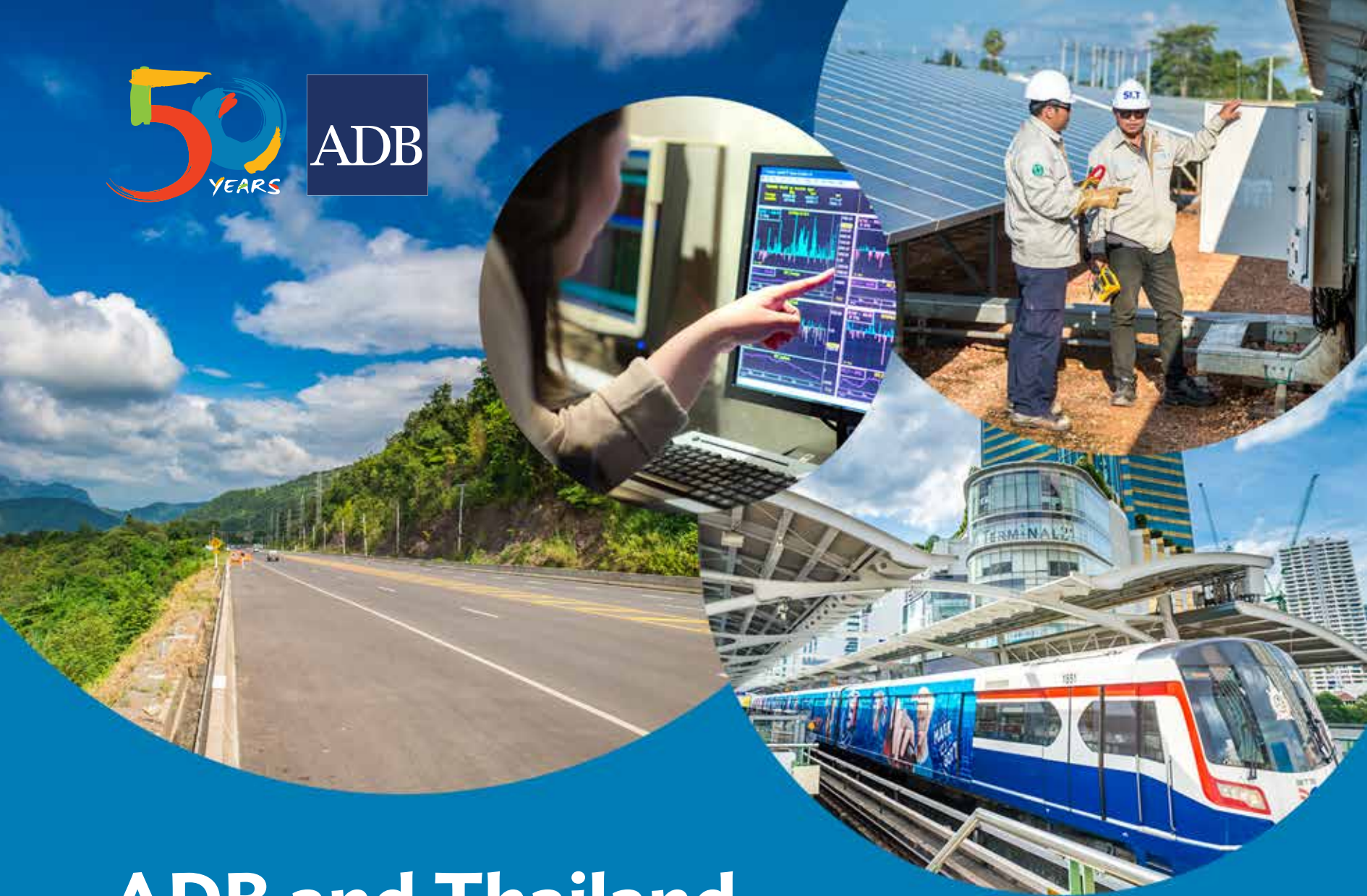




ADB



ADB and Thailand

A Development Partnership toward Inclusive Growth

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FOREWORD

When the Asian Development Bank (ADB) was formed in 1966, Asia was contending with widespread poverty and food shortages, and Thailand was still a low-income country. Over the past 50 years, ADB is proud to have participated in the remarkable transformation of Thailand, as well as the rest of the Asia and Pacific region. Thailand was one of ADB's founding member countries, and in 1968, ADB provided its very first loan to Thailand for onlending to industrial enterprises, laying the foundation for the country's industrial development during the 1970s.

The partnership between ADB and Thailand has involved both financial and technical cooperation in a wide range of sectors including infrastructure, finance, energy, environment, and regional cooperation and integration. In 2005, when ADB's Thailand Resident Mission was inaugurated in Bangkok, Thailand had already achieved middle-income status. Yet even with Thailand's advancement, ADB has continued to serve as an important conduit through which Thai public and private sector institutions gain access to the financial support, knowledge and cutting-edge expertise that are essential to the

country's growing and increasingly sophisticated development. Today, ADB supports the addressing of environmental challenges, the building of institutional and operational capacity, and the strengthening of Thailand's international competitiveness.

This publication, *ADB and Thailand: Development Partnership toward Inclusive Growth*, reflects on Thailand's impressive development journey over the past 50 years, and its rise to upper-middle income country status. It is hoped that this publication can also lay the groundwork for future policy directions between ADB and Thailand. As a trusted provider of knowledge and finance, ADB will continue to support sustainable and inclusive growth in Thailand through cleaner and more technologically advanced infrastructure development, Public-Private Partnerships, climate-friendly innovations, and regional cooperation and integration.

On the occasion of ADB's 50-year anniversary, we look forward to working more closely with Thailand as the country continues to navigate the path of development.



Stephen P. Groff
Vice-President
Asian Development Bank

Since joining ADB as a founding member in 1966, Thailand has experienced drastic improvements in economic and social development with Gross Domestic Product per capita increasing by 42 folds. In essence, the Thai economy has transformed from agricultural-based (Thailand 1.0) to light-industrial-based (Thailand 2.0) and now to heavy-industrial-based (Thailand 3.0).

Going forward, on the economic front, the Thai government has recently adopted Thailand 4.0 initiative with focuses on innovation and services economy. The shift toward a value-based economy by promoting knowledge-and-innovative-based economic activities, inclusive society and environmental sustainability can promote inclusive and equal opportunities to all which will eventually improve the overall living condition of Thai people as a whole.

Over the course of our partnership, ADB has been constantly supported Thailand's economic transformation. Development loans and technical assistances have greatly contributed to our efforts to strengthen economic and social foundation. The cooperation between ADB and Thailand has brought about many development success stories not only in infrastructure and regional development projects but also in health, education and agricultural sectors.

The critical role of ADB as a regional development partner, especially in the Greater Mekong Subregion, has greatly contributed to regional integration to promote equitable development not only in infrastructure connectivity but also cross-border trade, investment, and economic opportunities within the region.

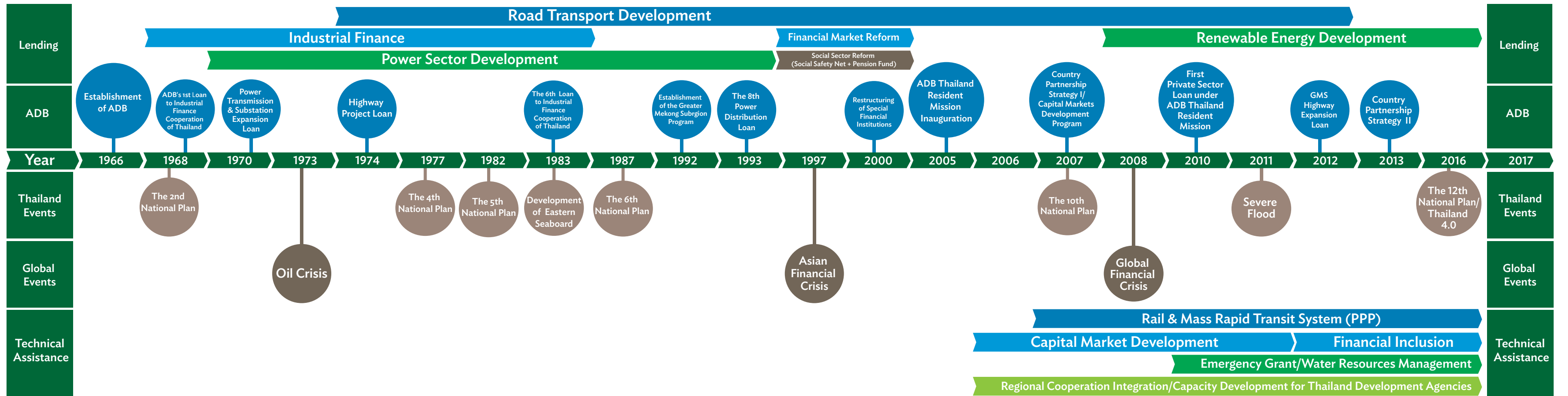
As one of the fastest growing developing countries, Thailand is now a donor member in Asian Development Fund. Moreover, the close collaboration has been elevated by the establishment of ADB's Resident Mission in Thailand in 2005 to intensify its operation within the region using Thailand as the base. With our long partnership, I am delighted that this publication, *ADB and Thailand: Development Partnership toward Inclusive Growth*, highlights many success stories and examples of our long-term partnership which, I think, can benefit other members in terms of lesson learned. Thailand looks ahead to continue its close collaboration with ADB to transform itself into a value based economy and to pursue its high-income country status.

On the occasion of ADB's 50th anniversary, I wish ADB all the success in its missions and operations to support member economies to attain the ambitious Sustainable Development Goals and to ensure that "no one will be left behind."



Apisak Tantivorawong
Minister of Finance
ADB Governor for Thailand

TIMELINE



PART I: HISTORY OF THE PARTNERSHIP

INTRODUCTION

The Asian Development Bank (ADB) was founded in 1966 to facilitate the acceleration of economic growth in, and cooperation among, its developing member countries (DMCs). Thailand is both a founding member and the recipient of ADB's very first development loan.

ADB was established at a time when Asian countries were experiencing significant economic deprivation and political uncertainty. Table 1 conveys a sense of how economically lagging Thailand and most of the countries of Southeast Asia were in 1966 relative, for instance, to the United Kingdom and the United States. While Japan had already reached the early stages of the economic transformation that would lay the foundation for the regional “Tiger” economies of the 1980s and 1990s, the two most populous nations, the People's Republic of China (PRC) and Indonesia, were still deeply mired in poverty, and even the Republic of Korea was among the least-developed countries of the region. Life expectancy at birth (Figure 1) was below 50 in Cambodia, the PRC, the Lao People's Democratic Republic (Lao PDR), and Myanmar, and less than 60 in most other Southeast Asian countries.



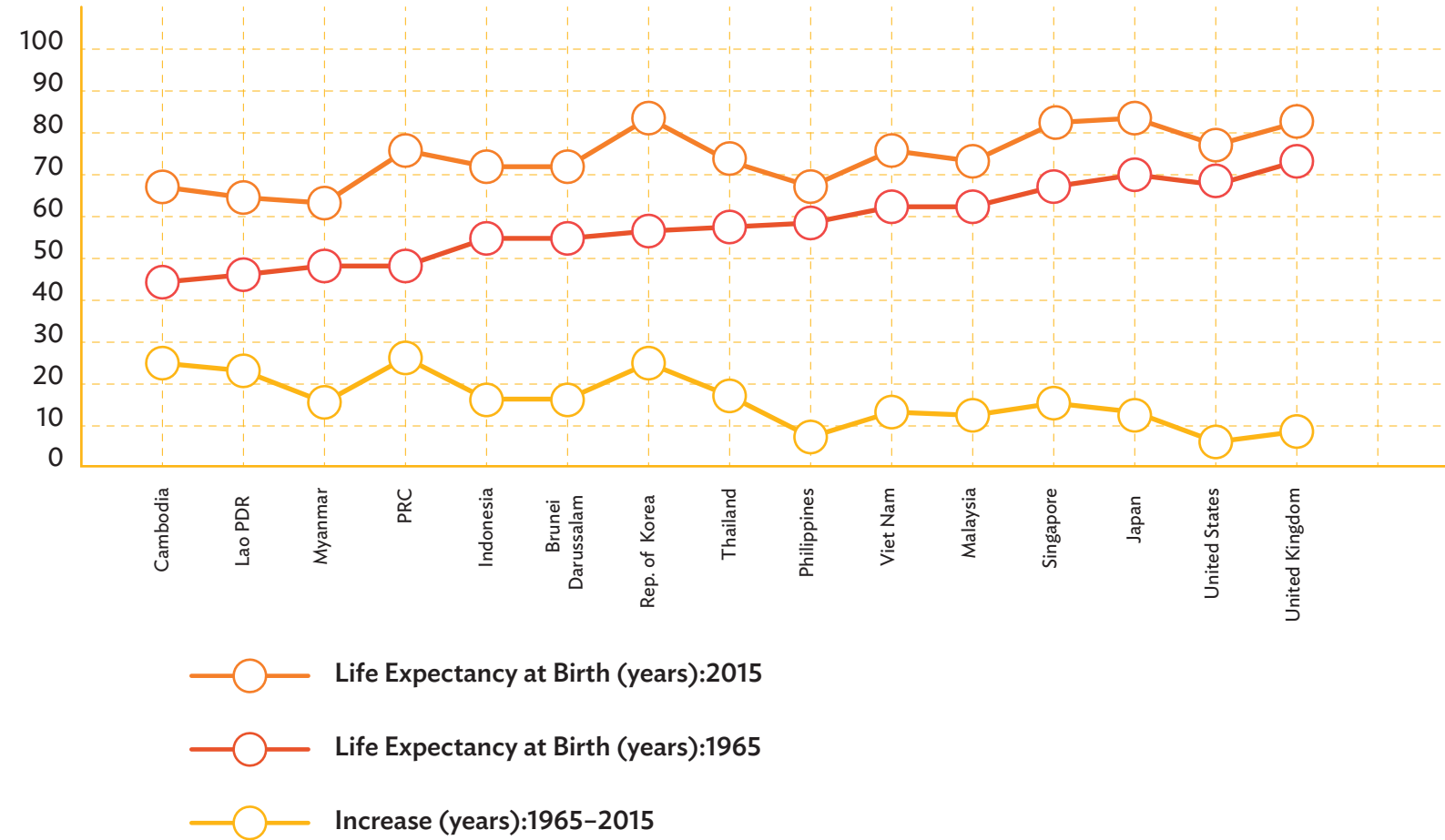


Table 1: Gross Domestic Product per Capita in Selected Asian Countries, 1965 and 2015

Country	GDP: Capita (current \$)		Increase (multiple)
	1965	2015	1965–2015
Lao PDR	–	1,810	–
Indonesia	56	3,350	60x
PRC	97	9,720	100x
Rep. of Korea	105	27,200	259x
Viet Nam	126	2,110	17x
Cambodia	134	1,160	9x
Thailand	138	5,820	42x
Philippines	187	2,900	16x
Malaysia	309	9,770	32x
Singapore	516	52,900	103x
Myanmar	589	1,203	2x
Japan	920	32,500	35x
Brunei Darussalam	1,110	36,600	33x
United Kingdom	1,851	43,700	24x
United States	3,830	55,800	15x

– = data not available, GDP = gross domestic product, PRC = People’s Republic of China , Lao PDR = Lao People’s Democratic Republic.
 Source: data.worldbank.org/indicator, various, (accessed 15 November 2016).

Figure 1:: Average Life Expectancy in Selected Asian Countries, 1965 and 2015



PRC = People's Republic of China, Lao PDR = Lao People's Democratic Republic.
 Source: data.worldbank.org/indicator, various, (accessed 15 November 2016).



The picture has changed dramatically in the ensuing 50 years. Several countries, including Thailand, have made the transition to middle-income status, and others are now among the most prosperous nations in the world. The Republic of Korea's gross domestic product per capita has increased 259-fold since 1965, while both the PRC and Singapore have also seen huge per capita economic gains. Economic growth has been mirrored by welfare gains, as evidenced by significant improvements in life expectancy in most of the region's countries.

ADB designated functions were (a) to attract additional development funds to the region; (b) to finance projects and facilities for the economic and social development of the region, which were not then adequately financed through existing agencies; and (c) to act as a focal point for and stimulus to other measures for regional economic cooperation.

EARLY HISTORY OF THE ASIAN DEVELOPMENT BANK

International financial institutions (IFIs) have their origins in the immediate post-World War II period, and were initially established to help rebuild the war-damaged economies of Europe, and to bring rules-based stability and cooperation to the international financial system. From 1960, lower-cost financial assistance was also provided to aid the development of poorer countries through the International Development Association, which now, together with the International Bank for Reconstruction and Development (IBRD), constitutes the World Bank. However, the World Bank and other agencies were unable to meet the urgent development assistance needs of the smaller countries of Asia, other than India and Pakistan. This partly provided the rationale for the establishment of a development bank specifically for Asia, which, in addition, could be especially sensitive to Asian contextual environments and particular development needs and interests. The idea of a multilateral development bank for Asia was first presented at the Simla Conference (India), held under the auspices of the Colombo Plan in 1955. But it was not until 1963 that the idea of a regional development bank for Asia was discussed formally. The initial impetus came from the United Nations Economic Commission for Asia and the Far East, which was eyeing a package of initiatives intended to accelerate regional cooperation.

