CHAPTER 1

Situations of the territory

At the beginning of the 21st century, the Kingdom of Thailand, formerly the Kingdom of Siam until 1939, a constitutional monarchy since 1932, had a population of 60 million inhabitants across an area of 513,000 km². The country began to take on its present shape in the 19th century when the Kingdom accelerated the opening of its economy (commercial treaties with European powers) and ceded some land on the fringes, while still retaining its political sovereignty. Buffer state between the French and British empires, Thailand was the only country in the region to avoid colonization (see plate 20 Changes in boun-daries and frontiers (18th-20th century)). The march towards development and growth, the country’s strengthened integration in the world then took an unusual route, very different from that of the other South-East Asian countries, from Myanmar to Viet-nam, from the Philippines to Malaysia. Between 1950 and 1990, Thailand symbolized stability and peace in a continental South-East Asia that was prey to ethnic wars (Burma became Myanmar in 1989) and wars in the Indo-Chinese peninsula. The country was a bas-tion of capitalism, and with help from the United States, to whom it was allied in the fight against communism from 1949 to 1975, devoted resources to economic growth and development. The end of the cold war, with a shake-up of the regional environment at the end of the 1980s, offered renewed economic and political perspectives which reinforced Thailand’s ambition to play a vital role in continental South-East Asia, if not in the entire South-East Asian region.

Thailand’s relations with the world-system occur on several scale levels: the world, or at least an area from Europe and the Middle East to the United States; Eastern Asia, a vast geographical unit with a growing interdependence; South-East Asia, a geographical area to which the expansion of the Association of South-East Nations (ASEAN) from five to ten nation-states has given new relevance, and the Indo-Chinese peninsula, especially bordering countries.

The share of foreign trade in the country’s economy, which increased from 50% of the Gross Domestic Product in 1980-1990 to 70% in 1990-1996, indicates the extent of Thailand’s integration into globalization, greater than other countries in the region (except Singapore and Malaysia); this increase shows the effects of vigorous industrialization and the country’s integration into Asian intra-firm exchanges (plate 1 Economic relations and integration). The integration is also based on investments made by the giants of Eastern Asia in Thailand and by Sino-Thai entrepreneurs in the less developed Asian countries (especially bordering countries) and in China, thanks to an early “normalization” of diplomatic relations (1975) and the reactivation of social links. Travel into and out of Thailand emphasizes the growing role of Eastern Asia, even its pre-eminence, despite the importance of the American and European poles (plate 2 Foreign and Thai travelers). Income from international tourism and migrant workers’ remittances are so important, especially in coping with the trade balance deficit, that in the 1980s these items were taken into account in the planning process and were the subject of government promotions. Like the other flows, labor migration helped strengthen the interdependence of the countries of Eastern Asia; this mobility also reflects the contrasts in their levels of development; at an intermediate level Thailand is both an importer and an exporter of work force whose migrations are within Asia (plate 3 International out-migrations and flights). Lastly, international air traffic shows a domination that extends beyond the neighboring countries, with Bangkok vying with Singapore for the role of South-East Asian passenger traffic hub.

There is such a diversity of social, economic and political (or cultural and ethno-linguistic) situations throughout Eastern Asia that the countries are all at very different stages in development trajectories (plate 4 Population and human development in Eastern Asia). Most of the indicators analyzed show Thailand’s considerable progress in the social area, others, however, show how much ground is still left to cover; education in particular is a major issue for a country pursued by competition from other Asian countries. With a much higher level of development than its neighbors, Thailand is able to exercise its domination (market penetration, investments, technical aid and assistance) over an area that corresponds more or less to the territories that formerly owed it tribute: Myanmar, Laos, Cambodia and Vietnam also. The transnational economic cooperation zones (especially the Greater Mekong Subregion) offer Thailand further opportunities to strengthen its regional pre-eminence in the peninsula, to which it claims to be the inevitable gateway, espe-cially for services (plate 5 Eastern Asian regional integration and production). Thailand was a very early member of international bodies such as the United Nations (1946) and its technical body ESCAP (Economic and Social Commission for Asia and the Pacific, which is based
in Bangkok), the International Monetary Fund and the World Bank (1949), the World Trade Organization (whose general director for a three-year term since 2002 is Thai). It is also a member of the ADB (Asian Development Bank, created in 1966), and was one of the five founder members of ASEAN (1967) and the main instigator of its enlargement to include the countries of Indo-China (Laos, Cambodia, Vietnam) and Myanmar from the middle of the 1990s.

ASEAN is the only regional organization in an Eastern Asia that is developing a high degree of interdependence with no institutional basis. Flexible and with few constraints, this particular form of regionalization is distinct from other regional models; there are no institutional mechanisms to exercise coercion on the member states and the common space can be used as a shield and as a springboard into negotiations with the major external partners.

The 1997 crisis revealed institutional weaknesses, the ambiguity of the founding principles (such as the non-interference in the domestic affairs of member states, which Thailand and the Philippines tried unsuccessfully to raise in 1998) and the very limited success in the area of economic cooperation, given that ASEAN was built on implicitly political objectives. Among the possible initiatives that were discussed to relaunch cooperation, bringing forward the date for the implementation of the ASEAN Free Trade Area (AFTA) is a political signal for the external partners: intra-ASEAN trade represents 24% of the member countries’ foreign trade (but only 15% for Thailand). The difficulty of the project lies in the definition of a regional preference and competition which, generally speaking, handicaps cooperation between member states.

ASEAN is seeking a partnership with North-East Asia which may be upset by Sino-Japanese rivalry. For even if China benefits from a promising potential which may draw in its neighbors, Japan still remains the driving force behind economic activity. It was from here, in the 1980s, that the “flying wild geese” set off, a process to spread industrial growth between Asian countries, organizing a hierarchy of productive systems (the “Dragons” then the “Tigers”), a regional division of labor and the path to upgrading manufacturing activities and trade goods. Intra-Asian trade (raw materials, semi-finished products) today represents a little over 50% of the foreign trade of Eastern Asian countries, with the western developed countries remaining the principal outlet for finished products.

