

A

GLOBAL COUNTRY STUDY REPORT

ON

**“PESTEL ANALYSIS AND STUDY OF VARIOUS SECTORS OF
THAILAND”**

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PREFACE

The Global Country Study Report reveals in-depth analysis of various sectors of Thailand. The study is based on secondary data from authentic sources and the findings of the present study show the possibilities of opportunities to improve bilateral trade between Thailand and India. The present study covers the research work done by total nine different groups of the students of MBA Semester IV of Naran Lala School of Industrial Management & Computer Science, Navsari under the guidance of I/C Director Mr. Ronak A. Mehta in general and faculty members in particular for studying various aspects of different sectors as compare to India. This report is prepared as per the curriculum and guidelines of Gujarat Technological University (GTU), Ahmadabad to get the exposure of International market and business to the B-School students. The part-I Global Country Study Report on 'PESTLE ANALYSIS' is already submitted to GTU in SEM-III.

We are deeply indebted to all authors, researchers and scholars and their publications, government, non-governmental organizations' and other publications from which the data and information have been taken and therefore we as a group are not claiming any originality so far. We here by acknowledge the valuable support and guidance from our very respectful Director and our respective guides for their valuable inputs and guidance for making this report more specific.

Sincere efforts are made to ensure the accuracy and authenticity of the secondary data taken for preparing this global country report.

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LIST OF ABBREVIATION

ABBREVIATION	
CUAS	Central University Admission System
GPA	Grade Point Average
VEC	Vocational Education Commission
TVE	Technical and vocational education
DVT	Dual Vocational Training
WEF	World Economic Forum
SET	The Stock Exchange of Thailand
MAI	The Market for Alternative Investment
BEX	The Bond Electronic Exchange
TFEX	The Thai Futures Exchange
BOT	Bank of Thailand
MPC	Monetary Policy Committee
OMO	Open Market Operation
SF	Standing Facilities
CMC	Crisis management committee
IFRS	International Financial Reporting Standards
SDRs	Special drawing rights
GDP	Gross Domestic Product
ASEAN	Association of Southeast East Asian Nations
SIPA	Software Industry Promotion Agency
TIDI	Thailand IC Design Incubator

NIE	Newly industrialized economies
GSP	Generalized System of Preferences
IPR	Intellectual property rights
DIP	Department of Intellectual Property
NESDP	National Economic and Social Development Plans
GPS	Global Positioning Systems
RFID	Radio Frequency Identification
GNP	Gross National product
HDD	Hard Disk Drive
FDD	File Disk Drive
IC	Integrated Circuits
FDI	Foreign Direct Investment
BOI	Board of Investment
TNC	Transnational Corporations
NSTDA	National Science and Technology Development Agency
SPT	Software park Thailand
BUILD	Board of Investment Unit for Industrial Linkage Development
WAIPA	World Association of Investment Promotion Agencies
PCB	Printed Circuit Boards
AFTA	ASEAN Free Trade Area
RTA	Regional Trade Agreements
WTO	World Trade Organization

PART –I

SEM III

DEMOGRAPHIC PROFILE OF THAILAND



Thailand officially the Kingdom of Thailand is a country located at the centre of the Indochina peninsula in Southeast Asia. It is bordered to the north by Burma and Laos, to the east by Laos and Cambodia, to the south by the Gulf of Thailand and Malaysia, and to the west by the Andaman Sea and the southern extremity of Burma. Its maritime boundaries include Vietnam in the Gulf of Thailand to the southeast, and Indonesia and India in the Andaman Sea to the southwest.

Thailand is the world's 51st-largest country in terms of total area, with an area of approximately 513,000 km² (198,000 sq mi), and is the 20th-most-populous country, with around 64 million people. The capital and largest city is Bangkok, which is Thailand's political, commercial, industrial and cultural hub. About 75% of the population is ethnically Thai, 14% is of Chinese origin, and 3% is ethnically Malay; the rest belong to minority groups including Mons, Khmers and various hill tribes. The country's official language is Thai. The primary religion is Buddhism, which is practiced by around 95% of the population.

ADMINISTRATIVE DIVISIONS

Thailand is divided into 76 provinces , which are gathered into 5 groups of provinces by location. There are also 2 special governed districts: the capital Bangkok (Krung Thep Maha Nakhon) and Pattaya, of which Bangkok is at provincial level and thus often counted as a prior.

Kingdom of Thailand

ราชอาณาจักรไทย

Ratcha Anachak Thai

ประเทศไทย

Prathet Thai



Flag



Emblem

Thai National Anthem: Phleng Chat Thai

Royal anthem: Sansoen Phra Barami

FACTFILE OF THAILAND

Official name of Thailand: Kingdom of Thailand

» **Government of Thailand:** Constitutional Monarchy

» **Thailand Nationality:** Thai

» **Capital city of Thailand:** Bangkok

» **Ethnic groups of Thailand:** 75% Thai, 11% Chinese, 3.5% Malay; also Mon, Khmer, Phuan and Karen minorities

» **Location of Thailand:** Southeastern Asia, bordering the Andaman Sea and the Gulf of Thailand, southeast of Burma

» **Continent:** Asia

» **Currency of Thailand:** Baht (THB); 1 THB = 1.0541 Indian Rupee = 0.02420 US \$ = 0.02011 Euro (subject to change).

» **Population of Thailand:** 62 million

» **Languages:** Thai, English

» **Religion:** 95% Buddhism, 4% Muslim

» **Area:** 517,000 sq km

» **Thailand is Famous for:** Beaches, Thai Cuisine is famous all over the world, rubber plantations

» **Major cities of Thailand:** Bangkok, Pattaya, Phuket

» **Clothing:** Light cotton clothing, use a good sun screen.

» **Major events of Thailand :** New Year/Songkran (mid-April); Rocket Festival (May);The Vegetarian Festival in Phuket and Trang (from late September to early

October), The Elephant Roundup in Surin (November), Loi Krathong Festival (usually in November)

» **Things to Buy in Thailand** : Thai silk and cottons, modern and traditional jewellery featuring precious gemstones, semi-precious gemstones, silverware, nielloware, pewterware, ceramics, celadon, woodcarvings, paintings, and clothing.

» **Things to do in Thailand:** Eating is one thing which you should not miss here, Shopping, sightseeing, enjoying the beaches are other things to do here.

» **Cuisine of Thailand:** The Thai cuisine is pungent and spicy, containing heaps of garlic and chillies and a characteristic mix of lime juice, lemon grass and fresh coriander.

CULTURE OF THAILAND

The Culture of Thailand is heavily influenced by Buddhism. Other influences have included Brahmanism, conflict and trade with Southeast Asian neighbors such as Laos and Myanmar, and repeated influxes of Chinese immigrants.

Lying between the two great hubs of Asian civilization, China and India, it is not surprising to see the significant traces of Hindu and Chinese cultures in Thai culture, too.

Language

Thai language is one of the best symbols of Thai culture. Thai language basically consists of monosyllable words whose meanings are complete by themselves.

Thai language is influenced by the foreign languages as there are many words used today were derived from Pali, Sanskrit, Khmer, Malay, Chinese and English.

Arts

Once you are in Thailand, what cannot be unmentioned are Thai arts represented as temples, architecture, painting, crafts, dance and music.

Music

Thai classical music is influenced by Indian culture through the Mons and Khmers. Later, Thai people created their own instruments, becoming the distinctive Thai music.

Thai classical music used the diatonic music scale, and the instruments are divided into four groups: those of plucking, drawing, percussion and woodwind. Music is played as an accompaniment in drama and dance and in religious ceremonies.

Architecture

Thai classical architecture is represented as the royal palace buildings, pagodas, stupas, and temples. Thai architecture is influenced by Indian, Mon Khmer, and China. The typical feature of Thai architecture is overlapping rooftops and soaring pointed towers.

Religion

The most common religion is Theravada Buddhism. Thai Buddhism ranks amongst the highest in the world. According to the last census (2000) 94.6% of the total population are Buddhists of the Theravada tradition. Muslims are the second largest religious group in Thailand at 4.6%. Thailand's southernmost provinces – Pattani, Yala, Narathiwat and part of Songkhla Chumphon have dominant Muslim populations, consisting of both ethnic Thai and Malay.

Sports

Muay Thai (Thai: มวยไทย, RTGS: Muai Thai lit. "Thai boxing") is a native form of kickboxing and Thailand's national sport. It incorporates kicks, punches, knees and elbow strikes in a ring with gloves similar to those used in Western boxing and this has led to Thailand gaining medals at the Olympic Games in boxing.

Science and Technology

The National Science and Technology Development Agency is an agency of the government of Thailand which supports research in science and technology and their application in the Thai economy.

Geography

Thailand has a land area of 513,115 sq.km.(approx. 127,008 acres) bordered by Malaysia (South), Myanmar (West & North), Laos (North & East) and Cambodia (Southeast). The country's east coast borders the Gulf of Thailand and the west coast abuts the Andaman Sea. The country is divided geographically into four main zones- the fertile central plains, dominated by the Chao Phraya River; the 300-metre-high northeast plateau, the kingdom's most barren region; the mountainous North; and the tropical southern peninsula.

Climate

The temperature varies from 38°C to 19°C with the annual average at about 29°C. The humidity is from 66% to 82.8%.

Seasons

There are three seasons in Northern, Northeastern and Central Thailand - hot (March to May), rainy (June to October), and cool (November to February). And there are two seasons in the South - rainy (April to November) and hot (December to March). In the North and Northeast in winter, the temperatures are much lower during night time, especially on the mountains, with temperatures lower than 10°C.

Population

Total 63,878,267 (end Dec 2010), about 31 million males and 32 females. The total population includes only permanent residents.

People

75% Thais, 11% Chinese, 3.5% Malays, and others are Mons, Khmers, Burmese, Laotians, Indians and a variety of hill tribes.

Language

Thai is the national language. English is widely understood in Bangkok and big cities.

Religion

Buddhists 94.2%, Muslims 4.6%, Christians 0.8%, others 0.4%.

Government

Thailand is a constitutional monarchy headed by King Bhumibol Adulyadej or King Rama IX. The country comprises 77 provinces, each sub-divided into amphoe (district), tambon (subdistrict) and muban (village).

Capital

Bangkok

National flag

The red, white and blue bands symbolize the nation, religion, and the monarchy respectively.

Largest provinces

Nakhon Ratchasima 20,493 sq. km., Chiang Mai 20,107 sq. km., Kanchanaburi 19,483 sq. km.

Largest islands

Phuket 543 sq. km., Chang 429 sq. km., Samui 247 sq. km.

Highest peaks

Doi Inthanon 2,565 m., Doi Pha Hom Pok 2,285 m., Doi Chiang Dao 2,195 m.

Principal rivers

Chi 765 km., Mun 750 km., Nan 740 km., Chao Phraya 370 km. or 1,110 km. if the Nan, its main tributary, is included.

Electricity

220 volts 50 cycles throughout the country.

Water

Drink only bottled or boiled water.

Clothing

Light, cool clothes are highly recommended. Thin cotton is the best. A jacket or sweater may be necessary in the cool season, especially when you are in mountainous areas in the North or Northeast.

Local time

GMT + 7 hours.

Business hours

Government offices open from 08.30 to 16.30 hours, Monday to Friday.

Banking hours: Monday to Friday, 08.30 to 15.30 hours

Most business offices open from 08.30 to 17.30 hours, Monday to Friday.

Some work on Saturday.

Telephone services

1. Local calls : All telephone numbers for local calls, long distance calls within the country and all mobile phones have nine digits, starting with 0.

- For Bangkok calls, it is 0 + 2 + numbers, e.g. 0 2250 5500.
- For provincial calls, it is 0 + area code + numbers, e.g. 0 5323 6400 for Chiang Mai (053 is the area code for Chiang Mai); 0 7623 6400 for Phuket (076 is the area code for Phuket).

2. International calls

- The international dialling code for Thailand is 66.
- To direct dial a foreign number from a private phone, dial 001 + country code + area code + telephone number.

Note: For useful numbers in Thailand, see Useful Calls.

Major agricultural exports: Rubber, sugar, rice.

Major manufactured exports

Computer and computer accessories, cars and spare parts, gems and jewellery, petroleum products, plastic resin, chemicals and integrated circuit.

POLITICAL ENVIRONMENT OF THAILAND

Thailand, officially the Kingdom of Thailand, formerly known as Siam, is a country located at the centre of the Indochina peninsula in Southeast Asia. It is bordered to the north by Burma and Laos, to the east by Laos and Cambodia, to the south by the Gulf of Thailand and Malaysia, and to the west by the Andaman Sea and the southern extremity of Burma. Its maritime boundaries include Vietnam in the Gulf of Thailand to the southeast, and Indonesia and India in the Andaman Sea to the southwest.

The country is a constitutional monarchy, headed by King Rama IX, the ninth king of the House of Chakri, who, having reigned since 1946, is the world's longest-serving head of state and the longest-reigning monarch in Thai history. The king of Thailand is titled Head of State, Head of the Armed Forces, the Upholder of the Buddhist religion, and the Defender of all Faiths.

TABLE 1 : INTRODUCTION TO POLITICAL ENVIRONMENT OF THAILAND

Country Name: Thailand
Conventional long form : Kingdom of Thailand Capital : Bangkok
Government Type : Constitutional Monarchy Coalitiation
Constitution : Seven Charter And Constitutions
Legal System : Based on civil law system with influences of common law; has not accepted compulsory ICJ jurisdiction.
Suffrage : 18 years of age; universal and compulsory
Executive Branch : Chief of state: King PHUMIPHON Adunyadet, also spelled BHUMIBOL Adulyadej (since 9 June 1946) Head of Government: Prime Minister:- Yingluck Shinawatra Cabinet: Council of Minister Elections: The monarchy is hereditary; according to 2007 constitution, the prime minister elected from among members of House of Representatives;

For most of its history, Thailand had been ruled by absolute monarchs but that changed in 1932 when a revolution changed the ruling power to a constitutional monarchy. Even with this change, the majority of the power was with the military until recently.

The **politics of Thailand** are currently conducted within the framework of a constitutional monarchy, whereby the Prime Minister is the head of government and a hereditary monarch is head of state. The judiciary is independent of the executive and the legislative branches.

Thai kingdoms and late Kingdom of Siam were under absolute rule of the kings. However, after the 'democratic revolution' in 1932, led by westernized bureaucrats and traditional-oriented military, the country officially became under a constitutional monarchy with a prime minister as the head of government. The first written constitution was issued. Yet the politics became the arena of fighting factions among old and new elites, bureaucrats, and generals. Coups happened from time to time, often bringing the country under the rule of yet another junta. To date Thailand has had seventeen charters and constitutions, reflecting a high degree of political instability.

After successful coups, military regimes have abrogated existing constitutions and promulgated interim charters. Negotiation among politicians, men of influence and generals has become the prime factor for restoration of temporary political stability. It is arguable, however, that stability was never the objective, that instead elites used the government as an interim tool to 'officialise' its declarations and continued status.

Thailand has multi party system. There are five types of parties which are as follows:

1. In Coalition Government

In this coalition government there are six sub parties like Pheu thai party, Charthaipattana party (19 seats), Chart Pattana Puea Pandin party(7 seats) , Phalang chon party (7 seats), Mahachon party (1 seat) and New Democracy party (1seat).

2. In Opposition

In Opposition there are five sub parties like Democrat Party (occupies 159 out of 500 seats), Bhumjathai party (34 seats), Rak Thailand party (4 seats), Matubhum party (2 seats),Rak santi party (1seat)

3. Extra parliamentary

In extra parliamentary there are 6 sub parties like Social action party, Pracharaj party , new politics party , Thai pen thai party, New aspiration party, New force party.

4. Defunct Parties

There are 6 sub parties like Khana ratsadon , Socialist party of Thailand, palang dharma party , National development party (2007) , Thais united(2007), Mother land party (2011).

5. Banned Or Dissolved Parties

Banned or dissolved parties are the parties which are dissolved by the constitutional court and barred from political activity like communist party of Thailand, thai rak thai party (dissolved on May, 30 2007).

There are four major concepts or ingredients in Thailand politics which are as follows:

- 1. The status of the monarch as head of the armed forces and upholder of Buddhism and all other religions:** - His sovereign power emanates from the people, and as head of state, he exercises his legislative power through parliament, executive power through the cabinet headed by a prime minister and judicial through courts.
- 2. The Legislative Branch:-** The new leaders of 1932 realized that the goal of popularly elected government could not be attained immediately, and that considerable experimentation and adaptation would be necessary before a balance could be struck.
- 3. The Executive Branch:-** Every constitution holds that the Prime Minister is head of government and chief executive.
- 4. Western democratic system:** - For the past six decades, Thailand has been adopting the Western democratic system to the needs of a nation with its own identity and time-honoured culture.

The **Judiciary of Thailand** is composed of three distinct systems:

- ✓ The Court of Justice system
- ✓ The Administrative Court system
- ✓ The Constitutional Court of Thailand.

Thailand is divided into 76 provinces, which are geographically grouped into 6 regions. The capital Bangkok is not a province but a special administrative area and is

included as the 77th province since it is administered at the same level as the other 76 provinces. The name of the provinces are the same as that of their respective capital cities.

TABLE 2: NATIONAL ASSEMBLY OF THAILAND (Ratthasapha)

Type :	Bicameral
Houses :	Senate Houses of Representative
Leadership	
President :	<u>Somsak Kiatsuranont (Pheu Thai Party)</u> since 3 August 2011
Vice-President :	<u>Nikom Wairatpanij</u> since 23 August 2012
Structure	
Seats :	650 150 senators and 500 Representative (MPs)
Senate political group :	76 elected and 74 appointed
House Political Group :	<u>Pheu Thai Party, Democrat Party,</u> <u>Bhumjaithai Party, Chartthaipattana Party,</u> <u>Chart Pattana Puea Pandin Party,</u> <u>Phalang Chon Party, Rak Thailand Party,</u> <u>Matubhum Party</u>
Elections	
Senate last election :	2 March ,2008
House Last Election :	3 July, 2011
<u>Title</u>	<u>Name And Appointment</u>
President of the National assembly and speakers of the house of representatives.	Somasak Kiatsuranon (1August 2011)
Vice president of the national assembly	Nikom wairatpanij (23 August 2012)

Foreign relations of Thailand with other countries are as follow:

The **foreign relations of Thailand** are handled by the Minister of Foreign Affairs of Thailand and the Ministry of Foreign Affairs of Thailand. Thailand's foreign policy included support for ASEAN in the interest of regional stability and more emphasizes on a close and longstanding security relationship with the United States. Thailand participates fully in international and regional organizations.

It has developed increasingly close ties with other ASEAN members like, Indonesia, Philippines, Singapore, Brunei, Laos, Cambodia, Burma, and Vietnam.

The foreign and economic ministers of this ASEAN Member hold annual meetings with Thailand. Regional Cooperation is in economic, trade, banking, political and cultural matters. In 2003 Thailand served as APEC host. Supachai Panitchpakdi the former Deputy Prime Minister of Thailand Currently serves as Director General of the World Trade Organization (WTO). In 2005 Thailand attended the Inaugural East Asia Summit.

TABLE 3: CONSTITUTION OF THAILAND

1932	The People's Party, facing an internal power struggle and opposition from the King, promulgated a permanent constitution in 10 December 1932 that gave the monarchy a significant increase in authority compared to the temporary charter. The day is currently celebrated as Constitution Day.
1946	The Constitution was promulgated in 9 May 1946. A new constitution, Thailand's most democratic to date, was drafted in his honor. Pridi Banomyong called it the constitution that gave the Thai people the most complete democratic rights.
1949	The Constitution of 1949 was promulgated on 23 January 1949, a permanent instrument to replace the temporary 1948 Charter. The drafting committee was headed by Seni Pramoj and dominated by royalists under the direction of Prince Rangsit & Prince Dhani.
1952	The King promulgated the Constitution unchanged in 8 March 1952.
1968	The United States provided the Thai government with a billion US dollars in aid, but corruption was rampant. During a trip by King Bhumibol to the US, the American anti-war movement pressured the US government to reduce its support for the regime.
1974	The new draft was approved by the convention and promulgated in 7 October 1974. The majority of the constitution conformed to the convention's alternative draft.
1978	Kriangsak drafted a more democratic constitution in 1978. The constitution established a bicameral National Assembly, consisting of an elected 301-member House of Representatives and an appointed 225-member Senate.
1991	In 23 February 1991, Army Commander Suchinda Kraprayoon led the military in seizing power from the Chatichai government, abrogating the 1978 Constitution, and replacing it with a temporary charter.
1997	The 1997 Constitution was widely hailed as a landmark in democratic political reform. Promulgated in 11 October 1997, it was the first constitution to be drafted by an elected assembly, and hence was popularly called the "People's Constitution".
2006	On the evening of 19 -9- 2006, less than a month before scheduled nation-wide House elections, the Thai military led a coup against the government of Thaksin Shinawatra
2007	The 2007 draft charter." The draft was approved by 59.3% of the voters on 19 August 2007, with 55.6% of qualified voters voting.

In recent years, Thailand has taken an increasingly active role on the international stage. When East Timor gained independence from Indonesia, Thailand, for the first time in its history, contributed troops to the international peacekeeping effort.

➤ **Relation between India and Thailand**

Diplomatic relations between India and Thailand were established in 1947, soon after India gained independence. Thailand holds three embassies in India: Mumbai, New Delhi, and Calcutta. India also holds three embassies in Thailand: Bangkok, Chiang Mai, and A Muang. The past few years since 2001 have witnessed growing relations and increasing economic and commercial links and exchange high level visits on both sides and signing large number of agreements leading to further intensification of relation.

Recent political development of politics of Thailand is as follow:

➤ **On 25th November, 1996**

The outcome of the nation-wide elections saw the New Aspiration Party, headed by General Chavalit Yongchaiyudh; emerge as the largest political party, winning a total of 125 seats.

➤ **On 29th November, 1997**

Prime Minister Chavalit has formed a six-party coalition government composed of the New Aspiration Party (125 seats), the Chart Pattana Party (52 seats), the Social Action Party (20 seats), the Prachakorn Thai Party (18 seats), the Seritham Party (4 seats) and the Muanchon Party (2 seats). Together, the coalition commands a strong majority in Parliament, occupying a total of 221 seats.

➤ **On 5th October, 1998**

On October 5th, 1998, Chat Pattana Party with 52 seats joined the government coalition and with Members of Parliament retiring, dying or joining other parties the Chuan Leekpai Administration presently holds 254 MP votes in the Thai Parliament.

➤ **On 4th April, 2011**

Mr. Abhisit Vejjajiva, the Prime Minister of Thailand, paid a State visit to India during 4–5 April 2011 at the invitation of Dr. Manmohan Singh, the Prime Minister of India. Both leaders agreed to increase the cultural interaction, connectivity and enhancement of trade and economic through the bilateral and regional frameworks

viz. ASEAN-India, BIMSTEC and MGC. It was also decided to increase the trade between two countries from its 2010 figure of \$6.7 billion to its double in 2014.

➤ **On January, 2012**

PM Yingluck Shinawatra paid a State visit in Jan 2012 as a chief guest of Indian republic day. This is a significant sign of good relationship between two countries. As the result of visit, there were 6 bilateral agreements signed, including treaty of transfer of sentenced person.

TABLE 4: HISTORY OF POLITICAL LEADER OF THAILAND

Name	History
Thaksin Shinawatra (19 th Sep 2006 – 30 th Sep 2006)	The Thaksin Shinawatra government is ousted from power by a (bloodless) military coup, led by General Sonthi Boonyaratglin. At the time of the coup, Thaksin was outside the country.
Surayud Chulanont (1 Oct 2006 – 30 May 2007)	General Surayud Chulanont becomes prime minister. Surayud Chulanont was a former Army Commander and Supreme Commander (not at the time of the military coup). General Surayud resigns his position as a member of the Privy Council
Samak Sundaravej (29 th Jan 2008 – 17 th Sep 2008)	29 January : Samak Sundaravej becomes Prime Minister in the new government (Thailand 25th). 9 September : The Constitution Court rules against then Prime Minister Samak Sundaravej. The reason : Samak had been paid for being a host on a TV cooking show, which was considered a conflict of interest by the Court.
Somchai Wongsawat (18 th Sep 2008 – 16 th Dec 2008)	18 September : Somchai Wongsawat becomes Prime Minister. Somchai Wongsawat is also a member of the People Power Party, and a brother-in-law of Thaksin Shinawatra.
Abhisit Vejjajiva (17 th Dec 2008 – 4 th August 2011)	Democrat Party leader Abhisit Vejjajiva becomes the new Prime Minister on 17 th dec. What happened in May 2010, set the tone for the remainder of that year and the first half of 2011. The Abhisit government remained in power, and eventually new elections were held in July 2011.
Yingluck Shinawatra (5 August 2011 till now)	The first female prime minister of Thailand. Politically, the most significant event were the July elections, where the Pheu Thai party (supporting deposed former prime minister Thaksin Shinawatra, and having Red Shirt leader), won the majority of the seats. The party formed a coalition government with various smaller political parties.

The political atmosphere has been unstable since the 2006 military coup, which accentuated deep-seated socio-political tensions within Thai society. The peaceful elections and subsequent transition of power to PM Yingluck and parties allied to former PM Thaksin in 2011 appear to have boosted short-term stability, although considerable downside risks remain. In addition to keeping the peace and ensuing stability, the new government has also had to grapple with the worst floods to hit Thailand in over fifty years in 2011.

ECONOMICAL ENVIRONMENT OF THAILAND

In the decade until 1995 the Thai economy was among the world's fastest growing with a rate of 8% to 9% a year. The government has also been successful in reducing poverty and improving social services. Despite the hard times during the "Asian Crisis" of 1997-98, Thailand has made important progress in social and economic development, although in 2008 and 2009 economic growth has fallen sharply, mainly due to the global downturn and persistent political instability, which created a fear in the investor confidence.

The country's economy is mainly driven by the manufacturing sector. Thailand is an economy very export-dependent with exports accounting for two thirds of gross domestic product.

The capital Bangkok has become the centre of economic activity and the most prosperous part of the country, accounting for about 60% of national GDP. Thanks to its good infrastructure, the city is competing with Singapore to become a regional hub for air travel within Southeast Asia.

To cushion the impact of the global crisis, the Thai government has adopted a **fiscal stimulus** to stimulate domestic purchasing power through cash handouts. The second phase of the stimulus, worth almost \$57 billion, includes a range of large infrastructure projects over 2010-12.

The industry has undergone substantial changes in terms of the ownership of banks and of regulations. In many banks, family ownership has been replaced by state and foreign ownership. The banking sector saw several entrants during the reforms, a phenomenon that had been absent for more than 20 years before the crisis. Despite these developments, a casual observation of loan market share suggests that the oligopolistic nature of the industry remains unchanged¹. Before as well as after the crisis, the six largest banks accounted for 70 percent of total loans of the consolidated banking sector. The rather stable market share of the large banks, despite the reforms, forms the background of the present analysis on the behavior of leading Thai banks.

Founded on 10th December 1942, the Bank of Thailand (BoT) became Thailand's central bank and was thus entrusted with a broad range of traditional functions: to

issue currency; to safeguard the value of money; to promote monetary stability and a sound financial structure; to promote economic growth; to act as the bankers' bank and provide lender of last resort facilities; and to act as banker and financial adviser to the Government.¹ During most of its history, the BoT played an important role in promoting the development of financial institutions and markets in Thailand. However, following the Asian financial crisis which broke out in 1997, the BoT became vulnerable as Thailand started to experience a severe economic crisis. The crisis derailed all ongoing financial reforms and directly crippled the banking sector, the stock exchange and the foreign exchange market (McKinnon and Pill, 1998). Regarding the banking sector, the major problems associated with the crisis included: failure of financial institutions; insufficient bank liquidity and inadequate capital; high non-performing loans; and loss of momentum in rebuilding confidence among international investors, depositors and economic development organizations, potentially limiting future capital flows into Thailand. In this context, it is interesting to examine how a traditional central bank, like the BoT, is able to cope with a financial crisis of a magnitude far beyond its stipulated role

Agriculture was affected by droughts followed by floods in 2010. As a result production of corn, fruit, palm oil, sugarcane, rice and cassava has decreased.

The agricultural sector has played an important role in developing the Thai economy and the Thai Government has opened up the sector to international competition. As a major agricultural exporting country, Thailand among other Asian countries is relatively ready to open its markets in order to obtain benefits from the liberalization of the agricultural sector. Thailand has been the most active Asian country in promoting its international trade since the Asian financial crisis erupted in mid-1997. Intensive talks have been held with many developed and developing countries, such as Australia, China, India, Japan and the United States. When signing bilateral free trade agreements (FTAs), the Thai Government should not undermine the bargaining power of countries belonging to the Association of Southeast Asian Nations (ASEAN) as a single entity. In order to improve the terms for free trade, the following considerations should be taken into account:

- (a) regional deals are more efficient and have more advantages than bilateral ones;

- (b) steps should be taken on a gradual basis to empower the agricultural production sector and farmers; and
- (c) FTAs should have comprehensive coverage and depth, and include non-tariff barriers, Thailand is an agricultural country.

Approximately 21 million ha or 40.9% of the total area is used for agricultural production, 31.3 and 27.8% are under forest and unclassified land investment, human resources development, intellectual property rights protection and the environment.

As an open developing country, Thailand should be aware of the importance of its agricultural sector and yet its farmers have received relatively few benefits from trade liberalization so far and are often poor. In order to maximize the potential benefits of existing FTAs and minimize the possible negative impacts, the Thai Government needs to satisfactorily make the necessary adjustments to its economy and develop the competitiveness of its enterprises in emerging free markets. Restructuring and adjustment processes in the Thai agricultural sector, especially for the empowerment of Thai farmers, are critical in order to keep pace with the rapid changes brought about by globalization and increased trade and to gain more benefits from FTAs for society at large. In addition, Thailand has to be aware of the distribution of benefits to each domestic sector involved. A balanced distribution would create a better-off society and improved acceptance of FTAs by the public. Developing productivity and increasing competitive ability will empower farmers and improve their business potential.

The central Government has to pay due attention to these circumstances prior to the liberalization process and adopt policies which would make farmers more competitive and preserve the sustainability of agricultural development as a whole. The benefits of free trade should be measured first in the national context or in terms of national benefits. For those already suffering losses as a result of free trade, the Government should assist them to improve their productivity and competitiveness.

The Thai labor force has grown from 27.1 million in 1985 to 34.0 million in 2000 representing an average growth rate of 1.53 percent per year, in line with the growth

of population. The youth labor force, on the other hand, increased from 8.6 million in 1985 or about three quarters of the total youth population, reaching its peak of 9.6 million in 1989, and persistently declined thereafter to a mere 6.1 million or a little over half of the youth population in 2000.

After reaching its peak in 1986, the total labor force participation rate—defined as a ratio of economically active population over population aged 15 and above—has been declining since.

The youth labor force participation rate has declined steadily, from 30.0 percent in 1989 to 13.5 percent in 2000. The participation rate for teenage workers which was a little higher than that of young adults in 1989 (about 13 percent) has declined much faster and stood at only 4.6 percent in 2000—about half of the young adult rate. The participation rates of male and female youth were more or less equal, registering 14 and 13 percent respectively in 1985 and slowly declined to 7 and 6 percent in 2000.

The percentage of workers with only a primary education declined from 87.3 percent in 1985 to a low of 68.4 percent in 2000.

There was little improvement in the proportion of workers with vocational education, which increased from 1.9 percent in 1985 to about 3 percent in 1999-2000. Most of these workers were employed in urban areas.

The majority of workers was employed in the primary sector, although the figure has been rapidly falling, resulting from increasing mechanization and decline in relative importance of the sector in overall economic activities. In 1989, 66.6 percent of total workers or 15 million in number was in agriculture.

The service sector (commerce, transport and other services) enjoyed an expansion in employment, increasing from 22 percent of total employment in 1989 to 32.9 percent in 2000.

In the past few decades, gaining employment in the private sector has become important in the Thai labor force, largely at the expense of helping out family businesses. The proportion of private sector employees to the total employment

steadily increased from 19 percent in 1985 to 31 percent in 2000, although slacking off somewhat in 1998 and 1999.

There were 5.7 million youth workers in the year 2000, comprising 1.8 million teenagers and 3.9 million young adults. The figures reflect a decline in youth employment since 1985 when over 7.9 million youths secured jobs.

The process of improving the quality of labor force is slow, a larger proportion of workers concentrates around low-skill level. A study by Thailand Development Research Institute (TDRI: 1998) indicates a surplus of unskilled workers with education no more than secondary level, while there appears to be a shortage of personnel at the upper end. The trend persists through 2006, the end period of the projection.

Aggregate demand directly determines employment and hence unemployment in general. The so-called "jobless growth" is unlikely to take place in a country like Thailand because labor-intensive technologies are still widely used and labor is quite abundant with wages remaining relatively low. Thus, a fall in aggregate demand, e.g., the recession currently experienced by the Thai economy, would lead to a fall in demand for labor, young and old alike.

Theoretically, there exist links between wages and employment. The direction of causation is, however, not clear. If wages are maintained above the market-clearing rate, labor tends to be more expensive relative to other factors of production. There is an incentive, then, for employers to substitute other factors such as capital for labor. Employers may also substitute skilled for unskilled workers, if they are obliged to pay them at the comparable rate. Firms may also reduce the scale of operation due to high costs of operation. Thus, lowering the wage rate will lead to an increase in employment.

A minimum wage was first enacted in April 1973 with the aim of providing social protection and distributing benefits from growth. The coverage was limited initially to Greater Bangkok areas and then extended to the whole country in October 1974. The

rate, however, is not applied to the agricultural sector, nor to the public sector and public enterprises.

The new labor protection law, which came into effect in September 1998, decentralizes minimum wage setting, allowing each province to recommend its own rate adjustment. Sluggishness in administrative procedures coupled with the 1997 crisis prevented early implementation of the law with respect to provincial minimum wage adjustment by each province.

The Thai government is recently interested in capitalizing on the opportunities within the service industry due to the fact that it is the key sector which contributes to the country's economy other than manufacturing and agriculture. The service industry is expected to grow rapidly in the Thai economy since it is fundamental for the operation of a modern business and many industries use business services as inputs to an efficient business. The Thai service industry must learn to adapt to the increasingly competitive environment, and coordinate and cooperate with others in line with the new rules. Overall Thailand's service industry is relatively small in scale and weak in strength compared with the manufacturing sector. The services of Thailand includes Tourism services, banking and finance services, Entertainment services, financial services, Healthcare services.

The key production sectors of Thailand are based on annual output, Thailand's key sectors from largest to smallest are tourism, textiles and garments, agricultural processing, beverages, tobacco, cement, light manufacturing such as jewellery and electric appliances, computers and parts, integrated circuits, furniture, plastics, automobiles and automotive parts. Thailand is the world's second-largest tungsten producer and the third-largest tin producer. And it include agro-business industry, service industry, fashion industry, electrical and electronics industry, automotive industry and alternate energy industry. Other production sectors include rice production and cut flower production.

The **Economy of Thailand** is a newly industrialized economy. It is a heavily export-dependent economy, with exports accounting for more than two thirds of its gross domestic product (GDP). In 2011, Thailand has a GDP at current market prices of THB10.54 trillion^[1] (USD345.65 billion approx.) with the growth rate of 0.1 percent, much lower than the expected growth rate of 3.5 percent due to severe damage from

the historic flood the Kingdom confronted mainly in the last quarter of the year. In 2012, the Thai economy is expected to grow by 5.5-6.0 percent, a V-shaped recovery from last year's flood.

Thailand's current demographic profile shows that the youth population ratio has been declining steadily at 22% since 1990, particularly due to delayed marriages and lowered fertility rates. In fact, the projected youth population ration for 2050 is 11.7%, and Bangkok will need to emphasize the productive capabilities of its young people in order to maintain competitiveness in the long run. Despite these significant hurdles, Thailand has managed to integrate itself well into regional and global economies. In fact, it stands as the epicenter in East Asia, which has grown more rapidly than any other region in terms of GDP, alleviating millions out of poverty in the process. Between 1997 and 2010, 4,306 mergers and acquisitions involving Thai businesses were announced; the announcements consisted of a total known value of USD\$81 billion. The year 2010 was a new record in terms of value with 12 bil. USD of transactions. The largest transaction with involvement of Thai companies has been: PTT Chemical PCL merged with PTT Aromatics and Refining PCL valued at 3.8 bil. USD in 2011.

THAILAND – SOCIETY AND ITS CULTURE

The First to the Tenth of Thailand's national development plans, the development paradigm of national development plans has evolved in the context of global and domestic changes. A significant shift in the country's development planning has taken place since the Eighth Plan (1997-2001) from a growth-oriented approach to the new model of holistic "people-centered development". In order to ensure a more balanced development, priority was given to broad-based participation, and to actively engaging civil society, the private sector and academia, in the formulation the national development plan. Furthermore, economic mismanagement, which led to the 1997 Asian crisis, prompted the adoption of the Philosophy of Sufficiency Economy as a main guiding principle in the Ninth Plan (2002-2006), with its practical applications becoming evident during the Tenth Plan (2006-2011). In order to achieve sustainable development with a people-centered approach, it is necessary to enhance the country's self-resilience by strengthening Thailand's economic and social capital and improving risk management in order to effectively handle internal and external uncertainties. This will lead the country toward sustainable development and a "Happiness Society".

During the Tenth Plan, the Philosophy of Sufficiency Economy was applied extensively in Thailand's development, resulting in greater resilience in various aspects of Thai society, enabling Thailand to cope effectively with the impacts of the 2008 global economic crisis. This achievement was well reflected in the Green and Happiness Index (GHI) of 65-67 percent, with contribution from strong economic performance, high employment, strong communities and family ties. However, major obstacles remain, such as political unrest, environmental and ecological degradation, low quality of education, and severe drug problems. The evaluation of the Tenth Plan also indicated improved economic foundations for development and increasing quality of growth. Quality of life has improved with better access to various economic and social security measures and gains in poverty reduction. It is however, essential to emphasize the development of human capital and human security, promotion of good governance and fair competition, and distribution of development benefits in order to reduce social inequality. During the Eleventh Plan (2012-2016), Thailand will encounter more complicated domestic and external changes and fluctuations which present both opportunities and threats to national development. Thus, it is necessary to utilize the existing resilience of Thai society and economy, and to prepare both

individuals and society as a whole to manage the impacts of such changes and pave the way toward well-balanced development under the Philosophy of Sufficiency Economy.

2 Situation, Risk and Resilience

2.1 Significant changes

Thailand has continued to face major global and internal changes which may either pose threats to or provide opportunities for the country's development.

2.1.1 Major global changes

1) Changes in global rules and regulations have influenced the direction of future development. The 2008 world economic crisis has led to adjustments in global rules and regulations in the areas of trade, investment, finance, and environmental and social matters. Reformed rules and regulations in trade and investment have focused mostly on transparency, climate change, intellectual property rights and international cooperation. At the same time, the financial sector has been under close surveillance with tightened supervision. There is also a growing concern about obligations and agreements on climate change, and trade measures regarding global warming issues. In addition, there is increasing emphasis on social rules and regulations, particularly on human rights in line with human dignity. These rules and regulations including international environmental agreements, human rights and good governance, however, could also be used as non-tariff barriers. Therefore Thai entrepreneurs have to improve production processes and business practices in order to enhance their competitiveness. In line with this, corporate social responsibility (CSR) and fair competition must also be incorporated.

2) Multi-polar world economy in the new world order is increasingly important in shaping development. Adjustment to a multi-polar world economy, in which Asia has become an important engine of global growth, is imperative for Thailand. Meanwhile, the BRICs and ASEAN are becoming new economic centers. In particular, open trade policies of China and Russia, dynamic growth of Brazil and India, and the growing middle-class in Asia will contribute toward the expansion of global purchasing power. In addition, various economic cooperation initiatives in the region such as ASEAN China- Japan-India Free Trade Agreement, ASEAN Economic Community (AEC) in

2015, and Asia-Pacific Economic Cooperation have affected various aspects of economic and social development in Thailand, such as the development of human resources.

3) Many countries are moving toward an ageing society.

During the period of the Eleventh Plan, the number of older persons around the world is expected to increase by 81.9 million. Changing demographic structure toward an ageing society in many countries will affect international migration and the diversification of cultures. Meanwhile, the structure of production will change drastically from being labor-intensive to knowledge and technology-intensive. Responses to this trend will focus on development of appropriate knowledge and skills of human resources to meet emerging challenges, together with development of necessary technology to replace the shortage of labor supply. In addition, public health expenditures will increase at the expense of other investments.

4) Global warming has some effects on climate change all over the world. Global temperature has increased on average of 0.2 degree Celsius per decade over the past 30 years, and has caused unpredictable climate changes as well as frequent and severe natural disasters such as earthquakes, landslides, volcanic eruptions, floods, storms, droughts, and forest fires. Ecosystems in many areas have become vulnerable, resulting in the loss of flora and fauna. The earth's surface has undergone physical changes, including coastal erosion and sea level rise that are resulting in forced migration of coastal communities, and damages to infrastructure, tourist areas, and high-investment coastal industrial zones. In addition, epidemics of many diseases and insect pests will cause harm to human life and damage agricultural products, threatening world food security. Moreover, poverty, migration and fights for resources have occurred.

5) Global security of food and energy under severe threat. Rising demand for food and energy is due to significant increase in the world's population, whereas the supply of raw materials has been constrained by limited arable lands, technology, and climate change. This situation is likely to lead to increasing conflicts over food and energy in the future. Consequently, the supply of food on the world market will decline and cause high prices, especially in the poor countries, likely leading to a world food crisis.

6) Vital role of advanced technology in economic and social development. Advanced technology, including information and communication technology (ICT), biotechnology, nanotechnology as well as cognitive science can be regarded both as opportunities in reducing inequality and enhancing Thailand's competitive edge, and threats to the country's development. Relying primarily on technology imports the country will be unable to compete in the world market and achieve sustainable development. In addition, unequal access to technology by various groups in society will exacerbate economic and social disparities. Thailand, as a net technology importer, needs to shift its position toward that of a technology creator.

7) International terrorism has been a threat to the world community. Transnational terrorism and crimes tend to spread across the world and are increasingly violent. In addition, their patterns and networks are more complicated and have affected security at the national level. It is imperative that Thailand bring the critical factors influencing terrorism under control, and cooperate with the international community to protect its national interests.

2.1.2 Major internal changes

1) Economic aspect

Over the past decade, the Thai economy has experienced moderate growth with stability. While the industrial sector has played a major role in production, the agricultural sector remains a key source of income and a base for value added activities. Very recently, the service sector has emerged as an additional engine of growth, while the linkages between the domestic and international economies have resulted in many economic activities, especially in trade and investment. Foreign direct investment has remained critical factor for economic expansion. However, the world economic depression and a decline in the country's competitiveness have affected domestic investment. In addition, some critical enabling factors, in particular, science and technology, quality of infrastructure, and rules and regulations are weak and have become obstacles to economic restructuring.

2) Social aspect

Thailand is becoming an ageing society due to changes in population structure, characterized by the increase of older persons while the size of younger population and workforce decrease. Although potential development opportunities are provided

for all Thai people, issues related to education quality, child intelligence, risk behaviors for health, and low labor productivity have remained major concerns. Various types of social protection and social welfare have covered increasing numbers of people.