An expert panel was convened after the 19th Session of the United Nations Economic Commission for Asia and the Far East in early 1963 to report to the Ministerial Conference in Manila later that year. The expert panel met in Bangkok in August and September 1963, and one of their recommendations was the establishment of a regional bank “to assist in mobilizing and directing resources for regional projects, joint ventures and for promoting intraregional trade” (White, 1970, 42). Another expert group, this time including Takeshi Watanabe, a Japanese banker and prominent financial consultant and who would later become ADB's first President, was tasked with developing a framework for the proposed regional development bank. Its designated functions were (a) to attract additional development funds to the region; (b) finance projects and facilities for the economic and social development of the region, which were not then adequately financed through existing agencies; and if possible (c) to act as a focal point for and stimulus to other measures for regional economic cooperation (White, 1970, 42).

While the framework for a regional development bank was agreed in principle, a number of sticking points needed to be overcome before ADB could become a reality. The first concerned the initial capitalization of ADB, with Japan, at the time Asia's only developed country, reluctant to take full financial responsibility, arguing that it was desirable to involve other developed countries from outside the region in order not to limit ADB's capacity to mobilize funds for development (Watanabe, 1977, 2). In April 1965, faced with

the United States' worsening position in Viet Nam, President Lyndon B. Johnson announced a special development fund for the Mekong River region which, he claimed, would help stimulate the development of Southeast Asia more generally. Former World Bank President Eugene Black was appointed by President Johnson as his special advisor on Southeast Asia. Mr. Black attended the Consultative Committee meeting in Bangkok, and shortly afterwards, on 28 June 1965, announced that the United States was willing to subscribe up to 20% of ADB's proposed initial capital of \$1 billion (Watanabe, 1977, 8). The Government of Japan had already expressed a willingness to contribute an identical sum. Along with other non-Asian developed countries and an array of Asian developing countries, ADB managed to reach its target of \$1 billion. After a lengthy discussion of the allocation of voting rights and the balance of control between regional and nonregional members, the location of the headquarters, the choice of President, and the design of the management structure, ADB held its inaugural meeting in Tokyo on 24 November 1966.



ADB AND THAILAND

ADB has greatly contributed to the development of Thailand since the Kingdom became a founding member of the bank in 1966. The nature of this contribution has changed across time, reflecting both the character of the country's development situation and needs, and also the way that the concept of development itself has been defined and operationalized.

In the mid-1960s, Thailand was in a relatively fragile social, political, and economic position. Agriculture was the mainstay of the economy, but away from the fertile plains and irrigated areas, Thailand's overwhelmingly rural population relied heavily on subsistence production. Poverty was widespread, particularly in the country's peripheral areas and backward regions (the northeast and north in particular). The industrial sector was made up in the main of small and medium-sized agro-processing, mainly rice- and saw-milling. Thailand's export trade consisted almost exclusively of primary commodities, principally rice, rubber, tin, and teak, the international markets prices for which were quite volatile, and were generally declining as Thailand faced growing competition from other producers. The capital city, Bangkok, was expanding quite rapidly, fuelled in part by distress migration from less economically viable rural areas, leading to a steadily deteriorating urban environment with slums and informal settlers settlements, inadequate public amenities, congestion, and pollution.

Thailand introduced the first of its formal national five-year development plans in 1966, and the second in 1967. The first two plans were focused on engendering accelerated economic growth, in line with the development orthodoxy of the time. It was this that provided the framework for ADB's first involvement in Thailand's development. Agricultural production was to be diversified, the fisheries sector was to be modernized, the production of raw materials was to be intensified, and industrial production was also to be accelerated, supported by a doubling of electricity production. Education and human resource development was also emphasized, as was the generation of productive employment to help ease the privations of poverty. Deficiencies in infrastructure were seen as an impediment to the attraction of foreign investment to the industrial sector, so a road-building program was given the highest priority during the first two plan periods (1961–1970).

One of the biggest constraints facing the Thai economy at that time was the insufficiency of capital for investment in industry and other forms of enterprise. Domestic credit facilities and institutions were generally inadequate to support productive investment, and were thus a significant barrier to economic diversification and modernization. Private foreign investors were reluctant to enter the Thai economy because of the difficulty in securing matching local capital. Thus, the government considered that foreign loans and aid would be crucial to help accelerate national economic development, at least in the short term.



Industrial Finance: ADB's First Loan

ADB's first loan to Thailand, and indeed its very first loan disbursement, was to the Industrial Finance Corporation of Thailand, which had been created in 1959 by the government (but operated as a private organization) to provide medium- and long-term loans to industrial enterprises. The country's commercial banks provided only short-term finance which, while useful for working capital, rarely matched the longer-term horizons for fixed capital needed for the establishment of new enterprises and the expansion of existing businesses, which was the cornerstone of the government's industrialization policy.

Overall, ADB's financial intermediation in Thailand, through the credit provided to the IFCT from 1968 to 1983, greatly contributed to Thailand's industrial development and transformation, generating thousands of new jobs and boosting export earnings, and helping to lay the foundation for the economic boom which occurred through the 1980s and early 1990s.

Table 2: ADB Loans to the Industrial Finance Corporation of Thailand, 1968–1983

Loan No.	Project	Amount (\$ million)	Approval Date
1	IFCT I	5	Jan 1968
24	IFCT II	10	Dec 1969
226	IFCT III	20	Aug 1975
358	IFCT IV	30	Sep 1978
543	IFCT V	50	Nov 1981
663	IFCT VI	25	Dec 1983
Total		140	

In total, the Asian Development Bank (ADB) contributed \$140 million to the Industrial Finance Corporation of Thailand (IFCT) across six project phases and in almost 2 decades. Loans generally had a 15-year amortization period, and were used by the IFCT to make subloans to domestic industrial firms operating in different parts of the country and across an array of manufacturing subsectors. The size of subloans to domestic firms was subject to a maximum threshold to ensure that healthy numbers of small and medium-sized enterprises were able to benefit from the finance available. ADB loans were in US dollars, and were intended to augment the IFCT's foreign exchange resources which, in turn, were required by industrial firms to make transactions on international markets. In line with government policy and the character of the industrial sector at the time, ADB-funded subloans were initially

focused on labor-intensive agro-processing, but from the early 1970s they were increasingly used to support the government's import-substitution industrialization policy and, in the early 1980s, Thailand's expanding export-oriented industrialization strategy. Both government and ADB policy emphasized the need to support industrialization away from Greater Bangkok, with a minimum of 40% of subloan projects to be located elsewhere in the Central Region, and in the peripheral regions. Overall, ADB's financial intermediation in Thailand, through the credit provided to the IFCT from 1968–1983, greatly contributed to Thailand's industrial development and transformation, generating thousands of new jobs and boosting export earnings, and helping to lay the foundation for the economic boom which occurred through the 1980s and early 1990s.

Source: Asian Development Bank.

Electricity Generation and Distribution

A second crucial priority area for the development of the Thai economy was the generation and distribution of the electricity power that was needed both to support industrialization and to improve the welfare of urban and rural populations alike. The energy sector has long been (and continues to be) a major focus of ADB lending to Thailand. Between 1970 and 1996, ADB made the biggest external assistance contribution to Thailand's power sector of all the bilateral and multilateral international development agencies, lending a total of \$1.4 billion.

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Table 3: ADB Loans to the Power Sector in Thailand, 1970–1996

Loan No.	Project Name	Amount (\$ million)	Approval Date
Electricity Generating Authority of Thailand (EGAT)			
50	Power Transmission & Substation Expansion Project	19.00	Dec 1970
113	Mae Moh Power Project	23.00	Dec 1972
191	Second Power Project	24.00	Aug 1974
219	Mae Moh Power (Supplementary)	15.00	Apr 1975
220	Second Mae Moh Power Project	22.70	Apr 1975
304	Third Power Project	47.00	Aug 1977
360	Fourth Power Transmission Project	36.50	Oct 1978
440	Mae Moh (Unit 4) Power Project	81.80	Dec 1979
502	Power System Expansion Project	85.00	Dec 1984
613	Second Power Expansion Project	81.60	Dec 1982
717	Mae Moh (Unit 8) Power Project	122.60	Dec 1982
828	Mae Moh (Unit 9) Power Project	38.40	Dec 1986
1022	Transmission System for Mae Moh	48.80	Jun 1990
1170	Third Power Transmission (Sector)	94.25	Jul 1992
1245	Fourth Power Transmission (Sector)	115.60	Aug 1993
Total loans for EGAT Projects		855.25	

Loan No.	Project Name	Amount (\$ million)	Approval Date
Metropolitan Electricity Authority (MEA)			
80	Power Distribution Project	18.00	Dec 1971
153	Second Power Distribution Project	21.00	Nov 1973
265	Third Power Distribution Project	37.00	May 1976
359	Fourth MEA Power Distribution Project	33.70	Sep 1978
535	Fifth MEA Power Distribution Project	61.00	Oct 1981
903	Sixth Power Distribution (Sector) Project	64.75	Sep 1988
1151	Seventh Power Distribution (Sector) Project	109.00	Jan 1992
1246	Eighth Power Distribution (Sector) Project	134.60	Aug 1993
Total Loans for MEA Projects		479.05	
Provincial Electricity Authority			
1429	Rural Electrification Project	100.00	Jan 1996
Total Loans for the Power Sector		1,434.30	

Source: Asian Development Bank.



The aftermath of the oil crisis in 1973, when the cost of petroleum increased fourfold in just a few months (and more than doubled again during the second energy crisis in 1979), led to Thailand urgently seeking to mobilize domestic energy sources to substitute for prohibitively expensive imported hydrocarbons: 69% of gross energy generation in 1973 was provided by oil-fired thermal power plants. Initially, the focus was placed on mobilizing the country's large lignite and subbituminous coal reserves in the northern region to produce thermal energy, and then tapping Thailand's hydropower potential (and that of the neighboring Lao PDR) as global and local opinion swung in favor of renewables. The third and fourth national plans also placed an emphasis on improving the reliability and efficiency of the power transmission system of the Electricity Generating Authority of Thailand (EGAT), and on delivering electricity both to a rapidly expanding Bangkok-centered urban-industrial economy and to up-country provincial centers and rural areas to bolster the local economy: in 1977, only 22% of households in Thailand were connected to and served by the provincial electricity utilities. In the period of the fifth national plan, rural electrification became a key means of creating opportunities in economically backward areas.

ADB development assistance to the power sector was responsible for adding more than 2,000 kilometers (km) of new transmission lines to the grid, and scores of new and upgraded substations, as well as a ninefold increase in power generation capacity between 1970–1996, principally through additional generation units at

the Srinagarind and Bhumibol hydropower schemes and the Mae Moh thermal power complex. But no matter how quickly generation and transmission capacity expanded, it was often more than outstripped by rapidly increasing demand for electricity, particularly in Bangkok as the economy boomed from the mid-1980s. ADB loans helped to extend electricity supply to more than half a million Bangkok citizens, particularly in the peripheral areas, where new industrial, residential, and commercial zones were springing up. In addition, the poorer communities also benefited from the extended electricity supply. The extremely rapid and unforeseen growth in demand for electricity helps to explain why ADB continued to provide loans to the energy sector even when domestic financing sources became available as the country's economy strengthened in the 1980s. International borrowing also provided the Government of Thailand with the longer maturities needed for infrastructure investments than were generally available from domestic commercial sources.

ADB loans helped to extend electricity supply to more than half a million Bangkok citizens, particularly in the peripheral areas, where new industrial, residential, and commercial zones were springing up. In addition, the poorer communities also benefited from the extended electricity supply.

Around the mid-1980s, the environmental impact of power generation particularly thermal power became a growing concern. Accordingly, ADB started commissioning environmental impact studies, producing mitigation plans, and systematically monitoring environmental emissions from projects that it supported. In Bangkok, as part of its support to the Metropolitan Electricity Authority, more power cables were installed underground to help minimize environmental and aesthetic impacts, including the first submarine cable under the Chao Phraya River.

Transport Infrastructure

Another form of infrastructure development, which has proven essential to both economic and social progress in Thailand, is transport. ADB has made a major contribution with almost \$1 billion between 1974 and 1995 in this sector.

Foremost in ADB's involvement in the transport sector has been its contribution to the country's highways system. In conjunction with the Department of Highways (DOH), Ministry of Transport, the three ADB highway projects of the late 1970s played a catalytic role in the development of the Eastern Seaboard, which helped ease some of the mounting economic and social pressures in Bangkok by allowing industrial, residential, and recreational activities to spread out toward the east along the arterial routes between Bang Na, Bang Pakong, Chonburi, and Si Racha and

Pattaya. The Eastern Seaboard became a cornerstone government strategy for urban-industrial deconcentration in the 5th National Plan (1982-1986), linked to the discovery and exploitation of natural gas reserves in the Gulf of Thailand; the development of Laem Chabang port as an alternative to Klong Toey in Bangkok; and the construction of industrial estates in Chachoengsao, Chonburi, and Rayong provinces. ADB supported the upgrading of the Eastern Seaboard's national highways to four-lane dual carriageways.

The three ADB highway projects of the late 1970s played a catalytic role in the development of the Eastern Seaboard, which helped ease some of the mounting economic and social pressures in Bangkok by allowing industrial, residential, and recreational activities to spread out toward the east along the arterial routes between Bang Na, Bang Pakong, Chonburi, and Si Racha and Pattaya.



Table 4: ADB Support to the Transport Sector in Thailand, 1974–1995

Loan No.	Project Name	Amount (\$ million)	Approval Date
0178	Highway Project	12.60	Jan 1974
0259	Second Highway Project	11.06	Mar 1976
0355	Songkhla and Phuket Ports Project	0.22	Sep 1978
0383	Third Highway Project	35.33	Dec 1978
0503	Highway (Sector) Project	56.51	Dec 1980
0546	Songkhla and Phuket Ports Project	47.28	Nov 1981
0943	Second Highway (Sector) Project	105.02	Jan 1989
1027	Third Highway (Sector) Project	33.69	Aug 1990
1098	Fourth Highway (Sector) Project	60.00	Sep 1991
1179	Fifth Highway (Sector) Project	93.00	Aug 1992
1195	Bangkok Urban Transport Project	70.30	Nov 1992
1306	Regional Roads (Sector) Project	170.00	Jul 1994
1391	Second Regional Roads (Sector) Project	180.00	Sep 1995
Total		875.01	

Source: Asian Development Bank.



In the 1980s, ADB switched from a project-based model for supporting highways development to a sector-based approach whereby ADB would provide loan funding to the DOH, which, in turn, would select and appraise subprojects in accordance with criteria that had been agreed with ADB as principal lender. In total, ADB funded five highway sector support programs, starting in 1980 with the last in 1992, contributing more than \$350 million, mostly to cover the foreign exchange costs of civil works, to the construction and improvement of the provincial highway network throughout Thailand's four geographical regions, in line with the objectives of the fifth and sixth national plans.

During the seventh plan period, ADB funded a Bangkok Urban Transport Project, which focused in the main on building a missing link in the capital city's primary road network—the Thon Buri road extension from Taksin Bridge to Phetkasem Road. The project helped to ease a significant bottleneck in Bangkok's road system, improve efficiency of the road system and provide a direct benefit to the poor by time savings in bus journeys. The construction of the new road required the resettlement of some 1,221 households, which brought some challenges to the executing agency, the Department of Public Works. In 1995, ADB introduced a Resettlement Policy, which established essential procedures for compensation and support to the welfare of displaced persons. The Fifth Highway Sector Plan also included the provision for institutional support for transport planning, policy formulation, and assessment through the Office of the

Commission for Management of Road Traffic, and contributed to the establishment of an Environmental Unit within the Department of Public Works.

Also during the seventh national plan period, ADB provided loans to the value of \$350 million, also on a sector basis, for regional roads projects to encourage rural development by improving the road system up-country. In total, ADB financed 26 subprojects which delivered 791.2 km of four-lane highways and upgraded two-lane roads. The Second Regional Roads Sector Project coincided with the onset of the Asian financial crisis in 1997, which significantly restricted the budget the Government of Thailand was able to provide to the DOH, necessitating dramatic cost savings and a redesign of the regional roads project. The crisis also seriously reduced commercial bank liquidity, making it hard to raise counterpart funding to match that provided by ADB, and some contractors could not secure short-term bank loans to help them sustain operations. As a result, ADB support was more important at this very difficult time.