This exploitation of economic complementarities has used the networks of the Chinese “diaspora” and has taken root in specific locations (some of the transnational cooperation zones commonly called “growth triangles”), with the result that Asia’s coastal areas are nodes in the network of metropolitan polarization (plate 6 Networks in Eastern Asia). The power wielded by some of these centers is based on links between finance, trade, industry and service activities: added to this, Bangkok also has one of the strongest rates of urban primacy. Recently, land net-works have been reactivated and, as has long been the case with Mekong, borders are opening up thus offering Thailand the possibility of exploiting to the full its central position in continental South-East Asia. While separated from Myanmar by a barrier of mountains, Thailand is for the most part open to Indo-China and this continues far to the south, linking its south peninsula with Malaysia and articulating continental spaces with maritime spaces (plate 7 Relief and hydrographical system). Active land clearance has made Thailand one of the countries of South-East Asia that devotes the largest proportion of its territory to agriculture (plate 8 Environment and natural resources). An intense exploitation of natural resources, on which economic growth was based, has meant that some of these are now scarce (wood, minerals, including precious stones, produce from the sea), and Thailand has moved on to exploit those of its immediate neighbors. If the administrative division of the country into provinces has little physiographic or historical basis (plate 9 Provinces and their centers), the population distribution of their administrative centers serves to highlight the excessive size of the capital on which converge the major axes of land communication.

ATLAS of THAILAND
A vast depression filled with alluvium from the Chao Phraya and its tributaries, this densely populated area is well suited to intensive, diversified agriculture (rice-growing, horticulture, sugar cane). Infrastructure is well developed (roads, irrigation and drainage canals). Its proximity to Bangkok has encouraged industrialization and urbanization, especially along the road axes.

These areas have been fairly recently cleared, to the detriment of the mixed forest. The lowlands are under rice cultivation (glutinous rice during the rainy season) or field crops (groundnut, maize, mungbean, soybean). The systems on the higher lands, occupied by ethnic minorities, have undergone major changes (market economy, development programs).
Towards regional integration driven by trade and investments

The opening up of the Thai economy has not only proved to be a stimulus for economic growth but has also been a consequence of this growth. Exports diversified from the 1970s onwards into more manufactured products, while at the same time the USA market weakened and those of Japan and Western Europe developed. Between 1986 and 1996, there was a 7-fold increase in the value of exports, manufactured products became established, the trade deficit widened and markets became more diversified. The growth in exports slowed in 1996 as a result of competition from other countries and it has since developed at a very uneven rate. Like the other most developed ASEAN countries, Thailand has recently reduced import protection through the ASEAN Free Trade Area (AFTA) agreement.

During the period 1986-1996, trade with North-East Asia developed, though there was a great deficit, with Japan getting far ahead of Taiwan and Hong Kong. The growth of trade with the countries of South-East Asia, which today form ASEAN, was considerable, to the benefit of Thailand, with Singapore and Malaysia heading the group. At practically the same level in terms of value, exchanges with the European Union and with North America have different characteristics: whereas more than 90% of trade with North America involves the USA, and generates a surplus, there is a considerable deficit with the chief European partners, headed by Germany. Although trade with the Middle East has increased (imports of petroleum products), trade with other regions (Russia-Eastern Europe, South Asia) is still on a small scale.

Despite a drop in their relative value, agricultural and fishing exports remain high largely due to their diversity and their integration into the industrial transformation sector. The relative value of exports of manufactured goods has increased considerably: electronic and electrical goods and transport equipment have supplanted textiles and confection. Imports of intermediary products and components have increased, especially from Japan and Taiwan, Hong Kong and Singapore. These countries, in addition to the USA and the European Union, import more and more assembled products, especially in intra-firm exchanges (see chapter 5 Industry).

The interdependence of trade and investment has gained in strength. Foreign direct investment played an important part in the rapid expansion of the manufacturing sector from the end of the 1980s. Investments tripled in 1988, headed by Japan (supplanting the USA) with major contributions from Hong Kong, Taiwan and Singapore. Thailand is seen as an attractive platform for production and exports, as much for reasons of cost as for the political and economic environment that prevails. Countries of the European Union (United Kingdom, Germany, France) have invested much less. Investments focus mainly on the manufacturing industries, and to a lesser extent on real estate or the commercial sector. Although they slowed between 1993 and 1996, they have now taken off once again and are increasingly put to reinvestments in existing enterprises.

More than 90% of the Thai investments abroad approved by foreign countries are in other Asian countries, above all those which are less developed and which do not invest, or invest very little, in Thailand. Initial investments in 1979 went to China, which received the largest amounts, then extended to other Asian countries. Committed to responding to the needs of the emerging markets (China, Vietnam, India, Myanmar), investments concentrated mainly on the agro-food industry and also on certain consumer goods (electrical products, transport equipment) some of which have been redirected towards the world market (produce from breeding and aquaculture with the Charoen Phokphand group). At the beginning of the 1990s, investments were extended to the service sector (telecommunications in China, India, Indonesia, the Philippines, Indo-China; hotels in the USA and Europe), real estate and the establishment of industrial parks (Myanmar), construction (Philippines).