However, some disadvantaged groups have lacked access to social services. Income inequality and access to resources are continuing challenges. Thai society has confronted a crisis of declining ethical and moral values and greater cultural diversity in society, as well as a widespread use of drugs and gambling, particularly by young and adolescent groups. At the same time, Thai people are increasingly active in politics and pay more attention to social responsibility and governance.

3) Natural resource and environmental aspect

Natural resources have been depleted; and the environment

degraded. Moreover, climate change has exacerbated the problems of natural resources and the environment, which have affected agricultural production and poverty. Management of natural resources and the environment has not been effective, and has revealed the conflict between environmental conservation and economic development. Nonetheless, Thailand's food security remains favorable despite facing challenges from climate change and increasing demand for fuel crops.

4) Administration aspect

Thai people are more active in politics and ready to express different opinions. At the same time, political conflicts and unrest in the southernmost provinces have continued. These have impacts on daily life, including declining happiness, and confidence in Thai society. The overall performance of the government sector has improved, but the capacity for addressing corruption needs to be strengthened. Even though decentralization is in progress and local government has more tax revenue, the allocation of responsibilities between the local and central governments have remained unclear.

2.2 Risk assessment

Thailand will encounter risks and has to enhance societal resilience in order to effectively meet challenges in the following six areas.

→ Public administration is ineffective. Government sector is unable to effectively carry out policies and missions. Administrative authority is occasionally distorted while the gap between government agencies and the public in general in some areas has widened. Some segments of the government sector are inefficient, and law enforcement is ineffective. Though public forums have involved a high level of participation, people have less opportunity to participate in policy decision-making. The implementation of policies, to some extent is perceived not to be transparent, leading to inequality and lack of fairness in the economic, social and political areas. These undermine trust and confidence of the country.

→ Economic structure remains vulnerable. Thai economy is subject to the uncertainty in the world economy. In the past, the economy relied mainly on foreign investment and exports based on financial capital and low-wage labor, which then became constraints for increasing competitiveness. Rate of return for employees in the agricultural sector is relatively low. Most of the farmers are poor and in debt. While demand for energy is increasing, the country has depended heavily on imported energy.

→ Demographic structure has changed with older persons increasing, while the younger and working populations have decreased. Thailand will be an ageing society in 2025. Proportion of young and working age population has continuously declined and will affect the supply of labor in the future. Shortage of skilled labor is a critical concern. Moreover, health expenditure will increase and become a burden on the public finance, household expenditure and social security.

→ Social values and traditions have deteriorated. Economic growth and globalization have led to increased materialism and consumerism. This weakened Thai values and traditional patterns of behavior. Public consciousness and hospitality have declined causing problems of discipline, social-cohesion, respect for others' rights and civic mindedness.

→ Natural resources have been depleted, and the environment degraded. The severe problems are resulting from geographical changes and overutilization. Climate change has intensified both the current situation and future challenges, especially shortage of water. Moreover, the exploitation and inefficient use of natural resources as well as increasing waste have led to the risk of biodiversity loss and continuing coastal

erosion. Natural disasters tend to occur frequently, threatening agricultural production, food and energy security, health and quality of life.

→ National security is still critical. Various problems of national security have been increasing at an alarming rate due to political unrest, terrorism, economic crisis and international competitions. Moreover, severe natural and man-made disasters are likely to have greater impacts in the future. These are challenges for the country's risk management, emergency preparedness, and the capacity to strengthen competitiveness in the global arena.

2.3 Enhancement of resilience

The country must absorb the impacts of changes effectively by strengthening and utilizing resilience as follows:-

1) Thailand is a constitutional monarchy. Thai monarchy has been considered the heart and soul of the nation. His Majesty King Bhumibol Adulyadej is a role model for living under the Philosophy of Sufficiency Economy. His life reflects the middle path – avoiding extremes; it is “sufficient” in its demands on resources and his work and example has led to benefits for all Thais.

2) Thailand is to base its future development on knowledge, technology and innovation. Research and development of science and technology are major driving forces of the country's development. They have restructured the production system from a dependence on natural resources, and capital and labor with low productivity, to a focus on knowledge, science and technology with high productivity.

3) Thai society maintains good values and culture. These factors contribute toward social cohesion and reduce the negative influences of modernization and conflicts in Thai society. Thai people have applied the Philosophy of Sufficiency Economy to their daily lives. Thai families have raised the younger generations to recognize Thai values and identity.

4) Agriculture is the main source of income and food security. It generates various benefits such as being the source of job creation and food security, preserving the traditional way of life, alleviating poverty and reducing global warming effects.

5) Local community is an effective mechanism for management and participation in better quality of life and welfare society. It is the main force for developing the

country's foundation. Self-reliant communities lessen local economic, social, natural resource and environmental problems.

3 Concept and Direction of development

3.1 Main concepts

The country's future development will be inevitably affected by many significant internal and external changes so that effective development strategies are required. However, past development experience has revealed structural problems in broad areas such as the economy, society, environment and administration, thus hindering sustainable development. Therefore Thailand's resilience must be enhanced under the Philosophy of Sufficiency Economy in order to successfully adapt to changes.

The main concept of the Eleventh National Economic and Social Development Plan derives from the Eighth to the Tenth Plans' guiding principles. The Eleventh Plan has adhered to the Philosophy of Sufficiency Economy and that it should be applied to all parties at all levels. Development of people, society, economy, environment and politics are integrated holistically to increase Thailand's capacity for resilience and adaptation including at the level of the family, community and the nation. People-centered development and participation are applied throughout the national development process.

3.2 Direction of development

In order to set the direction of Thailand's development, situations and risks arising from domestic and global changes are to be analyzed. Rapid fluctuations and their impacts, in particular in the economic and energy sectors and climate change, have both positive and negative effects on the country's development. Therefore, the direction of development administration which adheres to the philosophy of Sufficiency Economy, is to optimize benefits from the country's strengths and its potential for long term sustainability. In order to both strengthen and stabilize the domestic economy, the agricultural base and SMEs will have key roles to play in the development process. Meanwhile, Thailand has to increase its connectivity to the regional and the global economies. To be more proactive with respect to the ASEAN Economy Community (AEC) in 2015, Thailand needs to comply with its commitments under various cooperation frameworks, and strengthen its resilience through development of its economic and social capital. In this context, infrastructure

and logistic systems have to be further developed in tandem with the quality of human resources. In all aspects, knowledge, science and technology, innovation, and creativity will become powerhouse of the country's future development. Development is intended to generate resilience in each dimension of Thailand's development for balance and sustainability by strengthening and utilizing capital endowment. First, empowering of social capital (human, social and cultural aspects) is concentrated on human and social development toward social quality. Resilience must be created at individual, family and community levels. People can adapt themselves to changes and have the opportunity to access resources and gain fair benefits from development. Second, strengthening of economic capital (physical and financial aspects) concerns strengthening the domestic economy through application of wisdom, science, technology and creativity. Environmentally friendly production and cooperation in regions are promoted. Lastly, restoring natural resource and environmental capital has focused on community, natural resource and environment security, as well as a low-carbon and environmentally friendly economy and society. National preparedness is intended to cope with effects of climate change and natural disasters. Thailand plays a greater role in global forums, while resilience in trade, subject to environmental obligations, is enhanced. Meanwhile, fairness in national administration is promoted through good governance with the emphasis on the improvement of public sector and the quality of government officials. Decentralization should be pursued more effectively in order to strengthen local administration. Anti-corruption mechanisms and preventive systems with people participation should be developed. People have fair access to the judicial process and public resources while democratic values and good governance have been promoted.

4 Vision, Missions, Objectives and Targets of the Eleventh Plan

(2012-2016)

The Eleventh Plan is an indicative medium-term strategic plan aimed at achieving the vision of the year 2027 which was set out by all parties in Thai society, that is "Thai people are proud of their national identity, in particular hospitality. They also follow the path of Sufficiency Economy with democratic values and good governance. Quality public services are provided throughout the country. Thai people live in a caring and sharing society in a safe and sound environment. Production process is environmentally friendly, and food and energy resources are secure. The economy is

based on self-reliance and increasing linkage and competitiveness on the global market. Thailand actively contributes to the regional and world communities with dignity.

4.1 Vision and missions

The Eleventh Plan is the first step toward the long term vision of 2027. For the next five years, vision and missions are set as follows:-

→ **Vision** “A happy society with equity, fairness and resilience.”

→ **Missions**

- 1) To promote a fair and quality society so as to provide social protection and security, to enjoy access to a fair judicial process and resources, and to participate in the development process under good governance.
- 2) To develop people with integrity, knowledge and skills appropriate to their ages, and to strengthen social institutions and local communities for positive adaptation to changes.
- 3) To enhance the efficiency of production and services based on local wisdom, knowledge, innovation and creativity by developing food and energy security, reforming the structure of the economy and consumption to be environmentally friendly, and strengthening relations with neighboring countries in the region for economic and social benefits.
- 4) To build a secure natural resource and environmental base by supporting community participation and improving resilience to cushion impacts from climate change and disasters.

4.2 Objectives and targets

- 1) Thai society becomes a better place characterized by harmony and well-being of its people, inequality is decreased, the number of people under the poverty line is reduced, and the Corruption Perception Index is not lower than score of 5.0.
- 2) All citizens acquire lifelong learning; and better health, and social institutions are strengthened.

3) Thai economy is expected to provide inclusive growth with moderate pace based on its potential by upgrading total factor productivity (TFP) not lower than 3 percent per annum, improving Thailand's competitiveness rank, and increasing the SME's contribution to be not lower than 40 percent of GDP.

4) Environmental quality is improved to meet international standards, reduction of green house gas emission is more efficient, and forest areas have been expanded for a more balanced ecological system.

4.2.1 Key indicators

1) Overall national development: Main indicators are Green and Happiness Index, the Peace Index, the proportion between income groups of the highest 10 percent and the lowest 10 percent, the poverty line, ratio of workers in informal sector have access to social protection, and the Corruption Perception Index.

2) Social Aspects: Many indicators are applied, such as average years of schooling, the proportion of population with access to communication networks and highspeed internet, ratio of R&D personnel per 10,000 persons, rate of non-communicable diseases, and the Warm Family Index.

3) Economic Aspects: Important indicators are growth rate, inflation rate, TFP, national competitiveness, and the proportion of SME's production (output) to GDP.

4) Natural resource and environmental aspects: Various indicators are quality of water and air, the proportion of conservation forest areas to total land area, and ratio of green house gas emissions per capita to GDP.

5 Development Strategies

Thailand will promote a peaceful society, with quality growth and sustainability. In dealing with a fast-changing, complicated and unpredictable environment, a set of development strategies are designed for better risk management and improved resilience in utilizing the country's economic and social capital. Together with this, the quality of human resources will be developed through better access to resources and through a fair distribution of development benefits. To create and utilize economic opportunities, knowledge, technology and creative ideas will be crucial factors for environmentally friendly production and consumption, leading to sustainable development.

Key development strategies are as follows:-

5.1 Creation of the just society. Development guidelines include:-

5.1.1 Enhance socio-economic security for all citizens to be capable of managing risks and creating opportunities in life. The economy will be restructured toward a more inclusive and sustainable development while a more diversified and robust grass-roots economy will be developed. A fair allocation of resources will be promoted by restructuring the tax system to improve income distribution and to serve as a tool for a fair allocation of resources and ownership of property. Information technology will be utilized in parallel with improving access to information for career development. Private sector will play a greater role in enhancing socio-economic security for all citizens, and social protection will be upgraded and cover all people.

5.1.2 Provide social services for all in accordance with basic rights, emphasize self-resilience of individuals, and encourage participatory decision-making in the country's development process. The quality of public services will be improved and access to such services increased, particularly to housing and public utilities for low income groups. Social welfare will be developed to have high quality and efficiency. At the community level, grass-roots finance and various types of savings will be improved for mobilizing resources. Positive attitudes toward gender equality will be encouraged for increasing participation in decision making. A database system will be developed to ensure the coverage and effectiveness of social protection in accordance with basic rights.

5.1.3 Empower all sectors to be capable of having choices in living and participating in social, economic and politic activities with dignity. People will have freedom to think and act creatively. Capacities of communities will be strengthened to efficiently manage their own problems, while the formation of occupational groups will be promoted and based on communities' potentials. Roles of the private sector, civil society, and local government will be synergized in social development. Consumer protection will be improved to meet high standards, along with increasing access to information and knowledge about rights and the protection of consumer's rights. Women will be promoted to managerial and decision-making positions at local and national levels for greater contribution to the country's development.

5.1.4 Enhance social interaction among people in society for having shared values and public benefits, and reinforce effective, transparent, and accountable public administration. Mutually recognized new values will be created and based on trust and social cohesion. Good governance in politics will be promoted to embrace genuine democracy together with reforming the entire political system to pioneer genuine democracy. Efficient public administration has to be enhanced with a thorough system of checks and balances, while professionally capable, ethical, and responsible government officials will be developed. Judicial system will ensure impartiality, providing more access to submit complaints and allow for remedies for affected victims. In addition, use of social media both at local and national levels will be supported to reinforce development.

5.2 Development of the lifelong learning society. Development guidelines include:-

5.2.1 Adjust the population structure with appropriate population

Distribution. Fertility at the current rate should be maintained and the distribution of

Population, as well as housing and resettlement will be supported in accordance with the carrying capacity and opportunity of areas and natural resources in the region.

5.2.2 Develop human resources aimed at increasing resilience for change. Quality of Thais at all ages will be increased. Skills for lifelong learning will be developed focusing on knowledge, innovation, and creativity, and based on the development of five minds—disciplined mind, synthesized mind, creative mind, respectful mind and ethical mind in order to be capable of working in various jobs over a lifetime, relevant to the changing labor market. People will be instilled with the values of social responsibility, respect for the law, human rights, environmentally friendly production and consumption, and learn to cope appropriately with climate change and disasters.

5.2.3 Promote the reduction of risk factors in health. People will have physical and mental well-being, as well as knowledge and skills in health care at the individual, family and community levels. They will participate in formulating public policies for health care. Public health services will be improved for better quality and coverage, together with the promotion of alternative medicines. Supply of health personnel will be redistributed, while national health database will be developed. Monetary and fiscal measures for health care will be managed in efficient and sustainable manners.

5.2.4 Promote lifelong learning. Learning habit will be instilled in all Thais from an early stage in life. Roles of development partners will be promoted as sources of creative learning. Alternative education relevant to needs will be encouraged with the promotion of a learning society and factors conducive to lifelong learning.

5.2.5 Reinforce roles of social institutions. Social institutions will be strengthened to develop human resources. National pride and acceptance of cultural heterogeneity will be encouraged to reduce ideological conflicts and increase social cohesion. International cultural cooperation, especially in the ASEAN community, will be built to create cultural exchanges by sharing knowledge in order to promote mutual understanding in history and culture.

5.3 Strengthening of the agricultural sector and security of food and energy.

Development guidelines include:-

5.3.1 Reinforce natural resources as the foundation for agricultural production base. Productive arable lands will be conserved and small farmers will be supported to own or have rights to farmlands. Land will be redistributed equitably as well as using tax measures to increase efficiency of land utilization. Moreover, land management mechanism will be improved. Natural resources for agricultural production will be restored while good agricultural norms and practices will be promoted for supporting sustainable farming.

5.3.2 Increase agricultural productivity. Research and development will be emphasized while agricultural production will be adjusted appropriate to socio-geographical conditions. Imported chemical fertilizers and pesticides will be controlled and their farm uses will be inspected to meet clear standards. Agricultural practices for preserving biodiversity will be encouraged to be suitable for the climate and the environment, while basic services for agricultural production will be improved. Science and technology for agriculture will be developed, including support for using technologies for production friendly to the environment.

5.3.3 Increase value of agricultural commodities along supply chains. Local products and services will be supported to create added value including in agricultural products, food and energy. Collaboration between local educational institutes and the private sector will be encouraged for research and development while farmers and

entrepreneurs will be supported to apply knowledge, technologies and innovations that are environmentally friendly. Quality and standards of food and farm products in line with production systems will be upgraded to meet international standards. Markets and future markets for agricultural commodities will be strengthened, and the participation of the private sector, community organizations and agricultural institutes will be encouraged in managing the commodity and food system. In addition, the efficiency of logistic management in the agricultural sector will be improved.

5.3.4 Create job and income security for farmers. An income insurance system together with crop insurance will be developed to cover all farmers. Fairness for farmers and stakeholders in the contract farming system should be encouraged. Farmers should have better quality of life while the youth, new generations and skilled labor should be induced to engage in agriculture. Agricultural institutes and community enterprises will be major mechanisms for supporting self-reliance. At the same time, small farmers affected by free trade agreements will be empowered in order to maintain their living conditions.

5.3.5 Enhance food security and develop bio-energy at household and community levels. People and communities will be encouraged to plant trees in households and public areas. Farmers will be encouraged to utilize sustainable agriculture following the Philosophy of Sufficiency Economy. Knowledge management in agriculture and food production will be widely and continuously disseminated. Appropriate consumption behavior at individual and community levels, and creation of production and consumption networks among communities nearby will be promoted. Application of zero waste approach in agriculture will be encouraged in order to utilize farm residues to produce renewable energy at the community level. Infrastructure will be developed in order to help systematically enhance food security for farmers and communities.

5.3.6 Establish bio-energy security to strengthen the agricultural sector and support the national development. Management system for food and energy crops will be set up, while research and development for increasing productivity of bio-energy production from energy crops will be promoted. Efficiency in bio-energy production and utilization related to manufacturing and service sectors will be increased. A mechanism for regulating price structure of bio-energy will be created and public awareness of efficient energy use will be raised.

5.3.7 Improve public management to enhance food and energy security. Farmers, local scholars, the private sector and local communities will participate in agricultural development planning, while actions among government agencies both at central and local levels will be streamlined and integrated. Food and energy database systems will be developed ranging from production, marketing to consumption. Laws and regulations related to agricultural development will be improved. International cooperation at bilateral and multilateral levels, particularly in the ASEAN community, will be encouraged in order to secure food and energy.

5.4 Restructuring the economy toward quality growth and sustainability.

Development guidelines include:-

5.4.1 Utilize science, technology, innovation and creativity as fundamental factors for economic restructuring. This strategy will be achieved through an adjustment of trends in trade and investment to appropriately respond to emerging markets in Asia, Middle East and Africa as well as to the domestic market. The service sector will be restructured to allow for higher value creation and to become more environmentally friendly, based on innovation and creativity. Creative economy will be promoted with the focus on creative business, creative cities and creative industries. Moreover, it is necessary to improve productivity in the agricultural sector and to enhance value creation through innovation and green production processes. There is also a need to use science and technology, and creativity to promote quality and sustainability in the industrial sector and to move Thailand's development toward becoming increasingly knowledge-based and environmentally friendly.

5.4.2 Develop Science and Technology, Research, and Innovation as driving forces for sustained and inclusive growth. Economic restructuring will emphasize research and development, technology transfer and applications to result in commercialization of innovation, and improvements in the quality of life. There will also be a focus on the development and application of creative thinking and local wisdom. The public and private sectors will cooperate to create an improved enabling environment to facilitate value creation through the provision of appropriate infrastructure and facilities, thus encouraging technology development and innovation.

5.4.3 Enhance the country's competitiveness with a freer and fairer competitive environment. The country's competitive edge will be strengthened through the development of financial and capital markets, along with the improvement of the

workforce, in order to facilitate the economic restructuring. It is essential that the development of science and technology, innovation and creativity is promoted to become key elements in economic restructuring. Moreover, the effective employment of intellectual properties and the development of an efficient intellectual property system will facilitate further research and development, knowledge transfer and application to commercial purposes, generating benefits for communities and for society as a whole. In addition, the development of high quality infrastructure and logistic systems will strengthen the efficiency of domestic and international connectivity consistent with international standards. The issue of energy security will be vital, requiring that more clean energy is used and alternative energy developed, leading to an overall improvement in energy efficiency. Reform of the business legal framework, relevant rules and regulations will also be essential in order to facilitate healthy competition and to enhance efficiency in a manner compatible with global changes and trends.

5.4.4 Achieve stability through sound macroeconomic management. Priority will be given to financial management under appropriate and timely monetary policy. The role of the capital market will be promoted consistent with development in the global financial sector. A surveillance mechanism for economic fluctuations, and a comprehensive warning system will be established. There is a need to improve efficiency in foreign capital management as well as fiscal management, through an improved public revenue collection system. More effective budget allocation and management will also be crucial in preventing fiscal risks and enhancing the operational efficiency of state-owned enterprises. Private sector will be encouraged to participate more in investment in infrastructure and public service provision. Fiscal capacity of local government will also be improved.

5.5 Create regional connectivity for social and economic stability.

Development guidelines include:-

5.5.1 Develop connectivity in transport and logistics systems under regional cooperation frameworks. This will be achieved through the development of efficient transport and logistics services meeting international standards. Improvement of relevant rules and regulations on transportation of goods and people will also be undertaken. Moreover, the capacity of human resources in transport and logistics

businesses will be enhanced. Economic connectivity along the border areas/economic zones will be increased, while ensuring connectivity with domestic production bases.

5.5.2 Develop investment bases by improving competitiveness in the region. This will be achieved through spatial development in Thailand to allow connectivity with neighboring countries and South-East Asia, based on integrated spatial development plan for mutual security and stability. It will lead to formation of the development basis in industry, agriculture, tourism, border economic zones, and border towns.

5.5.3 Prepare for ASEAN Economic Community. Preparation will be made through strengthening public-private cooperation in developing human resources in all economic sectors. There will also be a need to enhance the capacity of public and private educational institutions to meet internationally recognized standards. Moreover, labor skill development, and minimum standards of goods and services are required in order to prevent the import of low-quality products into Thailand and neighboring countries.

5.5.4 Constructively engage in regional and international cooperation frameworks to provide alternatives in foreign policies in the international arena. This will be achieved through maintaining an active role of Thailand in developing strategies of relevant cooperation frameworks. It is necessary for the country to seek a balance in relations with existing and emerging superpower economies.

5.5.5 Create regional economic partnership on human capital development, labor migration and support provision for Thai labor in foreign countries. This will be pursued through accelerating the cooperation of international labor standards, and facilitating regional labor mobility. Support will be given to Thai entrepreneurs in undertaking investment abroad, especially in neighboring countries. In addition, protection of the rights and interests of Thai people and labor abroad will be provided.

5.5.6 Contribute to the international community's efforts in improving the quality of life and in the fight against terrorism, international crimes, drug trafficking, natural disasters and epidemics. Improvement of capacity and preparedness for preventing and resolving international terrorism, drug trafficking, and illegal migration will be undertaken. There is also a need for capacity improvement and enhanced regional cooperation in coping with natural disasters, emergencies, and collaborating in the prevention of infection and spread of emerging and re-emerging diseases.

5.5.7 Promote constructive international cooperation to support economic growth in ethical and sustainable manner, including cooperation with nonprofit international organizations. Agreements under regional environmental cooperation frameworks will be adhered to through the promotion of green production, consumption and services that will lead to a reduction of GHG emission. The role of non-profit international organizations will be promoted and facilitated, with Thailand as an operational base for development cooperation in this region.

5.5.8 Accelerate the utilization of currently effective free trade agreement. Knowledge will be provided to the business sector, particularly those affected, both positively and negatively, in order to enhance their capacity and opportunity for benefiting from free trade agreements. In particular, support and assistance will be provided by the government to SMEs that are unable to adapt themselves and handle the aforementioned effects in a timely manner.

5.5.9 Support foreign investors' use of Thailand as a business base for the Asian region, and support of non-profit international organizations for regional development. Benefits and facilitation shall be provided for Regional Operating Headquarters (ROHs) and for non-profit international organizations in order to increase Thailand's role as a business hub and cooperation base in the region.

5.5.10 Strengthen domestic development partners at the community level. This will be pursued by empowering the capacity of communities and local governments in preparing for international and domestic changes. The development mechanism will be strengthened for formulating strategies at the provincial level and provincial clusters, especially in border provinces, for cross border cooperation. Support will also be provided for the enhancement of technical capacity and networks of Thai academic institutes in order to create close collaboration with other countries in this region.

5.6 Managing natural resources and environment toward sustainability.

Development guidelines include:-

5.6.1 Conserve, restore and create security of natural resource and environmental bases by safeguarding and restoring forest and conservation areas. A database system and knowledge management will be developed to serve as tools for planning and management. Meanwhile, the management system of land ownership as well as

marine and coastal resources will be reformed. Integrated water resource management will be also urgently pursued. In addition, effort will be made to improve and restore water resources to increase water supply. It is necessary to promote more efficient use of water, which will require a master plan of water infrastructure for systematic management of water consumption. Encouragement will be given to conservation and sustainable utilization of biodiversity.

5.6.2 Shift the development paradigm and direct the country to low carbon and environmentally friendly economy and society. The country's production and consumption behavior will be restructured to prepare for a transition toward a low carbon and environmentally friendly economy. To this end, energy efficiency in transportation and logistics sector will need to be enhanced in order to reduce greenhouse gas emissions. Development of eco-cities will also be important, with emphasis on urban planning which integrates cultural, social and ecological aspects.

5.6.3 Upgrade capacity in adaptation to achieve climate-resilient society. This will be achieved through enhancing knowledge and management tools for handling and responding to challenges from climate change. Improvement of community capacity and preparedness to cope with climate change will also be necessary.

5.6.4 Ensure preparedness for natural disaster response. Maps and priority list of areas under risk will be prepared at the national, regional and provincial levels. Efficiency of disaster management will have to be improved. Furthermore, database system and telecommunication network will have to be developed. It is necessary to provide support for the development of science and technology in disaster management. The national volunteer work system will have to be developed to meet international standards. Moreover, encouragement will be given to private sector, enterprises, schools and local authorities to be well-prepared, and to develop action plan for disaster response.

5.6.5 Foster resilience toward trade related measures associated with environmental conditions and climate change impacts. Efforts will be made for surveillance and monitoring measures related to environmental conservation that may have effects on international trade and investment. Measures will be introduced to cope with anticipated effects from trade measures and international agreements on environment and climate change. It will also be essential to conduct research on their effects, and to develop strategic plans along with alleviating measures for relevant products and

businesses. Encouragement will be given to exporters to provide carbon footprint information. Together with this, incentives will also be provided for new industries to facilitate sustainable development.

5.6.6 Enhance role of Thailand in international arenas related to environmental framework agreements and international commitments. There is a need to study these agreements in detail to ensure their thorough understanding and to monitor the status of negotiations and the positions of other countries. It is also significant that the negotiation skills and techniques for government officials are strengthened. Moreover, cooperation within ASEAN and with major trading partners will be enhanced. Support will be given to the implementation of international agreements and commitments on natural resources and the environment.

5.6.7 Control and reduce pollution. It is necessary to reduce the amount of air pollutants. Efficiency of solid waste disposal and community waste water treatment will have to be improved. In addition, there is a need for a management system for hazardous, electronic and infected wastes. Development of warning system and response system for toxic accidents is needed.

5.6.8 Enhance the natural resource and environmental management system to be more efficient, transparent and equitable. Support will be given to empower communities and to advocate their rights to gain access to and utilize natural resources. Amendment of relevant legislations to address inequality among communities in access to and utilization of natural resources and changes in government investment policies are needed to facilitate conservation and restoration. The collection of environmental tax will be encouraged to provide incentives for efficient use of natural resources and pollution reduction. Ways and means to generate revenue from biodiversity will be explored. Moreover, database as well as monitoring and evaluation systems will be developed. Support will also be given to research for establishing an efficient management system for natural resources and the environment.

6) Translating strategies to implementation

In order to achieve the vision, mission and targets, the implementation of the Eleventh plan will be designed in accordance with national, regional and local agendas. In this connection, the approach of Area, Function and Participation (AFP) has been upheld since its inception in the Eighth Plan. Apart from ministries and departments at the

central level, agencies at provincial level are also key actors in driving the six strategies. At the regional level, the province is playing critical role, synchronizing national agenda with area– based development and local agendas. In this regard, the provincial plan is expected to tackle problems and capitalize on potential at the area and local levels. In action, knowledge, technology, innovation and creativity are major tools in driving development plans at all levels and in all segments of the society. Together with this, all development partners will collaborate through the cluster approach, responsive to problem solving and area development. Implementation guidelines are as follows.

6.1 Promoting awareness among development partners of their roles in collaboration in the development process. Communication will be emphasized to ensure a common understanding and commitment among all relevant partners, including the political segment. In this respect, a handbook for plan translation will be detailed for implementation.

6.2 Collaborating on the Eleventh Plan with government policies, national administration plan and other plans. Significant development issues in the plan will be incorporated or integrated into government policies, national administration plan, specific plans and operational plans. Along this line, the Eleventh Plan will need to link closely to the budget allocation strategy and the annual budget plan. Furthermore, it is necessary to link development issues and guidelines addressed in the Eleventh Plan with community plans, local administration plans, provincial plans and provincial cluster plans. The provincial sector is also encouraged to take major development issues and guidelines into account, in particular in their investment plans.

6.3 Providing enabling environment to enhance stakeholders' capacity. To increase overall productivity and improve quality of life, research and development will be an important tool for driving the country's development. Implementation of relevant rules and regulations will facilitate better management of the Plan. Moreover, information technology will be used for facilitating communication and developing database management in order to encourage public participation in the development process.

6.4 Enhancing efficiency of development mechanisms to improve effective plan implementation at local, regional and national levels for better management. National committees and agencies are encouraged to address the Plan's development issues and guidelines in their agendas. Provincial organizations will serve to link, coordinate and act as clearing houses for top-down and bottom-up development issues for the private sector and other agencies to collaborate in the implementation process.

6.5 Strengthening the stakeholders' capacity to efficiently contribute to the development agenda at every level. All stakeholders' potentials will be tapped and developed so as to take part effectively in the development process. In this connection, communities and local authority will be empowered in order to strengthen their resilience toward any changes. Academic institutes will play key roles in working with community, local government, and provincial authority while the role of the private sector will be enhanced for economic and social development. In all respects, government authorities need to adjust their mindset to play meaningful role as change agents for the country's development.

6.6 Developing efficient, transparent and participatory systems of monitoring and evaluation at all levels. To allow for the effective adjustment of the planned development process, continuous monitoring and evaluation will focus on objectives and targets set in the overall and individual development strategies of the Plan. The monitoring and evaluation systems will be developed to monitor both overall results of the Plan and area based development issues. People will be encouraged to play a part in the public agenda with emphasis on efficiency and transparency. Databases at provincial and local levels will be developed and linked with central databases and other relevant databases.

TECHNOLOGICAL ENVIRONMENT OF THAILAND

Thailand, which was formally known as Siam Thai, is located in the Southeast Asia. A blend of urbanization and natural beauty the country does not lack behind in science and technology also. Thailand has a long historical in technical and economic cooperation.

The Science Society of Thailand was founded in 1948 to promote the development of science and technology in Thailand. The society currently has about 5,000 members, has 12 regional and subject area branches. As the first science society in Thailand, it has played a leading role in the development of science and technology in the country under the leadership of its 13 Presidents.

In 1950 the country established the Department of Technical and Economic Cooperation (DTEC) to work with cooperating partners in supporting projects in the country.

Ministry of Science and Technology (MOST) was established 24 March 1979 under the Amendment Act of the Proclamation of Revolutionary Party No.216 for the development of the IT in Thailand.

From the 1991 thailand become more active in information technology, it has aimed to strengthen human resources in the fields of science and technology, to support national development, to adopt new technology to increase industrial and agricultural productivity.

Thailand become recipient and a provider of technical assistance, environmentally sound technologies gradually. In 1991, the National Science and Technology Development Agency start supported research, development, and engineering in scientific and technological with the three main goals which were:

- 1) To support public sector research, development and engineering projects;
- 2) To support technological strengthening in the private sector; and,
- 3) To offer scholarships in the fields of science and technology for study abroad and locally.

Besides that for the medium and small scale industry , Board of Investment and the Ministry of Industry tried a lot to provide them necessary information. Support from the international community will enhance Thailand's capability in technology. Internet facility was also established in Thailand in this period of time.

For more than thirty years, the Thai stock market has introduced computer systems to facilitate investors and listed companies both in financial data and administrative work. In particularly, the Internet trading system has been introduced to enhance market growth.

Growth over the last decade has been attributed to the country's macroeconomic stability and to a steady shift from that of a traditional-commodity-based economy toward one that is manufacturing and services oriented

The Thai technological market is the largest in the South East Asia region and despite a serious impact from the recent floods that will continue into 2012, is projected to grow at a rate of 11% over the 2012-2016 period. The total value of Thai domestic spending on IT products and services should reach US\$6.2bn in 2012 and US\$9.3bn 2016.

In government, technology can be used to improve various key areas of public-sector management and policy formulation in tune with ever quickening changing macroeconomic and social conditions. This will enhance the convenience to citizens in obtaining public services. At the same time, its misuse can easily violate personal privacy.

In education and training, Technology improves education management, provide novel approaches to learning and training, and become an effective tool to realize education for all.

In public health, technology will continue to play a considerable role in raising the standards of public health services delivery, with current applications ranging from collection and statistical analysis of data for health and family planning indicators, epidemiology, demographic and medical research to information systems for health care delivery management, such as maintaining patients' records and pharmacy logistics control.

In the future, advances in IT will enhance the efficiency of current applications, spreading the benefits to a wider section of the population, and will also open up many more novel applications for improving the quality of life of mankind. IT is likely to revolutionize the way one lives and works, with a host of new service concepts such as tele-working, tele-education, tele-banking, tele-health care, and tele-entertainment, some of which are already taking place to the greater benefit of consumers.

Central Population Database (CPD), "the world's first population database" and "for the transformation of IT to the benefit of mankind." Was made in 1983 in Thailand , will be able to identify any citizen, anywhere, through his or her fingerprints and will give instantaneous information on whether a person is legally eligible to perform the activities in country, this was also noticeable thing about the Thailand IT ability.

In education they have microwave communications networks to relay up to 56 hours per week of educational programs to its 11 regional radio network stations, as well as there are two open universities use both radio and television broadcasting to deliver selected undergraduate courses, one of the university named Sukothai Thammathirat Open University (STOU), use of distance education for teaching at the certificate and Bachelor degree levels. In addition, the university has developed a voice-response system so that students outside the campus can access the same information via telephone.

Ministry of Health is doing its best to make use of its very limited IT capabilities. Decision-support system, providing vital analytical and information support for planning and health-care delivery management, which includes, among others things, weekly reports that track the status of some 40 diseases, including AIDS, where details of patients, time, and location are fully documented. The super-microcomputer is used for training Ministry staff. In emergencies, two-way voice and video communications can be provided.

In the future, one can expect to see new ways of bringing health care directly to the homes of the aged, of the handicapped, and to other patients. Thailand's government support all this activities by providing good budget.

The ten-year Science and Technology Action Plan (2004-2013) focuses on the development of a national innovation system and industrial clusters.

Universities of Thailand established programs that cross national boundaries and integrate Thai students and professionals into the world R&D system. Thailand also has considerable achievements in R&D in agriculture, engineering and other fields, mostly at adaptive or trouble-shooting levels.

If we talk about the private sector, it is responsible for most of the present economic growth phenomenon in Thailand. Its investment overall is currently five times that of the public sector. Many sectors have their own R&D department, The Board of Investment (BOI), which has moved to put more emphasis on strengthening of technology, especially by providing incentives power by law to promote investment through tax concessions and other privileges, has recently for import of new and more efficient machinery and technology, transfer of technology to Thai personnel and establishment of R&D programs.

Thailand and Japan Cooperate on Monitoring Technology to Tackle VOCs Problems at Map Ta Phut Industrial Estate, also they have tsunami alert system with India. This is how Thailand is increasing its IT efficiency by cooperating with different countries.

Besides this, Thailand is also developing itself by producing innovative products, we can take the example of, it is a first maker of Thai sugarcane harvesters to enter and compete successfully in the global sugarcane market.

Another technology in product we can see in superabsorbent diapers (nappies). It uses hydrogel and nano coating to absorb water, and is being promoted as a potential replacement for traditional sandbags for flood control which they have used in flood.

In the recent history of the development of Technology in Thailand, the year 2012 witnessed remarkable events we have seen above with the government support. It's clearly seen that Thailand is making its technological strength strong day by day.

THAILAND INFORMATION TECHNOLOGY 2012 RECENT SCENARIO

Business Monitor International's Thailand Information Technology Report provides industry professionals and strategists, corporate analysts, information technology associations, government departments and regulatory bodies with independent forecasts and competitive intelligence on Thailand's information technology industry.

The Thai IT market is the largest in the South East Asia region and despite a serious impact from the recent floods that will continue into 2012 is projected to grow at 11% over the 2012-2016 period.

The Thai PC market received a severe impact from the recent floods, with vendors and IT distributors estimating that sales were down by 20-40%, compared with previous forecasts. Consumer IT spending is likely to remain affected by the floods throughout 2012, as tens of thousands seek to regroup after the devastation. However, business demand may recover more rapidly, due to post-flood insurance payments.

In industry development, The government has announced a new fund to encourage Thai SMEs to utilize cloud computing, which it sees as a cost-effective way for smaller companies to access IT. The floods had a severe impact on all PC vendors, and led to major downward revisions of Thai market shipment forecasts.

In 2011, Microsoft announced the target of doubling the revenue of its Thai operating unit by 2015, driven by a new consumer lifestyle products division to be launched soon. In April 2011, Microsoft launched a new partnership with telecoms giant True, which will offer access to Microsoft services via a new data centre. The cloud services will focus on digital content, email, communications and collaboration.

Thailand's software market is developing, despite the problem of software piracy, which still accounts for about 76% of software. If we talk about Technological services over the past few years, the size of deals has increased in key verticals such as banking and telecoms. Despite the financial crisis, some elements of bank spending on IT will be relatively immune, particularly those driven by regulatory compliance. Meanwhile, telecom is another big spending IT vertical, with mobile operators investing to expand capacity and launch new services. Thailand is developing itself in all parts we can see that from the about information.

The economy of Thailand has expanded at an impressive double-digit GDP rate in the last few years, averaging 11.0 percent in real terms from 1987 to 1990. More significantly, the country's industrial sector has been surging at a much higher average growth rate in recent times to gain an increasingly large share of the GDP of over 25 percent since 1989. A recent World Bank study into the international competitiveness of Thailand has suggested that the country has appeared to undergo a structural change from labor-intensive to technology-intensive industries, since it seems to have begun developing some comparative advantages in the manufacture and export of differentiated goods.

Science and Technology in the Education

Currently, the Ministry of Education relies on TOT's microwave communications networks to relay up to 56 hours per week of educational programs to its 11 regional radio network stations. The Ministry claims that its radio educational program is gaining in popularity over its other two programs of self-study and attending evening classes.

Ramkhamhaeng University uses a radio network of 38 AM/FM stations and the state television Channel 11 to provide lessons for selected subjects with large enrollments.

The other Open University, Sukothai Thammathirat Open University (STOU), is making greater use of distance education for teaching at the certificate and Bachelor degree levels.

Science and Technology in the Health Care

In providing health-care services to over 56 million Thais, IT can play a vital role in improving the efficiency and effectiveness of delivery. Often the ability to obtain and provide prompt and accurate information can well be a matter of life and death, as with epidemics and other medical emergencies. Thus, both computers and telecommunications are imperative.

Science and Technology in the Universities and the Public Sector

By the beginning of this century, modern science, as distinct from traditional knowledge, had taken root in Thailand, coinciding with the development of the

universities which grew with reforms in the educational and public service sectors. Faculties of Medicine, Engineering, and Arts and Science comprised three of the four first faculties of Chulalongkorn University, the nation's first, established in 1916 and named for the king who initiated the reforms.

In 1921, the first American aid program for national development was started with the assistance of the Rockefeller Foundation to the Royal School of Medicine. This became the first degree-granting body of the university and the nucleus for a second university, Mahidol. The fifties and sixties saw the establishment of universities outside Bangkok at Chiang Mai, Songkla and Khon Kaen, all with science and technology teaching and research as integral parts. These decades also saw the upgrading of technical and vocational colleges to university status; the prime examples of success are the three King Mongkut's Institutes of Technology.

Among the new universities, the Suranaree University of Technology in the Northeast provides a potentially successful model for new state universities, operating through a grant system rather than the usual cumbersome one of the civil service budget.

Many government institutes conduct research and development as well, including the Department of Agriculture and the Thailand Institute for Scientific and Technological Research, a broad-based industrial and general research entity.

Recently, the Chulabhorn Research Institute, under the directorship of Princess Culabhorn, a chemistry professor with wide-ranging research interests, was established with government support.

Science and Technology in the Private Sector

The private sector is responsible for most of the present economic growth phenomenon in Thailand.

Some major firms, such as the Petroleum Authority of Thailand and Siam Cement, have made major investments in their own R&D units.

The Board of Investment (BOI), which has the power by law to promote investment through tax concessions and other privileges, has recently moved to put more emphasis on strengthening of technology, especially by providing incentives for import of new and more efficient machinery and technology.

Science and Technology for and *Open Society and a Dynamic Economy*

In spite of recent actions to provide the base for sustainable development, especially through science and education, Thailand still has a long way to go from the stage of being an off-shore factory to that of fully mature partner in global production.

Overview of the Ministry of Science and Technology

In 1979, the Thai Government first established an agency deal with science and technology under the name of the “Ministry of Science, Technology and Energy”. The establishment was under the Amendment Act of the Proclamation of Revolutionary Party No 216 dated September 29, 1972 and announced in Royal Gazette Vol. 96 dated March 23, 1979.

Later in 1992, the name was changed to the Ministry of Science, Technology and Environment (MOSTE) with 3 main responsibilities: science and technology, environment and energy.

Due to MOSTE’s responsibilities on science and technology, environment and energy was not directly related to achieve the objectives of national development in each field. MOSTE should structure the administration to be 4 Ministries: Ministry of Natural Resources and Environment, Ministry of Energy, Ministry of Information and Communication Technology and Ministry of Science and Technology in order to solve the above problem.

Therefore, from October 2002, according to the Bureaucratic Restructuring Act B.E. 2545 (Section 5), Ministry of Science, Technology and Environment had changed its name to “Ministry of Science and Technology”.

There are 16 important supporting agencies to assist in this respect, namely the government agencies, autonomous agencies, state enterprises, and public organizations, which all come under the structure of Ministry of Science and Technology.

- **Organization Chart of MOST**

3.1 Government Agencies

3.1.1 Office of the Minister (OSM)

3.1.2 Office of the Permanent Secretary (OPS)

3.1.3 Department of Science service (DSS)

3.1.4 Office of Atoms for Peace (OAP)

3.2 Autonomous Agencies

3.2.1 National Science and Technology Development Agency (NSTDA)

3.2.2 National Institute of Metrology (Thailand)(NIMT)

3.2.3 National Science Technology and Innovation Policy Office (STI)

3.3 State Enterprises

3.3.1 Thailand Institute of Scientific and Technological Research (TISTR)

3.3.2 National Science Museum (NSM)

3.4 Public Organizations

3.4.1 Geo-Informatics and Space Technology Development Agency (Public Organization) (GISTDA)

3.4.2 Thailand Institute of Nuclear Technology (Public Organization) (TINT)

3.4.3 Hydro and Agro Informatics Institute (Public Organization) (HAI)

3.4.4 Synchrotron Light Research Institute (Public Organization) (SLRI)

3.4.5 National Astronomical Research Institute of Thailand (Public Organization) (NARIT)

3.4.6 National Innovation Agency (Public Organization) (NIA)

3.4.7 Thailand Centre of Excellence for Life Sciences (Public Organization) (TCELS)

Eleventh plan Thailand is to base its future development on knowledge, technology and innovation. Research and development of science and technology are major driving forces of the country's development. They have restructured the production system from a dependence on natural resources, and capital and labor with low productivity, to a focus on knowledge, science and technology with high productivity.