Water Supply and Wastewater Management

Water management was another important area of ADB-funded development assistance, amounting to more than \$350 million between 1973–1997. In parallel to ADB investment in road infrastructure in the Eastern Seaboard development region, water supply was also a crucial contributor to economic development, environmental improvement, and social welfare enhancement. The Chonburi Water Supply Project was one of three sets of projects that focused on the water sector in Bangkok and the Eastern Seaboard. Because of the rapid economic growth and population expansion in Chonburi during the 1980s and 1990s, there were chronic deficiencies in water supply to industrial, agricultural, residential, and commercial users in the province. Supplies were intermittent and water quality was poor, with many residents relying on wells, rainwater, and water vendors. The project sought to improve water supply for 222,000 people and businesses (although it actually reached more than 300,000 in the end) through the rehabilitation and expansion of water treatment plants, storage reservoirs, pumping stations, transmission and distribution systems; reduction in water leaks; and supply of consumer meters. The project helped improve public health and environmental conditions, and made an impact on urban poverty by providing affordable piped water to the poor, including waterfront areas which were home to poorer fishing communities.

Significant investment was also targeted at the capital city's water supply system through three project loans. The four rapidly growing municipalities, which make up metropolitan Bangkok were, like Chonburi, unable to meet runaway demand. At the time of the first Bangkok Water Supply Project in 1973, nearly 40% of the city's population, mostly the lowest-income groups, had no formal water supply at all, and less than a quarter had a continuous supply at adequate pressure. Thirty percent of Bangkok's water supply was drawn from groundwater sources, which was contributing to subsidence and the gradual sinking of the capital city. Working with the Metropolitan Waterworks Authority (MWA), ADB doubled the water supply and distribution capacity, serving an additional 2.5 million people, as well as improving the service of the MWA to 2 million existing consumers. Bangkok also had no significant sewerage or water disposal system, and water pollution had become a serious health hazard and aesthetic nuisance. ADB support focused on the development of centralized wastewater treatment facilities, consisting of the construction of more than 300 km of interception and collection sewers, 60,000 property connections, and treatment plants, aeration lagoons, and various monitoring systems. There was also a component for strengthening the institutional capacity for planning and implementing wastewater management projects. The project helped significantly to improve the quality of the living environment in the lower reaches of the Chao Phraya River and the Upper Gulf of Thailand, bringing direct benefits to around 1 million residents, businesses, and institutions in the area.



Table 5: ADB Support for Water Supply and Wastewater Management in Thailand, 1993–1997

Loan No.	Project Name	Amount (\$ million)	Approval Date
0137	Bangkok Water Supply Project	16.92	Jul 1973
0443	Second Bangkok Water Supply Project	63.96	Dec 1979
0735	Third Bangkok Water Supply Project	45.84	Mar 1985
1326	Chonburi Water Supply Project	38.50	Oct 1994
1410	Samut Prakarn Wastewater Management Project	150.00	Dec 1995
1528	Nong Khai-Udon Thani Water Supply Project	50.00	Aug 1997
Total		365.22	

Source: Asian Development Bank.

Agriculture and Fisheries

While a great deal of financial support was understandably directed at the infrastructure requirements of Thailand's economic boom and associated urgent social development needs during the 1970s and 1980s, in line with the Government of Thailand's focus in the first four national development plans on fostering economic growth, the primary farming and fishing sectors were not neglected. More than \$600 million was invested in these sectors from 1974 until the onset of the financial crisis in 1997.

The first project was directed at Thailand's marine fishery. The underlying objective was to improve the incomes of poorer fishers while, at the same time, increasing the volume of catch to contribute to the domestic market. The Fisheries Development Project was the first external assistance to the Thai fisheries sector, and fisheries development had been afforded a high priority in the third national development plan. ADB provided financial resources to the Fish Marketing Organization, which then made financing available to fishers to enable them to upgrade their boats, engines, navigation equipment, and fishing gear. Some

13% of the entire fleet of 4,500 vessels was modernized under this program. The project also improved fish marketing, cold storage, and distribution systems.

Another strategy for raising fish production and exports, improving the incomes of coastal dwellers, and at the same time easing exploitation pressure on marine fishery, centered on the expansion and modernization of fish- and prawn-farming. The Aquaculture Development Project sought to introduce scientific methods to fry hatcheries and fish pond culture, upgrading existing ponds and, in southern Thailand, and introducing brackishwater pond estate settlements where support facilities could be shared and developed in producer cooperatives. ADB funding for the upgrading of existing ponds and the construction of new fish farms was disbursed via credit provided by the Bank for Agriculture and Agricultural Cooperatives (BAAC). The Brackishwater Shrimp Culture Development Project took a similar methodology to southern Thailand. By the time this project was implemented in the mid-1980s, the aquaculture boom in Thailand was already well under way. The principal focus of the Brackishwater Shrimp Culture Development Project was to help increase export earnings from cultured fish and prawn production, and to reverse some of the negative environmental consequences of earlier aquaculture expansion.



Table 6: ADB Support for the Agriculture and Fisheries Sectors, 1974–1999

Loan No.	Project Name	Amount (\$ million)	Approval Date
0206	Nong Wai Pioneer Agriculture Project	4.98	Dec 1974
0248	Fisheries Development Project	9.80	Dec 1975
0264	Southern Land Settlements Project	10.90	May 1976
0365	Kud Multipurpose Project	0.18	Nov 1978
0367	Aquaculture Development Project	11.32	Nov 1978
0556	Medium-Scale Irrigation Package Project	8.22	Dec 1981
0557	Medium-Scale Irrigation Package Project	13.43	Dec 1981
0664	Agricultural Credit Project	28.07	Dec 1983
0787	Brackishwater Shrimp Culture Development Project	2.38	Sep 1986
1423	Small Farmer Credit Project	50.00	Jan 1996
1540	Rural Enterprise Credit Project (post-crisis)	200.00	Sep 1997
1698	Agricultural Sector Program (post-crisis)	300.00	Jan 1999
Total		639.28	

Source: Asian Development Bank.

From the start of its involvement in economic and social development in Thailand in 1968 until the onset of the Asian financial crisis in 1997, ADB disbursed \$3.5 billion dollars in support of 73 infrastructural, rural, and regional development projects in conjunction with Thailand’s evolving national economic and social development plans.

A final important ADB contribution to the agriculture sector came in the form of a series of agricultural credit projects aimed at supporting intensification and diversification, and the development of off-farm rural enterprises. The Agricultural Credit Project was introduced in 1983 to help farmers to mechanize their farms; improve farm production practices; and diversify into new crops, products, and activities by means of short-, medium-, and long-term credit disbursed as subprojects by the BAAC. Mechanization was seen as a key to intensification, while farmers also needed to avail themselves of the new rice-growing technologies and high-yielding varieties of other crops. The project consisted of a crop loan scheme, intended to benefit 175,000 borrowers, and an equipment loan scheme, which would allow farmers to purchase power tillers, tractors, water pumps, threshers, and small trucks. Overall, the Agricultural Credit Project benefited about 247,000 farmers.

The 1996 Small Farmer Credit Project was designed to provide support to farming households for the enhancement of off-farm and agriculture-related activities, such as the development of small and medium-sized enterprises (SMEs). ADB was the first international agency to develop a program specifically for this sector. The rationale was longer-term competitiveness within the rural sector and in the process, helping to promote the regional dispersal of economic activity and balance the rural-urban distribution of incomes. In addition to providing funds to farming households through BAAC, ADB’s support also included

enhancing the BAAC’s institutional capacity to lend support to the rural off-farm sector. BAAC lending for agriculture-related activities accounted for 5.4% of total disbursements in 2000, up from 2% in 1996. The Small Farmer Credit Project covered all of Thailand with the exception of the five provinces which make up Greater Bangkok. The Rural Enterprise Credit Project was an extension of the Small Farmer Credit Project, but was designed more specifically to help farmers diversify their rural enterprises as a direct response to the disruption caused by the 1997 financial crisis.

Summary

From the start of its involvement in economic and social development in Thailand in 1968 until the onset of the Asian financial crisis in 1997, ADB disbursed \$3.5 billion dollars in support of 73 infrastructural, rural, and regional development projects in conjunction with Thailand’s evolving national economic and social development plans. Through almost 3 decades of assistance, both the development landscape and the definition of “development” underwent quite profound change, shifting from a narrow equating of development with economic growth to be achieved through infrastructure investment, to a broader more nuanced interpretation, which recognized and sought to ameliorate the distributional, social, and environmental shortcomings of a narrow growth-driven approach. As a development partner to

the Government of Thailand, ADB adjusted its lending profile to suit shifting development priorities and acted as a catalyst for directional change, contributing knowledge and technical expertise to help facilitate institutional capacity-building and the introduction of international development principles and best-practice. During the first 3 decades of development cooperation, and true to the original vision of ADB President Takeshi Watanabe of creating “a financial institution that is Asian in its basic character,” networks and partnerships were formed between ADB expert staff and the Government of Thailand and, increasingly, private sector stakeholders, which were reinforced through repeat projects and sequential sectoral support. Nevertheless, the financial crisis which hit Thailand and many other parts of East and Southeast Asia in July 1997 threatened to unravel a great deal of the development progress that ADB and the Thai authorities had together worked so hard to achieve.

THE 1997 FINANCIAL CRISIS

The 1997 economic crisis was triggered by speculative attacks on the baht, which exposed a number of deep underlying weaknesses in the country’s financial system. The Government of Thailand spent billions of dollars of its foreign reserves in a vain attempt to defend the value of the baht, and then on July 2 1997 unpegged and devalued the national currency, seeing it almost immediately lose 20% of its value. Banks and private companies, which had borrowed heavily from offshore financial markets, often with very poor regulatory supervision or safeguards, suddenly found themselves exposed to debts, which they could no longer afford to pay with the national currency. Debt, insolvency, and bankruptcy became the order of the day in the finance sector, and the problems very quickly spread to the real economy with severe social consequences.

During the first 3 decades of development cooperation, and true to the original vision of ADB President Takeshi Watanabe of creating “a financial institution that is Asian in its basic character,” networks and partnerships were formed between ADB expert staff and the Government of Thailand and private sector stakeholders, which were reinforced through repeat projects and sequential sectoral support.

IFIs were quick to respond to requests for help in stabilizing their economies and recapitalizing their banks. The Pledging Meeting held in Tokyo in August 1997 came up with a \$17.2 billion support package for Thailand, made up of \$4 billion from the International Monetary Fund, \$1.2 billion from ADB, \$1.5 billion from the IBRD, and \$10.5 billion from bilateral creditors, with Japan (\$4 billion) at the forefront. The IFIs each took responsibility for supporting different elements of Thailand’s recovery from economic crisis.

The International Monetary Fund focused on macroeconomic policy and the restructuring of the banking sector. The IBRD concentrated on corporate debt restructuring and preparing a framework to allow finance companies to reestablish a platform of stability. ADB directed its resources at capital market reform and helping to ease some of the many problems facing the social sector.

Table 7: ADB Support to Thailand in Response to the 1997 Asian Financial Crisis

Loan No.	Project Name	Amount (\$ million)	Approval Date
1540	Rural Enterprise Credit Project	200.00	Sep 1997
1600	Financial Markets Reform Program	300.00	Dec 1997
1611	Social Sector Program	500.00	Oct 1997
1612	Export Financing Facility	50.00	Mar 1998
1699	Higher Education Development Project	59.32	Sep 1999
1968	Agriculture Sector Program	300.00	Jan 1999
1735	Restructuring of Specialized Financial Institutions	11.00	May 2000
Total		1,420.32	

Source: Asian Development Bank.

ADB's crisis-response lending to Thailand included a mix of measures to stimulate economic activity and enhance competitiveness, on the one hand, and the facilitation of institutional reform in the financial, agriculture, and social sectors on the other. The crisis also came at a time when ADB was itself undergoing a transformation from a project-financing institution to a more broad-based development institution concerned with the policy environment within which its investments are placed. ADB's activities in Thailand, therefore, needed to respond to the country's changing policy context, with the 1997 Constitution and the eighth national plan (1997–2001) both signalling a shift in the balance of power between state and civil society. ADB's Interim Country Operational Strategic Strategy for Thailand signalled the prioritization of support to the agriculture, social, and finance sectors as a cornerstone strategy to bring the highest level of immediate post-crisis relief to rural populations in particular, while also facilitating much-needed institutional reforms.¹ In addition, reflecting shifting priorities across the development community more generally, ADB also sought to incorporate measures for environmental and natural resource protection and rehabilitation, targeted poverty reduction, narrowing the gender gap in development, and enhancing good governance.

¹ ADB. 1999. *Interim Country Operational Strategic Strategy for Thailand*. Manila.



Box 1: The Rural Enterprise Credit Project

Given the severity of the crisis, it was essential that the response of the international financial institutions should be rapid but, at the same time, considered and efficient. The Rural Enterprise Credit Project was approved and became effective within a month of the International Monetary Fund stabilization program for Thailand. The rationale and design of the project predated the onset of the economic crisis, thus, the project did not demonstrate the crisis-specificity of other Asian Development Bank crisis-response programs. Nonetheless, its original earmarked budget of \$100 million was doubled to \$200 million in recognition of the severity of the economic and social pressures facing Thai farmers. The Rural Enterprise Credit Project was modeled upon the Smaller Farmer Credit Project, which had been implemented immediately before financial crisis. Building upon the relationship that had been cemented between the Asian Development Bank and the Bank for Agriculture and Agricultural Cooperatives as executing agency since 1983, the Rural Enterprise Credit Project sought to alleviate the sudden increase in rural poverty and unemployment, which in part was attributable to remigration (migrants returning to their rural homes from jobs in Bangkok and elsewhere) and the loss of remittance income. Credit was made available for the creation or expansion of small-scale rural enterprises. It was initially anticipated that the Rural Enterprise

Credit Project would benefit 54,000 subborrowers to the tune of about B250,000 per subloan, but in fact the number of beneficiaries reached 65,193 with an average subloan of just B85,270, as farmers sought to avail themselves of much-needed short-term credit. Overall, the Bank for Agriculture and Agricultural Cooperatives lending for farm-related projects increased to B13.7 billion in 1999, compared with B1.6 billion at the end of financial year 1995. Sixty-five percent of subloans were disbursed in the poorer north and northeast regions.



Source: Asian Development Bank.



Box 2: Agriculture Sector Program

Thailand's rural sector came under particular pressure during the economic crisis as it served a safety net function for as many as 2 million migrant workers who returned to their home villages as they lost their city jobs. The countryside had to cope with the double whammy of supporting unemployed sons and daughters, while also losing the remittance income that, for a long time, had helped to sustain many rural households. The Agriculture Sector Program aimed to support Thailand's large rural sector, which accounted for 45% of the labor force and contributed 14% of total exports in the late 1990s. The sector deserved much attention because 13% of the aggregate population, classified as poor, were in this sector. It aimed to inject \$300 million contributed by the Asian Development Bank (and a further \$300 million from the Overseas Economic Cooperation Fund of Japan) into an array of agriculture- and natural resource-related projects and overdue institutional reforms. The program also reflected important changes in the priorities of Thailand's development planning which, although technically predating the onset of the crisis, nonetheless provided the philosophical platform that Thailand needed to help rebuild the economy, society, and physical environment as the country charted a path toward sustainable development in the post-crisis era. This objective would shortly be given greater urgency and centrality when the revered late King Bhumibol, reflecting on the lessons to be learned from the country's economic meltdown, put forward his New Theory of the Sufficiency Economy, which was to become the cornerstone of future national plans.

The Agriculture Sector Program emphasized both sustainability and reform. Raising agricultural productivity was a key focus but, for perhaps the first time in nationwide development planning, the growth of the agriculture sector was to be conditioned by the careful management, preservation, and rehabilitation of the natural resources upon which the sector depends. Watershed-based resource management became the core model for balancing productivity growth and ecological sustainability. Institutional reform centered on creating an integrated framework for water resource management, which tidied up overlapping, and sometimes competing, responsibilities of government agencies, while also supporting popular governance—providing political space for a much greater voice and input from local communities and nongovernment organizations. The program also sought to deal with inappropriate land use, and to confront the insecurity of land ownership, which many poorer people in particular faced.

Source: Asian Development Bank.

Not only was the social impact of Thailand's economic crisis particularly severe for both rural and urban populations, the country's social protection system was also found wanting at a time when it was needed most. Thus, in addition to providing relief to the unemployed and some of the more vulnerable groups in Thailand, ADB's \$500 million Social Sector Program sought to initiate structural reforms to enhance economic competitiveness, particularly through human resource development, and to improve

Coastal resource management was also to be given a high priority. Strengthening the export competitiveness of the agriculture sector was another core objective of the program, with a central role being given to improving agricultural research, and improving research-extension-farmer linkages. Institutional reform and governance improvement focused in the main on the restructuring of the Ministry of Agriculture and Cooperatives while enshrining rights for farmers, community organizations and nongovernment organizations to have more say in the direction of more decentralized agriculture sector planning. Government efforts to engender institutional change were substantially assisted by four technical assistance projects provided by the Asian Development Bank under the program to the Office of the National Water Resources Committee, the Royal Irrigation Department, the Royal Forest Department and the Department of Fisheries.

the efficiency of the social services. The loan was disbursed in two tranches, the first gave priority to short-term measures to alleviate the social impact of the crisis, while the second gave greater emphasis to structural reforms. Three technical assistance (TA) projects were also provided by ADB on capacity building for social sector reforms, and on education and health management, and financing.