The trend to localize industrial units in countries that are close geographically and where labor costs are lower accelerated in 1995-1996: this concerns mainly the textiles and confection industries in Vietnam, Cambodia and Laos which offer advanta-geous trade agreements with the European Union. In Laos, Thailand has a large stake in electrical or transport infrastructure, putting it at the head of foreign investors. In Myanmar, where it is in 3rd place, it has invested heavily in aquaculture and urban amenities. Since 1998, the economic crisis has slowed the flow of Thai investments abroad.
ECONOMIC RELATIONS and INTEGRATION

Foreign trade (1996)

Thai investments abroad and investments in Thailand (1988-1997 if not specified)

Sources: Bank of Thailand, 2002
BOI, 1999
ESCAP, 2000
International tourism for business and pleasure plays a vital part in the Thai economy. With 7.2 million foreign visitors in 1996, Thailand is the 18th most popular world tourist destination and the 3rd destination in Asia. Since 1985, tourism has been the main source of foreign currency and in 2002, tourist income reached 7.7 billion US$ or 6% of the Gross Domestic Product. It is also considered to have a major impact on employment, though estimates of the number of jobs associated directly and indirectly with this sector tend to vary.

The international tourist industry began to expand in the mid-1950s, due mainly to the American presence, with major growth in the country’s transport infrastructure (especially the development of the Don Muang international airport in Bangkok) and hotels. In 1960, the number of tourists was barely above 80,000, but this increased 14-fold by 1975, making income from tourism the 5th highest foreign currency earner. Less than 10 years later, tourism had risen to 2nd place, exceeded only by rice exports. The industry continued to grow, apart from slight falls in 1991 due to the Gulf War and in 1992 as a result of internal political violence, confirming the importance of this sector which, since the end of the 1970s has been a major factor in economic growth. The promotion of tourism has also been an important component in the country’s economic policy and is included in the five-year plans, with publicity campaigns run throughout the world. The latest, “Amazing Thailand”, was launched by the Tourism Authority of Thailand immediately after the onset of the financial crisis of July 1997, proof of how important the government considers tourist income in offsetting unfavorable economic effects: in 2002, the number of foreign tourists was almost 11 million.

Given the competition from neighboring countries, Malaysia and Singapore in particular, and a changing image as a tourist destination due to the effects of industrialization and poorly planned urbanization, Thailand is now attempting to segment and diversify its geographical markets by opening up new and varied sites and services, thus becoming the inevitable gateway into neighboring countries whose tourist services are still in their early stages: in this the country has been greatly helped by the fact that Bangkok is the hub of air travel for the region (see also chapter 6 Tertiary sector). New trends have emerged since 1988 and the geographical origin of foreign tourists is more varied now with the development of international communication, the opening up of certain countries and improvements in standards of living. Although the proportion of Europeans and north Americans decreased slightly in the 1990s, the higher income Asian countries (Japan, Hong Kong, Singapore, South Korea) became significant tourist markets for Thailand. China, which has provided the greatest increase in tourist numbers, is particularly promising and Malaysia, due to its geographical proximity and higher purchasing power, remains in the lead, though the overall proportion of Malaysian tourists has decreased. The position of Eastern Asia has strengthened: with about 4.5 million tourists, it accounts for more than 60% of international tourist movement.

Thais travel to foreign destinations for both leisure and business, also to study and work abroad on a legal basis. The growth in numbers of travelers, with an almost 10-fold increase between 1975 and 1996, correlates with the insertion of Thailand into the world economy and from 1987 with the increased influence of a middle class. The sudden increase seen at the end of the 1970s was due to official worker emigration whose importance is more apparent for Middle Eastern countries and Asian destinations such as Brunei and Taiwan (see plate 3 International out-migrations and flights). The sharp contrast in the number of Thais traveling to Eastern and South Asia, 80% and less than 2% of total movement respectively, confirms the strength of Thailand’s relations with the former. Pulling ahead of Hong Kong and Singapore, until now the two preferred destinations of well-off Thais for shopping trips, tourist traffic across the border into Malaysia is now considerable (and probably the movement of non-registered workers too), similarly for Laos, though on a much smaller scale. Professional and private trips, as well as family visits by the Chinese-Thai population, account for the movement of Thais into China, mainly into the south of the country. The effects of the economic slowdown on the purchasing power of the middle classes and on the number of jobs offered abroad have led since 1995 to a reduction in the rates of growth of visits by Thais abroad, and in fact in 1997 and 1998 these figures were negative.
Number of tourists (1996)

Singapore: 1,457,383

Number of persons movements established after 1988

Variation in tourist numbers (1988-1996) percentage

Sources: Alpha Research, 1995, 1999

Countries of destination of Thai nationals (1996)

Countries of residence of foreign tourists (1988-1996)
International labor migration is the result of wage disparities between countries for the same work and level of qualification. Thailand sends workers to richer countries (Middle East, North-East and South-East Asia) and receives workers from its less developed neighbors (Myanmar, Cambodia, Laos, and recently Bangladesh). From 1978 onwards, the government offered its own placement services and promoted work abroad, giving the importance to the economy of migrant workers’ remittances in foreign currencies (in 2001, about 2 billion US$ per year and one third of the current account-balance). During the 1990s, 1.5 million Thais emigrated legally, to take up poorly qualified jobs: factories and construction sites; different types of services involving mainly women (Japan and Hong Kong), agriculture (Malaysia, Israel).

At the end of the 1970s, emigration was primarily directed towards the oil-fields in the Middle East which, in 1985, took almost 90% of Thailand’s registered out-migrants. However, the Gulf crisis and a further diplomatic crisis with Saudi Arabia saw recruitment plummet and the total out-migration movement from Thailand did not return to its 1989 level until 1993 (140,000 out-migrants) with the speeding up of new flows opening into Eastern Asia from the middle of the 1980s. This geographical shift was first towards some of the ASEAN countries (about 40% in 1992, and 25% since 1994, to Brunei and Singapore especially) then to countries of North-East Asia (over 60% since 1994, especially to Taiwan).

