :			
Total	1970/1992	33	50
Female	1970/1992	28	35
Mean years of schooling (aged 25+) :			
Total	1980/1992	2.5	2.9
Male	1980/1992	3.1	3.6
Female	1980/1992	1.9	2.1
Tertiary graduates (as % of corresponding age group)	1987-90	-	0.5
Science graduates (% of total graduates)	1988-90	-	17



Table 6 : (Continue)

		Earlier Period	Latest Period
Life expectancy at birth (years)			
Total	1982/1992	43	51
Male	1982/1992	42	50
Female	1982/1992	45	51
Infant mortality rate (per 1,000 live births)	1970/1993	146	125
Access to health care (% of population)	1985-91	-	67
Access to adequate sanitation (% of population)	1988-91	-	24
Access to safe water (% of population)	1988-91	-	37
Tuberculosis cases (per 100,000 people)	1990	-	235
Malaria cases (per 100,000 people exposed) to malaria-infected environments)	1991	-	1,010
Population per physician	1970/1990	15,160	4,380
Daily calorie supply (% of requirements)	1981/1988-90	97	111
Public expenditure on education :			
as % of GDP	1960/1990	0.5	1.00
Public expenditure on health :			
as % of GDP	1986/1992	1.2	1.1
<b>Natural Resource, Environment and Energy Consumption</b>			
Population density (person per sq km)	1993	-	19
Arable land (% of land area)	1987-90	-	38
Irrigate land (% of arable land area)	1987-90	-	13
Forest area (% of land area)	1987-90	-	56
Annual rate of deforestation (%)	1981-85	-	100
Internal renewable water resources per capital (1,000 cu m per year)	1990	-	66.3
Annual fresh water withdrawals per capital (cu m)	1980-89	-	230
Share of global emissions (greenhouse index per 10 million people)	1989	-	15
Commercial energy consumption per capital (kg of oil equivalent)	1971/1992	55	41
Average annual growth of energy consumption (%)	1971-80/1980-92	-3.4	2.5
Commercial energy efficiency (kg of oil equivalent per \$ 100 GDP)	1991	-	18
<b>Infrastructure</b>			
Average annual growth of energy production (%)	1971-80/1980-92	40.00	-0.9
System losses (% of total output)	1990	-	17

Source : Lao PDR authorities, UNDP, Human Development Report, various issues, and World Bank ,  
World Development Report

Table 7 : Viet Nam Basic country Information

	1989	1990	1991	1992	1993
<b>Demographics</b>					
Population (million)	64.8	66.2	67.8	69.40	70.8
Age distribution (%) a/					
0-14 yrs	43.7	-	40.5	-	38.5
15-64 yrs	52.3	-	55.00	-	56.8
65 and over	4.00	-	4.5	-	4.70
Adult literacy rate (%)	-	88	-	89	-
<b>Economy</b>					
GPD (US\$ million) b/	7,300	7,194	7,520	9,000	11,811
Real GPD growth (%)	7.8	4.9	6.0	8.3	8.0
Agriculture (%age share)	41.7	40.3	38.9	38.2	36.4
Industry (%age share)	19.2	18.7	19.4	20.2	20.5
Services (%age share)	39.1	41.00	41.7	41.6	43.1
Merchandise imports (US\$ million) c/	1,670	1,772	2,105	2,535	3,505
of which : Fertilizers	46	130	22	320	158
Machine and spare parts	-	-	240	297	549
Unclassified d/	939	716	844	1,199	1,925
Merchandise exports (US\$ million)	1,320	1,731	2,042	2,475	2,850
of which : Petroleum	200	390	581	756	844
Rice	371	272	225	300	350
Agriculture and forestry products	211	152	440	434	620
<b>Debt</b>					
External debt outstanding (US\$ million) e/	2,541	2,704	2,739	3,775	4,024
By Source : (% of total)					
International organizations	11.4	11.0	10.3	8.3	6.0
Official creditors	57.2	56.0	56.8	62.3	66.1
Private creditors	31.4	33.0	32.8	29.5	28.0
Interest payments (US\$ million) f/	208	237	248	282	327
<b>Leverage</b>					
Current account balance (deficit (-) )					
in US\$ million	-584	-259	-188	-72	-1,063
as % of GDP	-8.0	-3.6	-2.5	-0.8	-6.6
Foreign direct investment approvals (US\$ million)	539	596	1,288	1,938	2,777
External debt/exports (%) g/	192.5	156.2	134.1	152.5	141.2
External Debt/GDP (%)	34.8	37.6	36.4	41.9	34.1
Debt-service ratio (% of exports)	-	42.2	29.3	34.1	37.5
Gross international reserves (months of imports) h/	-	0.7	0.7	9.5	6.00

"...." mean data not available

a/ Figures for 1975, 1985 and 1990 respectively

b/ Differs from other estimates such as those presented in a later table but provides a continuous series of GDP estimates

c/ Separate balance of payments entries on service exports and imports are not available

d/ Includes capital goods related to foreign investment

e/ Refers to medium and long term public and publicly guaranteed external debt in convertible currency : includes loans from the former CMEA area that are denominated in convertible currencies

f/ Scheduled interest payments as presented in the balance of payments

g/ As a per cent of merchandise exports

h/ Month of retained imports

Sources : Vietnamese authorities ADB Key Indicators for Developing Asian and Pacific Countries