Box 3: Social Sector Program

There were 11 components to the impact mitigation measures, executed by four Thai ministries (Education, Public Health, Labour and Social Welfare, and Interior), which included scholarship funds for students affected by the crisis, training and labor force information especially for laid-off workers, support to disadvantaged urban preschool children, employment creation for community strengthening, financing health programs for the poor, and so on. Rather than specifying precise expenditure allocations, the Asian Development Bank loan provided the Government of Thailand with flexibility in its use of funds according to its shifting priorities. Overall,

the program was considered successful in achieving its objectives of protecting the poor and vulnerable, generating employment, and helping to limit poverty-induced school dropouts: more than 516,283 students were given scholarships to prevent crisis-induced school dropouts; 55,000 laid-off workers benefited from the extended social security coverage in 1998–1999; employment was created for more than 12,000 graduates; an additional 3 million people benefited from the public assistance health-care scheme for the poor; and 13,743 disadvantaged children were provided with food and milk across the country. The key indicators for education, health, and poverty which had deteriorated significantly during the course of 1998–1999, recovered quite strongly in 2000.

compliance, and asset securitization. An internal ADB evaluation of the Financial Markets Reform Program observed that its achievements in facilitating capital market reforms had been remarkable, and went beyond the scope anticipated at the outset. An important contributory factor had been the strong ownership and implementation capacity of the country's Securities and Exchange Commission. Among the highlight achievements of the Financial Markets Reform Program was the promulgation of a Bankruptcy Act and the establishment of bankruptcy courts; the strengthening of the self-regulatory capacity of the Stock Exchange of Thailand (SET); development of a bond market and the creation of a Public Debt Management Office (PDMO) to coordinate government policies regarding government bonds; the

listing and disclosure of performance information of SMEs on the SET (SME Exchange); the passing of a Corporatization Law which allows the conversion of state enterprises to limited companies within the framework of the government's Privatization Master Plan; and the introduction of a Derivatives Market Bill, which opened the way to the further development of capital markets in Thailand.

Before the onset of the financial crisis, the Thai economy had been booming due in no small measure to the success of the country's export-oriented industrialization strategy. Fearful that export producers would be constrained by the contraction of commercial credit availability at just a time when Thailand needed to export its way out of the crisis, an Export Financing Facility was agreed between the Minister of Finance and ADB in September 1997. ADB agreed to provide a loan of \$50 million to the Export-Import

Bank of Thailand; and, together with an international syndicate of commercial banks, a partial credit guarantee of \$950 million to underwrite confidence in the export sector.

SUMMARY

While providing loans in support of Thailand's development has been the core business of ADB since its inception in 1966, the TAs that ADB has provided, both as an integral component of the loan projects and independently of them, were crucial to the success of various loan projects and programs, as well as to building capacity within the government institutions. Between 1969–2005, ADB funded 84 loans and 150 TAs including studies, appraisals, and training programs at a total cost of approximately \$5.4 billion and \$55 million, respectively. The ADB funded projects to Government of Thailand's ministries, departments, and state-owned enterprises, the added value from which has extended well beyond the life cycle of individual projects.

The logistical demands of coping with the financial crisis, the shifting political environment with regard to international development assistance, and Thailand's subsequent progression toward attaining the status of a middle-income country (MIC) had a significant effect on ADB's role in Thailand. These and other factors also contributed to the establishment of ADB's Thailand Resident Mission (TRM), as the following section will show.

An internal ADB evaluation of the Financial Markets Reform Program observed that its achievements in facilitating capital market reforms had been remarkable, and went beyond the scope anticipated at the outset. An important contributory factor had been the strong ownership and implementation capacity of the country's Securities and Exchange Commission.



PART II: A DECADE OF PARTNERSHIP THROUGH THAILAND RESIDENT MISSION



ESTABLISHMENT OF ADB'S THAILAND RESIDENT MISSION

ADB's TRM came into being on 12 January 2005, in part as a consequence of general ADB policy, and in part due to some of the lessons gained during the course of the responses of ADB and the Government of Thailand to the 1997 financial crisis.

ADB's first overseas resident mission was established in Bangladesh in 1982, and thereafter a small number of resident missions were established in some of the larger DMCs (i.e., Indonesia, Pakistan, and India) as a result of a 1986 ADB policy paper. Elsewhere, ADB approved a number of extended missions where headquarters staff resided in a DMC for specific assignments or in special circumstances, such as the 1997 Asian financial crisis, which required a 2-year extended mission to the Ministry of Finance in Thailand.

An ADB policy review in 2000 sought to connect resident mission policy with the rapidly evolving and diverging operational environment and complex development agenda that ADB was facing in post-crisis East and Southeast Asia, which led to an accelerated program of resident mission establishment. In general, development decision making required faster response



times and more context-specific knowledge as economic, social, and political conditions were constantly evolving and deepening. Project coordination and implementation could also benefit from a staff presence on the ground, and the country operational interface provided by a resident mission would help to build networks, communication, and a relationship of trust. The 2000 ADB Resident Mission Policy also suggested that resident missions could play an enhanced role beyond in-country project administration, including enhanced policy dialogue and partnerships with DMC governments, increased responsiveness to local needs and issues, and intensified interaction with key stakeholders from the public and private sectors and civil society.

In March 2000, ADB approved in principle the establishment of a resident mission in Thailand, to become operational in November that year, but the political environment at the time meant that this plan would not come to fruition for another 5 years. The Thai economy had already recovered quite strongly by the time of the 2001 election, to the extent that there was no great urgency to

borrow from international agencies. This economic and political situation provided the backdrop to discussions concerning the establishment of a resident mission in Thailand. Future borrowing from ADB was anticipated to be limited. Nonetheless, it was recognized that the knowledge and expertise that were available from and through ADB was most valuable to the Government of Thailand, both in helping to move the economy in new directions and in assisting with the reform agenda, particularly in the finance sector. In November 2004, the government passed a law governing ADB rights and privileges in Thailand, paving the way for the establishment of ADB's TRM. The TRM would also function as a regional hub for ADB's flagship Greater Mekong Subregion (GMS) Economic Cooperation Program, recognizing Thailand's growing strategic position in mainland Southeast Asia.



Thailand, through the TRM, was also seen as a test case for continued ADB development assistance to a country that had by then achieved middle income status, building partnerships beyond a financial cooperation.

Thailand, through the TRM, was also seen as a test case for continued ADB development assistance to a country that had by then achieved middle income status, building partnerships beyond financial cooperation. Although Thailand has transformed to be an upper MIC, there were still many areas for continued improvement which could benefit from the pool of world-standard expertise available from and through ADB, and, indeed, continued financial assistance, including nonsovereign loans which, at the time, were a very limited component of ADB's portfolio. Providing development assistance to an upper MIC requires a fresh approach and mindset, with more imagination, innovation, and flexibility than is typically necessary with project-based lending. The focus is on the deepening of development, not just the promotion of development. Thus, ADB's partnership with Thailand needed to adjust to the country's changing development circumstances and aspirations. The TRM has, thus, positioned itself as a knowledge hub as it continues to play a role in Thailand's advancement and modernization.

To provide a framework for this new relationship, Thailand was the first DMC to produce a country partnership strategy (CPS) which mapped out the future direction and priorities for the relationship between ADB and Thailand. ADB headquarters had historically taken responsibility for country programming, but its new resident mission policy in 2000 delegated this role to resident missions, to be undertaken in consultation with public, private, and civil society stakeholders.

COUNTRY PARTNERSHIP STRATEGY BETWEEN ADB AND THAILAND, 2005 TO THE PRESENT

Thailand quickly recovered from the effects of the 1997 financial crisis and progressed to formally achieving the status of an upper MIC on 1 July 2011, when its gross national income per capita surpassed the threshold of \$3,976. Nevertheless, a great many development challenges remained. Thailand's economic growth had centered on the rapid expansion of export-oriented industrialization during the 1980s and 1990s, taking advantage of low-cost factor inputs, especially of labor, to capitalize on the global shift in manufacturing toward the Asia and Pacific region. But full employment, rising labor costs, and growing competition from other Asian countries meant that Thailand had to find new ways of competing on world markets to regain its competitive position in the post-crisis era. This meant supporting a shift from relatively low value-added labor-intensive manufacturing to higher value-added skills-, technology-, and innovation-intensive forms of production linked to global value chains. For Thailand, this required considerable investment in education and human resource development. Thailand had achieved most of its Millennium Development Goals (MDGs) ahead of the 2015 target date, but stubborn pockets of poverty remained in the countryside and lagging regions. The degradation of natural resources and the environment provided a further set of challenges for

sustainable development. Pollution and congestion threatened to counterbalance quality of life gains from development and clog the arteries of economic efficiency. Further investment in infrastructure was essential to sustain the economic and social development of Thailand's urban-industrial core, and to help spread the benefits of growth and transformation to the country's peripheral regions.

Thus, the development landscape and policy context into which ADB's TRM was inserted was quite different from that which provided to ADB's activities before and during the financial crisis. The strengthened financial position of the government, the recovery of the country's commercial banks, and easier access to international capital markets determined that Thailand had limited need to borrow large sums of money from the IFIs to facilitate its domestic development. While no new ADB public sector loans were approved between 2000–2006, when TRM commenced operations, ADB continued to provide technical assistance and capacity building to Thailand. ADB's initiatives help the Thai public and private sector institutions gain access to the international knowledge, expertise, and experience that were essential to the deepening and growing sophistication of development interventions, the confronting of environmental problems, the building of institutional and operational capacity, and the strengthening of Thailand's international competitiveness. Thus, ADB and the government agreed on a country partnership strategy (CPS), for development. The CPS identified well-defined

priority areas for intervention, which were consistent with the government's priority development objectives, and were within ADB's knowledge resources. The key principles of this partnership included country ownership of the development agenda, a focus on a limited number of mutually reinforcing interventions, and the maximization of private sector participation and investment in Thailand's development future, with ADB now providing direct support to private sector projects.

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Guidance for ADB's first CPS for Thailand was provided by the Tenth National Economic and Social Development Plan (2007–2011), which focused on inclusive and equitable development, continued poverty reduction, the promotion of sustainable development through environmental and natural resource management, good governance, the enhancement of local community economies and social protection systems, human and social development, and raising productivity and competitiveness. ADB activities in Thailand should also be consistent with ADB's own strategic planning framework for 2008–2020, as identified in its Strategy 2020,² and finalized at the same time that the CPS was being formulated. ADB's strategic framework identified infrastructure, environment, finance sector development, education, and regional cooperation and integration (RCI) as its core areas of specialization. The CPS identified four core areas for ADB involvement in the country's development from 2007 to 2011 including infrastructure development, capital market development, environmentally sustainable development, and RCI.

² ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.



Box 4: Infrastructure Development

A key priority of both the Government of Thailand and the Asian Development Bank (ADB) focused on bridging the infrastructure investment gap by facilitating the involvement of the private sector fields of development, through joint ventures and public-private partnerships. The underlying rationale was twofold: to reduce the burden to the public purse and overcome limitations of public funding, on the one hand; while drawing upon the financial resources, new technologies, and both logistical and operational efficiencies available from the private sector, on the other. The priority areas for infrastructure investment following these principles are rail mass rapid transit systems, highway development, power generation, urban water supply, and sanitation. ADB would contribute knowledge and skills to the preparation of projects, including feasibility analyses; social and environmental assessments; and developing appropriate legal, operational, and regulatory frameworks for joint ventures and public-private partnerships. ADB would also be in a position to provide project loans for Thailand's infrastructure program using some of its new financial products designed specifically for middle-income countries, such as political risk and partial credit guarantees, local currency loans, and nonsovereign loans to municipalities.

Source: Asian Development Bank.

Box 5: Capital Market Development

With Thailand aiming to finance more of its infrastructure and other forms of investment from domestic sources, there was a need to increase both the size and sophistication of the domestic capital market, and in particular to diversify the finance sector away from traditional banking. Accordingly, the partnership of the Asian Development Bank (ADB) with Thailand aimed to concentrate on developing the bond, equity, and derivative markets, as well as rationalizing the country's tax system and further strengthening finance sector regulation. The bond market would provide a conduit for the mobilization of domestic savings and other financial resources, and would represent a competitive alternative to credit raised from commercial banks. ADB would help to build institutional and regulatory capacity in this underdeveloped segment of the Thai financial system. The derivatives market in Thailand was also in its infancy, but a futures market was opened in 2006 to provide an extra channel for domestic institutional investors and foreign interests to participate in the country's capital market. Although Thailand has had a stock exchange since 1975, the government wished to see its size and range expand, with more small and medium-sized enterprises and privatized state-owned enterprises listing on the Stock Exchange of Thailand. ADB would assist Thailand in developing regulatory mechanisms, surveillance and monitoring systems, and risk management provisions.

Source: Asian Development Bank.



Box 6: Environmentally Sustainable Development

The Government of Thailand emphasized promoting energy efficiency and the expansion of clean energy technologies such as wind and solar power, as well as further strengthening integrated water resource management. Adopting a river basin approach to water resource management, factors such as land, forests, water, and aquatic resources will be addressed in an integrated, joined-up manner in the interest of fostering the sustainable utilization of natural resources for economic development and social welfare without compromising the integrity of environmental systems. The Asian Development Bank would also help the government to explore the potential for deploying economic instruments—such as taxation, user fees and surcharges—for environmental management and pollution control, instead of or as well as the more conventional command and control methods.

Source: Asian Development Bank.

Box 7: Regional Cooperation and Integration

Thailand recognizes the economic benefits that will accrue from facilitating closer and more efficient logistical connections with neighboring countries, and also from playing a role in their economic development and diversification. It is an active founding member of the Association of Southeast Asian Nations, a pivotal hub of the Greater Mekong Subregion, and an integral part of several subregional blocs (e.g., Bay of Bengal Initiative on Multi-Sectoral Technical and Economic Cooperation, Indonesia-Malaysia-Thailand Growth Triangle, and Ayeyarwady-Chao Phraya-Mekong Economic Co-operation Strategy). Thailand has been channelling official development assistance to neighboring countries since 1992, contributing to poverty alleviation and sustainable development through two agencies: the Neighbouring Countries Economic Development Cooperation Agency (2005), and the Thailand International Development Cooperation Agency (2004), established as a successor to the Department of Technical and Economic Cooperation. The partnership strategy for regional cooperation and integration concentrates the following elements: cross-border infrastructure, especially that supporting transborder economic corridors; subregional and transborder trade and investment; money and finance; and regional public goods, such as health and environmental protection; ADB support on Thailand's role in cofinancing development projects in the subregion.

Source: Asian Development Bank.

The early stages of the first CPS were adversely affected by the global financial crisis in 2008, and later compounded by protracted political unrest in 2010, and severe flooding in 2011, which coincided with the end of the CPS. ADB's strategic support for Thailand's development during this period adapted to these changing circumstances, none of which could easily have been foreseen when the CPS was being drafted.

Competitiveness and sustainability continued to be important strategic keywords in ADB's second CPS, 2013–2016, which mirrored similar objectives in the country's 11th national plan, and an additional strong emphasis was placed on inclusive development and good governance, as a result of the political divisions in 2010. ADB support to Thailand under ADB's second CPS aimed to follow ADB's "finance ++" model, which links the

provision of sovereign and nonsovereign loans to the channelling of expert knowledge and policy advice, and the leveraging of additional financing from both public and private sources. The second CPS centered on three strategic pillars: (a) knowledge advancement, and innovation, whereby ADB would use its expert knowledge resources to facilitate policy reform and business development through partnerships with a range of stakeholders; (b) private sector development, through supporting an expert knowledge-driven dialogue between the public and private sectors to strengthen the business environment and enable public-private partnerships (PPPs); and (c) facilitation of RCI, encouraging regional connectivity of production, distribution, transportation, and energy systems and of capital and labor markets, and reducing barriers to regional trade and investment. Crosscutting issues, which underpin the achievement of all



these strategic objectives, are human resource development and institutional capacity-building, and the promotion of gender equality by integrating gender analysis into all strategic initiatives. Improvement in governance is an important focus of ADB activities through helping to improve planning, procurement, and financial management, as well as strengthening anticorruption measures and promoting transparent decision making and regulations.

Important loans during the two CPSs were the GMS Highway Expansion Project in 2009 (\$77.1 million) and the Capital Markets Development Program in 2010 (\$300 million). Additionally, ADB contributed \$3 million from its Asia Pacific Disaster Response Fund to help with the costs of flood relief, and organized an international knowledge-sharing forum in Bangkok to exchange experiences about flood management, response, and prevention in January 2012.

ADB subsequently provided technical support for the government's Master Plan on Water Resource Management, which incorporates principles of integrated water management. ADB has also contributed to the development of an integrated water resources management modeling tool, based upon a pilot study in the Yom River Basin, which will be rolled out to 25 other river basins in Thailand by the Department of Water Resources. For transport sector, ADB also has continued to make a major contribution to the improvement of the country's road and rail systems through various ADB technical assistances. In addition, ADB has provided an advisory support to facilitate

private sector involvement in economic and social infrastructure investment. Financial inclusion was added to the priority areas for ADB assistance in 2011 as a response to the global financial crisis and domestic political unrest, which was partly linked to socioeconomic inequality amplified by the crisis. The government also explored the possibility of further borrowing from ADB to support the country's infrastructure development and financial market development agendas. Nonsovereign loans to the renewable energy sector, totalling almost \$852 million, were also approved in 2010–2015.