The 1997 crisis has hit migrations with same intensity as it has hit the economy, affecting Asian countries both as exporters and importers of workers. After a downturn, the movement of Thais (more than 200,000 registered out-migrants in 1999) increased by 10%, in particular to Taiwan, Singapore and especially Malaysia, and this despite a considerable drop in numbers to Japan and Brunei. Illegal emigration (about 110,000 out-migrants in 1996) into Japan and especially Malaysia has probably increased as a result of the dual effect of immigration restriction measures taken at the height of the 1997 crisis and the large number of placement agencies that have sprung up.

Apart from executives and technicians in foreign and Thai enterprises (where the increasing numbers contribute to improving production technology), immigration involves mainly non-qualified workers. Since the end of the 1980s, high growth and a shortage of cheap labor have stimulated employment in factories, the service sector (hotels, construction), agriculture and the fishing industry. Almost 80% of the million workers concerned are illegal im-migrants, and immigration is made easier as a result of the extension and permeability of the land borders, and collusion between the placement networks and local authorities and businessmen. To limit the influx of unqualified workers, and despite pressure from groups of entrepreneurs, the government combines a series of measures involving the expulsion of illegal immigrants, amnesty for those who legalize their situation (including the payment of taxes normally recovered from employers) and opening up some jobs and provinces to immigrants.

Thailand (Bangkok and four other international airports, see plate 54 Passenger traffic) is linked to two of the richest regions in the world (Europe, and Japan-South Korea) and to two of the largest airports in Eastern Asia (Hong Kong, Singapore) via four air routes used by more than 2 million passengers. Almost 60% of the traffic occurs within a radius of 2,500 km, with less than 10% between Thailand and South Asia. Agreements restricting the movement of national aircraft fleets account for the very low level of regular flights to North America, thus forcing passengers to transit via other Asian airports.

Leisure and business trips by Asian nationals between these airports and Bangkok add to the traffic while the major tourist movements justify the scale of traffic with Europe and, in part, with North-East Asia (see plate 2 Foreign and Thai travelers). The opening up of the countries of Indo-China (Vietnam, Laos, Cambodia) and Myanmar has reinforced Bangkok’s role as the hub of the region and has allowed the introduction of direct flights to northern Thailand (Chiang Mai, Chiang Rai) which have also been stimulated by the renewed economic and social relations with southern China. Faced with the near saturation of Bangkok airport and in order to maintain Thailand’s regional and worldwide position, construction of a new international airport was begun in 2002 in Samut Prakan province.
The total population of Eastern Asia is almost 2 billion inhabitants in 1997. Mainland China accounts for the largest proportion with 63% of the total and an area 44% greater than all the other countries combined. South-East Asia, which corresponds to the ASEAN, has 25% of the total population and covers only slightly more that 25% of the area: Indonesia predominates with 200 million inhabitants over a territory larger than Mongolia but scattered across many islands. Vietnam and the Philippines have similar populations and areas. Thailand ranks 6th for population and 5th for area. In a region where the demographic transition is neither uniform (rates of annual demographic growth range from 2.5% in Malaysia to 0.6% in Japan), nor yet complete, Thailand's rate is among the lowest at 1.7%, similar to that of Singapore and Hong Kong. Among the small states and the special administrative region (Hong Kong), Singapore is the smallest, and the sultanate of Brunei has the smallest population.

Thanks to its oil resources, Brunei also has the highest real Gross Domestic Product per capita (GDP) measured in terms of Purchasing power parity (PPP-estimated by comparing the prices of similar goods and services between countries): it is ahead, very far ahead in some instances, of the "Newly Industrializing Economies" or "Dragons" (Taiwan, Singapore, South Korea, Hong Kong), and even Japan. Nevertheless, these countries remain the economic poles of Eastern Asia. Thailand and Malaysia are notable in the group of "Tigers" (Brunei excepted) with a GDP per capita of twice that, or more (Malaysia), of Indonesia and the Philippines and they are also ahead of China. Laos, Myanmar, Cambodia and Mongolia appear as the least developed with a GDP per capita of less than 1,400 US$: Vietnam is only a little above this threshold.

Development levels in Eastern Asia are characterized by major intra-regional differentiations. Economic achievements and social progress were considerable after the 1960s in South-East Asian countries such as Malaysia, Indonesia, Thailand; they were begun much more recently in the Philippines and Vietnam, and are inadequate in Laos, Cambodia (recipients of the largest amounts of aid per inhabitant) and Myanmar (excluded by the international community). Poverty has receded in all countries but within a single country there are still wide disparities in incomes between urban and rural areas and between regions (centers and peripheries), while urban poverty is emerging as a result of rapid urbanization. Income distribution in Thailand is one of the most inequitable (see plate 66 Income and consumption indicators).

The Human Development Index (HDI), which is constructed from three main indicators (life expectancy at birth, educational attainment, real GDP per capita in PPP), reveals certain features of social development in Thailand. There are some major differences between the HDI rankings at regional level compared with certain hierarchies established solely on the basis of the GDP. In the same class as Japan, Hong Kong, Singapore, and Brunei are in the lead and joined by South Korea (higher value for education). Among the less developed countries, Myanmar and Mongolia have a higher HDI than Laos and Cambodia thanks to their life expectancy and educational attainment. For the same reasons, Vietnam is in the same category as China and Indonesia.