**Table 8 : Viet Nam : Key economic Indicators**

<b>Economic Growth (%)</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992 a/</b>	<b>1993 b/</b>
Real GDP growth	7.8	4.9	6.0	8.3	8.0
Agriculture	6.9	1.5	2.2	6.0	3.1
Industry	-2.8	2.9	9.1	11.7	11.3
Service	17.6	10.4	8.3	8.8	10.6
Growth of per capita real GDP	5.3	2.6	3.7	6.0	5.7
<b>Structure of Output (% of real GDP)</b>					
Agriculture	41.7	40.3	38.9	38.2	36.4
Industry	19.2	18.7	19.4	20.2	20.5
Service	39.1	41.0	41.7	41.6	43.1
<b>Structure of expenditures (% GDP)</b>					
Consumption	92.4	88.3	86.9	85.2	90.6
Private	76.4	74.0	76.2	72.3	73.4
Public	16.0	14.3	10.7	12.9	17.2
Gross capital formation	11.6	11.5	11.7	12.0	14.3
Private	4.9	5.9	8.6	5.7	6.6
Public	6.7	5.6	3.1	6.3	7.7
<b>Measures of Macroeconomic Stability</b>					
Inflation rate (% change in CPI) c/	95.8	36.4	83.1	37.8	8.3
Government deficit (% of GDP, deficit-)	-11.9	-8.8	-4.1	-4.1	-6.8
Money supply growth (%)	188.8	53.1	78.7	33.7	19.0
External current account deficit (% of GDP, deficit-)	-8.0	-3.6	-2.5	-0.8	-6.6
<b>External Accounts</b>					
Merchandise exports (\$ million)	1,320	1,731	2,042	2,475	2,850
Growth rate (%)	80.1	31.1	18.0	21.2	15.2
Merchandise imports (\$ million)	1,670	1,772	2,105	2,535	3,505
Growth rate (%)	18.3	6.1	18.8	20.4	38.3
Trade balance (\$ million)	-350	-41	-63	-60	-655
Debt-service ratio (% of exports)	-	42.2	29.3	34.1	37.5
Official exchange rate (kips per \$) f/	-	5,132.5	9,273.9	11,149.8	10,639.8
Market exchange rate (kips per \$) f/	-	5,587.8	9,828.3	11,258.8	10,693.3

a/ Preliminary estimates

b/ Provisional estimates

c/ Annual percentage change in the retail price index

d/ Includes grants as a revenue item

e/ Convertible currency debt

f/ Annual average

Source : Vietnamese authorities

**Table 9 : Viet Nam : Key Social Indicators**

Population (1993)	70.8 million
Land area :	331,041 sq km
GDP (1993)	\$ 14.2 billion
Real GDP per capital, PPP\$ (1991) :	\$1,263
GDP per capita (1993)	\$220
Real GDP growth rate (1993)	8.00%

		Earlier	Latest
		Period	Period
<b>Population and Labor Force</b>			
Total population (million)	1960/1993	34.7	70.8
Annual growth rate of population (%)	975-80/1983-88	2.3	2.1
Estimated population by year 2000 (million)		-	81.5
Estimated annual population growth rate (	1993-2000	-	2.00
Urban population (% of total)	1960/1992	15	20
Total labor force (% of population)	1960/1993	51.00	51.7
Female labor force (% of labor force)	988-90/1990-92	46.9	47.00
Sectoral distribution of labor force (%)			
Agriculture	1965/1990-92	79	67
Industry	1965/1990-92	6	12
Services	1965/1990-92	15	21
Employed persons (% of labor force)	1990/1993	88	89
Sectoral distribution of employment (%) :			
Agriculture	1990/1993	72.4	72.8
Industry	1990/1993	14.00	13.2
Services	1990/1993	13.6	14.00
<b>Education, Health and Nutrition</b>			
Adult literacy rate (% of aged 15+)			
Total	1990/1992	88	89
Male	1990/1992	92	93
Female	1990/1992	84	84
Mean years of schooling (aged 25+)			
Total	1990/1992	4.6	4.9
Male	1990/1992	5.8	6.2
Female	1990/1992	3.4	3.6
Primary school completion rate (%)	1988/1990	57	58
Life expectancy at birth (years)	1960/1992	44	63
Infant mortality rate (per 1,000 live births)	1960/1992	147	37
Access to health care (% of population)	1985-91	-	90
Access to adequate sanitation (% of popula	1985-91	-	18
Access to safe water (% of population)	1985-91	-	27
Tuberculosis cases (per 100,000 people)	1990	-	166

Table 9 : (Continue)

		Earlier Period	Latest Period
Malaria cases (per 100,000 people exposed) to malaria-infected environments)	1991	-	390
Population per physician	1984/1990	1,000	2,860
Daily calorie supply (% of requirements)	1991-92		
Public expenditure on education :			
as % of budget	1993	-	8.1
as % of GDP	1993	-	2.5
Public expenditure on health :			
as % of budget	1993	-	5.3
as % of GDP	1993	-	1.6
<b>Natural Resource, Environment and Energy Consumption</b>			
Population density (person per sq km)	1993	1.2	214
Arable land (% of land area)	1987-90	-	17.5
Irrigated land (% of arable land area)	1987-90	-	28
Forest area (% of land area)	1987-90	-	30
Annual rate of deforestation (%)	1981-85	-	0.6
Internal renewable water resources	1990	-	5.6
per capita (1,000 cu m per year)	1981-85	-	1.00
Annual fresh water withdrawals	1980-89	-	80
per capita (cu m)			
Share of global emissions (greenhouse index per 10 million people)	1989	-	0.1
Commercial energy consumption	1965/1991	97	-
per capita (kg of oil equivalent)			
<b>Infrastructure</b>			
Road density (km per million person)	1992	-	1,491
Paved roads (% of total)	1992	-	12
Installed power capacity (MW)	1991	-	3,409
Power system losses (% of output)	1991	-	24

Source : Vietnamese authorities, UNDP, Human Development Report, various issues, and World Bank ,  
World Development Report , various issues