Objective of 11th plan

To develop efficient and sustainable economy by upgrading production and services based on technology, innovation and creativity with effective regional linkages, improving food and energy security, upgrading eco-friendly production and consumption toward a low-carbon-society.

11th plan Development Strategies for science and technology

Develop Science and Technology, Research, and Innovation as driving forces for sustained and inclusive growth. Economic restructuring will emphasize research and development, technology transfer and applications to result in commercialization of innovation, and improvements in the quality of life. There will also be a focus on the development and application of creative thinking and local wisdom. The public and private sectors will cooperate to create an improved enabling environment to facilitate value creation through the provision of appropriate infrastructure and facilities, thus encouraging technology development and innovation.

National STI Master Plan Bridging Science, Technology and Innovation through Collaboration

The realization of the National Science, Technology and Innovation Act 2008 serves as the foundation for Thailand's science, technology and innovation (STI) policy for the 21st century.

The goal is to unify STI commitments among public agencies and to strengthen the collaboration with and among the private sector, academics, and research institutes. The coverage is designed to network knowledge from grassroots community level up to international cooperation. To implement the challenges, the National Science Technology and Innovation Policy Office, an autonomous public agency chaired by the Prime Minister, was established.

At the foundation, the Master Plan states that knowledgeable and skilled human capital along with sufficient scientific and technological infrastructure and enabling factors are vital to the creation of a thriving innovation system. Therefore, strategies

and measures are mapped out to develop these vital factors, resulting in human capital development programs

such as science education improvement through enquiry-based learning, vocational skill improvement through work-integrated learning, and enhanced university-industry-research institute collaboration via cooperative education and improved academic/research personnel mobility—and infrastructure/enabling factor development programs—such as regional science parks, industrial technology assistance, tax incentives, and innovation financing. The strong foundation will support the application of STI for development in three strategic areas—namely, (1) society and local communities, (2) economy, and (3) energy and environment—with the ultimate goal of having a quality society and a sustainable economy driven by green innovation. Strength in science, technology and innovation will help the country cope with emergent issues and future challenges, such as, ageing society, social disparity, globalization, regionalism, climate change, water-food-energy security, and emerging diseases.

The National Science Technology and Innovation Policy Office is the agency responsible for overseeing the implementation of the National STI Master Plan. Collaborative networking is an essential part of the Office and is emphasized by the creation and promotion of active collaboration through strong linkages with local and international partners.

ECOLOGICAL ENVIRONMENT OF THAILAND

Thailand is a peninsular nation in the middle of mainland Southeast Asia, lying between 5°-20° N and 97°-106° E., with a total land area of approximately 514,000 km² divided into 76 territories. Thailand is bordered with Lao PDR in the north, Myanmar in the northwest, Cambodia in the east, and Malaysia in the south.

The Kingdom of Thailand covers a land area of 513,115 square kilometers. The country extends 1,500 km from north to south and 800 km from east to west. The North is mainly mountainous which serves as the origin of four major rivers (Ping, Wang, Yom, and Nan) which converge to become the Chao Phraya River, the lifeline of the Central Plain. The whole region lies above 200 m heights. The Northeast occupies one-third of the country's total land area and is the most crowded and lowest income region. The Northeast is a dry plateau at 100 to 200 m heights. Large parts of this region regularly experience standing with periods of floods and alternating with periods of drought.

Thailand can be divided into 25 river basins. The average of annual rainfall for the country is about 1,700 mm. increasing population, economical, agricultural and industrial expansion in Thailand are the major causes of water quality in various water sources, including surface water, ground water and sea water to be deteriorated.

Industrial growth has created high levels of air pollution in Thailand. Vehicles and factories contribute to air pollution. In the Bangkok metropolitan area, which consists of the Bangkok Metropolitan Administration (BMA) and the four surrounding provinces (Nonthaburi, Pathum Thani, Nakhon Pathom, and Samut Prakan), have about 20 percent of the national population and over half of the country's factories. Coupled with the concentration of the factories in the metropolitan area, the air pollution caused by motor vehicle emissions, and grave water pollution from household and industrial wastewater, justified that there would be no doubt of the increase of externalities from production. Vehicles — motorcycles make up around 75% of the vehicles on the road in Thailand; diesel trucks and buses also contribute many pollutants.

Forest Parks in Thailand are protected areas set aside for conservation and protection from development due to their natural scenic value that are too small to be declared national parks. The forest parks are governed by the provincial administrations. Thailand's forest parks fall under IUCN Category V, (Protected and scape / Seascape). There are a total of 69 Forest Parks in Thailand, covering a combined land surface of 880 km², which is about a 0.17% of the total area of the country. Since the first protected area was established in Thailand, their capacity to achieve their purpose has been under multiple challenges. As other protected areas such as National Parks and Wildlife Reserves, forest parks are not free from severe threats such as land encroachment, illegal logging and poaching.

Pollution from noise and vibration are problems found in communities and developed areas in which transportation and industry are expanding, particularly in areas such as Bangkok Metropolitan and cities of developing center in other regions. The main sources of noise pollution include vehicles, commercial premises, and industrial factories. According to an examination of noise levels in 1994, the highest 24-hour average noise levels were found to be along roadsides in Bangkok and other areas in Samut Prakan. These levels may be dangerous for human hearing, in accordance with the US Environmental Protection Agency (EPA), the average noise in 24 hrs should be not more than 70 decibels. The main sources of vibration pollution are the use of industrial tools, machinery and equipment, and construction, pile driving, drilling, and stone quarry and crushing, as well some certain activities in communities. Vibration pollution causes cracks or subsidy of houses, buildings, and constructed structures, impact on people' health, and is a trouble to communities.

In the past, mitigation of noise and vibration pollution has been by designating noise level from boat and vehicle engines. A pilot project of the action to reduce noise pollution from boat engines in Khlong Saensaeb was implemented, in order to formulate operational guidelines for the whole country. In addition, a project was implemented to prevent and mitigate air and noise pollution originating from government vehicles in Bangkok Metropolitan and perimeter provinces, and pollution control zones, Further, training programs for mechanical technicians of engine service stations were also carried out. Ambient noise and emission standards from original

sources, for instance aircrafts, business premises, and industrial factories, are being formulated. Thus, solution of the impacts of sound pollution can be achieved to a certain level. At the same time, strict and continuous law enforcement, well-trained personnel, and appropriate study, research and development in technologies are lacking. Importantly, the public lacks the knowledge and understanding of how to solve pollution problems, resulting in a continuation of existing problems and an augmentation of problems due to expansion of economic growth.

The Environmental Performance Index (EPI) is a method of quantifying and numerically benchmarking the environmental performance of a country's policies. EPI has been measured from Environmental Burden of Disease, Water (effects on humans), Air Pollution (effects on human), Air Pollution (effects on ecosystems), Water, Biodiversity and Habitat, Productive Natural Resources, Productive Natural Resources, Productive Natural Resources, Climate Change.

According to EPI rank 2012 Thailand got 34th rank with 59.98 score (Strong Performer) and 6th rank in Asia continent. According to Trend EPI rank Thailand got 10th rank in all over world and 1st rank in Asia continent.

TABLE 5: ENVIRONMENTAL PERFORMANCE INDEX RANK OF THAILAND

Level of Aggregation	Score	Rank
Environment Performance Index	59.98	34
Environment Health	71.4	62
Air(Effect on Human Health)	40.3	115
Environmental Burden of Disease	87.6	35
Water (Effect on Human Health)	70	49
Ecosystem Vitality	55.1	41
Agriculture	93.9	6
Air(Ecosystem Effects)	42.9	57
Biodiversity and Habitat	78.9	35
Climate Change	39.2	77
Fisheries	34.2	26
Forests	87	50
Water Resources(Ecosystem Effects)	18.2	93

Environment Problem:

There are some environmental problems in Thailand including resource depletion, waste generation, air pollution, water pollution, and intensive farming.

Resource Depletion:

Resource depletion refers as the exhaustion of raw materials within a region. Resource depletion is used in reference to farming, fishing, mining, and fossil fuels.

Depletion of fishery resources, overfishing, excessive fishing effort, conflicts among the fishers and violation of regulations and illegal fishing. Furthermore, the fuel crisis since 2001, and the tsunami event on 26 December 2004 have impacted fishery activities significantly.

Between 1945 and 1975 forest cover in Thailand declined from 61% to 34% of the country's land area. Over the next 11 years, Thailand lost close to 28% of all of its remaining forests. This means that the country lost 3.1% of its forest cover each year over that period.

Land degradation affects agricultural production on the sloping Kandiustalfts and Ustults of northeast Thailand. These lands have considerable area with moderate (5-15%) and steep (>15%) slopes which are susceptible to erosion.

Plant diversity, Animal Diversity, The lost of biodiversity are also problem in Thailand.

Waste Generation:

- ❖ Ignitable, corrosive, reactive, toxic and leachable substances,
- ❖ Discarded commercial chemical products, off-specification species, container residues, and spill residues (Acute hazardous and toxic hazardous chemicals), and
- ❖ Chemical wastes, Acid Wastes, Solvents
- ❖ Oils, Liquid Organic Residues
- ❖ Organic Sludges & Solids, Inorganic Sludges & Solids, Heavy Metal Sludges & Solids
- ❖ Alkaline Wastes, Off Spec Products
- ❖ Photo Wastes, Aqueous Organic Residues
- ❖ Municipal Wastes, Infectious Wastes

Air Pollution:

Air pollutants are the cause of major problems and below standards include dust and carbon monoxide. Dust is a serious problem especially in crowded communities with traffic congestion. Other pollutants include lead, sulfur dioxide, and nitrogen oxide.

Industrial growth has created high levels of air pollution in Thailand. Vehicles and factories contribute to air pollution, particularly in Bangkok. Other sources of air pollution include garbage burning, open cooking and agricultural burning practices, including deliberate forest fires. Agricultural burning in southeast Asia often creates a haze.

Water Pollution:

The Gulf of Thailand is primarily polluted by domestic wastewater, and further by waste from industry and tourism. High pollution levels were found at the mouths of the Chao Phraya, Tha Chin, Pak Panang, Pattani and Ranong rivers.

Pollution affects the marine environment. Red tides, caused by excessive algae growth and a result of pollution, oil spills, and invasive species are the factors affect Thailand's marine biodiversity. Water pollution results in typhoid, dysentery, hepatitis, trachoma, hookworm infection and diarrhea. In 1999, hospitalization rates were:

- Typhoid — 4,000
- Dysentery — 7,000
- Diarrhea — 95,000

Intensive Farming:

Groundwater wells are being used for drinking which are heavily polluted with nitrates, endangering people's health, especially for children. Dangerous pesticides are being applied in farms find their way into rivers and groundwater, and into foods sold in Thai markets. Direct poisoning with pesticides causes severe health effects on farmers. In 2003, for example 2406 cases of pesticide poisoning were reported in Thailand.

Government Action and Remedies to Pollution:

Resource depletion

To overcome the problems and ensure sustainable fisheries, effective instruments should be harmoniously implemented all levels: global, regional, national and local. DOF is the lead national agency in policy development for fisheries in Thailand. DOF is responsible for research, develop, and manage fisheries resources and aquatic animal production so as to meet domestic consumption and provide for export of high-quality products. Including so, it must ensure sustainable utilization of fisheries resources and protection of the environment. DOF divides fisheries policy into in five category such as Development of Fisheries and Involved Organizations, Management of Fisheries Resources and Environment, Aquaculture Development, Oversea Fisheries Development, Fisheries Industry Development

The Thai Government had provided some subsidies and incentives through various programmes for plantation development and provision from the Bank for Agriculture and Agricultural Cooperative (BAAC) is going on in order to concerning the planting as an economic activities.

The policy of the Thai government which deals most directly with combating land degradation is the Cabinet resolution wherein the government acceded to the UNCCD, agreeing to abide by the obligations under the Convention. There are many additional policies appear in NAP.

Framework legislation for conservation of natural resources and environment

- Constitution of the Kingdom of Thailand B.E. 2550 (2007)
- Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992)

Legislation on forests and wildlife management

- Forest Act B.E. 2484 (1941)
- The National Park Act B.E. 2504 (1961)
- The National Reserved Forests Act B.E. 2507 (1964)

- The Wild Animal Reservation and Protection Act B.E. 2535 (1992)
- The Forest Plantation Act B.E. 2535 (1992)

Waste Generation:

Thailand's national policy for hazardous waste management relies on the framework of National Policy and Prospective Plan for Enhancement and Conservation of National Environmental Quality under the 8th National Economic and Development Plan (1197-2001) as guideline and management. The national policy for hazardous for hazardous waste management have increasing by emphasized on the environmental sound manner in order to ensure that hazardous waste are properly handled from the cradle to grave. In addition the prospect of waste minimization and clean technology in the 8th National Plan has become more attractive as the environmental regulation more than before.

Since several existing laws and regulations involve in controlling, prevention and solution of hazardous waste without the integrated legislation framework, the primary legislation are identified as follows:

- Hazardous Substance Act B.E. 2535 (1992)
- The Factory Act B.E. 2535 (1992)
- The Enhancement and Conservation of National Environmental Quality Act, B.E. 2535 (1992)
- The Public Health Act B.E. 2535 (1992)
- The Atomic Energy for Peace Act B.E. 2504 (1961)

As a developing country, obtaining sustainable development that reduces environmental pollution and keeps a continual economic growth at the same time remains a big challenge for Thai government. In order to raise public awareness of environmental protection in Thailand, Thai Government should spend more money on educating Thai people and providing classes in environmental literacy because public education is always the most effective tool to arm people with knowledge about the ways of how to protect environment. Just as researcher David (2008) stated that "almost everything we do results in the production of carbon dioxide, but simple steps in our daily lives at home and elsewhere can make a huge difference."

Thai people follow 5R (Rethink, Reduce, Reuse, Recycle, Responsible) for reducing environmental pollution and waste generation.

Air Pollution:

- Formulate and improve air quality standards, both overall standards and emission standards, including designated methods to check and measure pollution, to be the same as international standards, and strictly enforce these laws against offenders.
- Establish categories of sources of air pollution discharge and odors that must be controlled, as well as formulate appropriate standards for controlling air pollution and odor from sources.
- Designate all categories and ages of vehicles to undertake annual inspections of fuel combustion discharge system, using an inspection system based on the service center model. Use the symbol “Use Forbidden Temporarily” or, “Use Forbidden Absolutely” for vehicles that cause air pollution beyond designated emission standards set forth in the Enhancement and conservation of National Environmental Quality Act of 1992.
- Formulate orders and regulations of designating standard criteria and guidelines for practice, to control construction and related activities, including the construction of paved roads that shall have a shoulder and curb.

Thailand government design vehicular emission standard with European standards. EURO 1, 2 and 3 entered into force in 1995, 1997 and 2005, respectively. For Improving the quality of fuel and promoting the use of alternative fuels, Vehicles in Thailand have been completely changed from using Benzene to running on unlead gasoline since 1996, Diesel quality in Thailand has been improved by reducing the amount of sulfur contained, Thailand, in collaboration with Clean Air Initiative for Asia Cities (CAI-Asia) and United States-Asia Environmental Partnership (US-AEP), is attempting to promote the alternative fuels, particular Biofuel (ethanol and biodiesel).

Thailand Air Pollution Center of Excellence (TAPCE) was established, in collaboration with the United States Environmental Protection Agency (USEPA) for technical support and personnel development in the air pollution area with the following responsibilities:

- supporting the education and personnel development,
- building a technical network for air pollution control and prevention,
- supporting air pollution control technology research and development,
- providing recommendations on innovative technologies and,

Water pollution

- Designate and improve water quality standards in important water bodies and effluent standards from various sources, as appropriate and in prompt response to situations.
- Designate and improve categories and sizes of sources of wastewater or activities that discharge wastewater that should be controlled, including formulating criteria and conditions to continuously control and monitor discharge of wastewater.
- Strengthen the capacity of technicians, facilities, equipment, and the legal framework to support activities specified by laws of local officials.
- Amend related laws to support solving of water pollution problem, and accelerate establishment of laws, regulations, and orders for reducing and controlling water pollution as designated target.

In 1992, the government passed several pieces of legislation to prevent water pollution; the laws primarily limit industrial water contamination:

- Enhancement and Conservation of National Environment Quality Act (NEQA) of 1992
- Factories Act of 1992
- Navigation in Thai Waterways Act (Volume 14) as amended in 1992
- Public Health Act of 1992
- Cleanliness and Tidiness of the Country Act of 1992

Legislation on water resource management

- The People's Irrigation Act B.E. 2484 (1941)
- The Public Irrigation Act B.E. 2485 (1942)
- The Ditch and Dike Act B.E. 2505 (1962)
- The Groundwater Act of 1977

In 2000, enough treated water was available to support 29% of the population, with more treatment plants under construction; upon completion, treated water would be able to support 65% of the population. The most common water treatment techniques

are inexpensive to build and maintain, including oxidation ditches, aerated lagoons and stabilization ponds.

Intensive farming:

Thailand passed the Hazardous Substances Act, to replace the Poisonous Articles Act of 1973. The change includes coverage of all hazardous industrial substances not previously covered, including those used by the military. The Act gives responsibilities to Ministries to regulate hazardous substances falling under their jurisdiction - pesticides used for agriculture, under the Ministry of Agriculture; those for consumers and household use, under the ministry of health; those for industrial use, under ministry of Industry; and those related to the military, under the Ministry of Defense.

Pesticides banned include BHC, chlordimeform, DDT, dinoseb, EDB, endrin, leptophos, sodium arsinite, 2,4,5-T and toxaphene. DDT is banned for use in agriculture for use in agriculture, but is imparted and extensively used for control of malaria.

There are some acts to control intensive farming are below:

- 1) The Hazardous Substances Act B.E. 2535/1992
- 2) Ministerial Regulation (B.E. 2537/1994)
- 3) Hazardous Substances According to Section 3 “Civil Obligation and Responsibility” B.E. 2538/1995
- 4) Notifications of Department of Agriculture on
 - a. Determination on Details, Criteria and Procedure for Pesticide Registration
 - b. Notification on Action Made concerning Type II hazardous substances
 - c. Criteria, procedure and condition on determination of trade name of hazardous substances
 - d. Determination of experimental design and report on efficacy test of hazardous substances
 - e. efficacy test areas
- 5) Rules of Department of Agriculture
 - a. Application for Possession of Hazardous Substances in Provinces other than Bangkok B.E. 2539/1996.

LEGAL ENVIRONMENT OF THAILAND

LEGAL SYSTEM

Thailand's legal system combines principles of traditional Thai and Western laws. The Constitutional Court is the highest court of appeal, although its jurisdiction is limited to the clearly defined constitutional issues. Its members are nominated by the Senate and appointed by the King. The Courts of Justice have jurisdiction over criminal and civil cases and are organized in three tiers: Courts of First Instance, the Court of Appeals, and the Supreme Court of Justice. Administrative courts have jurisdiction over suits between private parties and the Government, and cases in which one government entity is suing another.

THE BUSINESS ENVIRONMENT

For policy makers trying to improve their economy's regulatory environment for business, a good place to start is to find out how it compares with the regulatory environment in other economies. *Doing Business* provides an aggregate ranking on the ease of doing business based on indicator sets that measure and benchmark regulations applying to domestic small to medium-size businesses through their life cycle

DEALING WITH CONSTRUCTION PERMITS

Regulation of construction is critical to protect the public. But it needs to be efficient, to avoid excessive constraints on a sector that plays an important part in every economy. Where complying with building regulations is excessively costly in time and money, many builders opt out. They may pay bribes to pass inspections or simply build illegally, leading to hazardous construction that puts public safety at risk. Where compliance is simple, straightforward and inexpensive, everyone is better off.

The ranking on the ease of dealing with construction permits is the simple average of the percentile rankings on its component indicators: procedures, time and cost.

MAJOR EXPORTS AND IMPORTS

Thailand main exports are computer hardware, motor vehicles and auto parts, jewelry and Electrical circuits. Crude oil, machinery and parts, and alloy steel and steel products are the top three import products of Thailand during the past five year.

CORPORATE REGISTRATION PROCEDURES

Limited Company: Before forming a limited company, the chosen corporate name must first be registered and approved by the Commercial Registrar. A memorandum of Association is then filed which contains: the approved name of the company, its business address, its objectives, the personal details about the promoters and the shares subscribed by each, and data on the authorized capital of the company. The next step is to hold a statutory meeting of shareholders during which the articles of incorporation and by-laws are approved, the board of directors is elected, the transactions and expenditures of the founders are ratified and the authorized auditor is appointed. The directors may then register the company with the Commercial Registrar.

BRANCH, REPRESENTATIVE OFFICE AND ROH

Foreign corporations wishing to do business in Thailand through a branch, representative office or ROH shall submit the required documents. Documents issued by the Head Office must be notarized by a Notary Public or certified by the local Thai consulate or embassy.

Public Securities: In offering newly issued securities for sale to the public, companies shall apply for an approval from the Securities and Exchange Commission (SEC) in compliance with the rules and regulations issued by the SEC Board according to the Securities and Exchange Act B.E. 2535. However, the offering of existing securities by its holders can be done without the SEC approval on the condition that the company shall disclose information prior to offering securities for sale. Before offering securities to the public, the companies or existing shareholders shall

generally need to file a registration statement and a draft prospectus to the SEC in order to provide the information to potential investors.

TYPE OF INCOME DEDUCTIONS

1. Income from employment -40% but not exceeding Baht 60,000
2. Income from hire of work -40% but not exceeding Baht 60,000
3. Income received from copyright - 40% but not exceeding Baht 60,000
4. Income in the nature of interest, dividend, capital gain -
5. Income from letting out of property on hire
 - Building and wharves 30%
 - Agricultural land 20%

Income from sale of immovable property: There are special rules applicable to calculating the gains on sale of immovable property which may allow the taxpayer to pay a final withholding tax to the Land Department in lieu of including the gain on sale as normal assessable income.

Interest: Interest income may, at the tax payer's election, be excluded from the computation of PIT provided that tax at 15 per cent is withheld at source. However, the following forms of individual's interest income are exempt from any tax

1. Interest on bonds or debentures issued by a government organization;
2. Interest on saving deposits in commercial banks if the aggregate amount of interest received is not more than 20,000 Baht during a taxable year.

1. Withholding Tax - Payments to resident individuals

For certain categories of income, the payer of income has to withhold tax at source, file the necessary return (Form PND 1, 2, or 3 as the case may be) and submit the amount of tax withheld to the District Revenue Office. The tax withheld shall then be credited against tax liability of a taxpayer at the time of filing the PND return. The following are the withholding tax rates on some categories of income

Value Added Tax

VAT replaced sales tax on 1 January 1992. It is an indirect tax imposed on the value added of each stage of production and distribution. Any person or entity, that regularly supplies goods or provides services in Thailand and has an annual turnover exceeding 1.8 million Baht, is subject to VAT in Thailand. A supplier of services to an offshore person will also attract VAT if the service is used in Thailand. VAT will also apply to any import of goods or services. Suppliers of goods and services collect VAT output tax. Purchasers of goods and services pay VAT input tax. Input tax is deducted from output tax to determine VAT liability

Incentives for Research and Development (R&D)

The R&D provisions of the income tax legislation allows a company to claim deductions of 200% of eligible expenditure incurred on payment to government or certain private agencies for costs of R&D of technology. In addition, assets used for R&D activities can be depreciated at an accelerated rate.

Incentives under the Investment Promotion Act

The Board of Investment (BOI) is the government agency charged with organizing incentives to encourage private-sector investment in specific areas. The structure, role and policies of the BOI today basically follow the guidelines provided in the Investment Promotion Act.

Incentive under the Industrial Estate Authority of Thailand Act

As a state enterprise under the Ministry of Industry, the Industrial Estate Authority of Thailand (IEAT) is responsible for the development and establishment of industrial estates, where factories for various industries are orderly and systematically clustered together.

LEGAL ENVIRONMENT

Consumer Protection Act (1979)

The right to be informed Goods, domestic and imported, must bear appropriate labels description, name or trademark of manufacturer, location of manufacturer, information of the goods, and marks indicating countries of origin (imports) Labels are to be accurate and not misleading.

The right to choose Traders must enable consumers to make informed decisions Advertisement must be truthful, honest, decent.

The right to safety & The right to redress Basically states that anyone who does not comply with the previously stated rights shall be sanctioned by fine or imprisonment

The right to fair contract terms Essential provision/s without which the consumer will be in a disadvantaged position compared to the business operator, as determined by the Board Prohibition from applying unfair terms to the consumer.

Unfair Contract Term Act (1997)

Protects consumers with little negotiation or bargaining power

A term is unfair if it causes an imbalance in the parties' rights and obligations under the contract.

Trade Competition Act (1999)

Preserves the free and fair competitiveness of the market and to discourage business operators from anti-competitive activities

This act holds many similarities to laws restricting monopolistic practices in the United State.

Computer Crime Law (2002)

Hacking into computer networks with malicious intent would be punishable by two years imprisonment

The Credit Information Business Act (2002)

Credit businesses such as banks or other financial institutions must conduct business without harming individual interests and privacy Same basic concepts the APEC Privacy principals.

Economic and Social development plan (1992-1996)

Protecting the environment became one of the top priorities for the Thailand government Seeks to maintain economic growth and achieve sustainable growth and stability, especially in the petrochemical, engineering, electronics and basic industries

Environmental challenges brought about by rapid economic growth

Air and water pollution

Declining wildlife populations

Deforestation

Soil erosion

Water Scarcity

Hazardous waste issues

**FINANCIAL SYSTEM OVERVIEW AND IMPORT-EXPORT
PROCEDURE**

Thailand is an emerging economy and considered as a newly industrialized country. After enjoying the world's highest growth rate from 1985 to 1996 – averaging 12.4% annually – increased pressure on Thailand's currency, the baht, in 1997, the year in which the economy contracted by 1.9% led to a crisis that uncovered financial sector weaknesses and forced the Chavalit Yongchaiyudh administration to float the currency, however, Prime Minister Chavalit Yongchaiyudh was forced to resign after his cabinet came under fire for its slow response to the crisis. The baht was pegged at 25 to the US dollar from 1978 to 1997, however, the baht reached its lowest point of 56 to the US dollar in January 1998 and the economy contracted by 10.8% that year. This collapse prompted the Asian financial crisis.

Thailand's economy started to recover in 1999, expanding 4.2% and 4.4% in 2000, thanks largely to strong exports. Growth (2.2%) was dampened by the softening of the global economy in 2001, but picked up in the subsequent years owing to strong growth in Asia, a relatively weak baht encouraging exports and increasing domestic spending as a result of several mega projects and incentives of Prime Minister Thaksin Shinawatra, known as Thaksinomics. Growth in 2002, 2003 and 2004 was 5–7% annually. Growth in 2005, 2006 and 2007 hovered around 4–5%. Due both to the weakening of the US dollar and an increasingly strong Thai currency, by March 2008, the dollar was hovering around the 33 baht mark.

Thailand exports an increasing value of over \$105 billion worth of goods and services annually.^[1] Major exports include Thai rice, textiles and footwear, fishery products, rubber, jewellery, cars, computers and electrical appliances. Thailand is the world's no.1 exporter of rice, exporting more than 6.5 million tons of milled rice annually. Rice is the most important crop in the country. Thailand has the highest percentage of arable land, 27.25%, of any nation in the Greater Mekong Subregion.^[56] About 55% of the arable land area is used for rice production.

The economy of Thailand is an emerging economy which is heavily export-dependent, with exports accounting for more than two thirds of gross domestic product (GDP) The exchange rate is Baht 30.90/USD as of 26 April 2012

Thailand generally uses the metric system but traditional units of measurement for land area are used, and imperial measure (feet, inches etc.) are occasionally used with building materials such as wood and plumbing sizes. Years are numbered as B.E. (Buddhist Era) in education, the civil service, government, and on contracts and newspaper datelines; in banking, however, and increasingly in industry and commerce, standard Western year (Christian or Common Era) counting prevails.

OVERVIEW OF THE FINANCIAL SYSTEM

There is revealing albeit unsystematic and casual evidence of the benefits of foreign bank entry in Thailand by way of reductions in cost structures, improvements in operational efficiency, introduction and application of new technologies, banking products, marketing skills and management and corporate governance structures. These early results do indicate that foreign bank entry in Thailand has improved the functioning of the national banking system and provided some positive welfare gains for bank customers. Foreign bank entry does bring with it added potential advantages over time that may be less obvious.

First, entry of foreign banks ought to reduce the extent of “non-commercial” or “connected” lending, as these banks are not as politically connected and less likely to “capture” regulatory authorities (Kroszner, 1998). Second, since foreign banks’ portfolios are far less concentrated in any single country, particularly in the emerging host ones, they should be much less susceptible to country-specific crises. Third, a banking system with an internationally diversified asset base may be more likely to be stable and less prone to bank runs and outright crises since the domestic branches of foreign banks are able to obtain financing from the foreign head office, which could act as a private lender of last resort¹². Fourth, bank internationalization may create domestic pressures for local banking authorities in the host countries to enhance and eventually harmonize regulatory and supervisory procedures and standards to international best practice levels (Claessens and Glaessner, 1998 and Levine, 1996).

The opening of Thailand’s banking sector to foreign banks has resulted in the entry of some multinational and regional banks via the acquisition of local counterparts. In view of the gradual steps towards internationalization, on the one hand, and concerns about effectiveness of Thai bankruptcy laws and the judicial system in general which

have limited interests of other foreign banks in acquiring Thai financial institutions (ARIC, 2000), on the other, the market structure of the Thai banking system has been only slightly altered. As noted, the five largest local banks still maintain about 70 per cent market share as of mid 2001.

Dobson and Jacquet (1999) have emphasized the importance of making “credible and binding commitments to pursue full reform...(as)..a necessary complement to any gradual sequence, as it helps contain hostile domestic interests.” Under the terms of Thailand’s IMF structural agreement and the WTO financial services offer, the absolute amount of investments by foreign financial institutions that enter the Thai market until 2007 will be permanently grand fathered. This ought to ensure there is at least partial commitment by the Thai authorities towards opening up the banking sector over time.

THAILAND’S FINANCIAL STABILITY

A. Macro economy

Economic developments were broadly favourable for the financial sector over the past two years (Figure 1). GDP growth averaged 5 percent in 2006 and 2007, supported by strong net exports. Domestic demand weakened reflecting the negative impact of political developments and higher oil prices. Inflation declined steadily from its peak in May 2006 to well within BOT’s target band. Property prices also continued to rise, helping to support collateral values and spur demand for housing-related credit. Corporate profitability strengthened further on the back of rising profit margins and sales (Figure 2). The household sector’s financial position also improved, despite higher debt acquired largely to finance housing, due to positive real wage growth and rising housing prices (Figure 3). Household debt at about 30 percent of GDP at end-2005 is moderate compared to regional averages.

B. Financial Sector

The Thailand financial sector is relatively large, with assets close to 180 percent of GDP. It is bank centred, although capital markets and nonbank financial institutions are assuming a more prominent role (Table 1). Commercial banks account for 60 percent of financial sector assets. SFIs—which are government-owned, in most cases are deposit-taking, and are intended to promote the government’s social and economic development—account for another 14 percent. Nonbank financial institutions hold the remaining 25 percent of financial assets. Many of them (e.g., leasing, asset management, insurance, and securities companies) are subsidiaries of local banking groups.

C. BANKING STABILITY

Despite considerable efforts to improve banking soundness and lower NPLs, Thailand banks remain exposed to large holdings of NPAs and restructured loans.

Total NPLs among banks amounted to 7.3 percent of total loans at end-2007, a modest improvement from 8.3 percent in 2005. This was driven primarily by lower NPLs among private banks. Most of the NPLs are loans that were previously restructured and have fallen back to NPL status or assets acquired through foreclosure. This figure may underestimate the problem given the high re-entry rate of previously restructured loans to NPL status and, until recently, lax guidelines governing classification of restructured loans.⁶ The magnitude of the problem is also higher if loans and foreclosed assets warehoused with the state-owned AMC are included.

D. FINANCIAL MARKET INTEGRITY

The BOT has available a range of powers and instruments for effective systemic liquidity management. The BOT has full autonomy on how it uses its own instruments. The BOT is also closing its repurchase (RP) window to promote more active use of the interbank market for liquidity management. There are, however, a

few legal shortcomings that could potentially limit the BOT's ability to manage systemic liquidity. These are being addressed under the proposed amendments to the BOT Act. Passage of the amendments would permit the BOT to pay interest on banks' uncollateralized deposits held with the central bank, which it currently cannot do. It would also remove the need for the BOT to receive approval by the MOF on the overall ceiling for the amount of BOT bills/bonds that can be issued for monetary purposes.

IMPORT AND EXPORT TRADING PATTERN IN THAILAND

INDIA-THAILAND FREE TRADE AREA: ITFTA

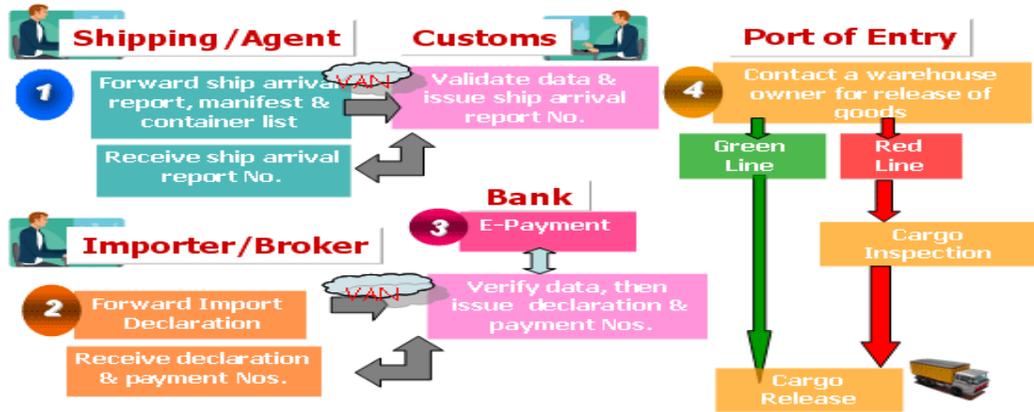
In 2001, the leaders of India and Thailand agreed to expand economic cooperation in trade and investment, and set up a joint working group to study the feasibility of establishing a Thailand - India free trade area.

The Joint Working Group held four rounds of meetings between May and December of 2002, and concluded that a free trade agreement would create mutual benefits in expanding trade, investment, and economic cooperation in areas, such as tourism, education, finance and banking, health, aviation, and international transportation. In addition, Thailand would benefit from expanded trade and reduced tariffs on exports to India, particularly garments, leather products, chemicals, rubber, plastics, metals, automobile and parts, and electrical goods.

Rules of Origins

The two countries have agreed upon "Change in Tariff Heading (CTH) + Local Content of 40%" as the general rule for consideration of origins of products. They also agreed on the Product Specific Rules (PSR) for other 82 items.

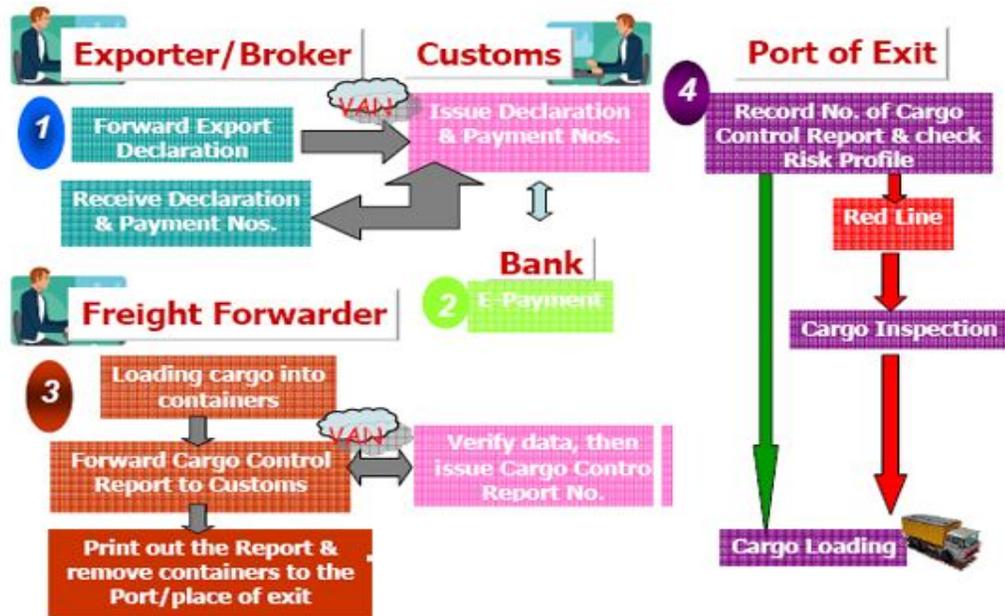
IMPORTATION



When a shipment arrives in Thailand, importers are required to file a Goods Declaration and supporting documents for the imports with a Customs officer at the port of entry. Imported cargo are not legally entered Thailand until after the shipment has arrived within the port of entry, delivery of the merchandise has been authorized by Customs, and applicable taxes and duties have been paid. It is the responsibility of an importer to arrange for examination and release of the imported cargo.

In addition, depending on the nature of the imports, and regardless of value, the importers may need to obtain a permit to facilitate clearance of the imports. Some, not all, of the goods requiring permit, and the relevant permit issuing agencies, should be contacted prior to the importation.

EXPORT PROCEDURES



Goods intended for export from Thailand are subject to normal export procedures. For Customs purposes, an export is the removal of goods by ship or aircraft from a place in Thailand to a place outside Thailand. All goods being exported from Thailand are subject to Customs control and must be reported to Customs.

Customs role in the exportation of goods is to ensure that all goods being exported from Thailand are reported as required; and administer controls on behalf of permit issuing agencies on the export of restricted goods. In addition, Customs also gather information regarding the nature and volume of exports to assist government and industry in policy and decision-making.

EXPORT PROCEDURES

Exporters prepare the Export Declaration and follow the requirements of the e-Export system. Additional details can be studied from the Notification of Customs

No.39/2550 Subject: Manual of Export Customs Procedures in e-Export System. It is essential that the exporters submit the request for tax and duty compensation at the Duty Compensation Sub-Division, Tax and Duty Incentive Bureau within ONE year from the date of exportation.

INDIA-THAILAND FREE TRADE AGREEMENT

India has recently inked a free trade agreement (FTA) with Thailand for setting up of a free trade area covering goods, services and investment in 10 years. The Indo-Thai FTA covers as many as 84 items and several areas in the first phase including services, investment, economic cooperation and goods like food items, tourism, auto parts, and electronic goods.

As per the 'Early harvest scheme (EHS)' under the agreement, a common list of items for exchange of tariff concession at 6-digit level and tariff on these identified items is slated to be phased out by March 1, 2006.

As per agreement, negotiations on goods will begin from January 2004 and will be concluded in March 2005 and the FTA for zero duty imports will be put into effect by 2010. Similarly negotiations on investment would start in January 2004 and is expected to be completed within two years. Currently, discussions are continuing on the framework of 'Rules of Origin'.

The agreement along with the list of items identified for early harvest programme is being reproduced below.

FRAMEWORK AGREEMENT FOR ESTABLISHING FREE TRADE AREA BETWEEN THE REPUBLIC OF INDIA AND THE KINGDOM OF THAILAND

The Governments of the Republic of India and the Kingdom of Thailand hereinafter referred to in this Agreement individually as "the Party" and collectively as "the Parties";

Desiring to strengthen the special bonds of friendship and economic relationship and also cooperation that exist between the Parties with a view to improving living standards, deepening economic linkages, promoting economic growth, investment

opportunities, minimizing barriers, and creating a larger and more integrated market with greater opportunities;

Desiring to raise the capacity and international competitiveness of their goods and services as well as to promote their mutual interests through liberalization and expansion of trade and investment between them and with a view to eventually establishing a bilateral Free Trade Area;

Recognizing the important role and contribution of the business sector in enhancing trade and investment between the Parties and the need to further promote and facilitate their cooperation and utilization of greater business opportunities provided by a comprehensive free trade agreement between the Parties;

Re-affirming the rights and obligations with respect to each other under existing bilateral, regional and multilateral agreements including the Marrakesh Agreement establishing the World Trade Organization;

Recognizing the catalytic role that regional trading arrangements can play towards accelerating regional and global liberalization and as building blocks in the framework of the multilateral trading system;

THAILAND AND INDIA EXTEND BENEFITS OF FTA

The Free Trade Agreement (FTA) between Thailand and India will provide tax privilege benefits to at least another 900 Thai items for goods categorised under 'Product Specific Rules' (PRS) and merchandise needing Rules of Origin requirements, according to Thailand's Trade Negotiations Department director-general.

Thai representatives, led by Director-General Srirat Rastapana, recently went to India for to meet their Indian counterparts at the 21th Thailand-India Trade Negotiating Committee in the capital, New Delhi, to negotiate free trade, services, investment, and other economic cooperation between the two nations.

Other benefits from the negotiation included creative economy, construction, tourism, and the development of small- and medium-sized enterprises (SMEs).

Beginning in 2004, the Thailand-India Free Trade Agreement covered trade in goods by 2010

Beginning in 2004, the Thailand-India Free Trade Agreement covered trade in goods by 2010. To speed up tariff reductions, both countries agreed to implement an Early Harvest Program (EHS) for 82 items of merchandise which had tariffs reduced to 0 per cent –entirely removed– since Sept 2006.

Bilateral negotiations later stopped, as India needed to prioritise its free trade with the Association of South East Asian Nations (ASEAN).

Thailand and India resumed negotiations in Dec 2010 and agreed the bilateral FTA with improved benefits to the ASEAN-India FTA, complying with Thailand's goal to become India's partner at a strategic level, for instance, increasing number of goods to penetrate market and the period of tax reduction and/or cancellation faster to that of the ASEAN-India FTA.

THAILAND-INDIA FTA TAX PRIVILEGE BENEFITS 900 THAI ITEMS

Mr. Abhisit Vejjajiva, the Prime Minister of Thailand, paid a State visit to India during 4-5 April 2011 at the invitation of Dr. Manmohan Singh, the Prime Minister of India. Both leaders agreed to increase the cultural interaction, connectivity and enhancement of trade and economic through the bilateral and regional frameworks viz. ASEAN-India, BIMSTEC and MGC. It was also decided to increase the trade between two countries from its 2010 figure of \$6.7 billion to its double in 2014

When the former prime minister of Thailand, Pol. Lt. Dr. Thaksin Shinawatra, visited India during November 26-29, 2001, the leaders of both countries agreed to expand economic cooperation in trade and investment, and set up a joint working group to study the feasibility of establishing a Thailand – India free trade area.