With an intermediate HDI (0.753: "medium human development"), Thailand ranks 67th in the world, in the same category as the Philippines and Malaysia. Compared with the Philippines, Thailand’s real GDP per inhabitant is almost double, level of life expectancy is similar and the educational attainment indicator is much lower. Compared with Malaysia, only education is better, life expectancy remains lower despite the improvement in some aspects of living conditions (provision of electricity, water, health services in rural areas...). The three-year difference in life expectancy is the result of infant mortality and maternal mortality rates that are three times higher. Although the adult literacy rate (almost 95%, the best in South-East Asia, along with the Philippines) gives Thailand a higher educational attainment indicator than Malaysia, the gross enrolment ratio, on the other hand, is one of the lowest in the region (scarcely higher than Laos, Myanmar and Mongolia) and reflects the low levels of enrolment in secondary education (see plate 67 Education at primary and secondary levels). This factor is a major stumbling block to the country's ability to draw on a better qualified labor force.
Population and Gross Domestic Product (1997)

Source: PNUD, 1999

Human Development Index (HDI)

Source: PNUD, 1999
As well as belonging to multilateral bodies, Thailand is a member of APEC (1989), a consultation forum initiated by Australia (with USA support) and devoted to promoting free exchange around the Pacific and negotiating commercial disputes. In 1967, the country was one of the five founder members of the only regional organization in Eastern Asia, ASEAN, with headquarters in Jakarta, which was later joined by Brunei (1984), Vietnam (1995), Laos and Myanmar (1997), Cambodia (1999). At the end of the cold war ASEAN served as a platform for the launch of new arenas for exchanges of views including the Asian Regional Forum (ARF, 1994) on questions of security in Eastern Asia (with the European Union, the USA, Russia) or Asian-Europe Meeting (ASEM, 1996).

The turbulences that the region has undergone (monetary devaluations and the financial crisis at the end of the 1990s, internal difficulties in Indonesia, problems of forest fires, piracy) demonstrate the limits of an “à la carte” regionalism and the weakness inherent in economic integration between member countries. ASEAN is therefore attempting to reactivate cooperation: establishment of a free-trade area (AFTA), starting in 2002 for the first six members, between 2006 and 2010 for the last four; relaunch of the AIA (investment area) and AICO (industrial cooperation); beginnings of currency-swap arrange-ments. ASEAN is also turning towards China, South Korea and Japan but although ASEAN+3 has ex-pressed a desire for cooperation (industry, trade, investment), negotiations to establish a free-trade area seem to be further advanced with China, with whom Thailand and other ASEAN countries already have bilateral trade agreements.

Thailand belongs firmly to some of the continental and insular transnational cooperation zones that began to multiply in the 1990s in South-East Asia, whereas in North-East Asia, with the exception of TREDAC (1995) and the Southern China Growth Triangle (beginning of the 1980s), there is a dearth of such cooperation zones. Thailand is a member of the Commission of Mekong (reactivated in 1995) which since 2001 has concentrated on the management of water resources. As part of the Greater Mekong Subregion (1992), Thailand is also engaged in intergovernmental cooperation, whose strategic aim is continental transnational integration; this initiative is supported by the Asian Development Bank and based on sectoral forums and proposes the creation of economic corridors (see also plate 6 Networks in Eastern Asia). For the five southernmost provinces, Thailand participates in IMT-GT (1993). This project is based on the exploitation of spatial and economic complementarities (reproduction of IMS-GT, 1989) and for Thailand and also for Indonesia, it is supposed to readjust the spatial balance of growth. Cooperation, which for the moment is bilateral with Penang, concerns interconnection of infrastructure (electricity, transport), although the creation of a transnational industrial zone is still under considera-tion.

Singapore and Hong Kong have successfully used the principle of zones such as these to delo-calize their manufacturing industry into adjoining areas, while retaining high technology production or higher value added end-product transformation; Japan (1980s) and the four “Newly Industrializing Economies” (1990s, Taiwan, Singapore, South Korea, Hong Kong) have also exploited complementarities of this kind, but based on a network operation. The Japanese Gross Domestic Product (GDP) in 1997 was five times greater than that of China, which is the rising power of Eastern Asia, while still retaining a large agricultural sector, like the Philippines or Indonesia, two countries where mining or oil-production is developed. Agri-culture also appears vital for those countries consi-dered to be the least developed but where there are major sectors other than services: Laos (manufac-turing and hydroelectricity), Mongolia (coal), Myanmar (gas); or for Vietnam (manufacturing).

The structure of production in Thailand is quite similar to that in Malaysia (for a GDP that is almost double) but, unlike the agricultural and industrial sectors, the value added of services is much greater in Thailand, thus strengthening its ambition to be leader of continental South-East Asia, or even of the region. Singapore remains the center of South-East Asia due to the concentration of advanced services, headquar-ters of multinationals and the coordination of shipping; its economic development is comparable to that of Hong Kong, command center lying at the junction between South-East Asia and North-East Asia.
Regional cooperation (2001)

Main institutions:
- Association of South-East Asian Nations (ASEAN)
- Asian Regional Forum (ARF)
- Asia-Pacific Economic Cooperation (APEC)
- Commission of Mekong

Transnational economic cooperation zones:
- Greater Mekong Subregion (GMS)
- Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT)
- Indonesia-Malaysia-Singapore Growth Triangle (IMS-GT)
- Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA)
- Southern China Growth Triangle
- Tumen River Economic Development Area (TREDA)

Structure of production (1997)

Sources: Banque Mondiale, 1999
Fau N., 2003
Foucher M., 2002

ATLAS of THAILAND
IRD-CNRS, REGARDS
The pre-eminence of coastal cities and maritime networks

In a context where nation-states are tending to weaken as economic players, very large cities like Bangkok form an integral part of the world metropolitan network that has been created from the emergence and affirmation of innovation, command and control centers in the global economy. The Thai capital is located on the Pacific side of Asia, one of the three globalization arenas (the others are North America and Western Europe) of the hierarchical urban spatial organization: it contains the largest cities in the world (those with over 2 million inhabitants) to which are added here the state capitals that fall below this threshold. There are more major cities here than in any other region of the world (37 or 43 if capitals below the threshold are included).