ADB has engaged not only with the government and private sector counterparts, but also with Thai civil societies. ADB has recently cooperated with a leading nongovernment organization in Thailand to promote good governance and anticorruption in the country. Key activities included knowledge-sharing to raise awareness of good governance among the country's youth, and capacity development to create an integrity pact to fight corruption in public procurement.



Table 8: Technical Assistance to Thailand since Inauguration of ADB's Thailand Resident Mission

TA No.	Project Name	Approval Date
4558	Commercial Financing for Local Government Units	2005
4564	Status Report on the Asian Tsunami Fund (January–June 2007)	
4613	Subregional Development Plan for the Tsunami-Affected Andaman Region	
4667	Capacity Building for Pollution Taxation and Resource Mobilization for Environment and Natural Resources–Phase II	
4676	Infrastructure Investment Advisory Assistance to the Public Debt Management Office of Thailand	
4826	Support for Implementation of the New Capital Market Development Master Plan	2006
4886	Capacity Building for the Neighbouring Countries Economic Development Cooperation Agency	
4904	Infrastructure Investment Advisory Assistance (Phase II)	
7044	Preparing the Bangkok Mass Rapid Transit Integrated Ticketing Project	2007
7050	Planning for the Sustainable Development of Southern Thailand	
7070	Greater Mekong Subregion Highway Expansion Project	2008
7102	Capital Market Development Phase II	
7133	Capacity Building and School Networking for Educational Services (e-Learning)	
7194	Mainstreaming Energy Efficiency Measures in Thai Municipalities	
7483	Implementation Plan for Strategic Intercity Motorway Network Project	2009

TA No.	Project Name	Approval Date
7540	Mainstreaming Public–Private Partnerships	2010
7602	Capital Market Development Program	
7615	Bangchak Solar Power	
7863	Enhancing Strategic Alignment in the Thailand-ADB Partnership	2011
7961	Support for Flood Management Knowledge Forum	
7998	Development of a Strategic Framework for Financial Inclusion	
8078	Supporting Railway Sector Reform	2012
8183	Improvement of Railway Passenger Services	
8194	Accounting and Financial Management System Reform of Thailand's Railway Sector	
8219	Thailand Intercity Motorway	
8267	Strengthening Integrated Water and Flood Management Implementation	
8575	Piloting Public–Private Partnerships in the Social Sectors	2013
8768	Advancing National Financial Literacy	2014
8825	Strengthening Financial Transparency of Specialized Financial Institutions	
9010	Strengthening Specialized and Semi-Formal Financial Institutions to Support Financial Inclusion	2015

Source: Asian Development Bank.

Climate Change Mitigation and Environment

ADB's Strategy 2020 recognizes the stresses and strains that economic growth and lifestyle improvements have placed on ecosystems, natural resources, and essential ecological processes, and also the extent to which local and national development processes have global implications through their contribution to greenhouse gas emissions and climate change. The Asia and Pacific region accounted for 47.2% of global carbon dioxide emissions in 2015, more than half of which came from electricity generation. Primary energy demand in Asia and the Pacific is projected to grow at 2.1% per year from 2010–2035, compared with a world average rate of 1.5% per year. Environmentally sustainable growth is, thus, one of ADB's three critical strategic agendas for the period 2008–2020 (the other two being inclusive growth and RCI). To help achieve this objective, ADB is contributing knowledge, expertise, and financial resources to disseminate technologies and organizational best practice in environmental management and safeguarding, as well as strengthening institutional capacities for environmental legislation and enforcement. ADB assistance for environmental management in Asia focuses on two key areas: climate change mitigation and livable cities. The former provides the principal focal area for ADB's activities in Thailand, emphasizing improvements in energy efficiency, expanding the use of clean and renewable energy sources, and modernizing both public and private transport systems.



Table 9: Energy Consumption in Thailand, 2013

Energy Source	Kilotons of Oil Equivalent	%
Lignite and coal	5,947	7.91
Petroleum:	35,948	47.79
fossil fuels		95.50
biofuels		4.50
Natural gas	5,339	7.09
Electricity:	14,626	19.45
fossil fuels		80.00
renewables		9.20
imported hydropower		7.70
large hydropower		3.10
Renewable energy	5,278	7.02
Traditional renewable energy fuelwood, biomass	8,076	10.74
Total	75,214	100.00

Source: Ministry of Energy, Department of Alternative Energy Development and Efficiency.

Energy Efficiency

Thailand's energy consumption grew at an average annual rate of 4.4% between 1990–2010, while the economy grew at an annual average of 4.5% over the same period, giving an energy elasticity of 0.98, which is considered high in comparison with countries at a similar level of development, given an average energy elasticity of 0.5–0.6 for the Organisation for Economic Co-operation and Development countries over a similar period. Thailand relies very heavily on fossil fuels for the energy needed to keep industry moving, transport flowing, and households functioning, but 67% of the country's energy demand was met through imported energy sources in 2012, at a cost of \$71 billion. Promoting greener and renewable domestic energy sources, thus, represent an essential step toward reducing the country's carbon footprint as well as improving the country's energy security. However, such actions are meaningless if total per capita energy consumption continues to increase and green energy simply becomes an additional, rather than an alternative means of providing energy. Improving energy efficiency is, therefore, an essential element of an energy strategy for sustainable economic development. In 2011, Thailand introduced a 20-year Energy Efficiency Development Plan, which set energy conservation targets for the industrial, transport, commercial and residential sectors. The plan was revised by the National Energy Policy Committee in 2015 (2015–2036). The overarching target was to reduce energy intensity (energy use per unit of gross domestic product) by 30% across all economic

sectors by 2036 compared with the 2010 levels, and overall energy consumption by 20% when compared with a non-interventionist “business as usual” scenario. These targets were to be achieved through a “carrot and stick” approach comprising the promulgation and enforcement of legislation, regulations, and standards, and the use of fiscal instruments such as taxation and user fees on the one hand, and raising public awareness and encouraging behavioral change, supporting energy conservation technology innovation, retrofitting, and energy saving on the other.



Building retrofits in public buildings achieved energy savings levels between 25% and 50%, greatly exceeding the project's original targets, and successfully demonstrated the scope for energy savings in urban areas.

ADB has been lending support to the Government of Thailand's energy efficiency promotion efforts as part of its own Energy Efficiency Initiative, contributing expertise in the form of TA, as well as developing strategies and action plans, and helping to build institutional capacity. A particular focus has been on improving energy efficiency at the municipal level. A policy and advisory TA on Mainstreaming Energy Efficiency Measures in Thai Municipalities commenced in 2009, funded with a grant of \$1 million from the Multi-Donor Clean Energy Fund. This provided a range of knowledge-based inputs to the Provincial Electricity Authority (PEA), which accounts for more than 65% of all electricity consumed in Thailand, to help identify the technical, financial, and institutional measures necessary to mainstream energy conservation measures in municipalities across Thailand. It focused in the main on a number of pilot energy efficiency projects which included retrofitting municipal buildings and upgrading public street lighting using light-emitting diode technologies. Building retrofits in public buildings achieved energy savings levels between 25% and 50%, greatly exceeding the project's original targets, and successfully demonstrated the scope for energy savings in urban areas. The pilot street lighting projects in Trang Municipality using light-emitting diode roadside lamps achieved a significant improvement in light output quality using 40%–50% less energy consumption. The PEA quite heavily subsidizes the costs of municipal street lighting, and thus also has a strong incentive to introduce more efficient lighting systems. The TA also helped the PEA to develop a plan for replicating, expanding,

and scaling up the energy efficiency program to municipalities across Thailand. A handbook for implementing energy efficiency projects was produced under the TA, and distributed to more than 2,000 municipalities across Thailand.

Clean Energy

Thailand's 2015 Power Development Plan anticipates an increase in peak electricity generation demand between 2016 and 2036 from 30,218 megawatts (MW) to 49,655 MW, an increase of 64% at an average annual growth rate of 2.51%, which provides a significant challenge to Thailand's commitment to reduce greenhouse gas emissions. In 2008, the Government of Thailand introduced an Alternative Energy Development Plan (AEDP), 2008–2022, which set a target of 20.3% for primary commercial energy from renewable energy sources by the year 2022. To achieve this objective, a number of impediments have to be overcome. There is a need to extend and improve the transmission, distribution, and storage systems for electricity sources such as solar and wind, which typically occur in locations that are isolated from conventional electricity-generating sources, and may typically be much smaller in scale. Laws and regulations need to be introduced or amended to facilitate these alternative energy sources, and the process of granting power purchase concessions needs to be speeded up. Several of these renewable energy sources have high initial investment costs and relatively long lead-

in times, which may make them less attractive to private sources of finance. Also, because of localization and scale diseconomies, the cost of the energy produced may be greater than that from conventional commercial energy sources, leading to a disadvantageous competitive position in the energy marketplace. To overcome some of these constraints, the Ministry of Energy, in conjunction with other ministries and departments, is seeking to provide a number of incentives, such as waiving import duties for equipment; providing relief on corporation tax, grants, and credit guarantees; and paying premium feed-in tariffs for electricity sold to the grid.

Solar Power

ADB's 2009 Energy Policy complements the Government of Thailand's objectives under the AEDP in seeking to increase the contribution of renewable energy by helping DMCs gain access to the requisite technology and financing, as well as supporting policy, regulatory, and awareness-raising efforts. In 2010, ADB committed itself to invest \$2 billion a year in clean energy as part of its Asia Solar Energy Initiative, which aimed to realize 3000 MW of solar energy in Asian DMCs by 2013. In Thailand, the Department of Energy in its latest AEDP, 2015–2036, aims to install 6,000 MW of solar power capacity by the year 2036. Solar power has been one of the fastest-growing electricity technologies in recent years, but member countries such as Thailand face significant

constraints in their efforts to capitalize on the sector's energy-generating potential. To date, few DMCs have developed the technological capability to manufacture their own photovoltaic cells, which must, therefore, be sourced on international markets at a cost to foreign exchange reserves. An emerging energy sector also requires organizational, regulatory, and attitudinal shifts, and both mechanisms and incentives for private sector developers to raise the required investment capital. The Government of Thailand envisages a central role for the private sector in realizing the country's potential for solar energy generation. At present is advocating a decentralized strategy whereby relatively small-scale producers in suitable localities will construct and operate power projects to be fed into the grid via power purchase agreements with the state-owned electricity distributors, i.e., EGAT, PEA, and the Metropolitan Electricity Authority.

As part of its decentralized power generation strategy, the Ministry of Energy supports two localized solar power programs

ADB, via TRM, is playing a pioneer role in helping Thailand to mobilize its solar power resources, providing solar project with 18-year local currency loans which have helped to leverage further borrowing from commercial sources with limited experience in clean energy projects.



involving small power producers (SPPs) (10 MW–90 MW power projects) and very small power producers (VSPPs) generating up to 10 MW. As of 2009, SPPs accounted for 10% of the country's total power generation, and VSPPs an additional 1%. EGAT offered these firms a supplementary or adder tariff of B8.00 per kilowatt-hour (kWh) for 10 years from the start of commercial operation, as a subsidy to offset current commercial disadvantages of small-scale renewable energy production (this figure has subsequently dropped to B6.50 per kWh in 2011). The problem that many small renewable energy producers face, which prevents them from entering the market, is not the adder tariff so much as the 10-year incentive period. Given the high up-front investment costs and the level of risk of investing in an energy sector at the early stages of its development, the incentive structure is not yet attractive enough in the longer-term to offset the costs and perceived risks involved. ADB is trying to change this situation by demonstrating to the private sector the viability and longer-term sustainability of operating in the renewable energy sector through the projects it is supporting, and through the concessional funding it is able to provide from the ADB Clean Technology Fund (CTF).³ Meanwhile, EGAT has moved away from adder incentives to feed-in tariffs in 2014, which guarantee a fixed rate of return over a 25-year period.

ADB, via the TRM, is playing a pioneering role in helping Thailand to mobilize its solar power resources. At the time of ADB's entry into the solar and wind power sector, renewable energy producers were finding it difficult to raise the necessary long-term finance, given very high up-front costs set against relatively long breakeven horizons. Commercial banks would rarely provide loans for more than 10 years, whereas solar power requires much longer tenors. ADB provided solar projects with 18-year local currency loans which, in turn, helped to leverage further borrowing from other commercial sources, which had limited experience in clean energy projects. Support for solar power generation has also provided a timely conduit for ADB to increase its direct nonsovereign lending to the private sector, helping to make ADB's Private Sector Operations Department's lending portfolio in Thailand one of the largest in Southeast Asia. ADB's first solar power project in Thailand, approved in 2010, is contributing up to \$70 million or 25% of the total project costs of a 55 MW SPP solar farm in Lopburi province, central Thailand, using thin-film photovoltaic panels, which at that time was the largest solar project using such technology in the world. The project also qualified for a grant of \$2 million from the Clean Energy Fund under the Clean Energy Financing Partnership Facility.⁴ The project is being driven by the Natural Energy Development Company, a limited company incorporated in Thailand. EGAT has entered into 5-year,

³ The CTF provides concessional financing to support the deployment of low-carbon technologies with significant potential to reduce and avoid greenhouse gas emissions over the long term. It is one of the largest funds helping DMCs fill gaps in financing projects to mitigate climate change.

⁴ The grant is an ADB standby facility to finance any construction cost overruns and, thereby, reduces a project's financial risks. The grant was not used because the project was completed on time and within budget.

ADB's first solar power project in Thailand, approved in 2010, is contributing up to \$70 million or 25% of the total project costs of a 55 MW SPP solar farm in Lopburi province, central Thailand, using thin-film photovoltaic panels, which at that time was the largest solar project using such technology in the world.



automatically renewable power purchase agreements with the Natural Energy Development Company. The project is the first utility-scale private sector power plant in Thailand. It achieved a Most Successful Project Award from the oversight body Independent Evaluation in 2016, which commented “the project was at the forefront of Thailand’s renewable energy finance market, and provided a demonstration example for the local banking market to replicate and advance similar transactions.” The project generated employment for 1,753 local people during the construction stage, provided 150 scholarships for local students, and built a learning centre featuring both Lopburi heritage and the principles of renewable energy.

ADB is involved in similar arrangements for three more solar power projects in Thailand. The first two are solar power plants with a total capacity of 44.5 MW in Ayutthaya province, central Thailand, in collaboration with the Bangchak Petroleum Public Company (BCP), one of Thailand’s largest oil refining and marketing companies. The solar farm, consisting of over 150,000 polycrystalline photovoltaic panels, is located adjacent to BCP’s biodiesel plant in Bang Pa-In, 50 km north of Bangkok. ADB is providing a long-term local currency loan (of up to \$134.3 million), which provides BCP with the tenor required to fund a power generation plant with high up-front investment costs and a long asset life. The project loan was accompanied by a \$400,000 capacity development TA grant to support the implementation of carbon-neutral strategies within private sector energy companies in DMCs.



ADB made a further nonsovereign loan of \$25.2 million to a BCP subsidiary, the Bangchak Solar Energy Company Limited, together with a loan of up to \$15 million from the ADB CTF, for the Provincial Solar Power Project in Thailand. Bangchak Solar Energy Company Limited plans to become one of the largest solar power-producing companies in the country. The Provincial Solar Power Project is the first component of this strategy, and consists of two 8 MW solar power farms in Chaiyaphum province and a further two 8 MW solar farms in the Ayutthaya province. The four solar farms commenced commercial operations in 2013. A fourth ADB-funded solar project involving the private sector in Thailand is the 57 MW Central Thailand Solar Power Project, in partnership with Solarco Company Limited, in Nakhonpathom and Suphanburi provinces. ADB support consists of a loan of \$52 million, and up to \$35 million of concessional funding from the ADB CTF.

Wind Power

Wind energy is expected to meet up to 10% of global electricity demand by 2020, and the wind energy potential in Asia is estimated to be 2 million MW. Asia is the fastest-growing wind power market in the world. In 2011, ADB introduced its Quantum Leap in Wind Initiative, a regional capacity development TA for Asia financed from the Clean Energy Fund under the Clean Energy Financing Partnership Facility. The aim was to facilitate

the mobilization of wind energy potential by helping to remove constraints to finance, improve the identification and mapping of wind power resources, develop strategic frameworks for wind energy development, and share technical and operational knowledge cross-regionally. The initiative set a target of 1 gigawatt of wind energy in Asia (excluding the PRC and India) in 5 years. To achieve this target, ADB is seeking to ease a number of constraints on the sector’s growth, such as insufficient grid infrastructure, a lack of supporting legislative and regulatory incentives, and a lack of local capacity to build and manage wind farms. ADB’s wind power and renewable energy support program aims to help build a critical mass of first generation renewable energy projects in Thailand to catalyze long-term private sector involvement in the sector. To this purpose, ADB makes available concessional funding from its CTF, as well as conventional loans to a sector where private investment has been relatively hard to secure.