Following the outcome of the study, both parties established a Joint Negotiating Group to develop the framework agreement with the aim to establish a Thailand – India Free Trade Area for trade in goods, services, investment, and economic cooperation. The negotiating group convened six meetings between December 2002 and October 2003.

On October 9, 2003, Ministers of Commerce of both countries signed the framework agreement.

NEGOTIATING MECHANISM

An India – Thailand Trade Negotiating Committee was set up to discuss details under the Framework Agreement and formulate a free trade agreement as well as expand economic cooperation between the two countries.

Expert Groups have also been set up to negotiate specific areas of the agreement, for example, rules of origins of goods, dispute settlement mechanisms, and trade in services and investment. These expert groups report their conclusions to the Trade Negotiating Committee.

Significant Framework Agreement to establish a free Trade Area between Thailand and India

The Framework Agreement covers the liberalization trade in goods, trade in services and investment, as well as expansion of economic cooperation

TRADE IN GOODS:

Under the Framework Agreement, it was agreed that Thailand and India commence the negotiation on Trade in Goods in January 2004 in order to establish the India – Thailand FTA covering trade in goods by 2010. Initially, with a view to accelerating tariff reduction, both countries agreed to implement an Early Harvest Program (EHS). The tariff reduction or elimination of the remaining products other than those under the EHS will be categorized into two tracks, namely Normal Track and Sensitive Track.

TRADE IN SERVICES AND INVESTMENT:

Under the Framework Agreement, it was also agreed that the negotiations on Trade in Services and Investment be started in January 2004. Both sides concurred to instigate a progressive liberalization of Trade in Services and an establishment of open and competitive investment regimes that facilitate and promote investment within and between the two countries.

- Economic Cooperation: Thailand and India agreed to promote and enhance economic cooperation in the areas that would be beneficial to both countries, such as information and communication technology, tourism, banking and finance, healthcare, construction, etc.

**IMPACT OF WTO AND OTHER TRADE UNIONS OF
INDUSTRIES OF THAILAND**

This year's World Trade Report ventures beyond tariffs to examine other policy measures that can affect trade. As tariffs have fallen in the years since the birth of the General Agreement on Tariffs and Trade (GATT) in 1948, attention has progressively shifted towards

Non-tariff measures (NTMs). The range of NTMs is vast, complex, driven by multiple policy motives, and ever-changing. Public policy objectives underlying NTMs have evolved.

The drivers of change are many, including greater interdependency in a globalizing world, increased social awareness, and growing concerns regarding health, safety, and environmental quality. Many of these factors call for a deepening of integration, wresting attention away from more traditional and shallower forms of cooperation.

Trade in services is a part of this development and has come under greater scrutiny, along with the policies that influence services trade. The continuing multiplication of policy directions and preoccupations presents challenges for international cooperation.

The GATT/WTO has addressed some of the challenges created by NTMs, both through its dispute settlement mechanism and successive rounds of GATT/WTO negotiations. The Tokyo and Uruguay rounds, in particular, focused on a number of NTMs, including standards, which were progressively subject to heightened multilateral discipline. The Uruguay Round also marked the inclusion of services in the WTO

Regulatory measures such as technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) measures in goods and domestic regulation in services raise new and pressing challenges for international cooperation in the 21st century. They also pose acute transparency issues. More than many other measures, they reflect public policy goals (such as ensuring health, safety and well-being of consumers).

Their trade effects may be incidental, but they can also be designed and applied in a manner that unnecessarily frustrates trade. Moreover, they raise a number of issues that are specific to

Governments and firms in developing countries. The sheer breadth of the subject area has meant that the focus of this report is on TBT/SPS measures and domestic regulation in services.

Section A of the Report presents an overview of the history of non-tariff measures in the GATT/WTO. This overview discusses how motivations for using NTMs have evolved, complicating this area of trade policy but not changing the core challenge of managing the relationship between public policy and trading opportunities.

Section B examines the reasons why governments use NTMs and services measures and the extent to which public interventions may also distort international trade. The phenomenon of off shoring and the cross effects of services measures on goods trade are also considered. The section analyses choices among alternative policy instruments from a theoretical and empirical perspective.

Finally, case studies are presented on the use of NTMs in particular contexts. These include the recent financial crisis, climate change policy and food safety concerns. The case studies consider how far measures adopted may pose a challenge for international trade.

Section C of the Report surveys available sources of information on NTMs and services measures and evaluates their relative strengths and weaknesses. It uses this information to establish a number of “stylized facts”, first about NTMs (TBT/SPS measures in particular) and then about services measures.

Section D discusses the magnitude and the trade effects of NTMs and services measures in general, before focusing on TBT/SPS measures and domestic regulation in services. It also examines how regulatory harmonization and/or mutual recognition of standards help to reduce the trade-hindering effects of the diversity of TBT and SPS measures and domestic regulation in services.

Section E looks at international cooperation on NTMs and services measures.

- ✓ The first part reviews the economic rationale for such cooperation and discusses the efficient design of rules on NTMs in a trade agreement.
- ✓ The second part looks at how cooperation has occurred on TBT/SPS measures and services regulation in the multilateral trading system, and within other international forums and institutions.
- ✓ The third part of the section deals with the legal analysis of the treatment of NTMs in the GATT/WTO dispute system and interpretations of the rules that have emerged in recent international trade disputes.

The section concludes with a discussion of outstanding challenges and key policy implications of the Report. An economic perspective on the use of non-tariff measures

Reasons for government intervention and types of measures

Governments employ non-tariff measures to increase national welfare and for “political economy” reasons. on-tariff measures, such as TBT/SPS measures(including labeling), taxes and subsidies, are often the first-best policy instruments to achieve public policy objectives, including correcting market failures such as information asymmetries (where parties do not have the same information) or imperfect competition, and pursuing non-economic objectives, such as the protection of public health.

NTMs such as export subsidies and export taxes increase national income by exploiting market power in international markets. While many NTMs are concerned with consumer protection, NTMs can also be utilized by political incumbents to protect domestic producers. The use of NTMs, irrespective of the motive that underlies them, will often have trade effects. In some cases, the use of NTMs can promote trade but in many other cases, they restrict it.

In cases where the NTMs are meant to correct a market failure, the trade effects are an inadvertent by-product of pursuing a public policy objective. At other times, when NTMs are employed to manipulate the terms of trade or protect domestic producers, adverse trade effects on partners are the means through which gains are captured.

The fact that the same NTM used to pursue a public policy objective can also be used for protectionist purposes underlines the difficulty of distinguishing between “legitimate” and protectionist motivations for NTMs, and of identifying instances where NTMs create unnecessary trade costs.

The choice of NTMs in light of domestic and international constraints:

Analyzing the choice among alternative instruments in light of the domestic political and economic context can help identify the motivation behind policy interventions. Neither the declared aim of a policy nor its effect on trade provides conclusive evidence on whether nor is notan NTM innocuous from a trade perspective.

An analysis of the nature of these measures and of the political and economic conditions leading to their adoption can provide important insights in this regard. In particular, the opaque nature of certain NTMs compared with tariffs and other policy instruments allows politically motivated governments to conceal the true costs and benefits of a measure and, thus, satisfy the demands of producer lobbies while maintaining the appearance of pursuing a policy of public interest.

Various circumstances in the political environment, such as election cycles or inter-departmental conflicts, can give further indications as to why the use of NTMs persists. Sector characteristics also play a role. Pressure from large influential firms regarding increases in fixed costs or the prevalence of international off shoring in certain industries is bound to affect governments’ decisions on the use of certain NTMs.

As countries make commitments in trade agreements that constrain their ability to pursue certain trade policies, less effectively regulated measures may emerge as a secondary means of protecting or supporting domestic industries. When tariffs and other trade measures increasingly become unavailable to governments, certain NTMs, including behind-the-border NTMs such as TBT/SPS measures, may be used to influence trade.

For example, a government may be tempted to impose more stringent domestic technical regulations if domestic firms in an import-competing industry find it easier than foreign

Companies to comply. Existing empirical evidence alludes to increased use of NTMs when tariffs are constrained by international agreements.

Measures affecting trade in services

Despite the peculiarities of services trade, distinguishing when services measures pursue public policy objectives from instances in which they distort trade is fraught with the same fundamental difficulties as in the case of NTMs. The case for regulating services markets is particularly evident given the incidence of market failures in many services sectors.

At the same time, the specific characteristics of services trade, notably the intangibility of services and the different modes of supply, imply that regulatory measures, mostly applied “behind the border”, are the only form of trade protection. Thus, while some services measures may be used explicitly for protectionist purposes, much services regulation pursues public policy objectives, but might nonetheless have effects on trade.

Ensuring that services measures do not unduly distort trade has become of even greater significance in light of the unbundling of production processes. Trade in services plays an important role in supporting international production networks.

Measures that restrict trade and competition in services markets may affect more than the sector directly concerned. Particularly in the case of infrastructural services, spillover effects on other services and goods can be significant.

NTMs in the 21st century

The use of NTMs in the financial crisis, and policies addressing climate change and food safety measures are all examples of how challenges arise at the interface of public policy and trade policy. During the recent financial crisis, a number of “emergency” measures were taken to stem the spread of systemic damage.

At the same time, it was feared that the crisis could increase the temptation to resort to beggar-thy-neighbor policies. This has heightened the need for the monitoring of measures taken in response to the crisis in order to guard against the specter of protectionism. In regard to climate change, countries with strict regimes will be tempted to resort to NTMs in order to manage the environmental and trade consequences of their climate policies.

Two of these consequences are carbon leakage (whereby reductions of greenhouse gas emissions by a country with strict regulations are offset by increased emissions by a country with less strict regulations) and the loss in competitiveness of firms in countries with tough environmental regulations.

While environmental reasons could motivate the use of NTMs, such as border adjustment measures, these measures also help competitively challenged domestic producers, giving rise to a risk of regulatory capture. Economic, social and technological advances have resulted in higher consumer demand for food safety and posed new challenges in managing globally fragmented supply chains. Food safety measures have proliferated as a tool to respond to these challenges.

As a consequence, various approaches to mitigate possible negative trade impacts, such as harmonization of standards, equivalence and commitment to a set of rules, are receiving widespread attention. An inventory of non-tariff measures and services measures

Sources of information on NTMs and services measures

Transparency is a major issue with regard to both NTMs and services measures. Despite recent efforts aimed at filling the information gap in this area, data remain sparse.

The relative scarcity of information on non-tariff measures is partly due to the nature of these measures, which are inherently more difficult to measure than tariffs.

The WTO and other international organizations have undertaken substantial efforts and made good progress in classifying and collecting data on NTMs in recent years, and these efforts are starting to extend to services measures.

However, more needs to be done to obtain a clearer and more complete picture of the trade policy landscape. WTO internal sources include WTO members' schedules of concessions/commitments, notifications, WTO trade policy reviews, monitoring reports, and information on specific trade concerns (STCs) raised by WTO members and disputes brought to the WTO. Most of these sources suffer from limitations and fail to provide the level of transparency they are supposed to deliver.

With WTO members' notifications, for example, the low compliance rate can be a serious limitation. Another problem is the accessibility of data which are not always stored in databases and are scattered. The situation with regard to the accessibility of NTM data should improve considerably with the WTO's new Integrated Trade Intelligence Portal (I-TIP), which is currently being deployed.

With regard to non-WTO sources, it became evident by the early 2000s that UNCTAD's Trade Analysis and Information System (TRAINS) database, the most complete collection of publicly available information on NTMs, was in need of upgrading.

A multi-agency group including all relevant organizations updated UNCTAD's outdated coding system. At the same time, UNCTAD, the International Trade Centre and the World Bank started coordinating their efforts to collect official information on NTMs.

They also undertook a series of business surveys that usefully complement official information. Other non-WTO sources of NTM data include the Global Anti-Dumping Database, the CoRe NTMsDatabase and the Global Trade Alert Database. None of these data sources provides comprehensive coverage of NTMs. However, each sheds light on a the trade effects of non-tariff measures and services measures

The quantification of trade effects

Non-tariff measures are diverse and cannot easily be compared across countries and sectors. The existing literature, however, suggests that NTMs significantly distort trade, perhaps even more than tariffs. Moreover, the relative contribution of NTMs to the overall level of protection appears to increase with the level of GDP per capita.

A number of studies quantify the effect of NTMs on international trade by estimating an “ad-valorem tariff equivalent” (AVE). Averaging across countries and across tariff lines, NTMs almost double the level of trade restrictiveness imposed by tariffs. More recent evidence suggests that with falling tariffs, the contribution of NTMs to overall trade restrictiveness is likely to have increased even more.

The evidence also suggests that as WTO members become richer, the trade restrictiveness of NTMs – relative to tariffs –increases. Furthermore, the average AVE for agricultural products appears to be much higher than that for manufactured goods. The degree of restrictiveness of services measures is generally higher in developing countries than in developed countries.

Yet there is no systematic relationship between the restrictiveness of services measures and income per capita. The restrictiveness of services measures does not appear to be systematically associated with a country’s level of development because there is much variation within the group of developing economies. Furthermore, it appears that the cross-country variation in the restrictiveness of services measures may depend on the particular service sector under consideration.

The methods developed in the trade literature to estimate the degree of restrictiveness of NTMs and services measures suffer from a number of limitations. These are

aggravated in the presence of global supply chains. The methodological limitations can be traced, in part, to a lack of transparency in the use of NTMs and services measures.

Problems also arise due to insufficient data on different prices, the sensitivity of results from the use of different econometric techniques and the difficulty of attributing price increases to a single measure when a market is characterized by multiple NTMs and services measures. International cooperation on non-tariff measures in a globalized world.

Regulation of NTMs in trade agreements

Shallow agreements contain provisions that focus on addressing the problem of tariffs being replaced by non-tariff measures. Under the main economic theory for trade agreements, the main problem that the rules on non-tariff measures in a trade agreement need to address is “policy substitution” between tariffs and non-tariff measures.

Efficiency can be obtained with a simple set of rules, which leave substantial autonomy to national governments in setting NTMs (“shallow” integration). The changing nature of international trade and the use of private standards may prompt the need for deeper forms of institutional integration.

The proliferation of global production chains creates new forms of cross-border policy spillovers. In addition, firms increasingly employ private standards to address the challenges in governing their supply chains, with implications for market access.

This provides a rationale for deep cooperation on NTMs within trade agreements. Because production is international, some of the costs of trade frictions are borne by firms in foreign states. Trade agreements play a role in preventing governments and firms from distorting trade and investment decisions across the supply chain. Moreover, the growing number of reasons why governments resort to NTMs, including for health, safety and environmental considerations, creates need to

develop rules to facilitate cooperation in the identification of efficient and legitimate uses of NTMs.

As consumer concerns become more important in areas such as health and the environment, regulations play a more prominent role in government decisions for legitimate reasons. However, the complexity of certain NTMs can create inefficiencies because policy-makers may not have all the necessary information about their own regulatory needs and the needs of their trading partners.

The opacity of many NTMs also makes enforcement of regulations a difficult international endeavor, because it depends on the ability of each government to observe how the others are holding up their end of the bargain.

PART II

SEM IV

“A STUDY ON EDUCATION SECTOR OF THAILAND”

Introduction:

Formal education originated in the temple schools, when it was made available for only boys. Thailand opened up to major French Catholic influence from the mid-sixteenth century until the mid-seventeenth century, after that the country returned to a strengthening of its own cultural ideology.

Early education

The studies shows that there are evidences that one the earliest forms of education began when **King Ram Khamhaeng** invented the Thai alphabet in 1283 embossing it on Mon, Khmer, and Southern Indian scripts.

A stone inscription from 1292 in the new script represents moral, intellectual and cultural aspects. During the Sukhothai period (1238–1378), education to members of the royal family and the nobility was given by the Royal Institution of Instruction (*Rajabundit*), while common people were educated by Buddhist monks.

The *Chindamani*, was generally accepted as the first textbook of the Thai language, collating the grammar in the period of the Ayutthaya kingdom from 1350 to 1767 during the reign of King Narai the Great (1656–1688).

The official forms and prosody of Thai language of correspondence were in print by a monk, Pra Horatibodi, in order to stem the foreign educational influence of the French Jesuit schools .It remain in use up to King Chulalongkorn's reign (1868–1910).

Development

King Rama I (1782–1809), accelerated the development of public education through his reforms of the Buddhist Sangha, and during the reign of King Rama IV (1851–1865) the printing press arrived in Thailand and books were made available in Thai language for the first time; English became the *lingua franca* of the Far East, and the education given by the monks was proving inadequate specially for government officials.

Rama IV decreed that measures should be taken to modernize education and insisted that English should be included in the curriculum.

In 1932, the power was transferred from the king to demographical government which encouraged further development and expansion of schools and tertiary institutions.

In 1960, compulsory education was extended to seven years and preliminary special provisions were made for disabled children, who were originally exempt from compulsory education.

In 1961, a series of five-year plans was started by the government.

Initially from 2001 the Ministry of Education began emergent to new national curricula under Prime Minister Thaksin Shinawatra in an endeavour to model the system of education on child, or student specific learning methods.

In the duration from 2001 to 2006 some of the improvements in education like computers in the schools and an increase in the number of qualified native-speaker teachers for foreign languages.

Thailand government provides Education under Ministry of Education from pre-school to senior high school. A free basic education of 12 years is mentioned in the constitution and least of nine years' school attendance is mandatory.

The basic education subjects are Thai language, art, social studies, mathematics, health education and physical education, religion and culture, career and technology-related education, and foreign language.

EDUCATION SYSTEM OF THAILAND

Minister of Education -Prof. Dr. Suchart Thada-Thamrongvech

National education budget (2005)

Budget- ฿262,938.3M (21.91 percent national budget)

General details

Primary languages-Thai, English

System type -National

Literacy in (2005)

Total- 94 percent

Male-96 percent

Female -92 percent

In Thailand, education is presented in three formats:

Formal education:

- Formal education is facilitated by both public and private institutions and further broken down into basic education and higher education.
- The Basic education in Thailand mandate students with six years of primary education, three years of lower secondary education, and three years of upper secondary education.

Non-formal education

- Non-formal education can be provided by public and private institutions outside the school system. These schools provide education for "school-age population who have missed formal schooling and over-school-age population"

Informal education

- Informal education is the choice of the individual learners and it is provided by a wide variety of sources at the local and national including library programs, museums, science and technology centers, and mass media such as television, newspapers, and magazines.

School structure in Thailand is divided into four key stages and the give below is the first three years in elementary school:

Prathom 1–3, are for age groups 6 to 8; the second level,

Prathom 4 -6 are for age groups 9 to 11; the third level,

Matthayom 1–3, is for age groups 12 to 14.

The **upper secondary level** of schooling consists of **Matthayom 4–6** for age groups 15 to 17 and is partitioned into academic and vocational streams.

The academic upper secondary , vocational upper secondary and comprehensive schools offer academic and vocational tracks. Students who opt the academic stream usually intend to go in a university.

Various programs are provided in vocational schools that prepare students for employment or further studies.

The figures support the fact that villages are having a primary school, most sub-districts tambon have a school providing education from age 6 to 14, and all districts amphoe have secondary schools of age 12 to 17, and many have vocational colleges for students from age 15.

Research

Systematic educational research started in 1955 when the International Institute for Child Study was recognized in Bangkok. The Institute has now become the Behavioral Science Research Institute and has conducted both basic and applied research.

In the 1960s, the Ministry of Education and the National Education Commission, a division of the office of the Prime Minister, started programmes of Educational research. In detail research particularly that of the ONEC, contributed to the education restructuring initiative of 1999-2002 and extensive research is provided by the country's universities, especially in faculties of education. The Department of Curriculum and Instructional Development of the Ministry of Education also conducts research into testing, curriculum, and content. The National Library, university and other libraries around the country are electronically networked in order to facilitate research.

Administration

The involvedness of administration of Thailand education gives rise to duplication among ministries and agencies providing education and establishment of standards. In 1980, under the suggestion of the Minister of Education, Dr. Sippanondha Ketudat, a Harvard scholar, responsibility for basic key education was encouraged from the Ministry of Interior to the Ministry of Education.

Finance

In comparison with the public expenditure of other countries, (especially developing countries): China 13 percent, Indonesia 8.1 percent, Malaysia 20 percent, Mexico, 24.3 percent, Philippines 17 percent, United Kingdom and France 11 percent, the Thai GDP and national budget allocate considerable funds to education. By 2006 it represented 27 percent of the national budget.

Admission

After graduating from high school, students need to pass the CUAS (Central University Admission System). It contains 50% of O-NET and A-NET results and the other half of the fourth level GPA (Grade Point Average).

DISTANCE LEARNING SUPPORT BY TV

The DLTV was established in 1996, currently it broadcasts a total of 15 educational channels from Klaikangwon Palace School, Hua-Hin, providing educational payback and equal opportunities to Thai students nationwide especially in the remote and far-reaching areas of the country where the need of teachers is still a major challenge to the educational system. It broadcasts through the Ku-band beam on the THAICOM 5 satellite to more than 17,000 schools across the country and viewers who subscribe to satellite providers of commercial television.

VOCATIONAL EDUCATION

Presently 412 colleges are governed by the Vocational Education Commission (VEC), of the Ministry of Education with more than a million students following the programs In 2004. In addition to, around 380,000 students were studying in 401 private vocational schools and colleges.

Technical and vocational education (TVE) begins at the senior high school grade where students are partitioned into either general or vocational education. Presently, around 60 per cent of students are following the general education programmes. However, the government is promoting to maintain an equal balance between general and vocational education.

TVE is offered in three levels: the Certificate in Vocational Education which is taken during the upper secondary period; the Technical Diploma taken after school-leaving

age, and the Higher Diploma on which admission to university for a Bachelor degree programme can be granted. Vocational education is also provided by private institutions.

Dual Vocational Training (DVT)

Essential to DVT is the active participation of the private sector. In 1995, based primarily on the German model, the Department of Vocational Education launched the initiative to introduce dual vocational training programmes which involve the students in on- job training in suitably selected organisations in the private sector.

DVT is a regular element of the DoVE "Certificate" and "Diploma" program. The training is for the period of three years with more than half of the time given to practical training on-the-job, expand over two days a week, or for longer periods depending on the isolation throughout the semesters.

ENGLISH LANGUAGE EDUCATION IN THAILAND

The use of English in Thailand is nevertheless slowly increasing through the influence of the media and the Internet. Thailand was ranked as 54th out of 56 countries globally for English proficiency which is the second-lowest in Asia.

UNIVERSITIES AND COLLEGE IN THAILAND

This is a categorized listing of universities in Thailand.

- Autonomous universities
- Rajabhat Universities
- Rajamangala Universities for technology
- Colleges and institutes
- Private universities and colleges
- Intergovernmental institute
- Joint schools
- Groups of universities

BASIC EDUCATION IN THAILAND IS IN NEED OF NEW LESSONS

one may be surprised to know that the government spends more money on education (18 per cent of the national budget) than on any other sector including national defence. Nevertheless just throwing money at the problem doesn't work.

The Thai economy should shift to more sophisticated goods and services in order to remain globally competitive and workers and firms will face stiffer competition from better-educated Southeast Asian neighbors who will be able to move about the region more freely under the Asean Economic Community, which will become effective by 2015.

Thailand is presently ranked 85th in terms of quality of primary education in the World Economic Forum's (WEF) Global Competitiveness Report 2011-2012 - a score equal to that of Vietnam and way behind Southeast Asian neighbors Singapore, Brunei, Malaysia and Indonesia. The report recognizes "an inadequately educated workforce" in Thailand as one of "the most challenging factors for doing business"

Table 1: COMPARISION OF EDUCATION BETWEEN INDIA & THAILAND

	Indian Education	Thailand education
Average years of schooling of adults	5.1	6.5
Duration of compulsory education	8 years	9 years
Duration of education > Primary level	6	6
Duration of education > Secondary level	5	6
Education enrolment by level > Tertiary level	11,295,041	2,205,581
Education, primary completion rate	73	86

Education spending (% of GDP)	4.1 percent	5.2 percent
Education spending (% of total government expenditure)	12.7 percent	28.3 percent
Female enrolment share > Secondary level	39.6 percent	48.3 percent
Geographical aptitude results	77.883	76.61
No. Hours of instruction for pupils aged 13	1,176 hours	1,167 hours
No. Hours of instruction for pupils aged 9	1,051 hours	1,080 hours
Illiteracy rates by sex, aged 15+	40.5 percent	4 percent
Public spending on education, total > % of government expenditure	12.71 percent	30.97 percent
Public spending per student > Primary level	7.2	12.5
Pupil-teacher ratio, primary	41.33	20.68
Teaching weeks per year > Primary	42 weeks per year	40 weeks per year
Tertiary enrollment	10.5 percent	35 percent
Universities > Top 200	3	1
Women to men parity index, as ratio of literacy rates for aged 15-24	0.68	0.99

BANKING AND FINANCIAL SYSTEM OF THAILAND

BANKING INDUSTRY

The overall structure of the Thai financial sector is mainly consisted of the Bank of Thailand (BOT), governed by the Ministry of Finance, whose duties are to maintain financial stability of the economic system and to supervise financial institutions –

- ✓ Commercial banks,
- ✓ Finance companies,
- ✓ Non-bank such as credit card and other
- ✓ Non-collateralized loan activities.

The Thai banking industry went through a financial liberalization in the early 1990s by accepting the International Monetary Fund's Articles of Agreement along with deregulating measures in the financial system.

In order to correspond with the worldwide financial trend and to support the rapid growth of the Thai economy, in 1993, the Thai government has established the Bangkok International Banking Facility (BIBF) to facilitate the flow of foreign capital into Thailand.

- In addition, the arrival of foreign capital not only brings money into system, but also the international expertise and the Thai banking industry needs for diversification and growth as more and more domestic banks are in desperate need for global talents and financial know-how.
- For overseas banks, the points of focus are on retail or consumer banking such as the issue of credit cards with the income threshold limit, lending capital to institutional clients as well as to individuals who are wealthy.
- The total number of foreign banks in Thailand is 19, which includes:
 - ✓ BNP Paribas;
 - ✓ Calyon Corporate and investment Bank;
 - ✓ Citibank;

- ✓ Deutsche Bank;
- ✓ Indian Overseas Bank;

The bank of Thailand (BOT) was first set up as the Thai National Banking Bureau. The bank of Thailand Act was promulgated on 28 April 1942 vesting upon the Bank of Thailand the responsibility for all central banking functions. The bank of Thailand started operations on 10 December 1942.

The overall structure of the Thai financial sector is mainly consisted of the **Bank of Thailand** (BOT), governed by the **Ministry of Finance**.

- ❖ Headquarter: Bangkok, Thailand
- ❖ Governor:- Prasarn Trairatvorakul
- ❖ Central bank:- Kingdom of Thailand
- ❖ Currency:- Thai baht
- ❖ ISO 4217 code:- THB
- ❖ Website:- www.bot.or.th

The main duties are to maintain financial stability of the economic system and to supervise financial institutions – commercial banks, finance companies, credit finance companies, and non-bank such as credit card and other non-collateralized loan activities.

Other key Duties within the Thai financial realm are the Securities and Exchange Commission, the Ministry of Finance, the Office of Insurance Commission, and the Ministry of Agriculture and Cooperatives.

- ✓ Within the industry, there are seven major local banks, which are competing for businesses like, Bangkok Bank PCL, Krung Thai Bank PCL, Kasikornbank PCL, Siam Commercial Bank PCL, Bank of Ayudhya PCL, Thai Military Bank (TMB) PCL, Siam City Bank PCL etc.
- ✓ The **shareholder structures** of domestic banks vary among themselves. For example For Bangkok Bank, the major shareholder is the Stock Exchange of Thailand or SET

(12 percent), and the THAI NVDR Co., Ltd. (10 percent), which created by the SET and for Krung Thai Bank, the majority shareholder of 55.31 percent is the Financial Institutions Development Fund (FIDF), which is managed by the BOT.

Financial system of Thailand

The Thai financial system is a crucial mechanism facilitating the overall functioning of the economy, in terms of allocating resources amongst the economic sectors, including national production market, labour market, service market, by playing a key role as an intermediary in distributing funds from surplus sources to deficit sources.

The Thai financial system is bank-based although the role of capital markets and non-bank financial institution is increasingly important. After 1997 crisis the Thai government has develop other markets like Capital Market and fixed income securities market to reduce the dependency on the banking system and to enhance overall efficiency by improving funding sources and investment alternatives for Thai investors.

The Thai financial system has been gradually improving since 1997. The key players in the financial systems are:

- ❖ Deposit Taking FIs: - In this system players can take deposit from the customers and there are several players like domestic banks, rusticated banks, subsidiary banks, foreign bank branches, finance companies and credit foncier companies.
- ❖ Non deposit taking financial institutions:- In this system they consists of leasing, asset management, insurance and securities companies and the insurance companies are regulated by the Department of insurance under the ministry of commerce.
- ❖ Stocks and bond markets: The Thai bond market is sizable and dominated by public debt instruments. For primary market the new domestic bonds and bills of exchange issued in 2009.
- ❖ Specialized institutions for financial sector resolution: In this system the institutions were created by special purpose as to manage and resolve the non performing loans. Banks are the prominent players in the financial system in Thailand.

There are many types of banks operating in Thailand nowadays. The Thai registered banks can be classified into 14 full licensed banks, 2 restricted banks, and 1 subsidiary. In addition to the local banks, there are 14 foreign bank branches operating in Thailand at present. Restricted bank was established pursuant to the Financial Master Plan, to serve and operate in the retail and SME banking niche only.

The Financial Institutions Policy Committee (FIPC) is one of the main committees of the Bank of Thailand. The FIPC is responsible for setting prudential policy, regulations and supervisory practices to ensure the safety and soundness of financial institutions.

The main duties of financial institution is to determine policies concerning supervising and examining the financial institutions and to monitor the BOT's operation regarding a banker to financial institutions and the supervision and examination of financial institutions.

There are various financial institutions like domestic commercial banks, foreign commercial banks, government banks, and international banking facilities and securities companies.

Thailand has 4 main financial markets:

- ❖ The Stock Exchange of Thailand (SET),
- ❖ The Market for Alternative Investment (MAI)
- ❖ The Bond Electronic Exchange (BEX)
- ❖ The Thai Futures Exchange (TFEX)

While primary markets such as the SET and MAI are directly regulated by the Securities Exchange Commission (SEC), secondary markets are regulated by the exchanges.

There are two main financial supervision bodies which are as follows:

1. **Ministry of Finance:** Ministry of finance is a Cabinet Ministry in the Government of Thailand. It is considered to be one of the country's most important Ministries. The Ministry of Finance has many responsibilities: over public finance, taxation, the treasury, Government properties, operations of Government monopolies, revenue- generating enterprises.

2. Bank of Thailand

The Bank of Thailand was established under the Bank of Thailand Act B.E.2485 (1942). Apart from performing traditional central bank functions of issuing bank notes, being a banker to the Government, supervising commercial banks and other financial institutions, and maintaining currency stability, the Bank of Thailand has been instrumental in facilitating economic development for Thailand.

The main role and responsibility of Bank of Thailand are amended by B.E.2008 under the bank of Thailand Act B.E.2485 are as follows:

1. Prints and issues banknotes and other security documents.
2. Promotes monetary stability and formulates monetary policies.
3. Manages the BOT's assets
4. Provides banking facilities to the government and act as the registrar for government bonds
5. Provides banking facilities to the financial institutions.
6. Establishes or supports the establishment of payment systems.
7. Supervises and examines the financial institutions.
8. Manages the country's foreign exchange rates under the foreign exchange system and manage assets in the currency reserve in accordance with the Currency Act.
9. Controls the foreign exchange in accordance with the Exchange Control Act.

At present, only a few major currencies are available which are as follows:

- ✓ USD EUR
- ✓ JPY

These are normally used for international trade and service settlement. However, trading share between Thai and the core markets who own those currencies have now

declined in their importance, while new trading partners in the region i.e. China and ASEAN subsequently take on growing shares.

The use of local currencies for trade settlement would be useful, especially as alternative currencies for Thai exporters and importers to reduce exchange rate risks arising from volatility in major currencies.

The legal basis for exchange control in Thailand is derived from the two things:

1. The Exchange Control Act (B.E. 2485) and
2. Ministerial Regulation No. 13 (B.E. 2497)

The exchange control Act and Ministerial regulation is issued under the Exchange Control Act. These laws set out the principles of controls under which Notifications of the Ministry of Finance and Notices of the Competent Officer are issued.

The main Objective of the foreign exchange control regulation in Thailand are to centralize foreign exchange of the country, to channel foreign exchange for public benefit, to monitor capital outflows and to stabilize the value of Baht.

- ❖ The Bank of Thailand has been entrusted by the Ministry of Finance with the responsibility of administering foreign exchange.
- ❖ The governor of the Bank of Thailand shall appoint the officials of the Bank of Thailand as the Competent Officers under the Exchange Control Act .

All foreign exchange transactions are to be conducted through commercial banks and through authorized non-banks, namely authorized money changers, authorized money transfer agents, and authorized companies that are granted foreign exchange licenses by the Minister of Finance.

Currency regulations of Thailand include the two things: Foreign currency and the Local currency.

Foreign currencies can be transferred or brought into Thailand without limit. Any one person can receiving foreign currencies from abroad is required to repatriate such funds immediately and sell to an authorized bank or deposit them in a foreign currency account with an authorized bank within 360 days of receipt.

In Local currency there is no restriction on the amount of Thai baht bank notes that may be brought into the country. A person travelling to Thailand's bordering countries including Vietnam is allowed to take out up to THB 500,000 and to other countries up to THB 50,000, respectively, without authorization.

In Bank deposits Thai residents of Thailand are allowed to maintain foreign currency accounts with authorized banks, and deposit or withdraw funds from such accounts. IN case of deposit foreign currencies originating from abroad (foreign-source) can be deposited into foreign currency accounts without limit. For payment to entities abroad of the account holder's own obligations or its subsidiaries' obligations

In case of foreign currency of non residents, the non-residents may maintain foreign currency accounts with authorized banks in Thailand without limit.

In Trade and services there are exchange control regulations for Exports, imports and for other services.

- ❖ For exports proceeds in an amount same as to USD 50,000 or above shall be repatriated immediately after payment is received and within 360 days from the export date. The proceeds must be sold to or deposited in a foreign currency account with an authorized bank in Thailand within 360 days of receipt.
- ❖ For imports Importers may purchase or withdraw foreign currencies from their own foreign currency accounts for import payments upon submission of supporting documents.
- ❖ And for other services like outward remittances of amounts properly due to non-residents are permitted for items of a non-capital nature such as service fees, interest, dividends, profits, or royalties provided that supporting documents are submitted to an authorized bank. Travelling expenses or educational expenses of residents are also freely permitted upon submission of supporting documents.

For Capital transfer by Thai residents there is three things the first is direct investment and lending aboard, second portfolio investment aboard and third is transfer for other purpose like Outward remittances to Thai emigrants.

Any person purchasing, selling, depositing, or withdrawing foreign currencies with an authorized bank in an amount of USD 50,000 or above shall be required to report such foreign exchange transactions to the authorized bank.

There are five types of foreign exchange licenses and its scope of business which are Authorized Juristic person, Authorized Money Changer, Authorized Money transfer agents, Authorized Companies and the treasury centre.

The development of the monetary policy framework in Thailand can be divided into 3 periods.

- Pegged exchange rate regime (Second World War - June 1997)
- Monetary targeting regime (July 1997 - May 2000)
- Inflation targeting regime (23 May 2000- present)

This first regime was adopted after the Second World War and in this period value of the baht was initially either pegged to gold, a major currency, or to a basket of currencies.

The second phase of development of monetary policy framework was monetary targeting regime and continues till May 2000 and the main objective was sustainable growth and price stability.

After the IMF program, the third phase of monetary policy framework is inflation targeting regime. Under this regime the Bank made an extensive reappraisal of both the domestic and the external environment and concluded that the targeting of money supply would be less effective than the targeting of inflation.

The Monetary Policy Committee (MPC) signals shifts in monetary policy stance through announced changes in the key policy rate. The BOT uses a variety of monetary policy instruments to implement MPC's interest rate decisions.

The operational framework of the BOT's monetary operations consists of a set of instruments which can be classified into three categories, namely, Reserve Requirements (RR), Open Market Operation (OMO), and Standing Facilities (SF).

The new **Bank of Thailand Act, B.E. 2551 (2008)** was enacted on 3 March 2008. The new BOT Act clearly states the Bank of Thailand's objectives and responsibilities as the nation's central bank. The main objectives of the new Bank of Thailand Act is maintaining stability, stability of the financial system, and stability of the payments system.

Under the inflation targeting framework, the BOT implements its monetary policy by influencing short-term money market rates via the selected key policy rate, currently setting the 1-day repurchase rate.

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With regard to the BOT Guideline and the current practices of Thai banks, some of the quantitative tools and indicators of liquidity risk measurement deployed are listed below.

- (i) Cumulative cash outflows
- (ii) Concentration in assets and liabilities
- (iii) Daily deposit outflow
- (iv) Loan-to-deposit ratio or loan-to-deposit, plus B/E ratio etc.

The BOT has in place a sound crisis management framework to facilitate prompt and coordinated action in the event of a crisis. A contingency plan has been prepared to deal with a systemic banking crisis and a continuity plan for disaster events. A crisis management committee (CMC) chaired by the BOT Governor is designated to act as the central command to coordinate and manage banking crisis resolution.

There are some **Challenges and development in banking system** of Thailand which are as follows:

A Non-performing loan is a loan that is in default or close to being in default. Many loans become non-performing after being in default for 90 days, but this can depend on the contract terms “A loan is nonperforming when payments of interest and principal are past due by 90 days or more, or at least 90 days of interest payments have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payments will be made in full.

Basel II and Financial Reporting within the Thai Banking Industry

Currently, the ongoing effort of the BOT to gradually raise the overall standard of the Thai banking industry is to introduce and encourage Thai commercial banks to implement the Basel II and the International Financial Reporting Standards (IFRS). The Basel II approach would emphasize on the issue of capital adequacy by considering operational risk in addition to market and credit risks. The BOT expects the banks to adopt the Basel II according to their degree of operational complexity by using the factor-based approach being the simplest to the model-based approach being the most sophisticated.

Weighted-average Interbank Exchange Rate = 30.583 Baht/US Dollar

Foreign assets held or controlled by the central bank which are readily available for financing the balance of payments imbalances or to be used as a tool in carrying out exchange rate policy. International reserves consists of monetary gold, special drawing rights (SDRs), reserve positions in the Fund, and foreign exchange assets.

**“THE STUDY ON TOURISM INDUSTRY OF
THAILAND”**

The report titled “Thailand Medical Tourism Industry Outlook to 2015” provides a comprehensive analysis of the Thailand Medical tourism industry covering in detail various aspects such as market size on the basis of number of foreign patients, revenue from foreign patients, market segmentation, competitive landscape and market share of the major hospitals treating foreign patients in the country. The report also entails major drivers and growth barriers of medical tourism market.

The future outlook along with projections and macro-economic factors has also been presented providing an insight on the prospects in the medical tourism industry.

The total number of foreign patients has increased from ~ thousand in 2005 to ~ thousand in 2010. Factors such as international accreditation, updated technology, highly qualified medical personnel and affordable costs have contributed to the growth of this industry. Bangkok, Chiang Mai, Koh Samui and Phuket are touted as the epicenter of health care services in Thailand and have become the hub for medical tourism.

Thailand is one of major health tourism destination for international patients especially for the Middle East with the high class medical technology, low cost treatments and enriching tourist experience. The country has registered the largest foreign patients’ arrivals from UAE which accounted for ~% of the total foreign patients in 2010.

Bumrungrad Hospital is the leader in Thailand in terms of the foreign patients treated with the market share of ~% in 2010. The hospital treated ~ international patients in 2010 from 190 countries and generated USD ~ million revenues from foreign patients. Bangkok Dusit Medical Services is the second largest foreign patients treating hospital in Thailand which served over ~ international patients in 2010 and recorded international patients’ revenue of USD ~ million Tourism is a major economic factor in the Kingdom of Thailand, contributing an estimated 6.7% to Thailand's GDP in 2007.

Tourist numbers have grown from 336,000 foreign visitors and 54,000 R&R soldiers in 1967 to over 22 million international guests visiting Thailand in 2012. The average

duration of their stay in 2007 was 9.19 days, generating an estimated 547,782 million Thai baht, around 11 billion Euro. In 2007, Thailand was the 18th most visited country in the World Tourism rankings with 14.5 million visitors.

According to the Tourism Authority of Thailand, 55% of the tourists in 2007 came from the Asia Pacific region, Japanese and Malaysians forming the two biggest groups. The largest groups of Western tourists come from the United Kingdom, Australia, Germany, the United States and Scandinavia. The number of tourists arriving from Russia is on the rise. Around 55% of Thailand's tourists are return visitors. The peak period is during the Christmas and New Year holidays when Western tourists flee the cold conditions.

In 2012, 2.7 million Chinese visitors traveled to Thailand.

Thailand has also plans on becoming the hub for Buddhist tourism in the region. Around 2 million foreigners visiting Thailand for medical treatment are expected in 2009, more than 3 times the amount of tourist visiting for that purpose in 2002. According to Lonely Planet, Thailand ranks second of "Best-value destinations for 2010" after Iceland; the latter having been hit very hard by the subprime mortgage crisis.

Thailand offers a great variety of attractions. These include diving sites, sandy beaches, hundreds of tropical islands, varied night-life, archaeological sites, museums, hill tribes, exceptional flora and bird life, palaces, a huge amount of Buddhist temples and several World Heritage sites.

Thailand's tourism industry makes up about 6.5 percent of the country's GDP. When seeing the number of tourists, and the number of tourist destinations and hotels, one would actually expect a more substantial portion of GDP.

End 2012, beginning 2013 the problem seems to have improved a bit, less complaints in the Thai English-language media.

The number of arrivals of tourists to Bangkok and Thailand is ever rising. The flipside is that more and more (relatively unskilled and low-paid) employees are dependent on the tourism industry.

Thailand has changed the rules for people entering the country via land borders. If you are planning a trip to Southeast Asia, or are on the road now, then read this and prepare to either alter your plans or get better acquainted with your local Thai consulate.

The headline change is that anyone crossing into Thailand by land, who doesn't already have a visa from a Thai embassy or consulate, will be **ALLOWED TO STAY ONLY 15 DAYS**, not the previous 30.

The volume of tourists coming to Thailand may not compare to the 27 to 50 million people travelling to France, Italy or Spain every year. Yet, when compared to other high-volume tourist destinations around the world, the growth and development of the tourism industry in Thailand is impressive. Egypt receives approximately 2.6 million tourists per year, while India annually draws in approximately 1.8 million tourists. By comparison, Thailand now accommodates approximately 5 million tourists per year, one of the highest figures for Southeast Asia.

The Thai Government's Sixth National Economic and Social Development Plan (1987-1991) gave particular focus and attention to the development of tourism; the result was a substantial boost to tourism revenue— from 50,000 million baht in 1987 to 123,135 million baht in 1992.