This representation of the network of major metropoles is combined with another showing the organization in Eastern Asia of the “world cities network”, according to a ranking into categories labelled “alpha, beta and gamma”: this inventory is based on the cities’ level of advanced producer services to enterprises (accountancy, advertising, banking, legal services). The “alpha” cities are interactive organizers of the global network, the “beta” cities are both relay cities that link the global to the national economies and organizers of the regional level where the “gamma” cities are the major nodes, like Bangkok.

The map shows a double differentiation of the network between the north-eastern and south-eastern sub-groups. The Japanese megalopolis is the cornerstone of the first sub-group (Japan, South Korea, Taiwan and northern China), with Tokyo, largest city in the world (and one of the four truly global cities), associated with Seoul, third largest city in the world; but there is also the important Chinese continental urban network. Around the South China Sea, the second sub-group brings together major port metropoles, most of them state capitals and generally with a very high rate of primacy (calculated according to the population of cities of more than one million inhabitants), such as Bangkok or Manila. Hong Kong and Singapore are here the major nodes of the global metropolitan network, for North-East Asia and South-East Asia respectively, with Hong Kong playing an interface role between on the one hand the two sub-groups and on the other mainland China.

The seas of South-East Asia are at the heart of trade between Asian countries and between these countries and the rest of the world. Developed in the 19th century by the colonial powers in preference to the land routes, the maritime routes were used almost exclusively in the 20th century. The recent economic interaction between rapid growth countries in the region has encouraged the development of containerization. The regional poles for the collection and redistribution of containers remain Hong Kong and Singapore; Singapore in particular polarizes the flow of traffic and organizes the secondary servicing into the Thai ports of Bangkok and Laem Chabang (since 1998, the largest port in Thailand).

The free movement of container ships and oil tankers is threatened by piracy, which is rife in the very busy straits of Malacca and Luzon. The scale of the phenomenon has prompted the Thai government to dust off the ambitious Isthmus of Kra project, this time in the form of a canal (and not a pipeline) which would enable shipping to avoid the detour by the Malacca straits and Singapore. The undertaking may be supported by aid from Japan, most of whose petroleum supplies are transported via this maritime route, and from China, interested in the prospect of access to the Indian Ocean.

The logic of cooperation within the context of the ASEAN or the Greater Mekong Subregion (see plate 5 Eastern Asian regional integration and production), and also the end to conflicts and tension between the peninsula states, have reawakened political interest in land networks. Trade (in either a formal or informal context) between the countries of the peninsula (including Yunnan) is being stepped up and although Thailand as a whole appears to be at the center of the system, it is northern and north-eastern Thailand that are at the focal points of several axes: the major north-south axis Kunming-Bangkok (and its possible extension as far as Singapore), the transverse Hue-Mawlamyine axis. Priority has been given to the reconstitution or the building of major road routes, as rail connections are confronted with technical problems inherited from colonial times (the Thai rail network is compatible only with the Malay network). Inter-state agreements also cover the development of traffic and, regarding the east-west axis, the creation of an economic corridor favoring cooperation in investment, industrial production and tourism.
Urban networks of globalization (end of 20th century)

Population of cities in millions of inhabitants
- > 30,850
- 8,600
- 2,080
- < 2,080

Percentage of inhabitants in national cities
- > 90
- 45 - 80
- 15 - 25
- < 10

Inventory of world cities
- Alpha world cities
- Beta world cities
- Gamma world cities

Emerging land networks
- Road axes
- Road and railways axes
- Nodes

Main maritime routes
- Project

Container ports (traffic in 1,000,000 TEU)
- 17 and more
- 2 to 4
- 1 to 1.9
- 0.15 to 0.9

Sources:
- Bounthavy Siouaphanthong, Tardard C., 2000
- Gonon E., 2002
- Informa Groups, 2003
- Moriconi-Ebrard F., 2000
- UN, 2002

Peninsular land networks and maritime networks in South-East Asia (2000)
In the heart of the Indo-Chinese peninsula, a country open to the South China Sea

Thailand covers an area of 513,000 km² in the heart of the Indo-Chinese peninsula (2.2 million km²), a continental promontory jutting out between the Indian and Chinese worlds, and facing the archipelagos of the Malaysian world. In this physical region of Indo-China, consolidated since the Mesozoic era into the Sunda pseudo-platform where plains and plateaus predominate, the relief is fairly gentle and for the most part not very high. The peninsula is open to the most southern part of the South China Sea which here covers the largest continental platform in the world with only about ten meters of water. The main features of Thailand's physical structure, as throughout the peninsula as a whole, are, on the one hand the generally low altitudes (half the country at an altitude of less than 200 m) and on the other hand the dominant north-south direction of the major structures. Thus there are large groups like the system of the Western Highland Spine (Chai Range, Tenasserim Range), where the continuous mountain ranges and dense forest cover (see plate 8 Environment and natural resources) form an almost blind border region with Myanmar (apart from a few passes such as the Three Pagodas and Singkhon); the central mountainous axis (Luang Prabang Range, Petchabun Range) or the Malay peninsula with its short longitudinal ridges. We also find this orientation in the water courses in the Menam Chao Phraya basin and its tributaries, and in the mid part of the Mekong river.

In the heart of the country stretches a vast rectangular north-south depression of about 90,000 km², which extends into the Bay of Bangkok: this is the geographical cradle of the Kingdom of Siam (see plate 21 Formation of the nation-state territory) and the heartland of Thai rice cultivation (see plate 33 Rice). It contains the great central alluvial plain, a low-lying area at an altitude of less than 100 m dotted with isolated hills, drained by the Chao Phraya river system which is navigable in all seasons from Bangkok to Nakhon Sawan, and with a basin covering an area of 170,000 km² in all. The Central Plain is subdivided into two main regions. In the north, upstream from ChaiNat, are the plains and hills of the piedmont where the rivers Ping and Nan converge. In the south, downstream from ChaiNat, is the delta system of the Chao Phraya (plain of Bangkok) associated with the adjacent peripheral lowlands: the low-lying valley of the Pasak in the north-east, the valleys and deltas of the Meklong in the west, and the Prachin in the east, and the coastal plain in the south-east, at the foot of Banthar Range.