Thailand has the theoretical potential to generate 14,141 MW of electricity from wind turbines, but by July 2015, wind-generated power totalled just 225 MW. As part of its AEDP, the government plans to increase this to 1,200 MW by 2021 and to 3,002 MW by 2036. EGAT offers adder premiums of B3.50 per kWh for SPPs producing more than 50 kWh, and B4.50 for VSPPs producing less than 50 kWh.

The Theppana Wind Power Project in Chaiyaphum province, a pilot VSPP producing 7.5 MW, was ADB’s point of entry to the wind energy sector in Thailand, and was also ADB’s first wind



Photo Credit: Electricity Generating Public Company Limited 

ADB's renewable energy support program aims to help build a critical mass of first generation renewable energy projects in Thailand to catalyze long-term private sector involvement in the sector. To this purpose, ADB makes available concessional funding from its CTF and conventional loans to a sector where private investment has been relatively hard to secure.

power financing project in Southeast Asia. At the time, in January 2012, Thailand was only producing 7.28 MW of electricity from wind turbines. The Theppana Wind Power Project was intended to serve as a pilot project for Electricity Generating Power Company's (EGPO) entry into wind power generation and was intentionally structured on a limited-recourse basis to provide a sound financing structure that can be replicated by the much-larger wind project planned in 2013. The project was financed by a nonsovereign loan from ADB of \$4.54 million and supplemented by concessionary funding of \$4 million from the ADB CTF. For

ADB, the project served the dual purpose of demonstrating the viability and sustainability of a utility-scale wind power project, and of moving toward meeting ADB's Private Sector Operations Department target of 25% of its annual project approvals, by number, to clean energy projects concerned. During the 11-month construction of the wind farm, 250 local workers were employed. The project's initial environmental assessments and initial poverty and social assessments were both undertaken in line with ADB requirements.





The 81 MW Subyai Wind Power Project, approved by ADB in November 2014, and used the same financial structure that had been developed by ADB for the Electricity Generating Power Company, was a larger extension of the Theppana Wind Power Project, and which used the same financial structure that had been developed by ADB for the Electricity Generating Power Company. Electricity is delivered to the PEA under a 5-year automatically renewable power purchase agreement, which pays the wholesale average rate plus a B3.50 per kWh adder incentive for the first 10 years of commercial operation. 250 local workers were employed during the construction phase. ADB support consists of a loan of \$53 million, and up to \$30 million of concessional funding from the ADB CTF.

Finally, the much larger Northeast Thailand Wind Power Project is expected to come on-stream in mid-2018. It is a 260 MW project run by Energy Absolute, the largest private renewable energy firm in Thailand. The project consists of five separate components each in Chaiyaphum province, run by five subsidiary companies of Energy Absolute. The facilities will be built on three sites, generating 80 MW, 90 MW, and 90 MW, respectively, of electricity. It is being financed by a loan of \$157.50 million from ADB and concessionary funding of \$18.9 million from the ADB CTF. It is the fifth project under the ADB CTF in Thailand, and completes ADB's allocation of the \$100 million in renewable energy financing.



Infrastructure

ADB's CPS for Thailand places a heavy emphasis on both infrastructure development and the facilitation of private sector involvement in sectors of the economy where the state has historically played a dominant role. Lending for infrastructure projects has been a core focus of ADB activities in Thailand since the early 1970s. While new borrowing for infrastructure in Thailand has been relatively limited since the establishment of ADB's TRM on account of domestic market liquidity, ADB continues to make a major contribution to the improvement of the country's road and rail systems, and the facilitation of private sector involvement in infrastructure investment.

Road Systems

As a result of considerable investment over the last 30 years or so, Thailand has built up a comprehensive system of good quality two- and four-lane highways and paved provincial roads. In pursuit of enhanced economic efficiency and competitiveness, and associated social gains, further improvements in the road system continue to be a high-priority policy. The DOH has identified intercity motorways, Bangkok express ring roads, industrial ring roads, four-lane highway widening, and roadway network connections to neighboring countries as its strategic priorities for the road system. ADB's strategy is to assist the Ministry of Transport in this regard.

Box 8: Greater Mekong Subregion Highway Expansion Projects

Considerable ADB investment has been directed toward highway expansion, which serves the dual purpose of facilitating the movement of people and goods within the domestic market, while contributing to enhanced connectivity and economic linkages with neighboring countries within the Greater Mekong Subregion. Several stretches of highways in northern, northeastern, and central Thailand have been upgraded to the four-lane divided highway standard as part of the various economic corridors, which connect these regions to neighboring countries (see Section IV). Two additional projects will be discussed briefly here, as they represent the only two loans for infrastructure that the Government of Thailand has taken out since the inception of ADB's TRM. In December 2009, a loan of \$77.1 million was approved by ADB for the upgrading of 178 km of existing two-lane national highways to four-lane divided

standard: Highway 12 between Phitsanulok and Lom Sak (105 km), which forms part of the GMS East–West Economic Corridor; and Highway 359 from Phanom Sarakham to Sa Kaeo, which makes up part of the GMS Southern Economic Corridor. The Government of Thailand contributed an additional \$102.3 million to this project, the construction of which was completed in mid-2016. The project was completed ahead of schedule, under budget, and in full compliance with all ADB guidelines. A highly favorable performance evaluation, together with a tried-and-tested infrastructure investment model, contributed to the in-principle approval by the cabinet on 18 October 2016 of a further B6.8 billion highway improvement project in the northeast region, on Highway 22 from Udon Thani to Sakhon Nakhon, and then to Nakhon Phanom, and on Highway 23 from Roi-et to Yasothon. ADB's lending process is under way and is expected to obtain approval by 2017, with construction commencing by 2018.

Source: Asian Development Bank.

ADB has also contributed two TA projects for intercity motorways projects, including an in-depth analysis of the potential for PPP in motorway investment. This analysis led to the cabinet approval for a PPP-financed motorway connection from Bang Yai to Kanchanaburi in western Thailand, as part of the economic corridor linking the Dawai deep sea port in Myanmar.

Lending for infrastructure projects has been a core focus of ADB activities in Thailand since the early 1970s. ADB continues to make a major contribution to the improvement of the country's road and rail systems, and the facilitation of private sector involvement in infrastructure investment.



Rail Systems

ADB has been providing technical support to the development and improvement of two rail systems in Thailand: the mass rapid transit system (MRTS) in Bangkok, and the State Railway of Thailand (SRT).

State Railway of Thailand

The mainline railway system in Thailand makes an important contribution to help the government achieve several of its sustainable development goals. It has the potential to boost competitiveness by reducing both the temporal and financial costs of in-country transport, particularly relating to import and export trade. It can also be a crucial cog in subregional trading systems. Historically, the subsidized railways have been an important means of domestic transport for lower-income groups, thus helping to alleviate poverty and facilitate economic mobility. By taking freight transport off the roads, the railways may also help reduce pollution and congestion. Heavy investment in the road system over the last 30 years has been paralleled by a decline in much-needed investment in the railways, leading to a shift from rail to road freight. The rail system is in desperate need of investment in track, locomotives, and rolling stock, and also has a very poor safety record. The SRT has to address urgently its debt burden, which in 2012 stood at B100 billion (\$3.2 billion),



and an annual operating loss of B10 billion in 2008 (the most recent figures available). The SRT is in urgent need of reform, restructuring, investment, and modernization.

ADB was asked by the the government to help pave the way for the restructuring of the state-run railway system to underpin the institution's immediate survival and strengthen it for the longer-term by improving its operational performance. An initial TA collected and collated background information and stakeholder opinion, conducted a situation analysis, and delineated a policy matrix and restructuring program. To help the government identify a strategic approach to railway reform, ADB helped draft a Railway Policy Statement which set out key principles and objectives, including recapitalization, infrastructure recovery, and safety improvement to raise public confidence in the future of the Thai railway system. The government then requested a follow-up capacity development TA, which focused specifically on the passenger transport component of the rail transport system. Specifically, the project explored how the quality of the railway system, especially third class travel, could be improved without pricing low-income groups out of the market. ADB helped the government formulate a new passenger service strategy and drew up a road map and implementation plan. The first priority is public safety, with the establishment of a safety task force and an immediate safety audit. The second was the establishment of a project management organization to manage some 20 major capital investment projects which lay at the heart

of crucial infrastructure improvements. Other priorities include simplifying the fare structure, facilitating better integration with other components of the transportation system, rebranding the state railway, and improving communication with the general public to build a more positive image of the railway system as the reforms progress. As a follow-up, the government also requested further TA to help strengthen the SRT's operational performance by designing and helping to implement a comprehensive financial management system. A robust and modern financial management and information system is essential not only for the efficient accounting of the SRT's financial performance, but also to enable its management to undertake strategic planning, operational decision making, and service monitoring and evaluation.





Mass Rapid Transit System

On 5 December 1999, the first MRTS in Bangkok was officially opened. The so-called Bangkok Mass Transit System Skytrain was funded entirely by private enterprise, and was designed to help alleviate traffic congestion in the central business district of the metropolis. It now extends to 36.9 km serving 34 stations. A second MRTS, the Blue Line, was opened in 2004, the Airport Rail Link in 2010, and the Purple Line in August 2016. The 2004 Bangkok Mass Rapid Transit Master Plan envisaged further expansion of the MRTS to 567 km, although this was later scaled down to 118 km in 2006. With such a large and diverse metropolitan rail network, operated by different authorities, there is an obvious need to create a joined-up, integrated system. To this end, in 2005, the government requested advisory assistance from ADB regarding the strategies it might deploy to integrate all urban rail systems in the capital city, and to undertake in-depth analysis of institutional, financial, and policy issues associated with a planned investment

of more than \$10 billion in the MRTS over the coming 5 years. Integrated ticketing, fare-setting, revenue-sharing, and service planning for the expanded MRTS were particular priority areas, as well as strengthening coordination and communication across the various regulatory and management bodies. ADB engaged various internationally recognized specialists on urban MRTS, policy-making, PPPs and financial modeling. They presented various institutional mechanisms and policy options for coordinating the regulatory bodies and integrating the existing MRTS and its proposed extensions, a financial model for analyzing operating costs, and a gross-cost concession model for promoting private operation and maintenance for less financing viable lines. The consultants recommended a single automated ticketing system to facilitate network integration and increase passenger traffic. Several of ADB's recommendations from the above TA were incorporated in the revised master plan, which the government then sought ADB's assistance in implementing.

Efforts to encourage people to leave their cars at home and use the MRTS in Bangkok have historically been encumbered by the incompatibility of the ticketing systems of the Bangkok Metro Public Company Limited and the Bangkok Mass Transit System, or Skytrain. Passengers must purchase separate tickets for each system and pay additional flagfall charges (fixed initial fees) when making transfers between the two systems. ADB has been helping the Government of Thailand to devise a system for integrated ticketing across all present and future components of the MRTS, including strategic and financial planning, an implementation program, and an assessment of legal and institutional requirements. The consultation produced a road map for introducing a single, common fare smartcard which would be used on all the lines of the MRTS, and would also be extended to other modes of transport such as buses and

ferries. It also recommended a gross cost concession contract for income-sharing between the government and the private entities involved in the MRTS, overseen and audited by a central clearing house. The government also requested a feasibility study for procuring the integrated ticketing system, and TA to provide management advisory services for participating agencies to assist with procurement and implementation. ADB also helped with the planning and designing of this underlying corporate system. Recently, ADB is discussing with the government the possibility of providing financial assistance for the construction of future mass rapid transit lines. ADB is also exploring with the government new funding packages, such as in the financing or purchase of rolling stock, which can help make substantial cost savings in infrastructure investment for the government by using ADB's AAA credit rating to build supplier confidence.



Photo Credit: Bangkok Expressway and Metro Public Company Limited 

Public–Private Partnerships

The MRTS is one of several sectors under infrastructure development where ADB has been helping the government explore the potential for PPP as an investment model, which accelerates infrastructure development while reducing the demands it makes on the public purse. During 2010, PPP was a relatively new concept in the Thai context, and thus ADB has provided three TA projects to help the government improve its capacity to oversee infrastructure investment using the PPP model. This included the revision of legislation governing the review and approval of PPPs, which was promulgated in 1992 in the form of the Act on Private Participation in State Undertakings. The legislation on PPPs needed to be updated to accommodate and guide prospective private sector involvement in the MRTS, as well as other forms of infrastructure. The government had encountered problems in the clear definition of PPP, and the 1992 law lacked concrete evaluation criteria for the assessment of PPP projects. There was also a lack of clear procedures for the allocation of risks between public and private partners, and of provision for government intervention in the public interest should circumstances dictate. ADB was asked to assist a Ministry of Finance PPP task force in devising an enabling PPP framework in support of its medium-term infrastructure development program, as well as helping to identify priority projects and strengthen institutional capacity. The ADB TA defined the legal procedures and institutional mechanisms for drafting new legislation concerning the structuring, financing,

and implementation of PPPs in Thailand, and the findings were used in the promulgation of a new Private Partnership in State Undertakings Act in March 2013, as well as the formation of a State Enterprise Policy Office and a central PPP Unit, and the establishment of a Project Development Facility.

More recently, ADB has been assisting the government in mainstreaming PPP, and rolling the model out to the social sector to help enhance the capacity of social sector bodies to attract more private investment. A TA was commissioned to help the Ministry of Public Health (MOPH) to identify pipeline PPP projects for



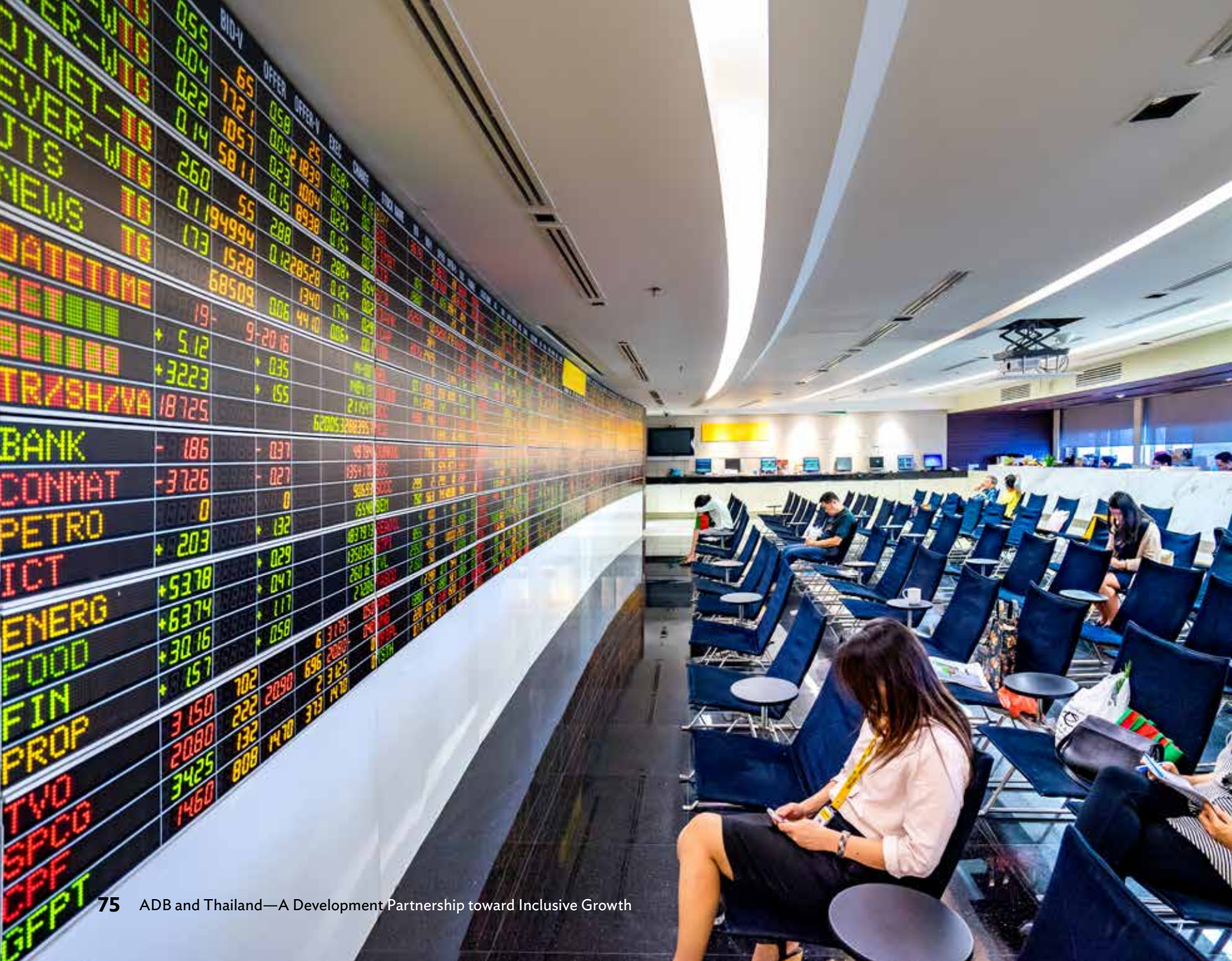
the health sector and, together with the Ministry of Education, strengthen capacity to procure, manage, and monitor social sector PPPs. In the health sector, Thailand faces significant future challenges in seeking to bridge the health service gap between rural and urban areas, catering to the health and welfare needs of an aging population, and keeping up with technological and organizational advancements in health care. Such infrastructure requires substantial investment, and thus the MOPH has been keen to explore ways of attracting more private sector involvement in the public health service, such as through PPP. However, the MOPH lacks the capacity and experience to promote, implement, and manage PPP health projects. ADB's TA helped by undertaking a sectorwide diagnostic analysis, reviewing policy provisions that are relevant to PPP, and identifying potential projects for PPP in the health sector. These included on-site laboratory management services; haemodialysis; advanced imaging radiological services; development of new hospital facilities and infrastructure; and cardiac, cancer, and geriatric medical services. The TA helped to improve the overall understanding and prerequisites of PPP schemes and business opportunities at the MOPH and helped establish institutional procedures for identifying and assessing potential PPP opportunities. Lessons learned from the analysis of PPP potential and constraints in the health sector are being applied, through further TA, in the form of a pilot scoping study for project structuring. The next phase is to develop a long-term master plan for PPP in the health sector.