The rapid spread of AIDS in Thailand has had a decided impact on the tourism industry in that the country's reputation for having a high incidence of AIDs discourages desirable tourists from visiting it. Likewise the tourism industry has had considerable impact on the spread of AIDS in Thailand.

Tourism in Thailand has often been criticized for aiming at expanding in quantity rather than quality. TAT has been pressured to search for an operational criterion targeted on "quality" tourists.

Our future advantage lies in our ability to manage our infrastructure both at a sectoral and macro level, especially to curb Bangkok's traffic problem.

The tourism industry came to the fore when Thailand was changing from a resource-based to a labor based economy, an adjustment which was well suited for tourism development. This was coupled with the fact that the training and material input for tourist services were not as complex or extensive as those required for other kinds of industries.

The convergence of Thailand's "Look West" policy since 1996 and India's "Look East" policy of 1993 has resulted in mutually beneficial cooperation covering diverse dimensions ranging from trade & investment, science & technology, defence, agriculture to tourism, culture and education.

Significant improvements in the relations between Thailand and India were brought in by the increasing exchange of high-level visits of both sides.

In 2010, over 600,000 Indian tourists travelled to Thailand. On the other hand, the number of Thai tourists to India is gradually increasing, mostly to visit significant Buddhist sites in India.

Investment by Indian and Thai companies into each others' countries is growing. Indian companies have invested around US\$ 1.5 billion in Thailand since 1970s (according to data from the Board of Investment of Thailand). Thailand has invested over US\$ 44 million in India (April 2000-Sep 2008) according to Department of Industrial Policy Promotion of Government of India.

The number of tourists coming to Thailand remained constant in 1991, despite the Persian Gulf Crisis and a military coup in Thailand. Although the industry initially suffered from the political turmoil in May, 1992, it soon recovered.

The number of tourist arrivals in the first quarter and second quarter of 2009 were 3,64 million and 2,96 million respectively. These figures were lower than during the first 2 quarters of 2007 or 2008. In the third quarter of 2009 we see that the number of visitors is similar to the number of visitors in both 2007 and 2008, suggesting that the worst was over. In the 4th quarter of 2009, we saw more arrivals than in 2007 and 2008. See the yellow line crossing over in the graph below.

The Royal Thai Embassy in New Delhi has worked toward the further deepening and diversification of Thailand-India ties and has contributed to promoting the economic linkages by organizing a series of business seminar on economic cooperation, business road shows as well as the annual Thai Festival "Destination Thailand".

There has been steady progress in the ASEAN-India relations. India became sectoral dialogue partner of ASEAN in 1992. In 1996, this was upgraded to full dialogue partnership. The signing of the ASEAN-India FTA this year during ASEAN Economic Ministers meeting in August is a manifestation of an intensified relation

between ASEAN and India and will help further strengthen their economic cooperation.

This was partially caused by the government's promotion of "Visit Thailand Year" in 1987, a marketing exercise which increased national tourism income by 34 percent in 1987 and by 58 percent in 1988. By 1991, income from tourism was equivalent to two thirds of the country's agricultural export earnings, and was nearly the same as the country's income from textile and garment exports.

Many developing countries perceive tourism as a fast track to economic growth. They assume that tourism development requires less investment than other industries; and they believe tourism to be an effective means of creating job opportunities and increasing local income.

In Bangkok, 500 tons of waste accumulates every day without being properly disposed of. In Phuket—one of Thailand's prime southern tourist destinations—water management is a serious problem. Water consumption has risen to 200 liters per person per day, while authorities have been able to supply only 27 liters per person per day. All such considerations make it imperative for the public sector to invest more in the country's infrastructure and to improve administrative policies on tourism.

Thailand is the most popular tourist destination in Southeast Asia, and for a reason. You can find almost anything here: crystal blue beaches, thick jungle, great food, cheap beach front bungalows and some of the best luxury hotels in the world. There is something for every interest and every budget. And despite the heavy flow of tourism, Thailand retains its quintessential identity with its own unique culture and history and a carefree people famed for their smile

Thailand predominantly has a tropical wet and dry or savannah climate while the South and the eastern tip of the East have a tropical monsoon climate

International tourism market targets will focus on tourist number targets as well as the quality of tourists, consideration will be given to the generation of tourism income in the country, refraining from causing negative effects on Thai culture, natural resources, and environment and having the sense of responsibility as a good tourist.

Register and certify tourist businesses and guides, including the issue of permits, extension of permits, suspension of permits and termination of permits, and

certification of duplicate copies of any other documents related to the tourism business operator or guide.

Inspect and control tourism business operators, places of business and guides to ensure compliance with the Tourism Business and Tour Guides Act.

Conduct legal proceedings in cases of misconduct or infringement of the law
Study, analyze, research and compile statistics and data on guidelines for tourism development in accordance with the national tourism development policy and plan.

Establish a development plan for tourism services as well as co-ordinate, promote and support the implementation of the plan.

Promote the tourism industry to be important instrument in tackling the country economic problem, creating jobs for people as well as increasing income for the country. Moreover, promoting should be done to make tourism play a vital role in the development of the quality of life in all regions of Thailand as per the policy of the government.

Another positive year for tourism in Thailand

In 2011 Thailand posted strong growth in arrivals, in particular from China and Russia and received a large number of tourists from Malaysia, China and Japan. Despite the earthquake and tsunami in Japan, the number of arrivals from Japan increased. Domestic tourism received a negative impact from the severe flooding. The key impact was on transportation, car rental and travel accommodation, but it did not affect inbound and outbound trips. Although there were serious natural disasters in Thailand and other countries, the number of arrivals continued to see strong growth, as the country is rich in culture, tourism resources and attractive historic buildings/sites, and it remains a value for money destination for shopping, dining and accommodation.

No impact from domestic unrest, but floods affect travel and tourism

The problems in travel and tourism shifted from man-made issues, such as political unrest in the country in 2010, to natural problems in 2011, such as flooding. The floods were the worst in 50 years, and led to tremendous losses to the travel and tourism industry and the economy as a whole. The beginning of the year started with

spring floods from March to May, and in the second wave, the flooding in the central region was even more severe, as this time more than half of the 77 provinces in Thailand, in particular in the central region, were under water. Some areas recorded flood levels of up to 3m, whereas other areas recorded 10-30cm. Floods reduced GDP growth, with real GDP being only 0.1% in 2011 according to Bank of Thailand.

TAT customises marketing promotion, notably for countries with rapid growth in arrivals

Apart from regularly organising tourism exhibitions, promoting new tourism activities, running road shows and carrying out advertising and online communication, the Tourism Authority of Thailand (TAT) introduced customised marketing campaigns to target particular groups. TAT paid particular attention to rapidly growing inbound countries such as China, Russia and India. TAT tailor-made marketing to match the character of each target market; for instance, celebrity marketing to target Chinese tourists, luxury and medical tourism to capture Russian tourists, and honeymoon and scuba diving packages to target Indian travellers.

Thai Tiger Airways does not materialise, but Thai Smile will launch in 2012

In 2010 Thai Airways International had an agreement with Tiger Airways from Singapore to introduce a new low-cost carrier, Thai Tiger Airways, in 2011. However, Thai Tiger Airways did not materialise because of internal issues and conflicts of interest. Therefore, Thai Airways International is going to introduce its own national low-cost carrier, namely Thai Smile, in the middle of 2012. The positioning of Thai Smile is slightly higher than low-cost carriers, since this new airline will be introduced as the light premium airline of Thailand, and target low- to middle-income consumers. In the short term it will focus on domestic routes, whereas in the medium term it will expand to short haul destinations in Asian countries.

A positive trend for travel and tourism in Thailand

Travel and tourism in Thailand is projected to post moderate growth over the forecast period. The number of arrivals is expected to see strong growth, and remain the key source of tourism receipts for the country. The Thai economy is expected to see moderate growth in GDP in the forecast period, which should lead to the continuous growth of outbound tourism and domestic tourism. Chained hotels are expected to

expand the number of outlets by offering management services. At the same time local brands will implement the same strategy, but not only in Thailand, also expanding into the global market. The new national low-cost airline, Thai Smile, is to be introduced in 2012, and could become a key threat to existing players, such as Nok Air and Thai Air Asia, whereas Orient Thai Airlines should focus on charter flights.

5 - Year Tourism Outlook

Structure, size and value of industry sector; overview of industry landscape. Assessment of business operating environment and latest regulatory developments. Forecasts for government expenditure on Tourism industry. Forecasts for tourist arrivals/departures/airline passenger traffic (international and domestic) and tourism receipts.

5 - Year Macroeconomic Forecast

Forecasts for all headline macroeconomic indicators, including real GDP growth, inflation, fiscal balance, trade balance, current account and external debt. Commentary on local exchange rates and their effect on tourism industry. Business Environment Rankings Comparative cross-border analysis assessing business and regulatory factors to rank Asia's most competitive Tourism markets. Indicators used include Political Risk, Business Environment Risk, Forecast International Tourism Receipts, Visitor Arrival Growth, Investment Environment and Shock Factors (taking account of any special factors such as terrorism, natural disasters and disease). Travel Comparative company analyses and rankings by sales, passengers carried, size of fleet and employee size of leading airlines. Special focus on effect of rising jet fuel costs on airline industry.

Asia Pacific continues to drive Thailand arrivals

The Tourism Authority of Thailand (TAT) expects 14.8 million visitors in 2007, up from 13.8 million last year. However, the Pacific Asia Travel Association's (PATA) 2007-2009 preliminary forecast shows 14.1 million is more likely, while annual growth should be steady at 7.3% over the next two years.

According to PATA, Asia Pacific countries will continue to provide the bulk of Thailand's visitors, with an average annual growth rate of 7.6% to top 11 million out of the predicted total arrivals for 2009.

The Russian Federation remains the fastest growing regional market, with visitor numbers soaring from 102,783 in 2005 to 174,976 this year, and this is predicted to climb annually by 18% to hit 243,680 in 2009.

PATA predicts Malaysia to maintain its position as Thailand's top contributor in 2007 with 1,402,450 visitors, barely edging out Japan's 1,401,910. However, Malaysia's numbers will move forward 8.1% per year, while Japan's growth will stagnate at 3.8%. It should be remembered that much of Malaysia's arrivals numbers come from cross-border traffic for reasons of work or visiting friends and relatives.

Korea, China and the United Kingdom will stay third through fifth, the only other countries sending 1-million-plus visitors by 2009, while Australia will close in on this mark, with impressive annual growth figures of 16.5% and an estimated 951,640 visitors by 2009.

European numbers are set to climb 6.5% per annum from this year's 3 million to 3.4 million in 2009. However, Germany's growth rate of 2.6% will not keep pace with its neighbours with an expected 506,182 visitors in 2007 and 532,866 in 2009.

Arrivals from Scandinavian countries will continue to grow healthily over the next three years and are predicted to deliver 741,542 visitors by 2009 with Norway and Finland producing growth of 21% and 12.2% respectively according to PATA.

Visitors from the US are expected to total 739,500 this year, with 846,814 arrivals expected by 2009 or a growth rate of 7% over the next two years.

GLOBAL AND REGIONAL COMPETITION

Destination rivalry mounts for Thailand- Thailand is surrounded by competitors looking to grab a piece of the regional and global tourism pie, with Vietnam, Laos and Cambodia all experiencing double-digit growth in arrivals.

"The picture is completely different now than from 15 years ago when Thailand was the place to come," said Pacific Asia Travel Association chief executive officer, Peter de Jong.

"Now people who have been to Asia two or three times are looking for something different. The playing field is crowded and consumers want choice and new experiences." For TAT governor, Phornsiri Manoharn, marketing provides part of the answer.

"We have promoted Thailand in the Middle East for the past 10 years together with hoteliers... but this year there were nine new countries that exhibited at Arabian Travel Mart for the first time. Countries such as China, Taiwan and Macau are all competing with us." Dusit Group chief executive and chairman of the Thai Hotels Association (THA), Chanin Donavanik, added: "The destinations Thailand is in competition with are looking at the issues we face and capitalising on them, and taking advantage of the areas where we know there is an issue but are not doing anything about it." Though Ms Phornsiri tries to remain upbeat, this is often difficult for the private sector, which continues to face obstacles.

Swiss International Air Lines general manager for Thailand, Laos, Myanmar, Cambodia, Vietnam and chairman of the Thailand Board of Airline Representatives Brian Sinclair-Thompson, said: "In other Asian countries such as Singapore and Kuala Lumpur there are incredible incentives to fly into those markets. In Thailand there is nothing like this."

Sophisticated branding would bolster

International image Thailand's tourism industry has matured over the past 10 years, but several setbacks – from Severe Acute Respiratory Syndrome (SARS) and Avian Bird Flu, to the tsunami and political unrest – have taken their toll on the country's reputation.

"The image of the country is suffering from adverse publicity," said media and branding agency Keen Publishing (Thailand) managing director, Mr. David Keen. "But all of this could be mitigated with strong, credible print, web and most importantly, publicity branding." Thai tourism has come under fire in the past for its vague positioning and inconsistent message. "Thailand needs to freshen its image.

The country should employ a professional branding agency to revise and define its core DNA and then apply this logic to solid, thorough, design applications," Mr Keen added. He said that designs should "synergise with a well-informed, intelligent web application that allows the user to discover the truth about the country."

Mr Keen said the country's imagery should be clean and imaginative, and "professionally orchestrated TV commercials should take advantage of the wealth of creative talent available in the Kingdom to show off the multidimensional abilities of Thai people."

Though TAT covers the overall marketing direction of Thailand, tour operators play a significant role in publicizing and selling the country's tourism products. However, their individual marketing efforts often miss the mark.

"Change the focus of content from Pattaya and Phuket to the wealth of alternative destinations in Thailand such as Chiang Rai, Krabi and the national parks," Mr. Keen said. "Content should be intelligent, credible and not full of bland superlatives. The tone of Thailand's messages should evolve to be crisp, intuitive, and enable the reader to get a true understanding of the country's numerous assets."

THAILAND ENERGY SECTOR

Thailand has experienced the rapid reform of electricity sector in aspect of market structure, organization efficiency and regulation. The reform was originated by the consideration that the electricity utility under Thai government tended to be underperform on the cost efficiency by overcapacity in supplying electricity to consumers. However, it is experienced that the framework lacks of consideration to increase market competition and coordination with competition law that could contribute to the development of efficient competition in Thai electricity market. Therefore, the research paper aims to critically examine the issue in the regulatory framework and competition policy in Thai electricity sector. The research employs the method of study on the institutional and legal characteristics of existing Thai regulatory framework. The research method would focus on analyzing elements of the regulatory frameworks that relate to Thai electricity and to assess whether the framework helps or hinders development of Thai electricity market competition. It focuses on historic background of regulation on Thai electricity sector from the initial period until the current reform. It reviews the change of regulatory institution since the establishment of electricity to the current situation that the Supreme Administrative Court made decision to revoke the inappropriate corporatization of SOEs in electricity market. In the second part of the chapter, it attempt to explore on the existing regulation on the electricity sectors. It considers on regulatory framework that provide favour to oligopoly of Thai government enterprises and the framework of Thai electricity tariff with adherence on Gas prices from Petroleum Authority of Thailand(PTT) which is a government monopoly on gas supply for electricity generation. In the third part of this chapter, it critically discusses on ineffective regulatory framework for dealing with anticompetitive structure of Thai electricity sector by considering on the new Energy Industry Act BE 2550 (2007), the Thai independent energy regulator, and the competition law. The last part of the chapter presents the conclusion of Thai regulatory framework on electricity and possible development of regulatory framework in order to create competitive electricity market in Thailand.

Most of the provincial power plants were operated only during the night time and supplying uneven service. During the initial period, there were no common standards for electricity systems and the structure of the industry was fragmented. The provincial electricity sector was dispersed from government central control because there was diversification of the ownership of the industry with 200 separate small

cooperative, municipal or privately owned utilities. The government with the view to enhance the electricity service in rural area adopted the policy to centralize the electricity sector and to increase capacity on supplying electricity to provincial areas. Thus, in 1954, Thai government established the Provincial Electricity organization which then became the Provincial Electricity Authority (PEA), to be in charge of electricity distribution in all Thai provinces.

The establishment of PAE is according to the enactment of the Provincial Electricity Authority Act BE 2503 (1960). The Act authorizes PEA to dominate the electrification for all Thai cities except metropolitan and suburban areas. It permits PAE to produce, distribute, and sale electricity to provinces as well as neighboring countries.

PAE also has right to expropriate the people land asset and property in order to operate its electricity businesses. It became clear that both MEA and PEA were the main states' entities for servicing electricity to Thai public. They significantly expanded their electricity infrastructure to satisfy the rapid increase of electricity consumption. However, Thailand was experienced insufficient and inefficient generation of electricity. The Thai government, thus, established new entity as the main generators that supplying electricity to PEA and MEA. The establishment of the generator was according to the National Social and Economic Development Plan 1961-1967 that recommended the construction of state's large power plants to solve the shortage of electricity supply in the metropolitan and provincial areas.

REGULATION OF ELECTRICITY

The existing structure of Thai electricity market is oligopolised by government own entities. As stated above that the Thaksin's government implemented inappropriate liberalisation of electricity, leading to the Supreme Court's decision to revoke the Royal decrees for corporatisation of EGAT. The structure of Thai electricity market, thus, has not changed. The EGAT, PEA, and MEA occupy whole Thai electricity market and have oligopoly position in the electricity supply for Thai industries and consumers. EGAT, as the government electricity generator, has sole and significant role on supplying electricity to the other vertical linked distributors - PEA and MEA. EGAT is presently the largest electricity producer, owning and operating its own power plants countrywide. Its capacity to generate the electricity can be accounted for

63,930.68 million kWh which means 43.14 percent of total country wide electricity generation. It also has the sole right to purchase power from other private producers under the government regulation of enhanced single buyer scheme (ESB). It approximately purchases electricity from private producers at the amount of 84,270.25 million kWh, equal to 56.86 percent of the country's total electricity generation.⁶⁹ In 2008, EGAT has purchased 67,420.14 million kWh (45.49 %) from domestic IPPs, 14,065.20 million kWh (9.49 %) from SPPs, and 2,784.91 million kWh (1.88 %) purchased from neighbouring countries.

Moreover, EGAT maintains its shares holding in large IPPs of Ratchaburi Electricity Generating Holding Public Company Limited (RATCH) at 45 per cent, Electricity Generating Public Company Limited (EGCO) at 25 .41 per cent, and District Cooling System and Power Plant Co.,Ltd (DCAP) at 35 per cent. The RATCH and EGCO are the main IPPs that have market shares of electricity generation at the 14 and 11 per cent, respectively. It thus can be seen that EGAT are able to control the electricity generation sector by the factors that

- 1) it has own operation of power plants (around 43 per cent of market shares),
- 2) the entitlement of single purchaser of electricity generated from IPP and SPP, and
- 3) the majority share in the significant IPPs (the main IPPs that EGAT hold significant amount of shares have electricity generation market shares at 25 per cent).

For the distribution and retailing sectors, the markets are oligopolized by and geographically separated under the PEA and MEA. The PEA is the sole distributor and retailer of electricity in provincial areas of Thailand. PEA is responsible for serving provinces of Thailand and, according to the 2006 annual report, it supplied Electricity generation Authority of Thailand,

Electricity generation Authority of Thailand has market share at 43.14 per cent- EGAT affiliated company and subsidiary (RATCH and EGCO) have market shares at 25 per cent. 20 electricity 88,799 million kWh for 13 million customers. The PEA is vertically linked with EGAT and purchased EGAT's electricity at 88,630 million kWh in 2006. MEA is responsible on supplying the electricity for Bangkok Metropolis, Samut Prakan and Nonthaburi provinces. In 2008, it serviced around 42,235.9 million kWh to the three major urban areas. MEA is vertically linked with EGAT electricity supply. With the current structure of Thai electricity, EGAT, PEA and MEA can enjoy their oligopoly position over Thai consumers. The SOEs are also under no direct competition and able to act as the government authority by law of their establishment under Ministry of Interior.⁷⁵ They are also treated as the self

regulated SOEs because the regulator has no effective information to supervise the three SOEs. *Price tariff regulation with ROR and floated Ft.*

REGIONAL AND INTERNATIONAL NETWORKING TO SUPPORT THE ENERGY REGULATORY COMMISSION OF THAILAND

Currently, the Electricity Supply Industry in Thailand is based on a single buyer model. NEPC policy is for the structure to become an Enhanced Single Buyer Model. Already, over 50% of generation is provided by private power generating companies under long term power purchase agreements with EGAT which is the single buyer. It is expected that the implementation of the 'enhancement' of the single buyer model will focus on the ring fencing of the system operator and the relationship between the generation side and the system operations side. The other participants in the industry are the two state owned distribution and retail enterprises. The Metropolitan Electricity Authority serves the greater Bangkok area and the Provincial Electricity Authority serves the rest of Thailand. Thailand has 17 million energy users in a population of 63 million people and since 2005 we have achieved almost 100% electrification with the provision of small hydro and solar power generating systems for the final few hundred thousand remote and geographically isolated rural consumers. 70% of power generation is from gas. Under the current Power Development Plan approved by NEPC in 2009, we plan to decrease this to 60% over the next 12 years. We also expect to see an increase in imports from the current level of less than 2% to 10% and a 50% reduction in the use of lignite. Of particular note is the provision of 5% of power to be generated by nuclear by 2021.

Over the next 6 years, we will see 4,400 Megawatts of capacity installed by Independent Power Producers, nearly 2,000 Megawatts installed by Small Power Producers and 2,200 Megawatts of capacity purchased from neighbouring countries. Additional new projects are projected in the Power Development Plan for the period 2016 to 2021 including 2000 Megawatts of nuclear capacity and 6,400 Megawatts of new capacity.

ASEAN ENERGY REGULATORS INITIATIVE

Following the conference on energy regulation and climate change, the ERC invited the participating energy regulators from the ASEAN region to discuss closer regional

cooperation. There are a number of regional networks of energy regulators around the world with networks covering Europe, the US, Canada, South America, the Caribbean and Africa. South East Asia does not have a network dedicated to energy regulators and this absence was noted by the regulators who joined the discussions in Bangkok. The existing networks of energy regulators have joined together to create a new international network, known as the International confederation of Energy Regulators or ICER. This new global network has grown out of the International Energy Regulators Network, a virtual network that was created in cyberspace in 2006. The absence of a voice from South East Asia on the governing council of the ICER and on the groups setting the agenda for the triennial conferences on energy regulation has meant that issues faced by regulators in the region are overlooked. There are significant differences between the context in which regulators in the ASEAN and East Asia operate to that of regulators in Europe or North America. As part of the discussions in Bangkok, each regulator talked about the issues, challenges and priorities that they will be facing over the next five to ten years. From these presentations linkages have been able to be made between regulators experiencing similar issues or working in similar situations. There is a wide range of sector structures, institutional design and country specific challenges among the regulators in South East Asia. For example, some regulators remain as government departments in some countries; some sectors are liberalized; some countries have extremely low electrification rates and so on. The mapping exercise commenced in Bangkok will provide a framework for further discussions and cooperative initiatives in the future. It is likely that the network will be formalized in the near future.

OVERVIEW OF THE HOUSEHOLD SECTOR

As of 2006, there were in total 19,582,845 households in Thailand, 6,853,996 (35%) of which were located in urban areas and 12,728,849 (65%) in rural areas (NSO, 2006). The average number of people per household was 3.4 at the national level, 3.2 in the urban areas and 3.6 in the rural areas. The lowest average household size was found in urban areas of the 12 Northern region (3.0 persons/household), whereas the highest average household size was found in rural areas of the Southern region (3.8 persons/household), (NSO, 2006). The average monthly income per household in Thailand is estimated to be around US\$ 508.21 (NSO, 2007a). The levels of income are however not evenly distributed across different regions. For example, in Bangkok

and its vicinity, the average monthly income is significantly higher than the rest of Thailand at \$US 945.4 per household. By contrast, the average monthly household income in the Northern and North-eastern regions of Thailand (where the primary occupation in the area is in the agricultural sector) is estimated at \$US 375.6 and 337.6 respectively (NSO, 2007a). The ratio of household expenditure to income in Greater Bangkok is 73.1% while it is in the range of 79.7 to 87.3% in other regions. In Thailand, the poverty line is set by the National Economic and Social Development Board (NESDB). For 2004, the poverty line was set at 1,242 Baht/person/month (US\$30.8/person/month) (NESDB, 2007). Based on an average household size and the number of population in each region, the percentage of poor households can be estimated as presented in Table 4.

TABLE: 2 ESTIMATED SHARE OF POOR HOUSEHOLDS IN DIFFERENT REGIONS (%) IN THAILAND:

Region	Urban Areas	Rural Areas	Total
Greater Bangkok	1	-	1
Central	4.7	6.9	6.2
North	8.4	18.4	16.1
Northeast	11.2	18.2	16.8
South	4.8	8.5	7.5
Whole Country	4.6	13.9	11

Note: Estimation based on data from NSO (2005) and NESDB (2007)

RENEWABLE ENERGY PROMOTION

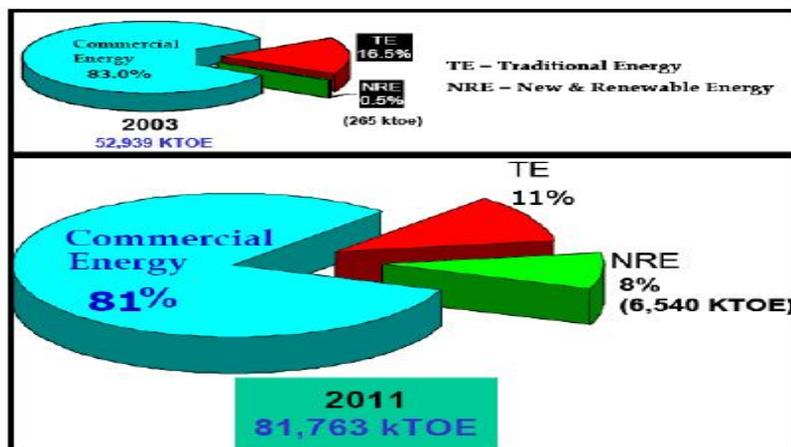
Exploitable potentials of renewable energy (except large hydro) are given in Table 5. Various strategies have been developed in order to harness renewable energy. Setting renewable energy targets is one of the strategies to promote renewable energy effectively. The government takes the cue on the amount of electricity consumed in 2003 (Figure 4.5), from which the contribution of renewable energy in electricity production amounts to 0.5 per cent only. It is projected, then, that by 2011 a total of at least 8 per cent of renewable energy will share the burden of electricity production through the aid of Renewable Portfolio Standard (RPS), Research and Development (R&D), incentives and other facilities. However RPS is not being pursued actively at present. Instead the most recent strategy is to promote renewable energy based power

generation by giving incentives in terms of favourable buyback rates for small power producers (SPPs) and very small power producers (VSSP).

TABLE 3: EXPLOITABLE POTENTIALS OF RENEWABLE ENERGY

Renewable Energy	Approximate Energy Potential
Biomass	7000 MW
Solar	5000 MW
Small hydropower	700 MW

In the total electricity supply, with the aid of RPS could generate a total of 437 MW based on combined sources of solar, wind, municipal solid waste, biomass and hydropower. In contrast to the RPS, incentive policies could encourage a projected supply of 1,093 MW. Through various incentive mechanisms, it is estimated that heat could share 3,700 ktoe, bio-fuel with 3,100 ktoe, Ethanol with 3 million litres/day and bio-diesel with 8 million litres/day (Figure 4.6b) (Sajjakulnukit, 2007).



5: Thailand's distribution of energy consumption in 2003 (a); and projections in 2011 (b).

The ENCON program: The program was established on 3 August 1994 with the objective of promoting energy efficiency, energy conservation, sustainable use of natural resources, and protection of environment under the Department of Energy Development and Promotion (DEDP) and the Ministry of Science, Technology and Environment (MOSTE). The main tasks of the ENCON program are to set guidelines,

criteria, condition and priorities for the ENCON allocation fund. Demonstration, promotion, research and development in the energy conservation project basically are the objectives of this program. Two government agencies have been given the task of implementing this program, which is mainly divided into three major sub programs, i.e.: compulsory program, voluntary program and complementary program as given in Table 6.

TABLE 4: SUB –PROGRAMS UNDER ENCON

Programs		
Compulsory Program	Voluntary Program	Complementary Program
Government Buildings	Promotion of Renewable Energy Utilisation	Human Resource Development
Existing Designated Factories and Buildings	Promotion of SPPs using renewable energy	Public Awareness Campaign
Factories and Buildings under Designing or Construction	Industrial Liaison	Management and Monitoring
Public Awareness Campaign	Research and Development	
	Existing Non-Designated Factories and Buildings	
Implementing Agencies		
Department of Energy Development and Promotion	National Energy Policy Office	National Energy Policy Office

ENHANCING ENERGY EFFICIENCY

According to the Department of Alternative Energy Development and Efficiency (DEDE), formerly known as Department of Alternative Energy Development and Promotion (DEDP), energy efficiency in residential sector can be attained through combination of the following five tools/activities:

→ Standards & Regulations – The number of designated facilities that will be covered is approximately 1,800 buildings and 2,600 factories. These facilities shall implement the Energy Management Standard as well as the Building Code.

→ Financial Incentives - this covers the program on low interest loans, tax incentives and the promotion of energy-efficient houses. The “Low Interest Loan” includes budget allocation from ECP Fund to banks, loan approval by banks and technical assistance by DEDE with the following key conditions:

→ Loan amount < 1.2 million USD/project

→ Interest less than 4% (fixed rate)

→ Repayment in 7 years

As of the 2005, the government's initial US\$ 50 million allocated loan has been used up. On average, an investment of US\$ 0.8 million is required per project with an average payback period of 2.4 years. The succeeding phase will have co-funding with private banks. The tax incentives, on the other hand, could be Cost-Based (With Revenue Department), Performance-Based (Pilot Project) or Incentive through Board of Investment (BOI). The cost-based incentive allows 25 per cent tax break for the investment in EE projects which result in efficiency improvement. This is applicable for the first 50 million Baht of total investment cost (US\$ 1.25 million) which is spread for over 5 years. The performance-based tax deduction is equivalent to 100% of achieved energy savings with a maximum allowable of 2 million Baht (US\$ 50,000) per facility. Pre- and post-audit is necessary for this scheme. Finally, the incentive through the BOI covers tax exemptions on import duties and corporate taxes on any investments on energy conservation and renewable energy production. This includes investments on high-efficiency or renewable energy equipment, solar PV manufacturing or energy service company (ESCO). This incentive lasts for a maximum of 8 years. The promotion of energy-efficient houses explores various models with a focus on design of the roofing, walls, flooring, ceiling, openings, sunshade equipment, ventilation, natural light utilization and the shape and location of the house.

→ Awareness Raising – this entails efforts on public relations. One scheme is the “Best Practice Competition” which could bring about people's participation. Focus is given on various methodologies of housekeeping measures for over 100 factories and 50 buildings. Saving of 5-10 per cent is expected with a corresponding simple payback of 2.5 years.

→ Technical Assistance – this includes projects like workshop and training, free energy audit and consulting, technology demonstration and promotion of ESCOs.

RECENT DEVELOPMENTS [as of March 2011]

POLICIES ON RENEWABLE ENERGY

On 26 December 2006, the National Energy Policy Council (NEPC) approved EGAT purchasing power from generators using renewable energy, and instructed EGAT to revise its regulations for purchase of power from SPP's using renewable energy. On 18 April 2007, EGAT announced Regulations for the Purchase of Power from Small

Power Producers exclusively for the generation from renewable energy. SPP's can obtain information from the Power Purchase Agreement Division, EGAT.

On 28 January 2009, the Cabinet approved a 15-year alternative energy plan, and on 9 March 2009, the National Energy Policy Committee approved additional tariff “adders” for certain categories of alternative energy. The announced goal was for renewable energy to constitute up to 20% of total energy consumption by 2022. See C&T papers on Wind and Solar for more details concerning these two sectors.

ENERGY INDUSTRY ACT, B.E. 2550 (2007)

This Act was published and became effective in December 2007. It establishes a new regulatory regime for electricity and natural gas business. One of the purposes of the Act is to restructure the energy industry management by separating policy making, regulation and operating functions. It provided for establishment of an Energy Regulatory Commission (ERC), whose members have been appointed, and the Office of ERC. Operators of energy business must obtain a license from the ERC. Draft royal decree, regulations and notifications to implement the Act have been published. The ERC is responsible for prevention of abusive use of monopoly power and protection of energy consumers and those adversely affected from the energy industry operation.

SUIT AGAINST PTT

A suit was filed in September 2006 against PTT Pcl seeking to reverse the 2001 corporatisation of the Petroleum Authority of Thailand. The suit was filed in the Administrative Court by special interest groups, following their success in reversing the corporatisation of EGAT in March 2006.

On 14 December 2007, the Supreme Administrative Court ruled that the two royal decrees corporatizing PTT are valid and will not be revoked and that the status of PTT Pcl as a public company is confirmed. However, certain assets of PTT Pcl must be returned to the Ministry of Finance together with full authority over associated assets. The expropriated assets had an estimated value of 100 billion Baht and include 32 rai of land and 3,000 kilometres of gas transmission pipelines.

2007 IPP SOLICITATION

The first solicitation for bids for IPPs (independent power producers) was announced in 1994. Seven IPP projects were awarded PPAs. All obtained project financing from Thai and US\$ commercial banks. JBIC was a lender to three of the projects, and ADB was a lender to one of the projects.

The second solicitation for bids for IPPs was announced in June 2007 for base load capacity of 3,200 MW. Bidders were required to submit their proposals by October 2007. The Energy Ministry announced the four winners for capacity of 4,400 MW in December 2007, and the contracts to buy electricity will be signed with EGAT in mid 2008. The bidding process was conducted by EPPO utilizing electronic means to the fullest extent possible. A website was the sole source of documents upon which proposals were to be prepared and submitted. The process had a high degree of transparency, with clear evaluation and award procedures. The standard form of PPA contained a standardized risk allocation. Proposals were evaluated solely on price. The National Energy Policy Council approved an energy tax to be paid by all power plants, old and new. The rates vary, depending on the amount of emitted pollution and fuels used. The energy tax will be paid in two stages. During construction, the power plants are required to contribute according to their installed electricity capacities at a rate of Baht 50,000 per MW per year, or at least Baht 500,000 per year to the fund. After the electricity is supplied to the national grid, the power plants must contribute according to the amount of power they produce monthly at carrying rates depending on amount of emitted pollution.

PRIVATISATION POLICIES

Royal Thai Government Privatisation Master Plan

On September 1, 1998, the Cabinet approved a privatisation master plan, which systematically dealt with policies to develop and implement structural reform or privatisation of 59 state enterprises. The energy sector was one of the five major sectors addressed by the master plan.

Corporatisation Legislation

The Capital of State Enterprise Act, B.E. 2542 (often referred to as the “Corporatisation Act”) was published on December 16, 1999, after the Constitutional Court confirmed its constitutionality.

The Act is an enabling act that provides a regulatory framework for the conversion of state enterprises to either private limited companies or public limited companies, which will initially be 100% owned by the MoF. It sets forth a process, but it does not prescribe which state enterprises will be privatised, nor provide any timetables. It provides for the establishment of a State Enterprise Capital Policy

Committee, which would conduct studies and propose to the Cabinet for approval of the principles and guidelines to corporatise all or part of specific state enterprises. For each such state enterprise, a second committee, the Company Establishment Preparation Committee, would be established to work out the details of the corporatisation and to draft a royal decree to deal with issues requiring legislative solutions. Cabinet approval is required before any state enterprise is corporatised.

Power Sector Liberalisation

EGAT was a state enterprise in the form of a statutory corporation without shares owned by the state, under the administration of the Ministry of Energy (since October 1, 2002). Its property is exempt from execution. It possessed statutory powers to survey and use land for transmission line rights-of-way, and the right to acquire land for electricity generation plants through expropriation. Section 45 of the EGAT Act provided an assurance that in the event of a shortfall in revenues, the state would appropriate funds to meet the shortfall. On May 10, 2005, the Cabinet approved the recommendation of the State Enterprise Capital Policy Committee to proceed with the corporatisation of EGAT. On May 13, 2005, the Secretariat of the Cabinet sent a letter to the Chairman of the State Enterprise Capital Policy Committee, confirming the Cabinet's approval according to the resolution of the State Enterprise Capital Policy Committee No. 1/2548, and the two draft royal decrees were forwarded to the Office of the Council of State for review.

EGAT was corporatised (as noted in the introduction to this article) on June 24, 2005 under Section 26 of the Capital of State Enterprises Act, and converted to EGAT Public Company Limited (EGAT Pcl). Two Royal Decrees were published:

→ Royal Decree stipulating powers, rights and benefits of EGAT Pcl, B.E. 2548 (2005), which prescribed that EGAT Pcl shall have the powers, obtain exemptions, have special rights and receive protection as prescribed and granted by the law governing EGAT and other laws applicable to EGAT. Certain assets of EGAT Pcl are not subject to execution (assets related to the electricity generating business for common interest). Specified employees of EGAT Pcl performing work on electricity systems have official powers under the Criminal Code. This Royal Decree established an Electricity Generating Business Committee with power to approve new power plants, transmission line rights-of-way and other policy decision.

→ Royal Decree stipulating time clause for repealing the law governing EGAT, B.E. 2548 (2005), which prescribed that the Electricity Authority of Thailand Act is

repealed as of June 24, 2005. EGAT Plc is governed by the provisions of the Public Limited Companies Act, B.E. 2535 (1992). EGAT Plc had planned to conduct an IPO in November 2005, offering up to 25% of its shares to the public, but the Administrative Court on November 15, 2005 issued an injunction to suspend the IPO until a future date. On March 23, 2006, the Administrative Court issued a ruling revoking retroactively the two Royal Decrees. The effect has been interpreted as reversing the corporatisation of Electricity Generating Authority of Thailand retroactively to June 24, 2005. The juristic status of EGAT Plc is uncertain. The Council of State issued an opinion on April 21, 2006 to address some of the issues raised by the Court's ruling.

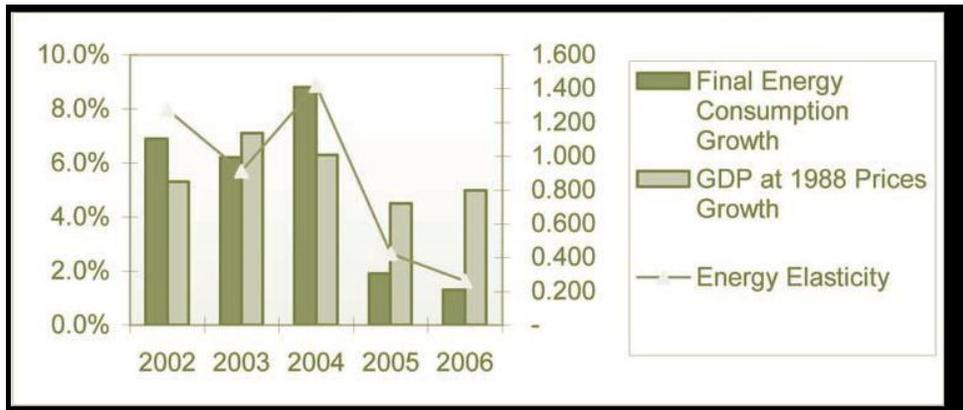
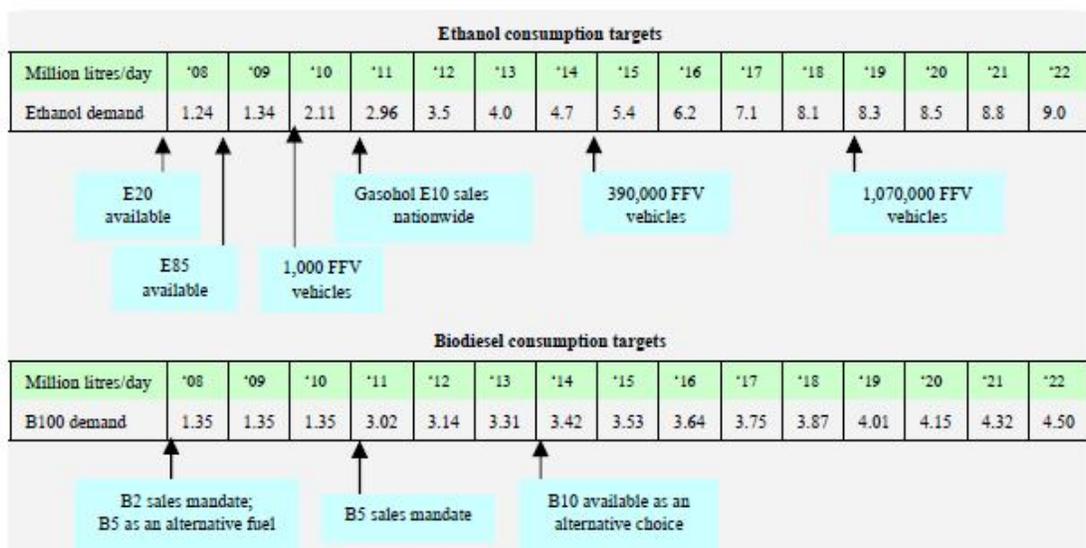


TABLE 5: THAILAND'S RENEWABLE ENERGY AND ITS ENERGY FUTURE

Thailand 15-year renewable energy plan 2008-2022 on Ethanol and Biodiesels



Right now we are speeding up the development of a clear and feasible action plan to implement the 15-Year Renewable Energy Development Plan. We will proceed full with the promotion of ethanol and biodiesel to be the “energy for Thai people.” Thailand to be energy self-reliant. In addition, ethanol and biodiesel are renewable energy crops; therefore, biofuel promotion will help increase the prices of agriculture while reducing oil import and hence saving foreign currency of the country. More overprices are not expensive and these biofuels are clean energy, contributing to the re environmental impacts and global warming problems. Particularly, E85 will be a energy option for Thai people amidst oil price hikes. The Ministry will carefully balance between the use of agricultural products for energy production and that for With respect to the positive impact on ‘carbon footprint’ of Thailand as a whole, believed that with broad-based policy measures, the renewable fuel for road transport and crops will actually act as a green carbon.



With Regard to natural gas for vehicle the implementation will be speeded up according to the action plan which has covered the preparation to accommodate the increase in demand, to reduce the problem of “Running out of Gas” ,“Long Queue” and scare Service station through improvement of the management and administration of NGV. In Addition, the Ministry has given high priority in Promoting Power generation using such renewable energy as Solar, wing and biomass. Consideration will be made to introduce more incentive measures, besides the existing Adder measure in order to induce greater investment in power generation using all potential types of renewable energy.

Year Renewable Energy Development Plan (REDP) : RE Roadmap for Thailand 2008-2022.

Energy is one of the factors that drive national economy. For this reason, to achieve the sustainable economic development, it is unavoidable for the Thailand to build up the energy security in parallel. Therefore to strengthen the national energy security, the renewable Energy development is one of the most important directions to achieve that goal. There are so many important factors to push forward Thailand energy development.