In the north, the relief of the country’s highest mountain region (Doi Inthanon, 2565 m) is very compartmentalized as it is an extension of the southern area of Yunnan. It is structured in a series of parallel strips running north-south, where Paleozoic ranges, often rising to above 1500 m with dense forest cover (Chai Range to the west, Luang Prabang Range to the east), alternate with long valleys (Ping, Wang, Yom and Nan) where there is a succession of narrow gorges and Mesozoic rift basins. These (Chiang Mai, Lampang, Nan, and Chiang Rai to the north) rise between 200 and 500 m and they are centers of irrigated agriculture, which have also fixed the main local urban centers.

The north-east of Thailand corresponds to the Khorat plateau, a vast structural unit extending for 170,000 km² and formed of sub-horizontal Mesozoic sandstone, sloping generally from north-west to south-east. This area is very clearly defined by the arc of the Mekong valley (border with Laos) to the north-east, and by jutting scarp lines in the west (Dongpraya, Phetchabun Range), the south (Khao Khieo) and the south-east, where the Dangrek Range marks the border with Cambodia. Across this wide, gently undulating depression dotted with low hills run the wide alluvial valleys of the Mun and Chi basins (135,000 km²) and other small tributaries of the Mekong.

The south of the country (71,000 km²) draws some of its unity from the fact that it is part of the Malay peninsula, and therefore has extensive sea borders. To the north of the Isthmus of Kra (24 km wide, altitude under 70 m), the Tenasserim Range, an extension of the Western Highland Spine, dominates a narrow coastal plain. In the south, mountain ridges at an altitude of over 1000 m (Phuket Range, Nakhon Si Thammarat Range, Taluban Range) alternate with relatively broad alluvial plains (Tapi basin, Thale Sap coastal plain, Pattani valley). The eastern and western shores are in complete contrast: on the South China Sea the coast is low lying and regular; the Andaman Sea coast is rocky and indented, bordered by a multitude of islands and islets (limestone stack at
The climate of Thailand is determined by the country’s position in tropical latitudes between two ocean masses, and its exposure to the monsoon winds: it is characterized by high temperatures and heavy rains with high levels of regional variability. Marked rainfall seasonality and interannual variation represent the main constraint for agricultural activity, as they affect the timing of work, the acreage planted, yields and production levels. Amount of rainfall depends on exposure to one or another of the two monsoons, or even both, then on the local length and timing of the monsoon. The south-west monsoon, from April-May until October, brings with it heavy rains that represent a minimum of 75% of annual precipitation, even 90% on the reliefs, with marked differences between places. The north-east monsoon then brings in cool, dry continental air: the dry season can vary from 5 to 10 months with only the eastern coast of the peninsula receiving abundant rainfall. The south of the country and the south-east of the Bay of Bangkok receive heavy rainfall (from 2 to 4 meters), and they have a dry season of about 2 months, whereas the center and part of the Khorat plateau (leeward effect) receive much less (about 1 m) with a dry season of 6 to 8 months. These extended dry seasons and major annual variations make agriculture without irrigation a hazardous activity.

Thailand has the largest proportion of land given over to agriculture of all the countries of South-East Asia: from 20 to 25 million hectares according to sources, or 40 to 50% of the country’s total area. The large-scale land clearing, which was begun in the middle of the 20th century in the central basin of the Chao Phraya to extend rice-growing areas, has reached the low and middle terraces where cash crops have been planted on the slopes (cassava, maize, sugar cane): between 1950 and 1980 agricultural land was increased 5-fold by this type of conversion. The peninsula, because of the specific features of the rainfall, has its own type of land cover: rubber tree plantations (and oil palms) and tree crops predominate over paddy fields and upland crops (see also plate 31 Land utilization).

Agricultural expansion led to a considerable decrease in forest cover, already impoverished since the 19th century by the commercial logging of noble species (see plate 23 Deforestation). For the 1990s, the estimates of forest cover vary between 15% to almost 30% of the total area, so great are the divergences in defining what is considered as “forest”.

The mangrove has also been affected by deforestation (cutting of timber, implantation of infrastructure, including tourist facilities, mining and salt production, aquaculture) which between 1975 and 1990 has reduced the total area of cover by half (less than 2 million km² today). Since 1980, aquaculture has been the main reason for the conversion of mangroves and has affected the entire coastline of the country, because of the gradual delocalization of this activity towards the east and south: the coast of the Bay of Bangkok has suffered most destruction, and that of the Andaman Sea has been most recently affected.

The phenomenon of deforestation has dominated the debate on the environment, a fairly recent debate in Thailand, and has mobilized government and university institutions, Non-Governmental Organizations and rural communities. To conserve plant and animal resources, the government brought out laws at the beginning of the 1960s creating national parks and wildlife sanctuaries (an area officially covering almost 15% of the country), before setting up the principle of “forest reserves”, to be managed commercially. Since the survival of populations settled in these areas long before the reserves were created is compromised, the application of these measures raises strong opposition from farmers, indignant be-cause of the concessions made to industry (replanting with eucalyptus or bamboo for the paper pulp factories) or tourism (installations within the perimeter of the parks) and anxious about the repercussions of the major infrastructure planned (dams). Current disputes concern land, water resources, the forest or mangrove and involve many protagonists (see plate 62 Land use in the South: Pak Phanang watershed). The increasing number of disputes is an indication of the extent of the social and ecological imbalances created by an economic growth which although impressive has been poorly managed regarding natural resources. To deforestation, erosion, land-slides and flooding, are added acute local problems of soil salinity, water pollution caused by uncontrolled industrialization and an irrational use of chemical inputs in certain areas of agriculture, aquaculture and livestock breeding.
ENVIRONMENT and NATURAL RESOURCES