Finance Sector

ADB has been supporting the development of the finance sector in Thailand since ADB's inception in 1966, and this continues as a high priority in ADB's current CPS. There are two key and related strands to the work of ADB's TRM in this regard: the development of Thailand's capital markets and financial inclusion.

Capital Markets Development Program

Following on from the work ADB undertook on financial markets reform in the immediate aftermath of the 1997 financial crisis, ADB returned to support capital market development in Thailand through a series of TA projects and, subsequently, in February 2011, with a program loan of \$300 million. The Capital Market Development Program was designed to contribute to the implementation of the government's Capital Market Development Master Plan, which ran from 2009 to 2013, and which included such objectives as liberalizing the securities business, demutualization of the stock exchange, streamlining the tax system relating to financial products, developing the domestic bond market, and legal reform. The program was partly a response to the effects of the global financial crisis in 2007–2009, which had reduced the value of the Thai stock market by about 50% and revealed the insufficient capacity of domestic capital markets to finance much-needed investments in the public and private



sectors. The government wished to make the country's capital markets more resilient in the face of external shocks by improving coordination between regulatory agencies, promoting greater transparency in the capital market sector, and strengthening linkages with regional capital markets.

The Capital Markets Development Program was accompanied by a TA designed to help Thailand develop an internationally competitive capital market through attracting and generating secure and diverse funding sources, which could help contribute to the country's domestic investment needs. The TA involved several government departments and agencies. ADB helped the PDMO to improve its capacity for establishing and operating a bond market development fund, to establish procedures for onlending, and to develop a framework for guarantees to state-owned enterprises. The TA helped the Secondary Mortgage Corporation to evaluate the mechanisms for the future positioning, shareholding, organizational structure, and market

ADB has been supporting the development of the finance sector in Thailand since ADB's inception in 1966, and this continues to be a high priority in ADB's current CPS. The key areas include Thailand's capital development of Thailand's capital markets and financial inclusion.

products for underpinning the viability and sustainability of its operations. ADB also provided advice to the Securities and Exchange Commission in developing procedures for independent review of audit practices to be adopted by the auditors of listed companies. Advice was also given to the SET in the development of a road map for the Capital Market Development Fund, and the Bank of Thailand to improve exchange control policy. A study on a mortgage insurance scheme to protect lenders against loss caused by borrower default was conducted for the Fiscal Policy Office (FPO). All reform actions under the Capital Markets Development Program were successfully implemented. Having thereby helped improve the regulatory infrastructure at the top of the finance sector pyramid, and with the middle segments—the commercial bank sector—now functioning effectively, ADB's attention then turned to the popular and semiformal echelons of the pyramid, focusing on the pressing issue of financial inclusion.

Financial Inclusion

The government approached ADB to provide assistance with improving financial inclusion following the publication of the Global Microscope survey of the microfinance business environment. Thailand placed last out of 55 surveyed countries with a regulatory framework score for financial inclusion of 21.2/100 (compared with Cambodia which scored 87.5/100) (Economist Intelligence Unit, 2009). To comprehend the Financial Institution

(FI) landscape in Thailand, ADB did a preliminary study, published as an ADB Working Paper (Bird, Hattel, Sasaki, and Attapich, 2011). ADB was then asked to help the government devise a National Strategy for Financial Inclusion. Financial inclusion is a development strategy that aims to ensure that everyone who wants and needs to can have access to affordable, appropriate, and dependable financial services.

Attempts to foster financial inclusion in Thailand actually predate the concept's emergence as a central development objective around the year 2003. These early efforts provide an infrastructure, particular in rural areas, which constitutes a unique and promising potential foundation for building FI. Government Savings Bank (GSB) was established in 1949, based upon the Savings Office created by King Vajiravudh in 1913. The country's largest credit and savings specialized financial institution (SFI), the BAAC, which mainly benefits the rural population, came into being in 1966. Following the problems people experienced in the aftermath of the 1997 Asian financial crisis, the government introduced two schemes, which principally targeted lower-income groups. The National Village and Urban Community Fund (more popularly referred to as the Village Fund) allocated a B1 million seed fund to each of Thailand's 75,000 villages and 4,500 urban communities to be used to finance rotating credit and savings associations, and support local social services. The government also introduced a universal health coverage scheme, which guaranteed all Thai citizens access to a basic minimum of health

care. In 2011, the government established a Bureau of Financial Inclusion Policy and Development within the FPO with a view to strengthening the extension of financial services to low-income groups.

Thailand's financial system falls broadly into three categories: formal (commercial banks, finance companies, credit agencies, SFIs such as the BAAC and GSB, and nonbank financial institutions), semiformal (cooperatives, credit unions, and village funds), and informal (self-help groups and community financial organization). The government has played a dominant role in providing financial services for poorer segments of the population, largely through government banks, SFIs, and the Village Fund. By



contrast, commercial banks have had much less involvement with low-income groups, despite government attempts to facilitate banks' expansion into this segment of the population. Accordingly, rural areas in particular have to rely on a wide variety of informal and semiformal institutions to borrow money for productive investment, for their savings, and for making financial transfers (e.g., receiving remittances). Despite their importance to low-income rural people, the informal finance sector only accounts for approximately 0.3% of Thailand's total credit volume, and the semiformal sector only an additional 7%. Based on the detailed evidence presented in an ADB TA report, the authors recommend a joined-up strategic approach that feeds financial inclusion as a policy objective into all segments of the finance sector, from

formal to informal, government to commercial, through regulatory influence and financial incentive. Commercial considerations alone will not readily change the status quo, but innovative new products and imaginative new technologies, such as a mobile phone e-money platform, can start to reduce the gap between need and supply for those the formal finance sector has largely bypassed. Orchestrated effectively, microfinance can function as a development tool by promoting and facilitating savings and intelligent consumption.

With regard to insurance, the first challenge is to change the insurance culture in Thailand to help the many millions of uninsured people to recognize the value of taking out cover for illness, disability, unemployment, retirement, accident, or death. This may require better financial education to draw low-income people in particular away from informal systems of social protection, which may not be robust enough to cope with sudden and unexpected calamities. Affordability is obviously an important issue for the poorer members of society, so commercial, community, and public sector insurance products and schemes should be designed to suit people's ability to pay. In Thailand, of the 18 million or so policies which are supported by a variety of formal and informal risk carriers, only some 9,000 policies are what might be categorized as microinsurance (insurance products for low-income groups specifically tailored to their particular needs and circumstances). The commercial sector is almost completely absent from this segment of the market,

in part because the financial returns on very low premiums are unattractive, but also because the government already has a strong presence in social protection at the local level through its universal coverage schemes, even though these do not insure all forms of risk. Thus, to achieve inclusive insurance, there is a need for much more product development and regulatory attention to be given to the microinsurance segment of the market. While more imagination and commitment might be applied to designing insurance products with low-income people in mind, there is already in place a distribution network—post offices, community-based organizations, cooperatives, credit unions, mobile network operators, and even retailing outlets—through which microinsurance cover and product information might be disseminated. The Office of the Insurance Commissioner might also offer training to agents and professional staff in formal insurance companies to help them develop and promote microinsurance products: there are hundreds of thousands of insurance agents in Thailand, but less than 1,000 deal with microinsurance.

The study also looked at the regulatory framework for the micro segment of the financial market, and found that the main impediment to the commercial banks' greater involvement in the microfinance sector appears to be that, since their recovery from the financial crisis, they have been doing quite well out of the status quo. When the Bank of Thailand introduced Microfinance Guidelines in 2011, few commercial banks demonstrated much



interest in or commitment to downscaling their operations to deliver more microfinance to lower-income groups. In general, the risks and costs of extending services to poorer citizens are insufficiently attractive for the banks to play a leading role in financial inclusion from market incentives alone. One recommendation was to create a new licensing and supervision regime for microfinance, tiered to accommodate deposit-taking, credit-only, and small informal institutions. In an open market, regulatory coercion is not feasible, but facilitating the banks' greater involvement at the grassroots level by supporting the use of modern mechanisms such as mobile phone banking may help to raise participation through improving accessibility.

SFIs have been much more active in making small-scale finance accessible to poorer and more remote communities, partly because historically they have had a longer presence here, and partly because they have experimented with tailored savings products, and outreach connectivity with community groups. These SFIs are not exposed to the same level of financial risk as the commercial banks, as some of their losses may be covered from the state budget although historically this has rarely been necessary. They are not subject to the same level of regulatory supervision as commercial banks, and their repayment performance is also generally weaker, which has a negative impact on credit discipline in the segment of the market that they serve. Semi-formal and informal FIs, by their nature, have tended to be closer to the income groups that are targeted by financial inclusion policy and, as such,



continue to play a very important role. But regulatory oversight—is often lax, and needs to be improved. Another challenge for the future will be to find a way to formalize these informal institutions without stifling the actual and potential role they play in financial inclusion.

The most significant consumer protection issue facing lower-income groups is indebtedness, which is a serious impediment to economic and social progress. According to the 2013 FinScope study, 62% of farmers are in debt, making them the most indebted occupational group in Thailand. Indebtedness is, in turn, often linked to reckless lending, where the best interests of borrowers are subservient to the financial interests of private lenders. There are presently insufficient regulatory checks and balances which oblige lenders, particularly nonbank financial institutions, to undertake thorough checks of customers' debt liabilities and their repayment capability, and this may be compounded by poorer clients' lack of financial literacy and their ability to evaluate the risks attached to availing themselves of seemingly cheap credit. Lenders may secure their loans against the client's assets, but their ability to repay may nonetheless be constrained, meaning that they are at risk of losing their assets and ending up worse off than before taking out a loan. Informal lenders can be quite unscrupulous in this regard, and many poorer people in the peripheral provinces may be trapped in a perpetual debt cycle, borrowing more simply to service existing debts. Over-lending to high-risk clients is also not sound business for the finance industry, but the denial of loans

to vulnerable social groups runs counter to some of the principles of financial inclusion.

Policy responses should include both a tightening up of the regulatory system, and the design and distribution of credit (and other financial) products that are better tailored to the needs and circumstances of low-income people. Evaluation of debt capacity needs to be more rigorous, but also needs to be allied to more accurate and transparent financial information.

In January 2012, ADB embarked on a program to develop a strategic framework for financial inclusion, which would help improve the access of low-income groups, in particular to safe and affordable financial services. A TA in 2012 involved wide consultations with the key institutions involved in delivering financial services, including the government, banks, and savings and credit groups, in order to improve policy-making and the supervision and regulation of relevant components of the finance sector. The TA involved analytical and diagnostic work to evaluate the current status of financial inclusion in Thailand; the formulation of a national strategy for financial inclusion; and an implementation plan for financial literacy, consumer protection, microinsurance, and institutional strengthening. The ADB TA, financed by the Japan Fund for Poverty Reduction, focused on six elements: microfinance supply side, microinsurance, qualitative demand side, microfinance regulation, consumer protection, and financial literacy.

Box 9: Financial Literacy

A recurring theme that emerged from the 2012 technical assistance for financial inclusion, and which resonated with earlier findings from the capital markets development program, was the need to improve financial literacy to overcome obstacles in all layers of the finance sector. Many larger firms were absent from the capital market and stock exchange because their management had insufficient knowledge about how these institutions operated. Some small and medium-sized enterprises did not have full access to commercial banking facilities because their bookkeeping and accounting practices were not up to formal standards. Employees wishing to opt into provident funds lacked the requisite knowledge to select the most appropriate options. And formal financial knowledge was found to be particularly low across the board among low-income groups in both rural and urban areas.

The government's Strategic Framework for Financial Inclusion places a strong emphasis on financial literacy, particularly among low-income groups and other target audiences, as a means of building a foundation for their fuller, fairer, and more effective inclusion in the nation's financial system. In 2013, the Asian Development Bank (ADB) conducted a survey of the demand, supply, and impact of financial education services in Thailand, and made policy and operational recommendations based on promising models identified locally, nationally, and

internationally. The survey identified 25 financial education programs in operation in Thailand across a range of bodies. The level of provision was patchy across regional and among different demographic and social groups, and coordination or synergy between the programs was limited. Specialized financial institutions such as the Bank for Agriculture and Agricultural Cooperatives and the Government Savings Bank had both quite long-established financial education programs (e.g. "smart farmer," "debt doctor," and "sufficiency economy learning centers") and a wide national reach through their local branches and in-school activities. Commercial banks recognized the value of financial literacy, particularly among low-income groups, but few were actively involved in large-scale financial education programs. The Stock Exchange of Thailand has a schools-based financial education program, reaching out to 7 million students who might be potential future investors. An array of financial literacy material is available through the mass media via newspaper columns, radio programs, TV channels, websites, and Facebook, although these may not readily reach all lower-income groups in the more remote areas. Among the most widespread financial education provision targeted specifically at low-income households is that provided to local communities by civil society and community organizations, nongovernment organizations, and even development monks in Buddhist temples.

ADB recommended the establishment of an oversight mechanism to draw all financial education provision across a variety of stakeholders into a national financial literacy framework. It also suggested that a Financial Inclusion Innovation Fund be established to encourage both private and public sector organizations to develop new, imaginative, relevant, and targeted financial literacy programs.

In 2015, ADB in coordination with the Bank of Thailand and the Organisation for Economic Co-operation and Development (OECD), conducted a national survey based on the OECD/International Network on Financial Education Toolkit to Measure Financial Literacy and Financial Inclusion. The OECD is in the process of publishing a cross-country analysis report. Based on the country results of the survey, ADB is presently working with the Bank of Thailand to advance national financial literacy in a coordinated and targeted manner.

Source: Asian Development Bank.



Thailand is in an unusual situation in that the private sector has relatively limited involvement in the microfinance sector. This is not necessarily a bad thing, given that the government-led program presently functions quite well. The BAAC and GSB are able to offer competitive rates of interest without being a burden to the government, relying largely on their own resources. These SFIs, together with community-based financial institutions, play a vitally important role in helping the very poor, and may also provide a conduit for these people to gain access to formal private financial institutions in the longer term. However, they lack the standards of prudential regulation that are applied to other segments of the finance sector, and this is an area that requires priority attention. ADB is currently involved in a TA, which is seeking to strengthen specialized and semiformal financial institutions in order to support financial inclusion.

ADB has been at the forefront of efforts to help the Government of Thailand improve the people's access to quality and appropriate financial services and products. One further and very important component of financial inclusion in Thailand that ADB is currently engaging in is reform to the country's pension system. ADB undertook a TA for the FPO on pension system design in 2002, which helped to outline a framework for mandatory pension contributions (Pillar 2) to supplement the Old Age Pension (Pillar 1) which only replaces 35% of average pay for pensions, which is considered inadequate. The TA contributed to the design of a reformed pension system that is institutionally sound, socially

adequate, and financially sustainable, providing maximum social protection at least cost to budgetary resources. Reform to the pension system is also directly linked to capital market development: a healthy capital market requires large institutional investors, including pension funds. ADB will continue to work with the FPO on broadening and strengthening the pension system in Thailand.

Regional Cooperation and Integration

RCI is one of ADB's three critical strategic agendas (alongside inclusive economic growth and environmentally sustainable growth), and five core specializations (alongside infrastructure, environment, finance sector development, and education), as identified in ADB's Strategy 2020,⁵ and reaffirmed in the Mid-Term Review of Strategy 2020.⁶ RCI holds the best prospect for accelerating and expanding economic development, both by providing a stimulus for countries which have not yet progressed to middle-income status, and by extending market and investment opportunities for those that have. As such, it has considerable potential to reduce economic disparities and, by sharing knowledge and best-practice cross-regionally, it may also

⁵ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008-2020*. Manila.