Firstly, it is necessary to procure energy sufficiently for the domestic demand. The of the final energy demand from 2009 to 2012 is 2 percent, and from 2012 to 2022 is 16 percent. These assumptions will make the demand in 2011 equal to 70,300 ktoe, 81,52016, and the demand will reach the level of 100,000 ktoe in 2022. However, various studies between 2009 and 2022, the energy produced from domestic sources will not deviate from the demand significantly. For that reason, it is necessary to develop domestic RE resources to catch up with the demand. Next thing that has to be directness of the domestic RE resources. For potential studies, RE potential country. As an agricultural Thailand is full of agricultural products. At the same time, agricultural products processing industry from the industrial by-products. These by-products can be processed into energy in biomass, biogas, biodiesel and ethanol. Thailand also has the potential for natural energy and solar energy with the average solar radiation intensity of about 18.2 MJ/m²/day. Another factor to be considered is the energy security. Thailand depends on energy by large amount. From 1988 to 2008, the average primary 15 percent of the primary commercial energy demand, and this proportion becoming large because the domestic energy production cannot catch up the demand growth. Therefore for serious RE development, Thailand energy importation dependency will rise to 70 percent, the energy and economic stability will face serious negative impact. Lastly, the International Energy Agency (IEA) global energy trend study found that present greenhouse gas (GHG) emission trend will cause the global temperature to increase by an average of 6 degree Celsius.

Diagram 1: Target and Roadmap of REDP (2008-2022)

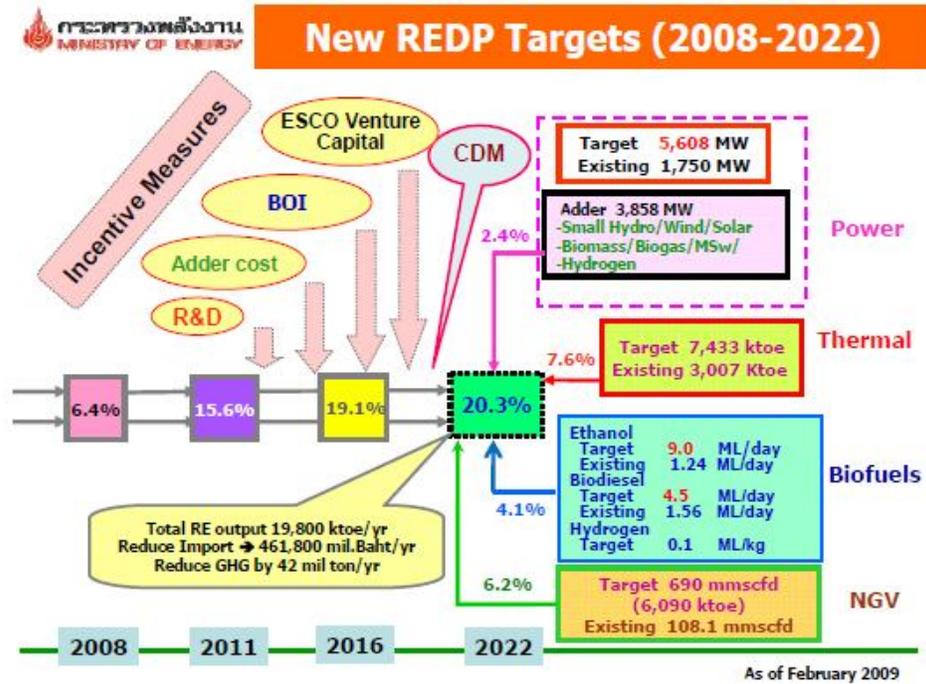


Table 8: 15-YEARS REDP GOALS OF THAILAND

Type of Energy	Potential MW	existing MW	2008 - 2011		2012 - 2016		2017 - 2022	
			MW	ktoe	MW	ktoe	MW	ktoe
Electricity								
Solar	50,000	32	55	6	95	11	500	56
Wind Energy	1,600	1	115	13	375	42	800	89
Hydro Power	700	56	165	43	281	73	324	85
Biomass	4,400	1,610	2,800	1,463	3,220	1,682	3,700	1,933
Biogas	190	46	60	27	90	40	120	54
Municipal Solid Waste	400	5	78	35	130	58	160	96
Hydrogen			0	0	0	0	4	1
Total		1,750	3,273	1,587	4,191	1,907	5,608	2,313
Thermal								
Solar Thermal	154	1		5		18		38
Biomass	7,400	2,781		3,660		5,000		6,760
Biogas	600	224		470		540		600
Municipal Solid Waste		1		15		24		35
Total		3,007		4,150		5,582		7,433
Biofuel								
Ethanol	3.00	1.24	3.00	805	6.20	1,686	9.00	2,447
Biodiesel	4.20	1.56	3.00	950	3.64	1,145	4.50	1,415
Hydrogen			0	0	0	0	0.1	124
Total			6.00	1,755	9.84	2,831	13.50	3,986
Total Energy Consumption		66,248		70,300		81,500		97,300
Total Energy from R E (ktoe)		4,237		7,492		10,319		13,709
Renewable Energy Ratio		6.4%		10.6%		12.7%		14.1%
NGV (mmscfd - ktoe)		108.1	393.0	3,469	596	5,260	690	6,090
Total Energy from RE + NGV (ktoe)				10,961		15,579		19,799
Alternative Energy Raio				15.6%		19.1%		20.3%

Thailand Power Development Plan 2012 – 2030
(PDP2010: Revision 3)

Key Assumptions for PDP2010: Revision 3 Formulation

To formulate the revised PDP to be in line with the new government energy policies, several assumptions need to be reviewed and reconsidered. Key assumptions, made for PDP2010: Revision 3 formulation, are listed below.

- 1) **The power demand forecast or load forecast:** it is approved by the TLFS on 30 May 2012 to incorporate energy saving programs and energy efficiency promotions in accordance with the 20-Year Energy Efficiency Development Plan 2011 – 2030 (EE Plan 2011 – 2030) formulated by the MoEN, and approved by the NEPC on 30 November 2011.
- 2) **Thailand power system security:** Thailand should have the proper level of reserve margin to be not less than 15 percent of peak power demand. Moreover, to avoid the risk of the natural gas acquiring from sources in the western part of Thailand, in case of no natural gas supply, the appropriate level of reserve margin should be higher than 20 percent of the peak demand.
- 3) **The future electricity acquiring:** fuel type diversification in appropriate proportion is considered to reduce natural gas dependency in power generation.
- 4) **Electricity acquiring from renewable energy:** the MoEN targeted to increase the proportion of renewable energy for Thailand's electricity generation by not less than 5% from that of the previous PDP2010: Revision 2 within 2030 by taking into account the 10-Year Alternative Energy Development Plan 2012 - 2021 (AEDP 2012 – 2021). And then in 2022 – 2030, the generation from renewable energy will be expanded in accordance with its potential and advanced technology development.
- 5) **Electricity acquiring from nuclear power plant:** with the scope of the government's policy, a share of nuclear power generation should be not greater than 5 percent of total generating capacity. Additionally, the MoEN suggested shifting the scheduled commercial operation date (SCOD) of the first unit on nuclear power project forward by 3 years from 2020 to 2023.
- 6) **Electricity acquiring from coal-fired power plant:** the MoEN suggested considering coal-fired power plant development in an appropriate proportion as the necessity of Thailand power system except for considerations of other fuel types. Incidentally, for greenhouse gas emission reduction, CO₂ in particular, clean coal technologies should be recommended.
- 7) **Foreign power purchase:** the suggested proportion of power purchase from neighboring countries should be not greater than 15 percent of total generating

capacity by emphasizing only on the projects that having been signed Tariff MOU already.

8) **Efficient power generation by cogeneration system:** it is suggested to promote cogeneration and to increase the amount of power purchases from cogeneration system as the following:

→ During 2010 – 2014: conforming to the projects that have been settled

→ During 2014 – 2019: scheduling the power purchases of SPP projects with Firm contract amounting 3,500 MW as the NEPC approval on 24 August 2009 and 25 November 2010,

After 2020: planning to purchase more electricity from SPP cogeneration with Firm contract totaling 1,350 MW.

9) **CO₂ emission from power sector:** the target of CO₂ emission reduction (ton CO₂/kWh) of PDP2010: Revision 3 is still set to be not higher than that of the previous PDP2010.

Thailand Power Development Plan (PDP 2030:)

With the aforementioned key assumptions for PDP2010: Revision 3 formulation, Thailand Power Development Plan 2012 – 2030 (PDP2010: Revision 3) can be summarized as the following. At the end of 2030, grand total capacity will be about 70,686 MW comprising total capacity (as of December 2011) amounting 32,395 MW, total added capacity of 55,130 MW and deduction of the retired capacity totaling 16,839 MW. The details of generating capacity classified by power plant types are shown in Appendix 4; the details of estimation of energy generation by fuel types are presented in Appendix 5. Total added capacity during 2012 – 2019 composes of all projects planned with commitment and agreement. The total added capacity will be about 23,325 MW detailed as the following:

→ Power purchases from renewable energy 8,194 MW (both domestic and neighboring countries)

→ Cogeneration 5,107 MW

→ Combined cycle power plants 6,551 MW

→ Thermal power plants (coal/lignite) 3,473 MW

Total added capacity during 2020 – 2030 comprises all projects planned for serving future power demand increasing annually and also replacement of the retired power plants. The total added capacity during this period will be about 31,805 MW summarized as the following:

→ Power purchases from renewable energy 6,387 MW (both domestic and neighboring countries)

→ Cogeneration 1,368 MW

→ Gas turbine power plant (3 x 250 MW) 750 MW

→ Combined cycle power plants (21 x 900 MW) 18,900 MW

→ Thermal power plants (coal) (3 x 800 MW) 2,400 MW

→ Thermal power plants (nuclear) (2 x 1,000 MW) 2,000 MW

The total capacities during 2012 – 2030 can be concluded as the following:

→ Total capacity (as of December 2011) 32,395 MW

→ Total added capacity during 2012 – 2030 55,130 MW

→ Total retired capacity during 2012 – 2030 -16,839 MW

→ Grand total capacity (at the end of 2030) 70,686 MW

The added capacity during 2012 – 2030 of 55,130 MW can be classified by power plant types as the following:

1. Renewable energy power plants 14,580 MW

→ Power purchase from domestic 9,481 MW

→ Power purchase from neighboring countries 5,099 MW

2. Cogeneration 6,476 MW

3. Combined cycle power plants 25,451 MW

4. Thermal power plants 8,623 MW

→ Coal-fired power plants 4,400 MW

→ Nuclear power plants 2,000 MW

→ Gas turbine power plants 750 MW

→ Power purchase from neighboring countries 1,473 MW

Conclusion: from the above whole study of the Thailand Energy sector and the future plan of the Country we can say that there is a huge opportunity for the foreign Investment and especially for the Renewable energy sector has a high potential growth in the country. The emerging Country like Thailand and also the country like India has good opportunity for the business in Energy sector.

THAILAND DIAMOND AND JEWELLERY SECTOR

Thailand has a rich history in gems and jewellery. Hundreds of years ago, the Thai people drew from their natural artistic flair and started incorporating rubies, sapphires and other local gem resources into jewelry. Gold- and silversmiths also began honing their skills. Boomtowns sprouted up, such as Chantaburi, famous for its rubies and sapphires. The dazzling red “Siamese rubies” hail from there. Kanchanaburi Province is likewise known for extensive deposits of blue sapphires.

As practitioners applied skills handed down through generations, a cottage industry formed in various provinces, with the business aspects gradually coalescing in Bangkok. Over time, modern advancements in manufacturing techniques helped the country gear up as a global production and trade center.

Today, Thailand’s gems and jewellery industry features more than 1,600 enterprises and boasts many top rankings. The country is the world’s No. 1 producer of silver jewelry and the fifth-largest center of diamond cutting. Thailand is also one of the top five jewelry polishing centers along with Israel, Belgium, the United States and India. It ranks 12th worldwide for colored stones.

History of Precious gems, jewelry and stones

Early Hindu settlers of Thailand introduced Thai culture to the art of gold-crafting nearly 2000 years ago. Hindu traders and explorers slowly made their way from Southern and Eastern India and their goldsmith techniques eventually spread to the dwellers of natives located in the Chao Praya basin. Their first gold jewellery designs surfaced sometime in the 1st century and were very obviously inspired by Hindu culture. Nowadays, the jewellery designs created by the Thai people are much more modernized, but their attention to detail and the intricacy of their work has never been sacrificed. Gold trade in Thailand is so heavily trusted and relied upon, that it is very common for Thais to use gold and gold jewelry as a form of readily available cash, because for many Thais, faith lies in the continued strength and reliability of gold rather than with fluctuating paper currency.

The ancient Hindu civilizations had great influence on the design of silver jewelry as well. The same Hindu inspirations used in the design of Thai gold were also used to create astonishing pieces of silver jewellery. Chiang Mai, Thailand is one

of the world's most famous silver cities. Originally, the majority of silver craftsmanship was put towards silverware and other decorative pieces, such as trays, ladles and bowls. With modernization came the development of finer silverwork and the industry made a turn towards the production of fine jewellery pieces. Northern Thai silver was soon to be manifested as a result and much of the credit is owed to the influence of Burmese refugees who handed down generations of art of craft.

A Birthplace of Jewels. Fine Craftsmanship and Discovery

Thailand has been recognized as one of the world's major gems and jewelrycenters. The Kingdom is not only endowed with dedicated and gifted artisans, but also gemstone resources.

Sapphires have been discovered in Kanchanaburi. Chanthaburi, Si Saket, UbonRatchathani, Phrae, Phetchabun and Sukhothai. Chanthaburi's districts of Pong Nam Ron, Bo Rai and KhaoSaming have been known as producers of rubies: in addition to. Nam Yuen district of UbonRatchathani.

The red rubies discovered in Chanthaburi have been known as "Tab Tim Siam" or "Siamese Rubies" which are sought after by jewel lovers around the world for their dazzling red and magical looks. The Siamese Rubies have thus credited Thailand as the "Land of Jewels of die East".

Thailand's gems and jewellery industry has systematically developed from a cottage level to a large-scale export-oriented scale. The sector has become one of the country's top-ten foreign exchange earners, generating tens of billions of Baht to the economy and creating jobs for millions of people.

Structure, Functions and Business activities of India and Thailand

THAILAND GEMS AND JEWELLERY INDUSTRY STRUCTURE:

1. Gem stones industry

198 jewellery manufacturers registered with industry department, hiring 20,000 workers. Most of job hiring comes from large manufacturers because some

production processes need talented, skilful, and experienced workers, cannot use machine for these processes. Gem and jewelry can be categorized into 2 types, gem cutting and diamond cutting.

Gem cutting and polishing in Thailand is well known and outstanding for worldwide. Diamond cutting and polishing requires a high investment due to the high technology and sophisticated tools. Therefore, most entrepreneurs are foreigners or joint venture companies from world famous gemstone cutting polishing industry countries such as Belgium, Israel and England.

2. Jewelry industry.

There are many jewelry manufacturers in Thailand, 552 factories registered with industry department, hiring 44,000 workers for designing and screening process because these production processes require talented workers.

INDUSTRY FUNCTIONS

BANGKOK

The Bangkok branch of gems jewellery was opened in 1987. The eye catching show room has a surfeit of jewellery masterpieces and gems from which to choose and more than 700 multilingual staff to welcome and serve you.

CHIANGMAI

The Chiangmai branch of gems gallery has been opened since 1993. It emphasizes

jewellery produced by local craftsman and in particular the use of the best genuine jade.

PHUKET

Gems and jewellery in Phuket was opened in 1998. More than 500 staff offer the highest levels of customer service in a welcoming atmosphere that reflects the natural

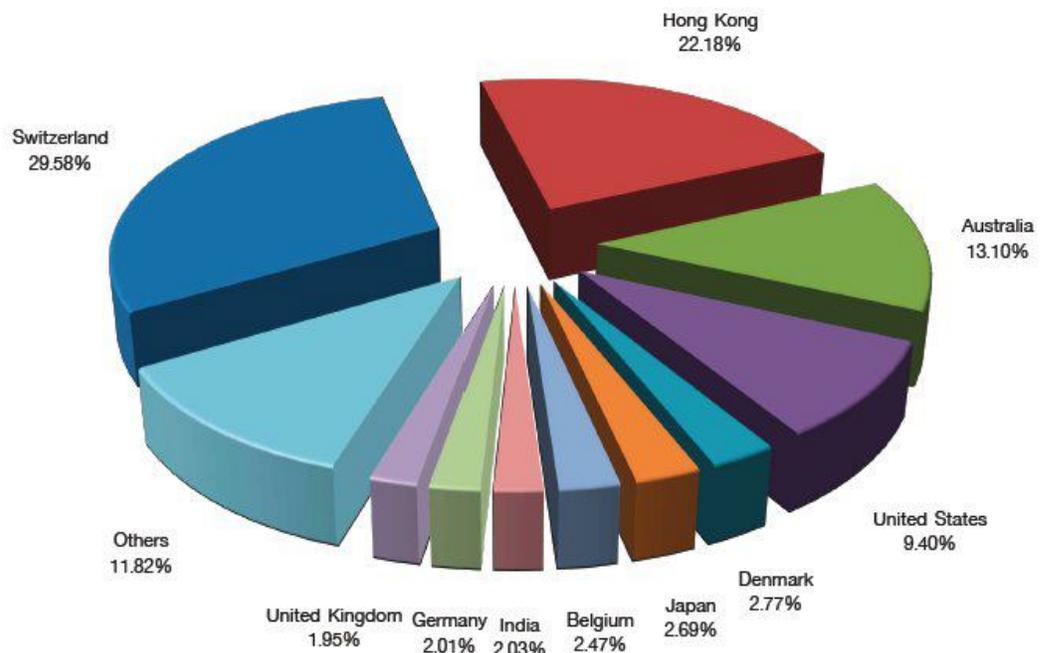
beauty of the sea as you choose among beautiful pearl and precious stones jewellery item to treasure yourself or everlasting gifts for someone special.

PATTAYA

The Gems and jewellery in pattaya is latest branch. It is a truly spectacular store which incorporates a totally new service in the form of “Theme Park-dar k Ride” a dramatic light & sound presentation of the glittering world of gems.

Thailand’s Gem and Jewelry Export Markets in 2010

Considering



Considering Thai gem and jewelry export value (excluding unwrought or semimanufactured

gold) to various regions during 2007-2010 as in Table 2, it is found that

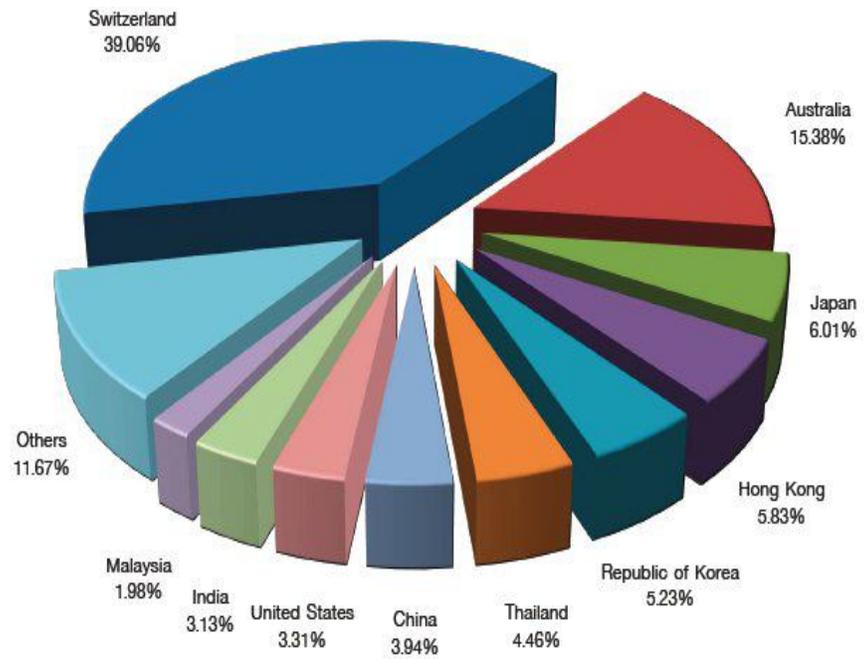
the export value was on the rise in every region, especially in emerging markets like

China and India, of which the export share increased consistently and the export value

grew over 60 percent. For export products to India, gold jewelry, polished diamonds and

polished precious stones were making progress.

Thailand's Gem and Jewelry Import Sources in 2010



The most important source for gem and jewelry import was Switzerland with the share of 39.06 percent and 1.49 times growth in import value. India has share of 3.13%.

INDIA GEMS AND JEWELLERY INDUSTRY STRUCTURE

Gold is the principal raw material for making jewellery in India. In 2007 gold had a

market share of US\$ 12.24 billion (Rs 550 crores), while diamond had a market share of US\$ 2.56 billion (Rs 115 crores).

Eighty per cent of the gems and jewellery industry in India is dominated by gold and the rest is controlled by diamond and gemstone industry. This trade in India is mainly fragmented as 96 percent of total business comes from unorganized sector.

Currently India is the major polishing and cutting hub for diamonds. India is also the third largest consumer of polished diamonds. The surge of urbanization and rapidly growing middle class in India has led Indian consumerism to new heights, particularly in the diamond jewellery sector.

India's position in the global market

- World's largest hub for diamond processing
- Largest consumer of Gold in the world
- 2nd World's largest cutting and polishing industry

Industry Functions:

Jewellery crafting by traditional goldsmiths is confined to a few regions in India. These pockets are widely separated and involve craftsmen whose skills have been handed down over generations.

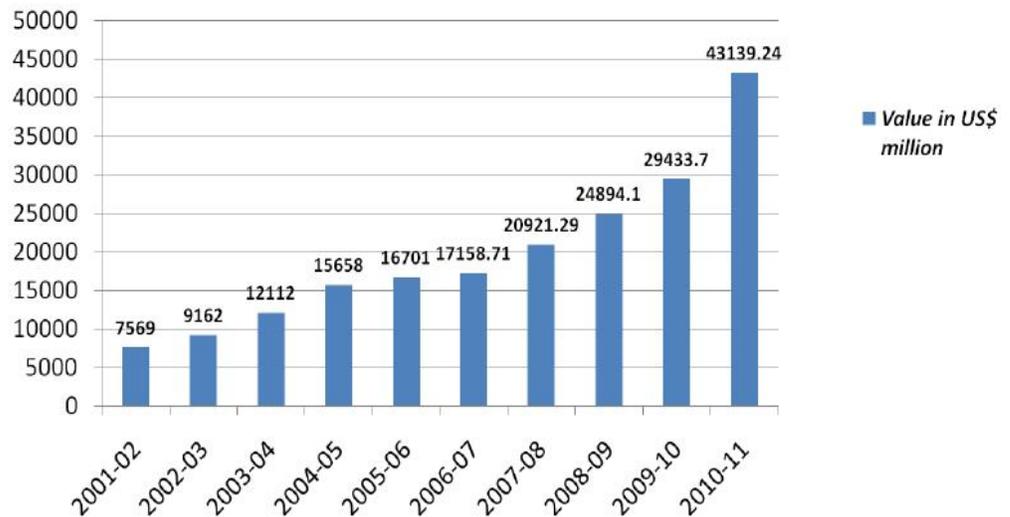
- Surat is an important diamond processing centre, which exports around 80 per cent of the production and has more than 3,500 diamond processing units.
- Jaipur is a key centre for polishing precious and semi-precious gemstones.
- Delhi and its neighbouring states are famous for manufacturing silver Jewellery and articles.

- Calcutta is popular for its lightweight plain gold jewelry. This category of jewellery finds a large market in Tamil Nadu.
- Hyderabad is the centre for precious and semi-precious studded jewellery.
- Nellore is a source for handmade jewellery that has been supplying the Chennai market for quite a few decades.
- Belgaum in Karnataka and Nellore together, specialize in studded jewellery using synthetic or imitation stones.
- Coimbatore in Tamil Nadu specializes in casting jewellery.
- Trichur in Kerala is another source for lightweight gold jewellery and diamond cutting.
- Mumbai is the centre for machine made jewellery. The city is also India's largest wholesale market in terms of volume.

GEMS AND JEWELLERY EXPORT

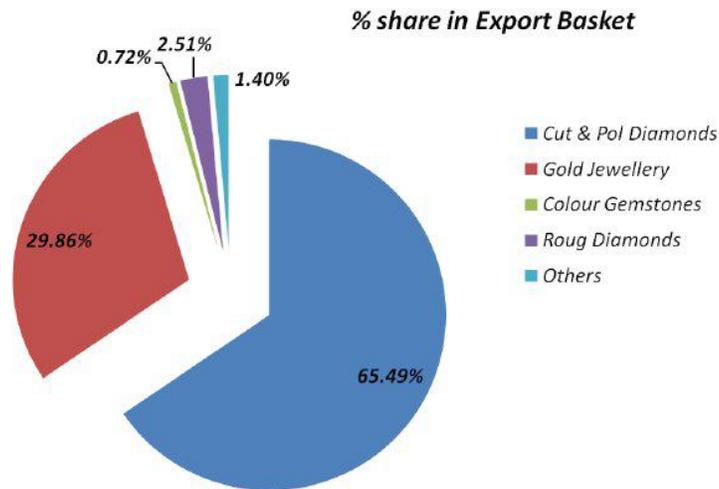
USA's import of Gem & Jewellery from India increased by 50.5% in 2010 as compared to 2009 India Gems & Jewellery exports are expected to grow at a whopping 15 % – 20% in FY 2011-2012 At present India exports 95% of the world's diamonds

Export Figures from 2001- 2011



From the above chart we can say that in the year 2010 – 2011 the export value is highest that is 43139.24 us \$ million which shows that India’s export is increasing year by year.

GEMS AND JEWELLERY EXPORT BASKET



Above chart shows that the highest percentage that is 65.49% of share is from cut & polished diamonds while 29.86% from gold.

CONTRIBUTION OF BUSINESS IN ECONOMIC AND SOCIAL DEVELOPMENT OF COUNTRY

The Thai Gem and Jewelry Traders Association (TGJTA) has released comprehensive figures for its diamond, gem and jewellery imports and exports for the first 10 months of the year.

The statistics show the country's diamond, gemstone and jewelry exports continue to rank fourth on Thailand's export listings, preceded by the machinery, cars and energy industries.

In the January-October period, total gem and jewelry exports reached \$6.70 billion, an increase of 58 percent compared to the \$4.24 billion exports achieved in the same period in 2007.

Its top three export destinations were Belgium, with exports of \$247.4 million for the period, Israel which accounted for \$239.4 million, and Hong Kong with \$187.2 million.

Thailand Diamond Business

Thailand specializes in producing exquisite diamond jewelry. The Thai diamond market abounds in oval cut diamonds, brilliant cut diamonds, princess cut diamonds, emerald cut diamonds and marquise cut diamonds. Buyers can find diamonds in varied colors such as yellow, pink, green, blue, red, black and white. The market here is very active, with trade worth several million dollars taking place daily.

The industry used to employ some 10,000 people before recession woes set in. Now the numbers have reduced considerably. Thailand imports rough diamonds mostly from South Africa which are then cut and processed and exported as jewelry. Diamond exports are lesser in value compared to imports as Thailand uses rough stones for its own industrial use.

Big and small jewellery factories in Thailand employ specialist designers. The manufacturing centers include small jewellery workshops to large factories where men and women assemble mid to high level diamond jewellery pieces.

According to the Thai Gem and Jewellery Traders Association, overall jewelry exports may reach their highest levels in five years. The annual export value stood at around \$US10bn in 2010 which is expected to increase further, overriding exports of computers and automobiles. This burgeoning trade includes jewelry made with diamonds, rubies and sapphires of various hues. China and India lap up 30 percent of the total export market, the United States at 20 percent, followed by the Latin American countries. Thailand is famous for the high quality of diamonds it uses sourced from abroad and the unique sensational designs that skilled artisans create.

To showcase the indigenous designs and prowess in this field, gems and jewelry fairs are organized by concerned trade associations which attract a lot of foreign presence. The exquisite collections help jewelers garner huge export orders, thereby taking the Thai jewelry industry to new heights.

Social development

Increase in affluent households

The total number of Asian households with an income of US\$10,000 plus is expected to increase 53 percent by the year 2000. Those with incomes more than US\$30,000 are expected to increase at an even faster rate, by 77 percent, during the same time span, bringing the total number to more than 20 million households in the region.

Working women

The importance of women to the diamond market cannot be ignored. Increasing numbers of women are joining the workforce, contributing to the spending power of dual income households. Their numbers are likely to increase further in Thailand as the education of the population gathers pace.

The new-found social status that is being achieved by women in Thailand has two benefits: first, their freedom to purchase against an independently earned and

disposable income and, second, more social occasions outside the home—which means more opportunities for women to wear diamond jewelry.

Consumer purchasing power

There is little doubt that consumers have more purchasing power in Thailand during the 1990's. The remarkably high rate of personal savings is about 25 percent of the GDP in Thailand.

Ploi Thai is a branding initiative being supported by MrSomchaiPhornchindarak, the vice-president of the Thai Gem and Jewelry Traders Association (TGJTA) and CEO of the Bangkok Gems and Jewelry Fair, to promote Thailand's expertise in coloured gems and craft of making the coloured gemstone jewellery. Thailand for the gem and jewellery industry worldwide has been associated with its coloured gemstones. The effort now is to create the brand identity of the Thai gemstone industry and create a consciousness of Thai gems and jewellery in the minds of ordinary consumers.

Every jewel bearing the Ploi Thai brand would be symbolic of being manufactured in Thailand.

The Ploi Thai brand is being promoted by the TGJTA and has been launched at the ongoing 44th edition of the Bangkok Gems & Jewelry Fair. TGJTA will promote the brand by launching the Queen's Cup Ploi Thai Jewelry Awards Design Competition, open only to Thai designers. The final entries of the competition would be viewed by the jewellery lovers at the exhibition, thus creating more awareness for the Ploi Thai brand.

Employment through new centre open

Thai Gem and Jewelry Traders Association (TGJTA) is preparing to open its first overseas distribution centre for Thailand gem and jewellery, in Mumbai, next month. The venture is in association with India's leading real estate company ACKRUTI

The project will be set up over 200 sq. mtrs. at ACKRUTI City Emerald commercial complex in Mumbai, according to Mr. SomchaiPhornchindarak, Vice President of TGJTA and Bangkok Gem and Jewellery fair CEO. It is planned to open on December 1, 2010.

India stands as the sixth largest importer of gem and jewellery worth US\$275 million from Thailand and also the largest diamond exporter to Thailand. The centre is proposed to better trade relations between the two countries and will include Thai suppliers stocking 'ready for distribution' stock.

The opening ceremony of the Thai Gem & Jewelry Traders Association Distribution Centre will be jointly presided over by H.E. Mrs. Porntiva Nakasai, Minister of Commerce, Royal Thai Government. It will be attended by distinguished guests from Thailand including Mrs. Nuntawan Sakuntanaga, Thailand Department of Export Promotion Director General, Mr. Boonyong Assarasakorn, TGJTA Chairman of Advisory Board. Mr. Vichai Assarasakorn, TGJTA President, Mr. AtulJogani, TGJTA Vice President and Mr. Somchai Phornchindarak.

New opportunities

Thailand is now determined to cater the Middle East as one of its prominent export regions, noting the region's potential in high jewel consumption, strong purchasing power and booming economies. TGJTA, which represents Thailand's jewel industry, made a strong statement of its products at the recently held MidEast Watch and Jewellery Show, and is working with Dubai Multi Commodity Centre (DMCC) on some partnership possibilities. What TGJTA is looking for is the possibility of Thai operators to set up offices in Dubai and establish sales outlets in DMCC's Gems Club, during this year.

Thailand is known for its gemstones, and is expected to be well received in Dubai, with Dubai being an economic centre in the Gulf, and its liberal trade and investment systems, noted VichaiAssarasakorn, president of Thai Gem and Jewelry Traders Association (TGJTA). "We are moving systematically into the Middle East, initially through Dubai in the United Arab Emirates," Mr Vichai said. DMCC has agreed to support this initiative, and will dispatch experts to disseminate information and data about the jewel market in the Middle East to Thai industry members at the 42nd Bangkok Gems & Jewelry Fair (BGJF) slated between 11 -15 September 2008. The BGJF is a platform for buyers and sellers to interact, conduct business and share knowledge, latest technologies, products, solutions, design trends, market opportunities existing in today's jewel world. This year the BGJF will host 1,500

exhibition booths with an expected crowd of 30,000 attendees from around 80 countries.

TRADE BETWEEN INDIA AND THAILAND IN JEMS AND JEWELLERY SECTOR

The gems and jewellery industry occupy an important position in the Indian economy. It is a chief foreign exchange earner and also one of the best growing industries in the country.

The two major segments of the sector in India are gold jewellery and diamonds. Gold jewellery form around 80 per cent of the Indian jewellery market, with the stability comprising fabricated studded jewellery that includes diamond studded as well as gemstone studded jewellery. A major piece of gold jewellery manufactured in India is consumed in the domestic market. In diamonds, however, a major portion of rough, uncut diamonds processed in India is exported, either in the form of polished diamonds or finished diamond jewellery.

Commercial trade between India and Thailand

The mandate of the Department of Commerce is development, promotion and regulation of India's international deal and commerce through formulation of fitting policies and implementation of the various provisions thereof. The role is to facilitate creation of an enabling environment and infrastructure for accelerated growth of exports and trade.

The Department formulates implements and monitors the quinquennial Foreign Trade Policy (FTP) that provides the basic structure of policy and strategy for promoting exports and trade. FTP is periodically reviewed to incorporate changes obligatory to take care of emerging economic scenarios both in the domestic and international economy.

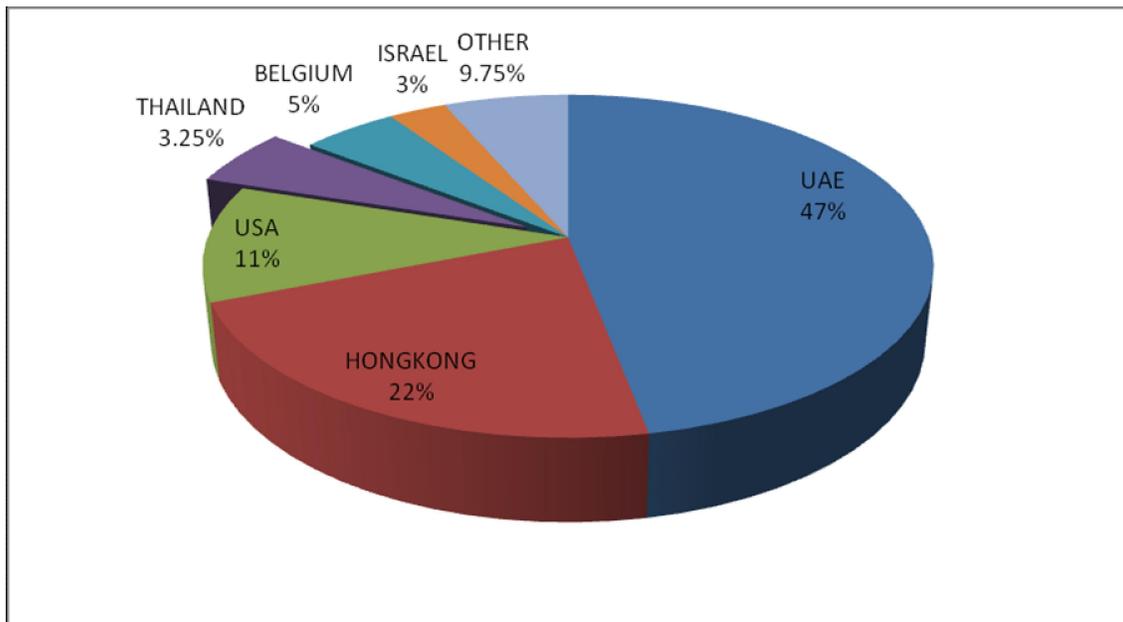
India's trade with ASEAN (Association of South East Asian Nations) country viz. Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam stood at US\$ 43.91 billion during the year 2009-10. Traditionally, India has an poor balance of trade in the region. The

main destinations for India's exports in the region are Indonesia, Malaysia, Singapore, Thailand and Vietnam, while the major source of imports are Indonesia, Malaysia, Singapore, Thailand and Myanmar.

Major Commodities of Export & Import – ASEAN

The Principal Commodities of export include Petroleum Products, Oil Meals, Gem and Jewellery, Electronic Goods, Cotton Yarn/RMG Cotton, equipment and instrument, Primary/Semi-Finished Iron & Steel, Transport Equipments, Marine Products, Drugs/Parma, Inorganic/Organic/ Agro Chemicals, Dyes/Intermediates, etc.

The major commodities imported from this region are Coal/Coke/Briquettes, Vegetable oils, Petroleum Oils, Electronic Goods, whole Chemicals, Machinery except Electrical Machinery, Professional Instruments, Wood and Wood Products, Non-Ferrous Metals, Metalifers Ores and Metal Scrap, etc.



“PHARMA AND CHEMICAL INDUSTRY OF THAILAND”

Introduction of Chemical Industry

A number of chemicals have been used for aquaculture in Thailand for quite some time. The chemicals are used mainly to treat diseased animals and, to a lesser degree, to improve water quality in culture facilities. In recent years, as aquaculture in Thailand has become more intensive the use of chemicals has intensified, particularly in marine shrimp culture. Farmers want to get maximum yield, but few would like to increase their cost of buying chemicals. The aggressive promotion of chemical products by salesmen has partly led to an increased use of drugs and chemicals. With present culture practice, the use of some chemicals is widespread; but farmers must be cautious since they produce food for human consumption. The use of chemicals must be adopted only as a last resort. For the success of aquaculture, chemicals must be judiciously and responsibly used.

Information of Thai's Chemical Market

The chemical industry has been one of the most dynamic industries in Thailand, who has a perfect set of basic infrastructure from production to logistics and the industry's revenue is more than trillion baht. 2009, Thailand's foreign trade of chemical products amounted to 463 billion baht with domestic sales volume trebled.

Thailand enjoys a broad range of chemicals, including acrylonitrile butadiene styrene copolymer of propylene, zirconium, adhesives, dyes, fertilizer, film, acids, paints, anti-UV coating and a wide variety of other chemicals.

Currently there are about 100 chemical fertilizer producing firms in Thailand, of which only three have production capacity over one million tons per year, two with capacity to produce between. 250000 and 500000.

In Thailand, there are many domestic chemical companies and foreign invested chemical companies, such as Thai National Oil Corporation, Siam Cement Group, Rayong Olefins Company, Thai Petrochemical Storage Company, Dow, Mitsubishi, Tung Pei Industrial Company Ltd., Mobil Oil and the world's largest chemical

manufacturer BASF who has engaged the chemical business in Thai for over forty years.

Market Opportunities

The chemical industry has been one of the most dynamic industries in Thailand, who has a perfect set of basic infrastructure from production to logistics and the industry's revenue is more than trillion baht. 2009, Thailand's foreign trade of chemical products amounted to 463 billion baht with domestic sales volume trebled. Meanwhile, chemical companies have played an important role in supporting the following industries: food processing, plastics, detergents, textiles, automobiles, furniture, and pharmacy and water purification.

NATIONAL REGULATIONS ON THE USE OF CHEMICALS IN AQUACULTURE:-

In Thailand, there is no specific legislation regarding the use of therapeutic drugs and chemicals in aquaculture. Their uses are unregulated.

Most veterinary drugs are similar to those used in human medicine, while chemicals used in aquaculture are the same as those used for agricultural purposes. The Ministry of Public Health is responsible for human drugs. The Ministry of Agriculture and Cooperatives is responsible for the chemicals used in agriculture. Recently, the Department of Fisheries, under the permission of the Ministry of Industry, took full responsibility for the regulation of 12 hazardous compounds commonly used in aquaculture.

These are:

1. Acetic acid < 80% w/w
2. Benzalkonium chloride
3. Calcium hypochlorite
4. Chlorine
5. Fentin acetate
6. Trichlorfon
7. Formaldehyde
8. Hydrochloric acid < 15 % w/w
9. Rotenone

10. Sodium hydroxide < 20 % w/w
11. Sodium hypochlorite
12. Trifluralin

Importation of these compounds for use in aquaculture must be registered at the Department of Fisheries.

RECOMMENDATIONS:

To Farmers:

- Do not use chemicals to attempt to overcome poor management.
- Do not let aggressive promotion by suppliers of chemical products lead to the overuse of these drugs.
- Do not use chemotherapeutants due to their availability; use them only as a last resort.
- Treat diseases based on accurate diagnoses, and treat them as early as possible.
- Remember that high stocking density leads to a greater risk of disease and an increase in the need for chemical use.

To Producers and Suppliers of Chemicals:

- The industry must be responsible for giving accurate information on the specificity of chemicals and must clearly exhibit the ingredients of each product.

To Government Agencies:

- It is the government's responsibility to establish rules and regulations on uses of drugs and chemicals.
- The government should try to find effective means to raise awareness among farmers, not only to maximize their production, but also to make them aware of the impact of chemical use on the environment and public health.
- National drug and chemical regulating boards must be established to work closely with

the aquatic disease research institutes.

- Enough disease diagnostic laboratories must be established to give adequate service to farmers.
- There is an urgent need to establish an information center within the country and internationally to update, distribute and exchange information.
- An effective quarantine system should be established to prevent disease transmission.

To Regional and International Organizations:

- There is an urgent need to promote regional and international cooperation on disease prevention and to support research on chemical uses in aquaculture.
- An information center on aquatic animal health is urgently needed, especially to maintain epizootiological records and to exchange this information.

To Scientists:

- Scientists need to conduct more research on chemical use in aquaculture to ensure their effectiveness and safe uses.
- Scientists should consider and prioritize research to meet the urgent needs of farmers.
- The information obtained from research results must be immediately disseminated to farmers.

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Introduction of Pharma Industry

Thailand Pharmaceutical Industry: Data Exclusivity and Trade Secret

This is a time of relative uncertainty for many pharmaceutical companies operating in Thailand. The industry has many concerns about issues related to data exclusivity, registration of generic drugs with the Food & Drug Administration (FDA), outright counterfeiting of medicinal products and possible compulsory licensing of patented life-saving drugs by the Government Pharmaceutical Organization (GPO).

At the outset, it must be highlighted that while there is a comprehensive body of laws and regulations relating to drugs, including protection under the law of patents, a number of uncertainties exist. It seems from the legislation (and practice) that Thai law confers generic drug manufacturers with the ability to engage in various preparatory activities with a view to seeking regulatory approval before a patent for a particular protected drug has expired. To this extent, we have seen instances where generic manufacturers may (it appears on a case by case basis) submit applications for regulatory approval before the expiration of the patent.

Law/Regulations Applicable to Drugs in Thailand

There are two main bodies of law applicable to drugs in Thailand. The first, the law of patents, relates to the intellectual property protection of new drugs, while the second body of law, principally codified in the Drug Act 1967 (BE 2510) and subsequent amendments, sets out a regulatory regime for the supervision of drug production, importation, sale and marketing of drugs in Thailand.

At present there is no ability to extend the 20 year term of a patent for time lost due to regulatory hurdles and procedures that must be adhered to before a drug can be released to the market. This is a subject of negotiation in the current Free Trade Agreement discussions occurring between the Thai and US governments.