Climate

- High rainfall and short dry season
- Moderate or high rainfall, short and cool dry season on mountains
- High or moderate rainfall, moderate-lasting dry season
- Moderate rainfall and short dry season
- Low rainfall, moderate-lasting and cool dry season
- Low rainfall and moderate to long-lasting dry season

Land cover (1990)

- Forests and mangroves
- Rubber plantations and orchards
- Cultivated uplands
- Paddy fields
- Converted mangroves

National parks (>100,000 ha)
Wildlife sanctuaries (>100,000 ha)

Sources: Gray D., Piprell C., Graham M., 1994
Huke R.E., 1982
MAC, 1994
TDRI, 1987

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TDRI, 1987
Thailand is divided into 76 provinces (changwat). This territorial administration system was established over a long period of time, starting at the end of the 19th century (see plate 21 Formation of the nation-state territory), and the established meshwork of provinces changed little between 1933 and 1992: seven new provinces were created by division (especially in the North-East) and there has been one fusion. Historically, the amphoe is the subdivision of the province, but reforms are afoot to increase the representativity and autonomy of local governments at the even lower level of the tambon (see plate 22 Territorial administration).

Planning is organized at province level. There were some attempts to draw up regional plans in the 1960s and 1970s covering the regions qualified as peripheral: the North, the North-East and the South; in official documents, these three units are still designated in this way for statistical purposes, and generally with the same delimitation. Several administrative agencies and also the National Statistical Office (NSO) defined a fourth spatial unit, the Center, which included Bangkok province. Again for statistical purposes and to take into account the differential effects of growth in population and economic activity, the Center can in turn be broken down into four areas: West, Center (or Upper Center), East, Bangkok Metropolitan Region (or Bangkok and Periphery, or even Bangkok and Vicinity) (see plate 56 Inter-regional trade). In the context of this last subdivision, Bangkok and Samut Prakan, historic poles of growth, can be considered separately (see plate 43 Enterprises under the Board of Investment). In this atlas we refer to the four major regions thus: North (17 provinces), North-East (19 provinces), South (14 provinces) and Center (26 provinces), and directional references are expressed as north, north-east, south and center.

Similar distinctions have been made in relation to the metropolitan area of the capital. The Bangkok Metropolitan Region (BMR) referred to by planners is clearly defined, Bangkok and the five adjoining provinces (Samut Prakan, Pathum Thani, Nonthaburi, Nakhon Pathom, Samut Sakhon), but cartographic analyses refer to a metropolitan region that is not limited by province boundaries and which can differ in size and shape according to the phenomena or the processes observed. However, the Bangkok Metropolitan Region (BMR) has neither independent administration nor representatives (see also plate 58 Urban and industrial development around Bangkok). The same is true for the Eastern Seaboard, an "urban industrial region" set up in the 1980s by the state in tandem with the exploitation of the oil reserves in the Gulf of Thailand (see chapter 3 The state and the construction of the territory).

The provincial centers have the same name as the provinces of which they are the administrative and political center. All have the status of municipality which allows them to claim financial support from the state and to be provided with particular facilities (health, education,…). However, some cities are larger than the provincial centers (see plate 16 Municipalities). The primacy of Bangkok is overwhelming with over 5.5 million inhabitants (20 times more than Nonthaburi, in the neighboring province; 30 times more than Nakhon Ratchasima, the country's third city and the first city in the peripheral regions). The communication routes, of which only the major axes have been represented here, structure the urban network in an axial pattern. Bangkok, along with Nonthaburi and Pathum Thani, are the crossroads of a road network with a radial configuration (see plate 24 Transport networks). Further north, Ayutthaya and Nakhon Sawan are important nodes in the network, as are Phitsanulok and Chiang Mai in the North, Nakhon Ratchasima and Khon Kaen in the North-East and, to a lesser extent, Surat Thani in the South. The emergence of land networks at the level of continental South-East Asia should strengthen the position of some of these centers, such as Phitsanulok and Khon Kaen (see plate 6 Networks in Eastern Asia).

Cartographic analysis of Thailand as a whole is on several scales. The smallest (when there is a single map per plate) is 1: 6 250 00. Two intermediate scales, 1: 7 400 000 and 1: 10 000 000, are used for the largest maps on plates with 2 or 3 maps (or 2 maps and a graph or table, like the one shown here). The largest scale used is 1: 15 400 000 on plates with 4 maps (or 3 maps and a graph). The maps that have been deliberately distorted have no scale, as

ATLAS of THAILAND
This atlas portrays Thailand’s spatial structures and presents the country’s social and economic development in a territorial context. The Kingdom of Thailand has undergone many changes throughout its long history, and most recently during its vigorous growth from the middle of the 1980s. The maps and text give a comprehensive interpretation of Thailand’s internal dynamics as well as its regional and global integration.

This is the first atlas of its kind for Thailand. It includes a wide range of spatial information and maps using various computer-assisted techniques. Seventy plates of maps, accompanied with commentary, cover significant topics such as: Thailand’s relation to the world-system, its place in Eastern Asia, and its population, infrastructure, urban network, production, income, education, intra-regional dynamics.

The volume brings together experts in a variety of fields and methods. It will be a valuable tool for teachers and students, planners and entrepreneurs – indeed, for anyone eager to understand recent changes and prepare future diagnoses.

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Doryane Kernel-Torrès

Under the direction of Doryane Kernel-Torrès
Atlas of Thailand

Spatial structures and development

Under the direction of
Doryane Kermel-Torrès