The sale of drugs and medicines in Thailand is supervised by FDA, one of the departments under the Ministry of Public Health. Part of the FDA's mandate is to supervise drugs in accordance with the regime under the Drug Act. The licensing of

the manufacture, importation and sale of drugs is required by law and applications for permission and licenses are granted in accordance with the various rules and supplementary ministerial regulations promulgated to govern the FDA approval process. New drugs must be registered and approved before being sold on the open market.

Thailand's Industry on Growth Curve

According to the Thai Office of Industrial Economics, the country's economy has overcome the economy crisis within 2010. With a GDP growth of 8.0 percent in 2010, the country is among the fastest growing economies in Asia. As a major exporter, Thailand especially profit from rising foreign demands, especially for electronics and automotive parts. But also the domestic industry's need for basic materials or intermediates contributed to the growth.

According to Germany Trade and Invest, a market forecast for the chemical industry is, nevertheless, not easy since authorities and organizations only publish vague information about recent sales and production figures. The German foreign trade association expects a growing demand for chemicals in the country to boost the emerging economy.

Investment Opportunities in Thai Pharmaceuticals Industry

With the world growing more health-conscious, demand for pharmaceuticals made in Thailand is on the rise. Investment opportunities, as a result, are ripening across the local industry, which offers a cost-effective research and production location.

Research and development in particular is a wide-open opportunity. While Thailand does produce 25 active ingredients such as sodium chloride, camphor and menthol, local drug companies pour less than 1% of total costs into R&D. As such, most active ingredients have to be imported from manufacturers overseas, mainly in the United States, Germany and Switzerland, leaving much room for new pharmaceutical investors.

Thailand's pharmaceuticals market is currently valued at about 129 billion baht, with sales absorbed 78% by hospitals and 12% by drugstores. Strong growth prospects are expected to push value above 255 billion baht by 2019.

The Thai pharmaceuticals industry has seen exports rise robustly by 66% and imports by 65% since 2006. Major international pharmaceutical companies either have manufacturing facilities in Thailand or source products from Thai drug manufacturers. The local industry produces a wide range of drugs for the human and veterinarian sectors, spanning the entire pharmaceuticals alphabet, from antibiotics, epinephrine and interferon to nitroglycerine, vitamins and zinc methionine.

Thailand's pharmaceutical market is worth about \$2 billion. A good understanding of Thailand's healthcare dynamics will help international pharmaceutical companies do well in this drug market. PBM has worked on various pharmaceutical consulting projects in Thailand. We have helped international companies in sourcing APIs, marketing new drugs, setting up joint ventures and finding local drug distributors in Thailand.

According to the World Health Organization, Thailand's pharmaceutical market has more than 170 manufacturing facilities and almost 500 drug importers. Most of Thailand's drug production is for the domestic market, although pharmaceutical exports are gradually increasing.

Market Access Barriers

Thailand is one of a small number of countries that still places a tariff barrier on pharmaceuticals. This tariff is contrary to Thailand's stated health care objectives. In addition, as the tariff's biggest nominal impact is on high value medicines that are under patent (and hence unavailable for local production) its ability to foster the development of domestic industry is very questionable.

The tariff is currently 10% and is applied to all pharmaceuticals excluding vaccines and therapies for HIV, malaria and thalassaemia. This tariff restricts PhRMA member companies' access to the Thai market.

Electronic and IT industry of Thailand

The electronics industry is one of Thailand's largest in the manufacturing sector. This industry alone was worth nearly US\$ 30 billion and accounted for more than 30% of Thailand's export revenues in 2007.

Global electronics industry has been growing at an average of 8.2% during the past 4 years. Asia Pacific is also the fastest growing among all regions at 12.8% followed by Europe 9%; Japan 7.6%; and USA, at a slower growth rate of 2.5%.

Thailand's main electronics exports are hard disk drives (HDD) and integrated circuits (IC), which account for about 54% and 29% of total electronic exports, respectively. Having overtaken Singapore in 2006, Thailand is now ranked as the top HDD and components manufacturing base worldwide. Thailand holds a similarly prominent place in the IC and semiconductor industries, and boasts one of the largest assembly bases for these products in Southeast Asia.

As global demand for high-technology consumer electronics such as wireless devices, flat panel displays, MP3 players, gaming consoles and computers continues to grow, Thailand is an ideal location for electronics industry investment. Such growing demand, coupled with strong government support for the sector, promises a bright future for electronics – and electronics investors – indeed.

Thailand has built up a globally competitive electronics industry. Proactive government policies have played a pivotal role in creating an enabling environment for the development of that industry. The industry has acquired most of its technology through foreign direct investment (FDI) and trade.

As worldwide demand for computers and mobile phones has continued to grow, so has the value of Thailand's electronics exports. In 2008, the total value of Thailand's exported electronics was approximately US\$ 29 billion. The primary markets for these exports were China (20%), the European Union (16%), and the United States (16%), ASEAN (14%), Japan (11%) and the Middle East (1%).

Thailand is ASEAN's largest electrical appliance production base as well as the world's 2nd largest producer of air conditioning units and 4th largest producer of refrigerators. The Thai electrical appliance industry is currently comprised of approximately 800 factories. Most of the major players in this industry are foreign or

joint-venture companies. 43% of the total companies are Japanese, including Sony, Hitachi, Mitsubishi and Panasonic. The production of small electrical appliances such as microwave ovens has expanded with investments by major manufacturers including Sharp, Samsung and LG.

Thailand adapted its policies to align with the rapidly changing trends in the global economy. Realizing that its domestic market is small with regard to supporting industrialization, Thailand shifted from an "import-substitution" to an "export-oriented" development strategy. This required liberalization of the economy to promote trade and investments.

Thai electronics industry is largely composed of computers and peripherals (34 per cent), electronic parts (40 per cent) and consumer electronics (15 per cent). There are also sizable electrical household appliances (6 per cent) and telecommunication and office equipment (4 per cent) producers. The semiconductor and HDD segments account for about 20 per cent of export value each (or combined export value of about 41 per cent).

The Board of Investment (BOI) of Thailand has provided incentives to, and developed support systems for, foreign investors. Some of the incentives provided include low tariffs for imports needed to produce electronic export units, loosening of controls on foreign ownership of firms and provision of essential infrastructure. The new incentives allow electrical and electronics companies to combine earlier projects into follow-on projects, automatically extending corporate income tax exemption periods for operations begun in earlier phases.

The Board also granted longer corporate income tax exemptions for investments in production of HDDs and parts, integrated circuits, and other electrical and electronic products according to investment zone.

Liberal economic policies, coupled with the availability of a skilled but low-cost labour force, made Thailand an important location for export-oriented production activities of transnational corporations (TNCs).

BOI Investment Incentives

The Board of Investment of Thailand grants special incentives to investors in the electronics sector. These incentives include:

- ❖ Maximum tax incentives for high-technology investment projects totaling more than 30 million baht and producing products not yet made in Thailand;
- ❖ Exemption from corporate income tax for a period of 8 years for projects in Zone 3, 7 years for projects located in an industrial estate or a promoted industrial zone, 6 years for projects in Zone 2 and 5 years for projects in Zone 1;
- ❖ Exemption from import duties for machinery throughout the period of promotion; and
- ❖ Exemption from import duties on raw materials and components used for producing electronic goods.
- ❖ Additional incentives are also available to investors who locate in Zone 3 regions of the country, in accordance with Thailand's decentralization policy.

Apart from attractive tax incentives, the BOI provides investors with comprehensive business services. It assists locators by identifying potential suppliers, allowing them to own land, permitting them to bring in foreign experts and technicians into the country, and facilitating the work permit and visa application process for foreign employees working in Thailand.

Moreover, several incentives are available to companies that invest in R&D. The BOI grants these companies a three year extension of the corporate income tax holiday, while the Revenue Code of Thailand allows for the double-deduction of R&D expenses from corporate income taxes.

An estimated \$31.6 billion was invested in Thailand between 1991 and 2002. Of this, 27 per cent and 16 per cent of the investment came from Japan and the United States, respectively, while the NIEs and member countries of the European Union accounted, respectively, for 35 per cent and 13 per cent of total FDI. The electronics industry is one of the major recipients of FDI in the manufacturing sector. The electronics industry has seen its share of net FDI flows increase from about 11 per cent in the early 1990s to about 17 per cent in 2001.

Having been established as an important destination for FDI, Thailand attempted to steer the FDI inflows into areas of national priority. The Government designed incentive schemes to channel investments into rural areas and into sectors of importance, such as agriculture and electronics.

The electronics industry has seen its share of net FDI flows increase from about 11 per cent in the early 1990s to about 17 per cent in 2001, with a significant fall of its

share in 1998 (5.1 per cent). That fall was mainly due to increased FDI in other industries following the Asian financial crisis. The depreciation of the Thai baht resulted in increased liquid challenges. The Government decided to relax foreign ownership rules after the crisis. These two factors catalyzed an increase in mergers and acquisitions (UNCTAD, 2000), most of which involved foreign investors taking up more shares in their domestic affiliates.

In value terms, about \$4.5 billion was invested in the electronics industry between 1986 and 2001. FDI continues to play an important role in technology transfer, financing and marketing of electronic products. Trade has also played an important role in the growth of the electronics industry. The industry currently accounts for more than 30 per cent of Thailand's total exports and employs about 300,000 workers. The main export items include hard disk drives (HDD) and parts, and integrated circuits (IC), which account for about 21 per cent and 20 per cent of total electronic exports, respectively. Thailand is the world's second major HDD producer (after Singapore). The major producers of HDD in Thailand include Seagate, Quantum, IBM, Maxtor and Fujitsu.

The number of persons employed in the electronics industry is predicted to rise from about 295,000 in 2001 to about 310,000 in 2005. Within the manufacturing sector, it is ranked as the third largest employer and accounts for about 9% of the total Thai labour force in the manufacturing sector.

Despite these successes in attracting FDI and the growth of exports of electronic products, the industry's activities are largely limited to assembly operations. There are indications of growing manufacturing capabilities, but the design and product development skills remain low. For this reason, the current policies of the Government focus on upgrading foreign technologies and promoting novel product development. This could increase Thailand's level of productivity to that of other competing nations.

Thailand's electronics industry, led by HDD and IC production, is a dynamic force behind the nation's economy, comprising 12% of manufacturing output and 19% of exports. The BOI has also granted project life-time duty exemptions for upgraded or replacement machinery for all electrical and electronics projects. The Board also granted longer corporate income tax exemptions for investments in production of

HDDs and parts, integrated circuits, and other electrical and electronic products according to investment zone.

The HDD industry has long been one of Thailand's most important; since 2005 Thailand has supplied nearly half of the world's HDDs. Thailand's HDD exports alone totaled US\$ 12 billion in 2008, an increase of 16% from 2007, and represented 68% of total computer component exports.

The share of manufactured exports as a percentage of total exports increased from 4.7 per cent in 1970 to 65.5% in 1991. The electronics industry has contributed greatly to the successful transformation of the composition of Thai exports. For instance, computers and peripherals and IC have been the main exports of the manufacturing sector since 1995 and their combined annual export value has stayed above \$10 billion since 1999. Of the electronic exports, totalling about \$23.6 billion in 2000, 40 per cent were electronic parts and 34 per cent were computers and peripherals. The remaining 26 per cent were composed of consumer electronics, electrical household appliances, telecommunication and office equipment, and others.

The Government created several initiatives to promote technology transfer, diffusion and innovation. The National Science and Technology Development Agency (NSTDA) established the Industrial Consultancy Services in 1992 to promote the use of local and foreign technical consultants and facilitate the formation of alliances. In 1997, NSTDA set up the Software Park Thailand (SPT) to promote innovation and facilitate development of startup firms. Furthermore, the Board of Investment also developed the Unit for Industrial Linkage Development (BUILD) programme to encourage the development of support industries, strengthen linkages and help small and medium-sized contract manufacturers improve their productivity and facilitate cooperation between foreign and domestic firms. It is estimated that about \$148 million worth of transactions took place in BUILD in 2001.

In 2004, the programme received the World Association of Investment Promotion Agencies (WAIPA) Award for best practice in promoting linkages that facilitate technology transfer and innovation. BUILD provides training courses to SMEs to help them upgrade their production and product standards, quality and reliability.

The NSTDA has also commissioned the HDD cluster development project to develop and implement several projects to address the needs of the HDD sub-sector. The

cluster is intended to promote strong partnerships between public and private sector players, and skills development, improve support infrastructure and facilitate development of innovative industrial policies.

These policies have played a vital role in making Thailand a major manufacturer of electronic products and facilitated the acquisition of the skills needed to operate and manage production facilities to assemble intermediate and final electronic products. They have also played an important role in encouraging the development of local contract manufacturers and the transfer and development of technologies. The success stories of domestic companies such as Saim United Hi-Tech Limited, which successfully transformed itself from being a plastic toy manufacturer to being a global supplier of electronic keyboards after licensing technologies from a TNC and innovating further, and the Hana Microelectronics Group, which emerged as a global contract manufacturer of electronics, show the potential of Thai domestic firms in integrating themselves into the global economy.

Thailand is now redirecting its efforts to build the capacity needed to operate increasingly sophisticated assembly plants and generate novel processes and products. The initiatives currently being undertaken, such as the development of the Thailand IC Design Incubator and the hard disk drive cluster development project, signal commitment to promoting innovation and technology development in the industry. These initiatives could further ensure that Thailand does not remain a contract manufacturer but gradually moves up the value chain.

The production of electronic goods may be divided into three major stages that can be performed separately: design, manufacture and assembly. The design stage requires extensive and intensive technical knowledge, and investment in R&D to develop novel products and processes, while the manufacturing of components requires capital-intensive investment for mass production. Finally, the assembly of the final products is capital - and labour-intensive and requires lower skills than the other stages of production. The Thai electronics industry started with the assembly of low-technology consumer products and has steadily developed into assembly and manufacture of high-technology products. Since the 1980s, it has acquired more complex technologies to assemble advanced electronic products such as PCB, microwave isolators, floppy disk drives (FDD) and HDD. This achievement reflects the fact that the industry has acquired the capacity to source, adapt and operate

foreign technologies as well as the capacity to upgrade and improve assembly processes.

The Thai semiconductor industry has some capacity in process design (largely in the assembly process) but lacks manufacturing capacity and the ability to design new products. In other hand, PCB sub-sector has a strong manufacturing capacity, with Thailand emerging as one of the major manufacturers of PCB.

Thailand's electronics industry has caught up with other leading nations as a productive and efficient assembler of electronic products. This has enabled firms to supply electronic products that can successfully compete in the international market. In other words, firms have assimilated production, management and process technologies.

Thai firms perceive FDI as a major source of new and advanced technology (IMD, 2004). On a scale of 1 to 7, Thailand scored 5.2, which is comparable to Malaysia's 5.8 and Singapore's 6.3. This is because FDI has facilitated the transfer of new technologies needed to assemble and manufacture electronic products.

If value-added per employee in the electronic sector is set at 100 per cent for the United States, Singapore scores 72 per cent while Thailand scores only 8 per cent. This reflects the fact that the industry is largely at the assembly stage.

World-class manufacturers dominate this fast-growing sector. Multinational companies, such as Fujitsu from Japan, Seagate from the USA, Philips Electronics from the Netherlands, and LG Electronics from Korea, have established production, testing, assembly or research and development facilities in Thailand. These facilities are staffed by more than 370,000 highly skilled people.

As worldwide demand for computers and mobile phones continues to grow, so does the value of Thailand's electronics exports. From 2006-2007 the total value of Thailand's exported electronic components grew 12%. The primary markets for these exports were: China (17%); the European Union (17%); the United States (16%), ASEAN member nations (15%); and Japan (12%).

This sustained rise in electronics production and exports has been accompanied by a sustained rise in electronics imports, primarily semiconductors, discrete components and electronics subcomponents. The total value of electronics components imported into Thailand in 2007 was approximately US\$21.87 billion, an increase of 8% over the previous year. These imports helped Thailand to increase electronic product

production by 27% in 2007 alone. This increase was largely derived from an expansion of Thailand's HDD and IC production capacity, which grew 32% and 22% respectively. The majority of this capacity expansion was the result of additional investments made by existing investors, who have found Thailand to be a highly attractive and competitive location for their operations.

Thailand's electronics industry has yet to experience a decline in production value or export growth. This expansion is expected to continue in the years to come. The Thailand-based Electrical and Electronics Institute (EEI) predicts that in 2008:

- ❖ Electronic production will grow 15-20% following recent increases in HDD and IC production capacity; and
- ❖ The value of electronics exports will grow 12-15% largely in accordance with growing demand.

Opportunities

Thailand has established itself as a competitive location for the assembly and testing of HDDs, ICs and electronic subcomponents such as printed circuit boards (PCBs). However, many key components of the upstream electronics value chain such as semiconductor material; discrete components, such as diodes and transistors; as well as ICs, are still imported from abroad, primarily from Korea, Japan, Taiwan and Singapore. Manufacturers looking to expand their market in Thailand can find excellent opportunities in manufacturing these components locally.

Thailand's pre-eminent position as the world's largest production base for HDDs and components offers suppliers within the HDD value chain the opportunity to develop world-scale manufacturing capacity within a dynamic and highly concentrated cluster. Almost all of the world's key HDD manufacturing players are located within a 250 km radius of Bangkok or within the ASEAN Free Trade Area (AFTA) offering unparalleled opportunities for manufacturers within the HDD industry.

The government provides outstanding support to relevant organizations and institutes by holding human resource development-training programs and conducting research on their behalf.

RFID market was estimated at US\$ 5.3 billion IN 2008, and it is expected to skyrocket to US\$ 12.3 billion in 2010 and US\$ 26.2 billion in 2016. As the worldwide

demand for RFID expands, Thailand is aiming to encourage the growth of the technology locally, and to be at the forefront of global RFID markets

Thailand is currently one of the world's top fifteen automobile manufacturing countries, and is moving towards a place in the top ten. This has encouraged the growth of supporting industries, including automotive electronics and parts. Demand for OEM automotive electronics in Thailand is predicted to reach US\$ 2.6 billion in coming years.

Government Policies:

Phase 1 (1961-1982): The development of technology and its infrastructure, such as electrical power, transportation, communication, and telecommunication which indirectly were promoting mass media communication.

Phase 2 (1982-1996): Visualizing that manufacturing systems and quality must be improved, emphasize increasing the level of public relation, equipment, and technology of basic media. Utilizing IT as a tool for increasing Thailand's international competitiveness.

Phase 3 (1997-2001): the Plan encourages the use of IT to develop families, communities, and societies. A National Information Technology Policy was also established to give a clear and precise direction of development of Information Technology envisioned by the Government, it is formally called "IT-2000: Thailand National IT Policy".

Government of Thailand has been also framed other different policies to support electronic and IT Industry such as;

Science and technology policy: Expedite the development of personnel in the areas of science and technology at every level so that there is a sufficient number in terms of both quantity and quality, Revise and amend the laws dealing with science and technology, Promote the use of technology, particularly information technology, for modern administration and management, Promote science and technology in the area of research and development by providing support to agencies.

National open source policies: To provide different IT related product in public and private firms.

Information Technology Policy: To invest in people to accelerate the supply of IT manpower and to develop an IT literate workforce; and To achieve good governance through the use of IT in delivering public services and in government administration.

**THAILAND AUTOMOBILE INDUSTRY
OVERVIEW**

The automotive industry in Thailand has shown robust growth in spite of the political turmoil in the country. It has been successful in retaining its position as the “Detroit of Asia.” Ford Motors insists on opening a plant in Thailand in spite of the unrest, a clear indication of continued support from the auto industry.

Thai car sales increased 53.4 percent from 2009, further proving true that it is indeed Southeast Asia’s biggest car market. The country has a large, skilled automotive workforce besides having associated industries for auto-motive parts and components.

Thai Automotive Industry Association announced a leap in domestic demand. Also the automotive and auto parts industry was responsible for a huge increase in export revenue less than only that of computer and electronic parts. This contributed considerably towards the nation’s GDP.

The remarkable growth in the Thai automotive industry is due in part to the reduction in excise duties for small passenger cars. This reduced the price of cars and the added advantage of credit availability was instrumental in increasing demand. Arise in petroleum prices did little to dampen the automotive market growth in Thailand.

According to the Federation of Thai Industries about 38 percent of vehicles manufactured in Thailand are for export, which is witnessing upward growth. The demand for Thai-made one-ton pickup trucks grew in demands both in the domestic as well as export markets.

The reasons for Thailand’s growth in the automotive industry are many. First and foremost being the benefits it derived from agreements like the free trade agreements signed with Australia, New Zealand, China and India and the market opening opportunities in Southeast Asia created by the Asia Free Trade Agreement. The Thai-Australia Automotive trade resulted in an increase in trade between the two nations. The ASEAN countries are major export market destinations after Europe, Australia and middle-east.

Foreign Auto Majors in Thailand

Nissan Motor Co. in a recent announcement reiterated its confidence in the stability of the automotive industry in Thailand. The output from Nissan is set to double to 200,000 units in 2010. Nissan’s Thai plant makes five models of automobiles including cars and pickup trucks.

“Not one project is suspended or delayed. Everything is on track,” said Chief Executive Carlos Ghosn of Nissan. The political unrest had affected tourism and consumption in Thailand, which is Southeast Asia’s second-largest economy. The car exports scenario however remained unaffected.

Supporting Industry - Auto Parts and Components

Besides the craftsmanship and supplier base, the nation's supporting network is quite extensive with respect to auto parts. This gives Thailand a competitive advantage as in most other countries there is a deficit of infrastructure, which requires parts to be imported resulting in an increase in vehicle costs. The Thai Automotive Industry Association reveals that the auto parts export of the nation will grow steadily. Thailand exports cars to markets in Belgium, Japan and Australia. Destinations for car parts are Japan, Malaysia and South Africa.

The automotive industry's success anywhere depends on supporting industries like that of auto parts and component manufacturers. Thailand has an extensive network of auto parts manufacturers, which serves to strengthen the industry.

Market profile

Cheaper and simpler cars are naturally preferred, as is the case for most markets at the same developmental stage as Thailand. Remarkable is the popularity of pickup trucks, holding a share of over half the market. This makes Thailand the world's second biggest market for such vehicles, after the United States. Their popularity has been explained as a result of government tax policies as well as a need for multi-purpose vehicles. Indeed, many manufacturers (Ford, Isuzu, Mazda, Mitsubishi) have chosen to localize their global bases for pickup manufacturing in Thailand, often exporting to Europe, Japan, and much of the rest of the world. These one-ton trucks are not exported to North America, where larger trucks are preferred. In 2005, Thailand surpassed the United States and became the world's largest manufacturer of one-ton pickups, and by 2007 were second in the world (again behind the US) in both production and export of pickup trucks overall.

Major automobile companies in Thailand

- Daihatsu
- Ford
- General Motors
- Honda
- Isuzu
- Mazda
- Mercedes-Benz
- Mitsubishi

- Nissan
- Tata
- Thai Rung

Policies

The Thai policy regime relating to the automotive industry has evolved, as an integral part of the overall industrialization strategy, through two distinct phases. During the period from the early 1960s until the late 1980s import substitution was the basis tenet of development strategy. During this period Thai government enticed car makers to set up assembly plants in the country by providing tariff protection for vehicle manufacture and imposing local-content requirements (LCRs) to promote local parts manufacture.

Import-substitution era

As in many other developing countries, in Thailand automobile industry was one of the first targets of industrial development through import substitution. In the early 1960s, tariffs of 60%, 40% and 20% were imposed on imports of completely built units (CBUs) of passenger cars, vans and pick-up trucks, respectively. Tariff rate applicable to imports of completely knocked-down (CKD) kits and parts of each of the three categories were set at half of the CBU rates. High end-product tariffs combined with lower tariffs on imported inputs naturally favoured domestic assembly of hither-to-imported vehicles. Motor vehicle tariffs were by far the heights in the overall import duty structure of Thailand throughout the ensuing four decades. From 1960 the government embarked on an investment promotion policy to complement the protectionist trade policy regime. The Board of Investment (BOI) was established to approve foreign investment projects and implement investment promotion measures under the Investment Promotion Act (1960). The BOI introduced a range of investment promotion measures, including income tax breaks for approved investment projects. Unlike in many other developing countries, investment promotion policy in Thailand treated domestic and foreign investors equally. A revision made in 1977 to the Investment Promotion Act stipulated majority Thai ownership in domestic-market oriented joint-venture firms (firms which sell more than 70% of output in the domestic market). Other than this ownership restriction, foreign investment policy regime continued to remain highly liberal throughout the ensuing years.

Foreign firms had the option of setting up affiliates in Thailand without obtaining BOI approval³.

By the late 1960s, there was a growing concern in Thai policy circles that the nascent automobile industry had failed to set the stage for broad-based industrial growth through backward linkages with local parts and components industry. In response, the government set up an Automotive development Committee (ADC) in 1969 (which consisted of officials from BOI, Ministry of Industry, Ministry of Finance, Ministry of Commerce and Bank of Thailand, and representatives of Automobile Industry Club and the Association of Thai Industries) to design and implement local content requirement (LRC) measures. According to the LCR system designed by DAC which came into effect in 1975, domestically assembled passenger vehicles had to use locally produced parts equivalent to at least to 25% of the total value of the vehicle in order to qualify for the import of CKD kits and auto parts. The LCR requirement for commercial vehicles and pick-up trucks was set at 15%. The introduction of LCR system was accompanied by an upward adjustment in import tariffs on CBU units of passenger vehicles, vans and pick-up trucks to 80%, 60% and 40

THAILAND IN GLOBAL AUTOMOBILE NETWORKS

It combined with an increase of the respective rates on CKD kits to 50, 40 and 30%.⁴ As a further measure to promote local content, in 1978 an import ban was imposed on CBU passenger vehicles and import duties on CKD kits were increased to 80%. The tariffs on CBU units and CKD kits of vans and pick-up trucks were increased to 80 and 60%, respectively.

Approval of new automobile assembly plants was withheld in 1978 because the existing plants were running under capacity. In 1984, domestic assembly of passenger cars was limited to two models each of 42 brands.

The new LCR system soon encountered implementation problems for two reasons. First, value-based LCR calculation was rather sensitive to exchange rate fluctuations, making it difficult to calculate the domestic-currency value of the imported parts. Second, there was also evidence of widespread manipulations of the system by car makers by understating the value of CKD kits on shipping documents and over invoicing the value of local purchase. To redress these problems the ADC, in consultation with the carmakers, developed a new point based LRC system. Under the new system, which came into effect in 1983, every car part was assigned a point and auto assemblers were required to use locally produced parts up to a minimum mandatory total, initially set at 50 points. This was reduced to 45 points in the following year in response to requests by automakers.

In 1983, the then Minister of Industry mooted the idea of a 'Thai Vehicle' project which aimed to increase the local content of domestically assembled cars first to 70% and then to 100% within a period of ten years. Naturally, the project was warmly welcomed by local part manufacturers, but it faced strong resistance from the carmakers, in particular Toyota, by far the largest local car assembler in the country (Doner 1991). The major concern of carmakers was that the high local content requirement could depress domestic demand for both vehicles and parts with adverse implications for the growth of the nascent car industry.

The underlying logic of the argument was that, given the prevailing ban on CBU imports, carmakers could easily pass the increase in cost of production resulting from high LCR on to customers. The compromise response of the government involved two key elements.

THAILAND IN GLOBAL AUTOMOBILE NETWORKS

First year (1989) and increase this by 10% every year to achieve 70% local content by the end of the seven-year implementation period (1995). The producers were given the flexibility of deciding what components are to be procured locally, subject to the condition that they achieve full localization of casting, forging and machining of cylinder blocks, cylinder heads, crankshafts, camshafts, and connecting rods by 1995. According to the export performance requirement, an engine manufacturer had to export (in gross value) not less than 120 million baht (around \$ 4.8 million) worth of engines during the first four years, and at least 280 million baht (\$ 11.2 million) worth of engines in each of the subsequent three years.

Export trends and patterns

The first export shipment of motor vehicles from Thailand (by MMC Sittipol, the Mitsubishi affiliate) took place in 1988. However, until the late 1990s Thai automotive industry continued to remain heavily domestic market oriented, with exports, on average, accounting for less than 5% of total sales. Export volume (measured in units) recorded a five-fold increase between 2000 and 2008 (from 153 thousand units to 838 units).

Role of FTAs in the Supply Chain

Changes

Facts revealed in section 5.1 suggest that vehicle exports from Thailand, particularly passenger vehicles, are primarily destined for regional markets. It is less clear for auto parts where there have not been any significant shifts from inter-regional to intra-regional trade. The major change over the past decade was the increasing importance of ASEAN-10

members as Thailand's auto part export destination and the decreasing importance of Japan. Nonetheless, it remains unclear the extent to which

FTAs have contributed to the changes.

To assess the role of FTAs in the supply chain changes, administrative records of preferential trade are used. Generally, tariff concessions offered by FTAs are not always readily available to the exporters due to the presence of ROO. In other words, actual and preferential trades are different where the latter reflects transactions recorded in administrative records of FTA implementation. Hence, FTA utilization rates, the ratio between administrative records to actual trade ones, are constructed. preferential trade existed largely in AFTA, TAFTA, and TNZFTA so that our emphasis is on these FTAs.

AUTOMOBILE INDUSTRY INDIA

The Indian Automobile Industry is manufacturing over 11 million vehicles and exporting about 1.5 million every year. The dominant products of the industry are two wheelers with a market share of over 75% and passenger cars with a market share of about 16%. Commercial vehicles and three wheelers share about 9% of the market between them. About 91% of the vehicles sold are used by households and only about 9% for commercial purposes. The industry has attained a turnover of more than USD 35 billion and provides direct and indirect employment to over 13 million people.

The supply chain of this industry in India is very similar to the supply chain of the automotive industry in Europe and America. This may present its own set of opportunities and threats. The orders of the industry arise from the bottom of the supply chain i. e., from the consumers and goes through the automakers and climbs up until the third tier suppliers. However the products, as channeled in every traditional automotive industry, flow from the top of the supply chain to reach the consumers.

Supply Chain

The supply chain of automotive industry in India is very similar to the supply chain of the automotive industry in Europe and America. The orders of the industry arise from the bottom of the supply chain i. e., from the consumers and go through the automakers and climbs up until the third tier suppliers. However the products, as channeled in every traditional automotive industry, flow from the top of the supply chain to reach the consumers. Automakers in India are the key to the supply chain and are responsible for the products and innovation in the industry.

Third Tier Suppliers: These companies provide basic products like rubber, glass, steel, plastic and aluminum to the second tier suppliers.

Second Tier Suppliers: These companies design vehicle systems or bodies for First Tier Suppliers and OEMs. They work on designs provided by the first tier suppliers or OEMs. They also provide engineering resources for detailed designs. Some of their services may include welding, fabrication, shearing, bending etc.

First Tier Suppliers: These companies provide major systems directly to assemblers. These companies have global coverage, in order to follow their customers to various locations around the world. They design and innovate in order to provide “black-box” solutions for the requirements of their customers. Black-box solutions are solutions created by suppliers using their own technology to meet the performance and interface requirements set by assemblers.

First tier suppliers are responsible not only for the assembly of parts into complete units like dashboard, breaks-axel-suspension, seats, or cockpit but also for the management of second-tier suppliers.

Automakers/Vehicle Manufacturers/Original Equipment Manufacturers

After researching consumers’ wants and needs, automakers begin designing models which are tailored to consumers’ demands. The design process normally takes five years. These companies have manufacturing units where engines are manufactured and parts supplied by first tier suppliers and second tier suppliers are assembled. Automakers are the key to the supply chain of the automotive industry. Examples of these companies are Tata Motors, Maruti Suzuki, Toyota, and Honda. Innovation, design capability and branding are the main focus of these companies.

Dealers: Once the vehicles are ready they are shipped to the regional branch and from there, to the authorised dealers of the companies. The dealers then sell the vehicles to the end customers.

Parts and Accessory: These companies provide products like tires, windshields, and air bags etc. to automakers and dealers or directly to customers.

Service Providers: Some of the services to the customers include servicing of vehicles, repairing parts, or financing of vehicles. Many dealers provide these services but, customers can also choose to go to independent service providers.

- Daihatsu
- Ford
- General Motors
- Honda
- Isuzu
- Mazda
- Mercedes
- Benz
- Mitsubishi
- Nissan
- Tata
- Thai Rung
- Toyota
- Volvo

Players in the automobile industry in India

- Tata Motors
- Maruti Suzuki India
- Hyundai Motor India
- Mahindra & Mahindra
- Ashok Leyland
- Hero Honda Motors
- Bajaj Auto

Import export pattern between India and Thailand

INDIA-THAILAND FREE TRADE AREA: ITFTA

In 2001, the leaders of India and Thailand agreed to expand economic cooperation in trade and investment, and set up a joint working group to study the feasibility of establishing a Thailand India free trade area.

The Joint Working Group held four rounds of meetings between May and December of 2002, and concluded that a free trade agreement would create mutual benefits in expanding trade, investment, and economic cooperation in areas, such as tourism, education, finance and banking, health, aviation, and international transportation. In addition, Thailand would benefit from expanded trade and reduced tariffs on exports

to India, particularly garments, leather products, chemicals, rubber, plastics, metals, automobile and parts, and electrical goods.

Rules of origins

The two countries have agreed upon “Change in Tariff Heading (CTH) + Local Content of 40%” as the general rule for consideration of origins of products. They also agreed on the Product Specific Rules (PSR) for other 82 items.

In addition, such goods are required to meet direct consignment rules and other applicable requirements in the Rules of Origin for Thailand - India Free Trade Agreement.

CRUCIAL TRANSITIONS IN THAILAND’S FINANCIAL SYSTEM AFTER THE 1990 CRISIS

1. Introduction

As Thailand’s critical economic circumstance in 1997 sparked widespread and acute financial crises in East Asia, it is worth examining crucial transitions in Thailand’s financial system afterward. At first, Section 2 will investigate the evolution of the meltdown in Thai economy, and Section 3 will describe various immediate resolutions that the Thai government resorted to in order to rectify prevailing problems or weaknesses. In Section 4, details of post-crisis fundamental reforms will be scrutinized. Finally, Section 5 will give an overall conclusion on how the atmosphere in Thailand’s financial market has changed together with its future trend.

2. Evolution of the Meltdown

Over the course of several decades, the Thai economy had been growing at a very satisfactory rate. Between 1960 and 1995, the average real GDP growth of Thailand was about 7.7% per annum. This led to substantial improvements in the welfare of the population. The proportion of the population under the poverty line declined from about 60% in 1960’s to less than 15% by the mid-1990’s. In the early 1990’s, the Thai economic performance was regarded as an example of the so-called “East Asian Economic Miracle”.¹ Yet, just a few years after this, the country got into a severe financial and economic crisis. The country became effectively insolvent, in that there

were not enough usable foreign reserves left to meet its foreign obligations. Assistance from the IMF was needed, and a painful adjustment process to recover from the crisis had to be carried out, leading to essentially a lost half decade of development; the average growth rate between 1996 and 2001 was about zero.

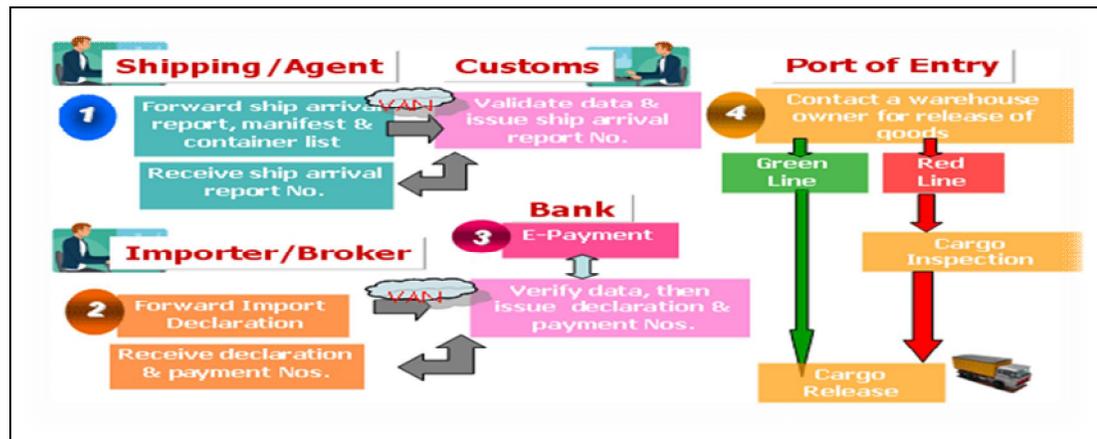
A) Immediate Resolutions Immediately after the emergence of financial crisis in 1997 the Thai government undertook several measures to correct problems or weaknesses in the financial system. Examples of those policy actions are as follows. The Financial Sector Restructuring Authority (FRA) was set up to review the rehabilitation plans of suspended finance companies, assist bona fide depositors and creditors of suspended finance companies, and administer the liquidation of finance companies which the FRA deems not viable.

b) Post-Crisis Fundamental Reforms Despite extreme complexities involved in various angles as indicated above, both the government and private banks exerted strenuous efforts to facilitate and expedite debt restructuring. The underlying reason was to sustain survival of justifiable parties or businesses together with the economy as a whole. For instance, in September 2001 the Thaksin government set up the Thai Asset Management Corporation (TAMC) to manage NPL transferred from state-owned banks and private asset management companies with multiple creditors and full provisioning. TAMC was able to achieve its target of acquiring and resolving voluminous impaired assets from financial institutions and private AMCs. It contributed very much to the substantial reductions of NPL in the financial system (see Chart 4 and Table 5).

c) Changing Atmosphere and Future Trend Given the severe financial crisis in 1997 and strenuous efforts at resolutions as well as fundamental reforms afterward, it is unsurprising that the overall atmosphere in Thailand's financial market has changed drastically in several respects. The most outstanding transition is that the country's economic activities hinge less upon credits from commercial banks (see Chart 7 and Table 7). That is due to consequences or lessons learnt from the crisis and new regulations issued by the central authorities. Meanwhile, several government measures encouraging both stock and securities markets to function actively as stated above were distinctly successful. For instance, the ratio of bond outstanding to GDP quadrupled from 10% in 1997 to 40% in 2005 whereas that of stock capitalization to GDP tripled from 23% in 1997 to 69% in 2005. In other words, the composition of financial system has moved toward a more balanced position (see Chart 8). This

process of disintermediation vigorously drives commercial banks to adjust themselves and raise their capacity to compete by pursuing new businesses and offering new financial products (e.g. mutual funds, insurance, investment banking, asset management). Commercial banks pay more attention to retail clients and SMEs. Nevertheless, their painful experience or NPL in the past raises the degree of banks' prudence or precaution to a large extent. That is why most low-income people, especially those without collateral or guarantees, often lack access to bank credits. They have to resort to alternative channels to finance their spending.

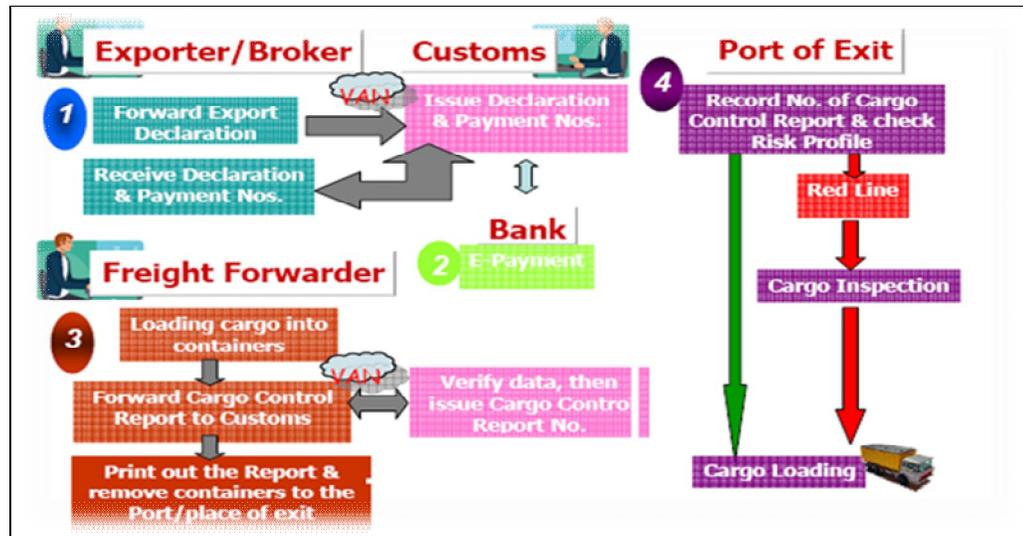
IMPORTATION



When a shipment arrives in Thailand, importers are required to file a Goods Declaration and supporting documents for the imports with a Customs officer at the port of entry. Imported cargo are not legally entered Thailand until after the shipment has arrived within the port of entry, delivery of the merchandise has been authorized by Customs, and applicable taxes and duties have been paid. It is the responsibility of an importer to arrange for examination and release of the imported cargo.

In addition, depending on the nature of the imports, and regardless of value, the importers may need to obtain a permit to facilitate clearance of the imports. Some, not all, of the goods requiring permit, and the relevant permit issuing agencies, should be contacted prior to the importation.

EXPORT PROCEDURES



Goods intended for export from Thailand are subject to normal export procedures. For Customs purposes, an export is the removal of goods by ship or aircraft from a place in Thailand to a place outside Thailand. All goods being exported from Thailand are subject to Customs control and must be reported to Customs.

POLICY ENVIRONMENT IN THE AUTOMOTIVE INDUSTRY IN THAILAND

1) Development of the Policy Environment

The Thai policy regime relating to the automotive industry has evolved, as an

integral part of the overall industrialization strategy, through two distinct phases. During the period from the early 1960s until the late 1980s import substitution was the basis tenet of development strategy. During this period the Thai government enticed car makers to set up assembly plants in the country by providing tariff protection for vehicle manufacture and imposing local content requirements (LCRs) to promote local parts manufacture. Since the late 1980s there has been a clear shift in Thai automotive policy from domestic market orientation toward global integration, setting the stage for the country to emerge as a centre of automotive and auto parts manufacturing in the region. As in many other developing

countries, in Thailand the automotive industry was

one of the first targets of industrial development through import substitution. In the early 1960s, tariffs of 60 percent, 40 percent and 20 percent were imposed on imports of completely built-up units (CBUs) of passenger cars, vans and pick-up trucks, respectively. Tariff rates applicable to imports of completely knocked down (CKD) kits and component parts for each of the three categories were set at half of the CBU rates. High end-product tariffs combined with lower tariffs on imported inputs naturally favored domestic assembly of hitherto imported vehicles. Motor vehicle tariffs were by far the highest in Thailand's overall import duty structure throughout the ensuing four decades.

The automotive industry was further liberalized under FTA negotiation. Liberalization through FTAs for the automotive industry began in the mid-1990s through the ASEAN Industrial Cooperation Scheme (AICO) in November 1996.² The program aimed to promote trade in parts and components among auto companies operating in ASEAN member countries. It provided for a 50 percent reduction in prevailing import duties on parts and components trade among member countries

while treating these imports as part of the local content in estimating the minimum local content of the final products (40 percent) applicable to duty concessions under the ASEAN Free Trade Area (AFTA). This was used to accelerate the trade liberalization introduced in the ASEAN Free Trade Area in 1995 and expected to have a full effect by the end of 2010 for the original six member countries (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand).

2) Thailand: Southeast Asia's Automotive Hub

Thailand is ASEAN's Automotive Hub, with the largest vehicle assembling capacity and the highest quality parts manufacturing capability of any nation in the region. Virtually all of the world's major automakers are represented here, and together they produced more than 1.3 million vehicles in Thailand in 2007. Moreover, the country's automotive industry shows no signs of slowing down. Auto parts exports increased a whopping 55% year-on-year in 2007, and further growth will likely follow as exports to ASEAN member nations increase and Thailand's free trade agreements with China, Japan and India are expanded in scope

3) India, Thailand looks at duty-free agreement by 2012-mid



India and Thailand aimed to conclude duty-free pact by the middle of 2012 that will help double the bilateral trade to \$14 billion by the year 2014, said MR Pongsvas Svasti, Thai Industry Minister.

MR Pongsvas Svasti, said, “Previously, we had tariff exemption for only 80 items or so. This year, we will add many more. You can have many hundred items on that list that can be traded without any tariff. I am enthusiastic about our economic relations. I am looking forward to increase interaction among the businesses of both sides. We are also opening our Board of Investment office in Mumbai this year.”

The framework accord has been inked by both the nations in 2004 it looks at an early harvest tariff-free import and export on 82 items.

THAILAND CONTINUES TO GROW AS THE DETROIT OF ASIA

Thailand is often referred to in recent years as the “Detroit of Asia”. Automobile, motorbike, auto and motorcycle spare parts and items for the after sale auto market are made by numerous factories throughout Thailand. In fact, the Auto Industry is the number one manufacturing industry in Thailand in terms of value, followed by Hard Disk Drive manufacture. Increasingly the Thai government’s policy of early promotion of the Auto Industry and then recent acceleration of trade preferences under the Asia Free Trade Area (AFTA), FTAs with Australia, India and pending FTA’s with China and the U.S. are creating even more favorable conditions in which the economies of scale and efficiencies of the Thai Auto and parts industry are magnifying Thailand’s advantages in this area. April was an active month in Thailand for the Auto market. Here are some of the developments as reported by the Thailand Board of Investment (BOI) and other newspaper sources from throughout the region:

THAILAND AUTOMOBILE INDUSTRY OVERVIEW

Growth of the Automobile Industry in Thailand

The automotive industry in Thailand has shown robust growth in spite of the political turmoil in the country. It has been successful in retaining its position as the “Detroit of Asia.” Ford Motors insists on opening a plant in Thailand in spite of the unrest, a clear indication of continued support from the auto industry.

Thai car sales increased 53.4 percent from 2009, further proving true that it is indeed Southeast Asia’s biggest car market. The country has a large, skilled automotive workforce besides having associated industries for auto-motive parts and components.

Thai Automotive Industry Association announced a leap in domestic demand. Also the automotive and auto parts industry was responsible for a huge increase in export revenue less than only that of computer and electronic parts. This contributed considerably towards the nation’s GDP.

The remarkable growth in the Thai automotive industry is due in part to the reduction in excise duties for small passenger cars. This reduced the price of cars and the added advantage of credit availability was instrumental in increasing demand. Arise in petroleum prices did little to dampen the automotive market growth in Thailand.

According to the Federation of Thai Industries about 38 percent of vehicles manufactured in Thailand are for export, which is witnessing upward growth. The demand for Thai-made one-ton pickup trucks grew in demands both in the domestic as well as export markets.

The reasons for Thailand’s growth in the automotive industry are many. First and foremost being the benefits it derived from agreements like the free trade agreements signed with Australia, New Zealand, China and India and the market opening opportunities in Southeast Asia created by the Asia Free Trade Agreement. The Thai-Australia Automotive trade resulted in an increase in trade between the two nations.

The ASEAN countries are major export market destinations after Europe, Australia and middle-east.

Foreign Auto Majors in Thailand

Nissan Motor Co. in a recent announcement reiterated its confidence in the stability of the automotive industry in Thailand. The output from Nissan is set to double to 200,000 units in 2010. Nissan’s Thai plant makes five models of automobiles including cars and pickup trucks.

“Not one project is suspended or delayed. Everything is on track,” said Chief Executive Carlos Ghosn of Nissan. The political unrest had affected tourism and consumption in Thailand, which is Southeast Asia’s second-largest economy. The car exports scenario however remained unaffected.

Nissan sources said that the launch of the new model “March” will help increase car sales and help the company touch the magic figure of 200,000 units. Nissan strives to export vehicles to 100 countries from Thailand. The country being the third strategic export base after Japan and Mexico.

Ford Motor faced problems in Europe and North America few years back driving it to expand its operations in Asia. Finding the market in Thailand lucrative, Ford shifted its pickup truck production to the country and transferred its car production unit to Philippines. Thailand is expected to become Ford’s central base for Asia’s production, making it the second largest pickup market world wide and also ASEAN’s largest automotive market and assembler.

In Thailand, both the passenger car market and pickup truck market are led by Isuzu and Toyota, together holding around 65 percent of the vehicle market. Other contenders in the field are Mitsubishi, Nissan, Chevrolet, Ford and Mazda. Diesel powered passenger cars are also in vogue with Toyota in the leading position followed by Honda for market share. Honda has increased its production capacity in Thailand to cater to the export demands of its international market. Toyota, Honda and Ford have established research and development centers in Thailand.

Not to be left behind in leveraging exploding growth in the Thai automotive industry, General Motors has invested in setting up new ancillary units and augmenting the production capacity of its plant in Rayong. Chevrolet from GM is in great demand in the domestic market and outside.

Thai operations have helped many auto manufacturers to serve both domestic and regional demand. Indian Auto giant Tata Motors has its eyes firmly set on Thailand. Being a regional auto major, Tata Motors unveiled its Tata Xenon 1-ton pickup truck in March 2008 at the Bangkok International Motor Show. The Tata dealer network is also well in place for distributing the vehicles.

Ratan N. Tata, Chairman of Tata Motors, said, “I am pleased that Tata Motors (Thailand) is launching the Xenon pickup in Thailand. The Xenon pickup has been developed and built in Thailand, specifically keeping the Thai customers in mind. We are hopeful that Thailand and ASEAN region will become key markets for Tata Motors in the near future.”

Tata Motors zeroed in on Thailand after studying the ASEAN region in detail. It invested 1.3 billion baht to produce the Xenon pickup truck. This only proves that Thailand is the preferred destination for pickup truck manufacture as it is home to a strong supplier base and a provider of modern technology for making high-quality products.

Supporting Industry - Auto Parts and Components

Besides the craftsmanship and supplier base, the nation's supporting network is quite extensive with respect to auto parts. This gives Thailand a competitive advantage as in most other countries there is a deficit of infrastructure, which requires parts to be imported resulting in an increase in vehicle costs. The Thai Automotive Industry Association reveals that the auto parts export of the nation will grow steadily. Thailand exports cars to markets in Belgium, Japan and Australia. Destinations for car parts are Japan, Malaysia and South Africa.

The automotive industry's success anywhere depends on supporting industries like that of auto parts and component manufacturers. Thailand has an extensive network of auto parts manufacturers, which serves to strengthen the industry.

One such auto business is Summit Industries, which caters to the needs of the auto industry in the country. Summit Industries is a large contributor with over 30 subsidiaries and nearly 13,000 employees with auto-part factories in Malaysia and India. The supply base in Thailand is strengthened by these supporting industries, making the country a major vehicle supplier in Southeast Asia. The country boasts more than 700 OEM auto-parts suppliers and 1,000 suppliers in other support industries.

The automobile parts manufacturing sector in Thailand is considered the best in South East Asia, according to Japan Automobile Manufacturers Association. The local part manufacturers supply approximately 80 percent of all parts used for assembly of pick-up trucks, approximately 55 percent for passenger cars and nearly 100 percent for motorcycles. The locally produced assembly parts include engines, suspension control and spring, axles, hubs, propellers shafts, brakes, clutches, steering systems, body parts, electronic parts, air conditioning, tires, wheels, internal and external trim components and glass.

Besides Japanese assemblers, U.S. companies Ford and GM have entered the fray by bringing their own suppliers into the Thai auto industry. European assemblers have fewer local part suppliers because of their limited assembling volume. The automotive industry is going through a continuous process of upgrading with ISO9000 certification, which is the standard among major producers.

The Board of Investment or BOI of Thailand and the Thailand Automotive Institute strive to attract investments to produce even the last key components that are presently not produced in Thailand. Incentives are given to support major target industries. The support activities include R&D, design activities, and human resources development. If all components and parts are available in Thailand itself, then multinational auto assemblers can reduce production and logistics costs to make Thailand a major Asian production hub.

The Thailand automotive industry is the largest in Southeast Asia and the 15th largest in the World in 2011, and estimated to land within the global top 10 in 2012. The Thailand industry has an annual output of near 1.5 million vehicles (mostly commercial vehicles), more than countries such as Belgium, the United Kingdom, Italy, Czech Republic, and Turkey.^[3] Most of the vehicles built in Thailand are developed and licensed by foreign producers, mainly Japanese and South Korean but with several other presences as well. The Thai car industry is taking advantage of the ASEAN Free Trade Area (AFTA) to find a market for many of its products. Thailand is one of the world's biggest markets for pickup trucks with over a fifty percent market share for one-ton trucks.

**AGRICULTURE/ FORESTORY/FISHING SECTOR OF
THAILAND**

This study explains how Thai agriculture has tackled the problems of cost-price squeeze and satisfactorily adjusted its production structure toward new comparative advantage. It begins with an exploration of the causes of decline and revival of Thai agriculture and the consequent changes in the production structure during 1980 to 2003. Then, it analyses how Thai farmers, the private sector and government policies have responded to such changes, particularly the problem of cost-price squeeze. After speculating upon the future prospects of Thai agriculture, the paper discusses some of the lessons and the challenges facing Thai farmers.

Between 1985 and 1996, the problems facing Thai agriculture were so serious that most planners and economists believed that it was a sunset industry with a bleak future. Yet its recovery in the early 2000s may have proved this belief to be wrong. This paper explains both the causes of agricultural malaise and revival in the context of the “Dutch disease” framework, and how farmers and business companies related to agriculture responded to the problem.

The Economy of Thailand is a newly industrialized economy. It is a heavily export-dependent economy, with exports accounting for more than two thirds of its gross domestic product (GDP). In the year 2012, according to the Office of the National Economic and Social Development Board, Thailand had a GDP at current market prices of THB11.375 trillion (USD366 billion). In 2012, the Thai economy grew by 6.5 percent, with the headline inflation rate of 3.02 percent and the current account surplus of 0.7 percent of the country's GDP. In 2013, the Thai economy is expected to grow in the range of 4.2-5.2 percent. In the first quarter of 2013 (Q1/2013), the Thai economy grew by 5.3 percent (YoY).

The industrial and the service sectors serve as the two main sectors in the Thai gross domestic product, with the former accounting for 39.2 percent thereof. Albeit often seen as an agricultural country, Thailand has an agricultural sector which shares only 8.4 percent of the GDP – lower than the trading sector and the logistics & communication sector which account for 13.4 percent and 9.8 percent of the GDP respectively. The construction & mining sector adds 4.3 percent to the country's gross domestic product. In addition to this, other service sectors - which include the financial, the educational, the hotel & restaurant sectors etc. - account for 24.9 percent of the country's GDP.

The telecommunications in Thailand as well as new types of Services trade are emerging as the center for the industrial expansions and economic competitiveness for the economy of Thailand.

Thailand is the second largest economy in Southeast Asia, after Indonesia. However, its per capita GDP in 2012 was relatively low at USD5,390. In Southeast Asia, Thailand ranks midway in terms of its per capita GDP, after Singapore, Brunei and Malaysia. As of 29 March 2013, Thailand holds USD177.8 billion in international reserves, the 2nd largest in Southeast Asia, after Singapore. With regard to the volume of external trade, Thailand also ranks 2nd in Southeast Asia, after Singapore.

With regards to social and development indicators, Thailand is recognized by the World Bank as “one of the great development success stories”. It is now an upper-middle income country, despite a low per capita gross national income (GNI) of USD 4,451 and ranking 103rd in the Human Development Index (HDI). Within 22 years, the percentage of the population living below the national poverty line decreased dramatically from 65.26% in 1988 to 13.15% in 2011, according to the NESDB's new poverty baseline. As of the first quarter of the year 2013, its unemployment rate is 0.7 percent, making Thailand the country with the fourth lowest unemployment rate in the world after Cambodia, Monaco and Qatar. The headline inflation rate as of the first quarter of 2013 remains controllable at 3.09% with the policy interest rate of 2.75%.

Even during the period of rapid decline, Thai agriculture made adjustments towards a new comparative advantage. The adjustments took place not only in the farm output and agricultural input markets, but also in non-farm activities. In the output market, Thai agriculture shifted toward higher-value products and less labour-intensive and probably less water-intensive crops. Farmers also responded to the effects of Dutch disease by producing more non-traded and import-competing products during the bubble period and by switching back to traded goods after the 1997 to 1998 crisis. In the input markets there has been a trend toward increasing real wages caused by labour shortage and the huge movement of workers from agriculture into the non-agricultural sector. As a result, farmers have increased their investment in mechanization. They have also stepped up investment in water pumps and pond digging in response to the water scarcity problem. But perhaps the most important response is the technological improvement which became the second largest source of agricultural growth after capital accumulation throughout the 1981 to 2003 period.

This performance was made possible by increasing specialization at the farm level, by increasing farm size (particularly in livestock and perennial trees which require long-term investment), by changing input intensities, by diversifying agricultural export products and most importantly by technological improvements, which include genetic improvement, mechanization and resource management. These adjustments were first pioneered by commercial farmers, contract farming companies, agribusiness firms and exporters who were willing to take risks and to readily respond to price signals. In addition, most farm households have diversified their sources of income into non-farm activities with a lower degree of income variation. The most important sources are employment income and remittances from family members working in the cities.

For many farmers with poor land resources, particularly poor farmers in the Northeast, agricultural restructuring towards higher-value crops was not an option. Thus, they decided to reduce their labour effort on the farm and seek alternative non-farm jobs. This explains why economic growth and higher prices of agricultural products have substantially reduced poverty.

Perhaps the most important set of policies that has allowed domestic relative prices to reflect international relative prices has been sound macroeconomic policies. There were also, however, periods of bad macroeconomic policies that penalized the agriculture sector, for example, the early 1980s, the early 1990s and during the first six months of the 1997 to 1998 crisis. The shift in agricultural trade policy from one that penalized farmers to a more neutral one in 1986 caused farmers and the private sector to bear the full consequences - both positive and negative - of changes in the price level. The 1994 trade policy reform, the market access commitment in the Uruguay Round Agreement and the current bilateral free trade agreement (FTA) negotiations have also partially reduced both bias against agriculture and protection - albeit small - of Thai agriculture.

Yet in recent years, there has been an increasing use of highly distorted policies that provide a rising level of support to the farmers, e.g. price support programmes, a debt deferment programmes and various subsidized credit programmes for people at the grassroots level. The assessment of these programmes finds that their performance, excepting the debt deferment programmes, is very disappointing. All the price-support programmes have been plagued by widespread corruption as shown by reports of both the police department and the senate committees. Although these sectoral policies

have been quite costly and distorted the resource allocation, their overall impact on the agriculture sector remains limited. But if these sectoral policies continue to expand, they may impose higher fiscal cost on the tax payers and seriously affect the competitiveness of Thai agriculture in the near future.

Thai agriculture faces four main challenges. First, to remain competitive in the world market, it has to reorient its production from traditional commodities towards high-value and safe products. There are at least four necessary policy measures to facilitate and speed up the restructuring process. Public research in the areas of genetic improvement and post harvest technology will provide more profitable alternatives for farmers. The government needs to step up its efforts in bio technological research. Stimulating the production of safe and high-value food will also require an appropriate system of public good provision, such as laboratory tests for chemical residue, public regulation of food safety and quality standards and a more effective institution for sustainable use of natural resources. If the farmers are to invest in the production of safe products, their incentives will have to be increased through the development of modern food and agricultural markets which involve the centralization of procurement and frictionless logistical interface with the farmers. To participate in the new marketing and procurement system, farmers will have to organize themselves so that they can both exploit economies of scale through joint investment in local public goods (such as the extension services and the establishment of a tractability system) and capture economic rent through creating safe food brand names.

Given a declining agricultural workforce and increasing water scarcity, the second challenge is to facilitate agricultural restructuring towards land-intensive but less water-intensive cropping patterns. Slowness in the process of land consolidation is attributable to legal constraints and government land policy. There are two opposing policy alternatives; i.e. efficiency-oriented and safety-net oriented. The latter policy aims to maintain the current pattern of small farm size as part of a social protection policy. But if an efficiency-oriented land policy is chosen, the government will have to streamline existing tenancy regulations which are biased against the landowners. The rights to transfer land obtained under the land reform programmes will also have to be reviewed and revamped. Water policy also needs to be redirected from ineffective supply augmentation to demand management. The challenges lie in how newly created market-based institutions for water resource management, at both river-

basin and community levels, can be established and implemented. Issues for these institutions include, inter alia, redefining and assigning property rights, pricing, creating a participatory approach to water management systems in the areas of water allocation and maintenance of the distribution system. Improvement in government planning and management of the overall water delivery system is also urgently needed.

The third challenge is to promote professionalism in farming and to provide some social protection for ageing farmers as they leave the occupation. One of the entry barriers facing new professional farmers is the high sunk cost of investment in new farming techniques and establishment of business relations in modern food and agricultural markets. Public research and dissemination of knowledge of new varieties, new production techniques and business opportunities will not only reduce entry barriers but also the search costs of existing farmers.

As an increasing number of young people depart the countryside, leaving an ageing population of farmers, the future care of older farmers becomes a major social concern. There is a need for the community and the government to establish old-age care institutions to complement the eroding system of family security.

The fourth challenge is to enable farmers to fully exploit opportunities arising from the more liberal trading environment and to allow those who are less competitive to adjust their production systems before the new bilateral FTAs and the Doha Round agreement are concluded and implemented. In addition to the need for more public investment in agricultural research and provision of public goods and services, there are still many constraints that will prevent farmers from capturing the benefits of free trade, e.g. water shortage, problems of land rights - only 60 percent of agricultural land has title deeds - natural resource degradation and highly distorted price-support policies. Another immediate issue is the urgent need to design and implement structural adjustment programmes for farmers who currently grow import-competing and temperate zone products. Once the new bilateral FTAs are concluded and the tariff walls are torn down, some of these farmers will have to switch to other crops, while others may have to leave the agriculture sector. Besides alternative packages in an agricultural restructuring system, the government will also need to institute a new integrated rural development policy.

There are at least four important lessons from the experience of market-oriented Thai agriculture. First and foremost, the country's comparative advantage can play its role if the macroeconomic policies are sound and the trade policy is neutral, i.e. the protection regime does not work against agriculture. Sound macroeconomic policies also bring about economic stability, a necessary condition for economic growth. Second, instead of using highly distorted sectoral policies, the government should redirect its effort towards policy measures that aim at tackling market failure and providing public goods and services. The more appropriate forms of intervention are institutions and policy measures that complement, but do not replace, the market mechanism. Third, to tackle the problems of market failure, one has to ensure that the intervention is based upon institutions that mimic the informal institutions that already exist in society. Last but not least, Thailand has successfully reduced poverty incidence and has already surpassed the Millennium Development Goals, thanks to its pro-poor growth policy, i.e. growth benefits both the poor and the non-poor equally. Poverty reduction was made possible first by rapid agricultural growth during 1960 to 1980 and then by the massive boom of the non-agricultural sector, which provided job opportunities for the rural poor. Such job opportunities are very important for land-poor farmers who have to seek supplementary income from non-farm activities. Thus appropriate rural development will not only reduce rural poverty, but will also reduce the rural-urban income gap. In addition, the Doha Round agreements, to cut domestic support and export subsidies and to provide more market access, will increase world agricultural prices, which will, in turn, reduce poverty in the food-exporting developing countries.

Recent and proposed changes in the statistical organizations relating to food and agriculture

The main statistical agencies are the National Statistical Office (NSO) and the Office of Agricultural Economics (OAE). The organization of the NSO is divided into the central and the local administration. The central administration comprises of 2 centers 6 bureaus. From the statistical act 2007 the NSO has mandate for management of national statistical system by using Statistical Master Plan as a tool. To deal with this new duty, the NSO recently reorganized office for internal administration by establishing 3 new bureaus as follows:

1. Statistical System Management Bureau is in charge of setting statistical master plan, coordinating with statistical units, setting up statistical standard.

2. Social Statistics Bureau is responsible for conducting Agricultural Census, Population Census, Intercensal survey of agriculture, Household socio-economic survey and surveys on social issues.

3. Human Resource Development and Statistical Coordination Bureau is responsible for statistics and Information technology training. Also, it is in charge of statistical coordination between central and local office (provincial statistical office) and international coordination as well.

Demography

The Thai population is ageing rapidly, due to declines in fertility and mortality. Thai fertility began falling in the late 1960s, and reached replacement level (2.1 births per woman) in the early 1990s. Life expectancy is now around 70 years. As a result, the proportion of Thais aged 60 or over increased from 4.8% in 1960 to 10.5% in 2005, and is likely to reach about 25% by 2040.¹ The figure of 25% is similar to what the UN projects for many developed countries in 2040.

Thailand agriculture and agricultural policies

Compared to most of the rest of Southeast Asia, Thailand has been distinguished by a high ratio of land to people. This has contributed to high rates of land ownership, a high proportion of the workforce employed in agriculture – the World Bank estimates that 46% of the workforce was employed in agriculture in 2003 – and low yields per hectare, relative to other Southeast Asian countries (Siamwalla 1991). In 2002, the value-added per agricultural worker (i.e. GDP from agriculture divided by the number of agricultural employees) in Thailand was still about the same as that in Indonesia and the Philippines, which are both much poorer than Thailand. Value-added per agricultural worker was only a fraction of that in Malaysia.

Agriculture in Thailand needs structural/political support

Without support programs or policies, Thai farmers are getting squeezed by a host of social drivers, putting the profession itself under threat. The Strategic Foresight Group writes that Thailand is witnessing a rapid decline in the number of farmers. The Strategic Foresight Group focuses on the lack for structural support for farmers, "The rapid push towards industrialization is also seen as one of the causes behind the drastic fall in the number of farmers. The lack of structural support has aggravated the farmers' problems as the absence of genuine land reform, redistribution programmes

and farmers' cooperatives are some of the key factors behind this decline. Low investment is also seen as another major reason." Without many of these, farmers have no political power or support and are more vulnerable to broader social shifts, which include the younger generation avoiding farming in pursuit of education and services professions and the economy of industrial agriculture, which requires capital debt to pay for fertilizer and machinery. This contributes to a situation in which the Thai farming economy isn't as lucrative and few younger farmers are ready or willing to take over farms from their parents.

Agricultural resources

Land

Thailand occupies an area of 320.7 million (m) rai or 51 m ha (1 rai = 0.16 ha) and is considered an agricultural country. At least 18,000 plant species (8% of the world total) have been estimated to occur in Thailand. Of these, rice is the most diverse species. A wide range of rice genetic diversity has been found throughout the country. Approximately 130 m rai (41%) is engaged in agriculture. Of this agricultural land, about 49, 21, and 21 % is devoted to paddy rice, field crops and fruit trees, respectively.

Water

Water Resources in Thailand are stored in two main sources: surface water and ground water. Water provides by rainfall, river basins, lakes, canals, swamps, irrigation water, and underground water. Among all, rainfall is the most important water source for agriculture with about 80% of agricultural areas being cultivated under rain fed conditions. Thailand receives rainfall with an average volume of some 752 billion cubic meters annually.

Natural decline of Thai agriculture or a long-term problem?

Many economists have argued that Thai agriculture is subject to increasing comparative disadvantage and may already be in the sunset stage (Siamwalla 1996), and that the non-agricultural boom in the 1990s has stimulated a pattern of agricultural responses which will be costly to reverse in a different economic climate from that of the 1990s (Coxhead and Plangpraphan 1998). Are the changes in Thai

agriculture between the pre- and the post crisis periods described above consistent with these views?

The evidence given above on agricultural growth during and after the crisis shows that the reverse effects of the Dutch disease, triggered by the currency depreciation and commodity boom, have revived agricultural growth and maintained the relative GDP share of agriculture. The comparative advantage in agriculture has been restored, at least for the medium term. The growth in real value of agricultural exports in the post crisis period is higher than in 1995 to 1997

Import

On importation of goods into Ireland from countries outside the European Union, customs entry formalities must be completed by the importer or his/her agent. The appropriate customs entry is made by electronic data transfer of Single Administrative Document (SAD) declarations to Revenue's Automated Entry Processing (AEP) system using the Direct Trader Input (DTI) facility. Using the AEP system, importers or their agents may clear consignments at import and pay any charges (customs duty, VAT, excise duty) due through an approved Deferred Payment account, bank draft, money order or bank guaranteed cheque to effect release of the goods. All necessary documents required to clear the goods through customs i.e. invoice, certificate of origin, import licence, etc. must be available on request.

Imports in Thailand decreased to 21550.60 USD Million in April of 2013 from 21636.72 USD Million in March of 2013. An import in Thailand is reported by the Ministry of Commerce. Historically, from 1991 until 2013, Thailand Imports averaged 8499.24 USD Million reaching an all time high of 24454.66 USD Million in March of 2012 and a record low of 2760 USD Million in February of 1992. Thailand imports mainly raw materials and intermediate goods (around 56 percent of total imports). Fuel accounts for 19 percent, parts of electronic appliances for 11 percent, materials of base metal for 9 percent, and chemicals for 5.5 percent. Machinery, equipment and supplies such as computers and mechanical represent 25 percent of total imports, and consumer goods account for 8 percent. Main import partners are Japan (20 percent of total imports), China (15 percent) and the European Union (8 percent). Others include the United Arab Emirates, Malaysia and the United States. This page includes a chart with historical data for Thailand Imports.

Export

On exportation of goods from Ireland to countries outside the European Union, customs formalities must be completed by the exporter or his/her agent. The appropriate customs entry is made by electronic data transfer of Single Administrative Document (SAD) declarations to Revenue's Automated Entry Processing (AEP) system using the Direct Trader Input (DTI) facility. Using the AEP system, exporters or their agents may present completed SAD declarations to customs and pay export duty (if any) to effect release of the goods. All necessary documents required to clear the goods through customs i.e. invoices, export licences, etc. must accompany the SAD declaration form.

Structure of agriculture sector

Workers in the Non-Agricultural sector are important to the economy of the country because Thailand is now focused on the manufacturing and service industries. The proportion of the industry is 39% of the GDP, and the service sector is 52.4% of the GDP. The estimated population of Thailand is 64 million and women make more than 50% of the population (2010 figures). Women also constitute the majority of workers in the industry and service sectors.

The Situation of Female Workers in the Non-Agricultural Sector

Here are some figures about the work of female workers in the non-agricultural sector from 2011 until June 2012: according to a survey by the National Statistical Office, in the first quarter of 2011, the total share of female workers in Thailand was 17.17 million, of which 11.42 million were in the non-agricultural sector. This trend has continued to rise steadily since then.

TABLE 6: VALUE OF EXPORTS CLASSIFIED BY COMMODITY GROUP**SEPTEMBER 2006**

Group	Value (Baht)
AGRICULTURAL PRODUCTS	33,865,222,970
FISHERY PRODUCTS	7,923,478,551
FORESTRY PRODUCTS	60,847,084
MINERAL PRODUCTS	8,397,648,711
MANUFACTURING PRODUCTS	393,172,953,381
SPECIAL GOODS	7,181,124,474
UNCLASSIFIED GOODS	186,537
Total	450,601,461,708

Notes: Categorization scheme in based on the Bank of Thailand system

Source: Customs Department

Table 7: STRUCTURE OF THE ECONOMY IN YEAR 2011 IN THAILAND

Update :

Sector	GDP by Sector (%)	Labour force by sector (%)
Manufacturing	39.0	13.6
Wholesale and Retail Trade	13.5	15.5
Transport, Storage and communication	9.6	2.6
Agriculture	8.6	38.2
Construction and Mining	4.3	6.1
Other services *	25.0	24.0
Note* Other services include financial sector, education, hotels and restaurants, etc.		

What has been achieved?

Initial agricultural growth through economic transition From the 1960s to the early 1980s new lands were opened up for farming, facilitated by the existence of a forest frontier where squatting was tolerated. This absorbed growing labour to produce more of the main staples for both the domestic market and export (rice and teak in the first place). At this time, agriculture was the main driver of the economy. More than 70% of the active population was employed in the sector in 1980, among them the vast majority of the poor.

Improved productivity at a time of economic transition Agriculture then began to transform, as Thailand experienced rapid economic growth led by manufacturing. Labour began to leave agriculture, attracted by jobs in manufacturing, urban services and the rural non-farm economy. At the same time, it was becoming harder to open up new land. Agricultural growth slowed, but productivity of land and labour increased notably. The sector became more mechanised and more capital intensive, facilitated by increasing availability of formal credit.

Use of better varieties and greater application of inputs led to increasing yields (Figure 2). So competitive are some Thai agricultural exports that they define the lowest cost production in the world, for example cassava from the landlocked and once lagging northeast region.

BUSSINESS OPPORTUNITY FOR GUJARAT/INDIA

PRESENT TREAD RELATION AND BUSSINESS VOLUME OF DIFFERENT OF PRODUCT WITH INDIA:

Diamantaries tried to start the diamond polishing units in other states but could not succeed. Diamond polishing remain a domain of Gujarat especially the Saurashtra Patels. Further Surat remains the home to the largest number Diamond and cutting polishing units as well as workers. The Indian diamond cutting centers are frequently concentrated in Surat in Gujarat.

Diamond units and workers data are not exact as the turn over is very high in this industry and a worker some time changes multiple units and owners during the same year. Even the diamond industry association of Surat was unable to report the exact number of the workers and unit. Breman report the growth of diamond industry as follows. As an ancient port of great fame, Surat has been a centre for production of wealth and splendour. Diamonds today are a global commodity and are imported as rough and exported as cut and polished or value added diamond. In 50s patels from Saurashtra and Jain from Palanpur started the diamond cutting and polishing industry in Surat as well as nearby Navsari. During the last 60 years there are time of recession and boom in this trade. The growth of the industry can be understood from the following table; Bhavnagar.¹⁴ Not only that diamond units also in operation at the taluka (block) level.

For example diamond units are in operation in taluka like SavarKundla of Amreli, Botad, Palitana in Bhavnagar, Keshod in Junagadh, Palanpur in Banaskantha etc. Diamond industry are unique in many way like they are highly employment intensive a single unit with an investment of Rs 20,000.00 (300 Euro) 6 to 7 person can get employment. This need laths (known as Ghanti or the polishing machine locally) run with help of motor consuming very little amount of electric power and a space of one room. Unlike other industries it doesn't have the problem of pollution. Diamond industry of Gujarat having a turn over of around \$15 Bn annually.

As per the information available with the Government of Gujarat Of this, around 38 % of the units and 57 % of the workforce are in Surat, while Amreli District, with 22% of the units, inhabits the second place in terms of number of units, and Ahmedabad, with 14.3% of the workforce, occupies the second position in terms of labour .Growth of the diamond industry and diamond workers is not a very old phenomenon and dates back to 1950s.

Indian gems and jewellery industry contributes over 12 percent to the total export earnings of the country and there are around 1.5 million workers employed in this industry who are highly skilled and efficient. But the industry faced a crucial time as it was hit hard by the global economic slowdown in the financial year 09-10.

India is the largest consumer of gold and accounts for over 20% of the total world gold consumption. India is also one of the largest diamond processor in the world and its artisans have specialized skills in processing small diamonds (below one carat); in fact, the Indian craftsmen have achieved excellence in cutting and polishing small diamonds.

The Government of India notifies the Exim Policy for a period of five years (1997-2002) under Section 5 of the Foreign Trade (Development and Regulation Act), 1992. The current policy covers the period 2002-2007. The Export Import Policy is updated every year on the 31st of March and the modifications, improvements and new schemes became effective from 1st April of every year.

INDIA-THAILAND PRESENT TRADE RELATIONS

India and Thailand, located in each other's extended neighborhood, share a maritime boundary in the Andaman Sea. Both countries share unique civilization links going back several millennia.

Over the past two decades India's 'Look East' policy has been complemented by Thailand's 'Look West' policy in bringing the two countries closer. India and Thailand celebrated 60 years of their diplomatic relations in 2007. In recent years, political contacts have intensified as reflected in a series of high level visits by leaders of the two countries. Trade and economic linkages and tourist traffic continue to grow steadily. Both countries are important regional partners linking South and Southeast Asia.

ECONOMIC & COMMERCIAL PARTNERSHIP

Economic & commercial linkages form an important aspect of India's partnership with Thailand. The past few years have seen a rapid growth in this area. Bilateral Trade has multiplied six times since 2000 to cross US\$ 6.6 billion in 2010.

Investment by Indian and Thai companies in each others' countries is growing. Indian FDI into Thailand is estimated to be around US\$ 1.5 billion since 1970s.

Indian investment in Thailand was around US\$ 287 million in 2008 and around US\$ 214 million in 2007 according to the Board of Investment of Thailand. Thailand has invested over US\$ 65 million in India (*April 2000-Dec 2009*) according to Department of Investment Policy Promotion of Government of India.

The major Indian groups doing business in Thailand include:

- Tata group (automobiles, steel, software),
- Aditya Birla group (chemicals, textiles),
- Indo Rama group (chemicals), Ranbaxy*,
- Dabur, Lupin (pharmaceuticals),
- BhartiAirtel,
- NIIT,
- Punj-Lloyd etc, reflecting the diverse sectors of interest. Among public sector, Indian Overseas Bank, Bank of Baroda, Air India, New India Assurance etc. are present.

Major Thai companies active in India are –

- C P Aquaculture (India) Ltd.,
- Ital Thai Development Pcl.,
- Krung Thai Bank Pcl.,
- Charoen Pokphand (India) Private Limited,
- Stanley Electric Engineering India Pvt. Ltd.,
- Thai Summit Neel Auto Pvt. Ltd.,

- Thai Airways International Pcl.,
- Precious Shipping (PSL) of Thailand, Preuksa Real Estate,
- Dusit and Amari group of hotels.

Business volume

The volume of trade between India and Thailand was pegged at \$2.8 billion last year.

- India's exports to Thailand during 2000-2001 increased by 17.7 % over the previous year, touching US \$ 528.90 million.
- □ India's total trade with Thailand amounted to US \$ 843.27 million during 2000- 2001 as against US \$ 777.15 million during 1999-2000, recording a growth of 8.51 %.
- This was indicated during the tenth session of the India-Thailand Joint Trade Committee (JTC) which began here this morning.
- Although the two-way trade has registered a four-fold increase in the last decade, having gone up from US \$ 245 million in 1991-1992 to US \$ 843.27 million in 2000-2001, the level of bilateral trade is way below its potential and India's share of the global trade of Thailand is miniscule.
- Thailand now ranks 18th among the large investors in India and the third largest from the ASEAN region after Malaysia and Singapore.

India and Thailand Trade of Following Different Products.

India's Major Exports to Thailand

- Natural or Cultured Pearls, Precious and Semi Precious Stones
- Residues & waste from food industries, prepared animal fodder
- Organic Chemicals
- Nuclear Reactor, Boiler, Machinery and Mechanical appliances

- Iron & Steel
- Copper & articles thereof
- Vehicles other than railways or tramway rolling stock
- Fish and Crustaceans
- Mineral fuels, mineral oils
- Electrical Machinery & Equipment & Parts thereof

**TABLE 8: INDIA'S EXPORTS DIFFERENT PRODUCT TO THAILAND, 1995-2008
(PERCENTAGE SHARE)**

SR No	Sector	1990	1995	2002	2007	2008	2008 RANK
1	Pearls, precious stones, metals, coins, etc	50.7	48.6	35.9	23.1	17.8	1
2	Mineral fuels, oils, distillation products, etc	0.0	0.2	7.1	11.1	2.5	11
3	Copper and articles thereof	0.1	0.0	7.3	10.7	9.8	4
4	Iron and steel	3.0	5.7	6.7	7.5	14.7	2
5	Organic chemicals	4.4	5.0	6.6	7.2	6.6	5
6	Residues, wastes of food industry, animal fodder	7.2	13.7	4.5	7.1	10.8	3
7	Nuclear reactors, boilers, machinery, etc	7.0	3.4	4.7	5.8	5.4	6
8	Cotton	13.9	3.2	1.0	4.0	3.2	8
9	Vehicles other than railway, tramway	1.3	0.5	0.8	3.0	3.6	7
10	Miscellaneous chemical Products	0.6	1.2	2.9	2.8	2.7	9
11	Pharmaceutical products	2.1	1.1	1.1	1.6	1.8	14
12	Tanning, dyeing extracts, tannins, derivs., pigments etc	2.4	1.7	1.6	1.5	1.8	13
13	Plastics and articles	0.1	0.5	0.5	1.5	1.5	15

	Thereof						
14	Electrical, electronic Equipment	0.8	1.0	1.0	1.3	2.6	10
	Cumulative total	94.2	89.1	87.1	89.8	86.6	

India's Major Imports from Thailand

- Nuclear Reactor, Boiler, Machinery and Mechanical appliances
- Electrical Machinery & Equipment & Parts thereof
- Plastics & Articles thereof
- Rubber & Articles thereof
- Pharmaceutical Products
- Sugar and Sugar Confectionary
- Vehicles other than railways or tramway rolling stock
- Mineral fuels, mineral oils
- Natural or Cultured Pearls, Precious and Semi Precious Stones
- Aluminum& parts thereof

Present Trade Relation and Business Volume of Different Product with Gujarat:

Gujarat Provinces of India is located in the western part that was craved out of Maharastra State in the Year 1960. In recent year it's state GDP is growing at 12% per annum more than the national average.

It's industrial growth is much faster than any other state. Similar is the case with agricultural growth growing at higher rate than the National average. Gujarat is unique in many ways like it has a longest coast line of 1600 km and home to number of biggest ports. Over 70% of total Gems and Jewellery exports of India. Almost 80% of cutting & polishing of diamonds (processing) is done in Gujarat. 90% of total diamonds in Gujarat are processed by about 10,000 diamond units located in and around Surat.

The gems and jewellery sector in India is engaged in sourcing, manufacturing, and processing, which involves cutting, polishing and selling precious gemstones and metals such

as diamonds, other precious stones, gold, silver and platinum. There are tariff and non-tariff barriers are affected while doing trade with the other country. There are various policies and norms are levied on the import and export in the gems and Jewellery business

There are GJIPC is a regulatory body to conduct the import and export with the other country. The primary goal of the Council is to introduce the Indian gems and jewellery to the international market and to promote their exports.

For the Thailand there are TJIPC is an regulatory body. The Jewel Fair Club (JFC), which operates under the auspices of the TGJTA, was founded jointly with the Tourism Authority of Thailand with the aim of promoting consumer confidence in purchasing Thai gem and jewelry products.

Gujarat's Gems & Jewellery sector is expected to grow at a rate of 15-20 percent in the current financial year. The future growth is likely to be driven by increased exports to US and other international markets and through domestic consumption.

Gujarat offers economies of scale for capacity expansion due to large number of units and technology upgradation. Constraints Even though the Gems & Jewellery industry is large in Gujarat, most of it is unorganized. At present, only 140 units in Gujarat have Hallmark. Thus, the industry needs to be governed by strict trade and quality norms. The State is more focused on the processing of diamonds in terms of rough cutting and so on. There is a lack of forward integration into manufacturing jewellery.

Gujarat is the only home to the Asiatic Lions, Wild Ass in India. It produces largest amount of salt both inland and marine, it has the unique ship breaking yard at Alang, and it is the only producer of Agate (Akik) in the World .It is also one of the most urbanized province in India. Last but not the least the only state in India having the diamond cutting and polishing industry.

Diamantaries tried to start the diamond polishing units in other states but could not succeed. Diamond polishing remain a domain of Gujarat especially the SaurashtraPatels. Further Surat remains the home to the largest number Diamond and cutting polishing units as

well as workers. The Indian diamond cutting centers are mostly concentrated in Surat in Gujarat.

As per the information available with the Government of Gujarat, there are approximately 6547 diamond processing units employing approximately 0.7 million people in the State. Of this, approximately 38 % of the units and 57 % of the workforce are in Surat, while Amreli District, with 22% of the units, occupies the second place in terms of number of units, and Ahmedabad, with 14.3% of the workforce, occupies the second position in terms of labour. (Reserve Bank of India:

2009) .Growth of the diamond industry and diamond workers is not a very old phenomenon and dates back to 1950s.

Investment opportunity in Gems and Jewellery in Gujarat:

- Diamond processing centre
- Gold refinery unit
- Assaying and hallmarking centre
- Studded jewellery
- Artisan training centre, technical education centers – design

BUSINESS OPPORTUNITIES IN FUTURE BUSINESS OPPORTUNITY IN FUTURE BETWEEN INDIA AND THAILAND

The Look East Policy of India and theseem India Policy of ASEAN will join the 600 million population of ASEAN and the 1.2 billion population of India into a multi-dimensional supportive network. Two important developments to fob watch are the coming out of Myanmar as a bridgehead between South Asia and Southeast Asia, and Bangkok as a key hub of Indian companies operating in ASEAN.



**Thai PM Yingluck with Indian President Smt. PratibhaDevisinghPatil and
Indian
Prime Minister Dr.Manmohan Singh**

In recent months, this corporation has gained traction with a spell of high-level visits – President of Myanmar, U TheinSein’s visit to India in October 2011 and Thai Prime Minister YingluckShinawatra’s visit to India in January 2012.

In turn, Thailand is inviting Indian investments in order technology, manufacturing, electronics and automotive industry.

INDIA AND THAILAND WILL SIGN A FREE TRADE AGREEMENT IN 2012

New Delhi business newspaper economic times say that India and Thailand will sign a free trade agreement by the heart of this year, according to Thai Prime Minister YingluckShinawatra.

“I hope this free trade agreement with India will be in put by the middle of this year,” Shinawatra said in a speech at a business conference in India’s capital New Delhi.

She also said the suggest agreement will be one of the major points of the discussion when she convenes Indian Prime Minister Manmohan Singh afterward on Wednesday. Bilateral trade between Thailand and India expanded from 4.7 billion US dollars in 2007 to 6.7 billion dollars in 2010. Both countries have agreed to double their two-way trad between 2010 and 2014.

THAILAND AND INDIA EXTEND BENEFITS OF FTA

The Free Trade Agreement (FTA) between Thailand and India will provide tax privilege benefits to at least another 900 Thai items for goods categorized under ‘Product Specific Rules’ (PRS) and merchandise needing Rules of source requirements, according to Thailand’s Trade Negotiations Department director-general.

Thai representatives, led by Director-General SriratRastapana, recently went to India for to assemble their Indian counterparts at the 21th Thailand-India Trade Negotiating Committee in the capital, New Delhi, to negotiate free trade, services, investment, and other economic cooperation between the two nations.

Other profits from the negotiation included creative economy, building, tourism, and the development of small- and medium-sized enterprises (SMEs).

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