⁶ ADB. 2014. *Midterm Review of Strategy 2020 : Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

help to improve standards of governance, access to technology, and share the most effective modalities of sustainability.

In the Southeast Asian context, regional integration is a process that has been gaining in substance and momentum since the late 1960s. The Association of Southeast Asian Nations (ASEAN), formed in 1967, is a regional bloc of 10 nations (with Timor-Leste expected to join in 2017) built fundamentally upon economic cooperation. An intraregional ASEAN Free Trade Area was established in 1992, and ASEAN also has free trade agreements with the PRC, the Republic of Korea, and Japan. In 2015, the ASEAN member states established the ASEAN Economic Community, which represents perhaps the pinnacle of attempts at regional integration over almost 50 years. The ASEAN Economic Community aspires to become a single market and production base allowing the free movement of goods, services, and investments, and freer flows of capital and skills.

From the early 1990s, academics and policy makers also started to identify, and subsequently facilitate, the emergence of new configurations of economic geography in which production and trade was becoming concentrated in contiguous subregions or growth triangles. Governments came to recognize the advantages of cooperation over competition, and specialization over duplication, and have thus come to embrace the virtues of greater cooperation and integration at the subregional level. ADB has played a leading role in subregional cooperation, and also in helping to strengthen ASEAN integration by linking the various subregional cooperation initiatives. Its flagship strategy, as far as Thailand is concerned, has to foster greater integration in mainland Southeast Asia through its GMS Economic Cooperation Program, which was initiated in 1992. Thailand is also an integral part of the Indonesia–Malaysia–Thailand Growth Triangle, formed in 1993, and the Bay of Bengal Initiative on Multi-Sectoral Technical and Economic Cooperation, formed in 1997.



The key objectives of the GMS Economic Cooperation Program are connectivity, competitiveness, and community.

Box 10: Greater Mekong Subregion

The Greater Mekong Subregion (GMS) program has brought together the six countries that border the great Mekong River (in the People's Republic of China, specifically the provinces of Yunnan and Guansi) which, since the 1980s, has been visualized as a powerful symbol of cooperation and shared purpose. The key objectives are connectivity, competitiveness, and community. The Asian Development Bank (ADB) hosts the Secretariat of the GMS. Since 1992, ADB has invested approximately \$6.3 billion in essential infrastructure projects, which not only facilitate the economic development of individual GMS states but also help to realize the objective of strengthening subregional integration. Under its Regional Investment Framework, which operationalizes the GMS Economic Program Strategic Framework, ADB plans to invest a further \$51.3 billion in the subregion between 2012–2022, mainly in the transport sector (86%), and an additional \$760 million in technical assistance, mainly in information and communication technology (29.2%) and the environment (21.9%).

There are multiple prongs to ADB's GMS Economic Cooperation Program. The principal strategic focus has been on improving

transport infrastructure to facilitate intraregional trade, tourism, and other forms of connectivity. There are three principal transport corridors: north–south, east–west, and southern, with additional connections between these. ADB's energy strategy is improving regional energy cooperation and security, and developing low-carbon and renewable domestic energy resources. The Core Agricultural Support Program is supporting climate-friendly agricultural production and agribusiness, food safety, modernizing agricultural trade, agriculture for clean rural energy, and integration to global food chains. The Core Environment Program aims to synchronize economic growth with environmental protection, biodiversity conservation, and climate change mitigation. There are also programs for urban development, the promotion of the GMS as a single tourism destination; enhanced telecommunication and information and communication technology connectivity; and human resource development for health, education, labor force, and social advancement. In line with the 2014 Midterm Review of ADB's Strategy 2020,^a attention is now focusing on the software or the second phase of regional cooperation and integration, such as trade facilitation and harmonization, investment climate improvement, and the development of border economic zones to build transport systems into fully fledged economic corridors.

^a ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

Source: Asian Development Bank.

Thailand has been ADB's main external development partner for RCI initiatives and, due to its strategic location, is a pivotal player in ADB's GMS Economic Cooperation Program. The GMS Environment Operations Center is hosted by ADB's TRM in Bangkok, while some ADB staff working on the GMS cooperation program have been outposted to ADB's TRM. Thailand is an important economic hub for the GMS, and enjoys synergies with its neighbors both as a market for their produce and as a source of technology, capital, and expertise. RCI has also been an important priority area of the Government of Thailand since the late 1980s. Emerging economic corridors connected by a myriad of transregional road networks mean that Thailand's borders are now key nodal points in integrated trade and communication systems with neighboring territories, which is of considerable benefit to Thailand's lagging regions. ADB's current CPS adopts a two-track approach to help Thailand capitalize on its strategic geographic and economic position. First, it is supporting the government's subregional economic cooperation efforts in respect of integrating production, distribution, and service chains; reducing barriers to regional trade and investment; improving transport and energy

ADB's current CPS adopts a two-track approach to help Thailand capitalize on its strategic geographic and economic position.

connectivity; developing economic corridors; integrating capital markets; strengthening productivity and competitiveness; and facilitating labor migration. Second, ADB is supporting Thailand's efforts to expand its role as a development partner through sharing its experience and knowledge across the region. The important aspects of Thailand-GMS cooperation since the formation of ADB's TRM will be focused in this chapter as a lens on ADB-Thailand RCI initiatives.

ADB-Thailand Partnership in the Subregional Economic Cooperation Program

The transport sector has historically been one of the most important areas of ADB involvement in the GMS since the 1990s, with roads acting as the principal sinews of regional connectivity. In 1995, ADB drew up a Transport Master Plan, which identified priority transport infrastructure schemes for project-based capital investment. Three years later, the plan was broadened to incorporate the concept of economic corridors as a means of facilitating integrated forms of development, trade, production, and welfare improvement between economic hubs. Through these corridors, landlocked territories may gain access to coastal ports, and hitherto isolated areas can be connected to regional markets and value-chains. ADB has been supporting the six member states of the GMS to develop three principal economic corridors: East-West, connecting Viet Nam, the Lao PDR,



Thailand has been ADB's main external development partner for RCI initiatives and, due to its strategic location, is a pivotal player in ADB's GMS Economic Cooperation Program.



Thailand, and Myanmar; North–South, connecting Yunnan with Bangkok via the Lao PDR and Myanmar, and also Viet Nam; and a Southern Economic Corridor connecting Thailand, Cambodia, and Viet Nam. There are also six interwoven branch corridors. In 2004, ADB undertook a GMS Transport Sector Strategy Study to identify the necessary strategic underpinnings for building an integrated multimodal transport network in the GMS during the period 2005–2016, which included 32 high-priority investment projects.

Thailand is pivotal to six of the GMS economic corridors—east–west, north–south, southern, northeastern, central, and southern coastal—and substantial ADB support has been targeted at improving Thailand’s domestic highway system to facilitate transport connectivity with neighboring countries. Even before the establishment of ADB’s TRM, ADB investment in various highway, highway sector, and regional roads projects

has contributed to the upgrading of highways and arterial roads in northern, northeastern, and eastern Thailand, which have subsequently become key parts of the economic corridors system. Additionally, a 1997 border towns development project helped to improve urban infrastructure in towns that are now the focal points of trade connectivity between Thailand and its neighboring countries. ADB’s \$77 million financial support for the GMS Highways Expansion Project has delivered the final upgrades of Thailand’s highway system along the SEC leading to the the Aranyaprathet–Poipet border with Cambodia, and the East–West Economic Corridor linking Thailand with the Lao PDR at the Mukdahan–Savannakhet border on the Mekong River. The Bang Yai–Nakhon Pathom–Kanchanaburi intercity motorway project, for which ADB has provided TA, is an important additional segment of the SEC leading to the border with Myanmar and the deep-sea port at Dawai.



An important environmental initiative, which runs parallel to the economic corridors program, and is based in ADB's Thailand Resident Mission in Bangkok, concerns the preservation or rehabilitation of biodiversity corridors and biodiversity conservation landscapes. The pattern and pace of development in the GMS have been such that natural ecosystems have come under pressure and biodiversity under threat. Outside the mosaic of protected areas in the GMS, the habitats of important and rare wild animals are shrinking, and natural paths of migration are becoming fragmented. The biodiversity corridor initiative is attempting to join together these habitat fragments, and both preserve and rehabilitate important biodiversity landscapes. There is a particular focus on transboundary conservation efforts, which requires bilateral cooperation and commitment from pairs of GMS states, as well as the synchronization of legal frameworks. In the GMS, there are nine landscapes which have been identified as having particularly high biodiversity value, of which six have been selected for pilot projects to restore habitat linkages and corridors. In Thailand, the biodiversity conservation corridor is located in the Tenasserim Range in western Thailand, between the Western Forest Complex and the Kaeng Krachan Complex.

Climate-friendly agriculture and food safety are among the key environmental objectives of the GMS Core Agriculture Support Program, Phase II, which is implemented by ADB's Working Group on Agriculture, the Secretariat of which is based in Bangkok. The program was originally intended to run from 2011–2015, but

has been extended to 2020. Highlights of the program include the harmonization of food safety standards across the GMS, a community-based participatory guarantee approach (centered on bilateral agreements forged between farmers and consumers, often at the local level), climate-resilient farming systems, and the utilization of biomass for bioenergy while simultaneously strengthening food security, coupled with a regional bioenergy regulatory framework. In Thailand, ADB, in close collaboration with the Ministry of Agriculture and Cooperatives, has provided technical support to 5 selected provinces as pilot sites to implement the participatory guarantee system, which is helping Thailand move forward to become a leading safe food producer and to integrate into global value chains.

ADB also plays a leading role to mitigate the environmental impact of development occurring along the various economic corridors, including supporting the “greening” of road freight in the GMS. Presently, at the pilot stage based in Thailand, the Green Freight Initiative is testing the use of financial incentives to support the uptake of fuel-efficient technologies such as aerodynamics, less-resistant tires, catalytic converters and the use of Global Positioning System, as well as an “ecodriver” training curriculum, which may eventually feed into truck license examinations. A parallel study is being conducted to test the feasibility of applying a similar model to the SMEs sector, where vehicle age and condition may typically be of a poorer standard.

ADB–Thailand Partnership as a Regional Development Partner

Thailand has made the transition from a lower- to a middle-income country in 2011, and aspires to join the ranks of the high-income countries by the year 2026. At the same time, Thailand has targeted a shift from being a recipient of development assistance to becoming a donor and regional development partner, a strategy that was formalized in 2003 with its “Forward Engagement” foreign policy. Thailand has two cooperation agencies to take this strategy forward. The Neighbouring Countries Economic Development Cooperation Agency (NEDA) and the Thailand International Development Cooperation Agency. NEDA, as a new agency, needed to develop the institutional capacity to identify, appraise, and finance complex investment projects, and thus, in 2006, ADB was requested to provide TA to enhance its operation systems and procedures, human resource capacity, information and communication technology system, as well as strategic planning. In 2015, ADB signed a partnership arrangement with NEDA to enable the agency to carry out joint cooperation programs at the national and regional levels. The arrangement is a part of ADB's work over the previous decades in supporting Thailand's role as a regional development partner. Cooperation will take the form of cofinancing, knowledge-sharing, and capacity development in the fields of transport, energy, urban development, development of special economic zones, health, and education. A similar arrangement for joint cooperation between ADB and the Thailand



International Development Cooperation Agency has also been developed. ADB has provided TA to both agencies aiming to develop their capacities in project monitoring and evaluation system for better aid effectiveness.

Box 11: Neighbouring Countries Economic Development Cooperation Agency

The Neighbouring Countries Economic Development Cooperation Agency (NEDA) was formed in 2005 as a public organization under the supervision of the Ministry of Finance. NEDA's main function is as a partner in economic development cooperation with neighboring countries, principally Cambodia, the Lao People's Democratic Republic, and Myanmar, in the fields of transport, energy, urban development, special economic zones, health, education, and capacity-building. It aims to help build regional connectivity in a way that is consistent with the objectives of the Greater Mekong Subregion development program, while also helping to promote a stronger role for the Thai private sector in neighboring countries. Since its inception, NEDA had provided financial and technical assistance projects to a total value of B14.5 billion, and is currently discussing with the Government of Myanmar the provision of a B4.5 billion soft loan for the construction of a 132-kilometer road connecting Phu Nam Ron in Kanchanaburi Province in Thailand with the deep-sea port and industrial center of Dawei in Myanmar. As well as providing financial support, NEDA aims to be a channel for academic and other forms of knowledge to help with neighbors' economic development.

Source: Neighbouring Countries Economic Development Cooperation Agency.

Box 12: Thailand International Development Cooperation Agency

The Thailand International Development Cooperation Agency (TICA) was established in 2004 under the supervision of the Ministry of Foreign Affairs, having previously been known as the Department of Technical and Economic Cooperation within the Prime Minister's Office, where it was established in 1964. TICA includes partnership programs with countries in Australasia, the Americas, Europe, and other parts of Asia, as well as some international organizations such as the United Nations. TICA has, as one of its aims, to serve as a bridge for global sustainable development, with a particular focus on south-south cooperation. Disbursements from TICA during fiscal year 2014 totalled B305 million.

Source: Thailand International Development Cooperation Agency.

ADB support to Thailand as a regional development partner has continued over the past decade through knowledge sharing, capacity development, and parallel financing.

One of the first projects to be explored under the partnership cooperation between ADB and Thailand's development agencies, and which highlights its relevance to the wider GMS RCI program, is the joint development of corridor towns in Myanmar along the GMS East-West Economic Corridor. Three towns have been selected for parallel financing of the Third GMS Corridor Towns Development Project: the border town of Myawaddy, across from the Thai town of Mae Sot; the riverside town of Hpa-An, the capital of Kayin State; and the port city of Mawlamyine, formerly Moulmein, Myanmar's fourth-largest city and the capital of Mon

State. As part of the East-West Economic Corridor program the Government of Myanmar is reconstructing Asian Highway One, which runs from Myawaddy on the border with Thailand and passes by the other two urban centers in the project. The proposed collaborative project seeks to enable these towns to capitalize on their location within the East-West Economic Corridor, and will help improve access to sustainable urban services such as water supply and solid waste disposal. The project, if successful, will be used as a pilot case for trilateral collaboration between ADB and both of Thailand's development agencies.



PART III: TOWARD THE FUTURE

ADB has made a very significant contribution to Thailand's development during the course of its 50 years' involvement with the country, investing almost \$8 billion in the process, in addition to billions more in the GMS, which has benefited Thailand considerably. It has helped finance the construction and improvement of essential infrastructure, which has provided a platform for continued economic growth and efficiency, spatial

deconcentration, and improvements to the welfare of urban and rural citizens alike. ADB has provided substantial assistance to Thailand during periods of economic crisis and, in partnership with the Government of Thailand, has also contributed significantly to essential public sector and financial market reforms, and to sustainable development.



Table 10: ADB Cumulative Lending, Grants, and Technical Assistance by Sector, and Nonsovereign Financing, 1966–2015

Sector	Number of Project	%	Total Amount (\$ million)	%
Agriculture, natural resources, and rural development	43	15.64	420.99	6.29
Education	14	5.09	164.70	2.46
Energy	57	20.73	2,532.75	37.82
Finance	33	12.00	1,058.43	15.81
Health	5	1.82	502.45	7.50
Industry and trade	9	3.27	91.63	1.37
Multisector	9	3.27	4.49	0.07
Public sector management	34	12.36	15.56	0.23
Transport	40	14.55	1,299.79	19.41
Water and other urban infrastructure and services	31	11.27	605.82	9.05
Sovereign financing:	275	100.00	6,696.62	100.00
Nonsovereign financing:	18		1,172.08	
Total financing	293		7,868.70	

Source: Asian Development Bank.

LESSONS LEARNED

Some important lessons have been learned which help lay the groundwork for future partnership between ADB and Thailand. A key to the success of ADB operations in Thailand has been its ability to respond flexibly to a demand-driven agenda. The development landscape has evolved quite rapidly, and so the architecture of development assistance, similarly, has had to advance. ADB has been capable of adjusting its approach as Thailand, and the global context within which it is placed, have changed quite rapidly. The path toward development has not always been smooth, however, the characteristic resilience of the Thai nation, coupled with financial support, TA, and support for crucial reforms from ADB, has helped the country to emerge with a stronger platform for future development. ADB has developed a reputation in Thailand as an honest broker of knowledge, a conduit for international best practice, and a trusted lever of good governance. Staff at the TRM have also nurtured strong working relationships with key public and private sector stakeholders, which has underpinned the efficiency of repeat business in core economic sectors. As Thailand is aspiring toward the status of

Thailand has received \$7.8 billion for ADB loans, grants, technical assistance for sovereign and nonsovereign financings since 1966–2015.



a high-income country, there is a need for ADB to continue its response with innovative packages of financial support allied to world-leading TA.

CHALLENGES

Despite Thailand's impressive development achievements over the last 50 years, there is still plenty of work to do in terms of broadening and deepening the country's development. The challenges include stubborn pockets of poverty, regional disparities, environmental degradation and depletion of natural resources, energy security, and economic competitiveness in dynamic global and regional contexts. Considerable progress has been made with regard to regional cooperation, but work remains to be done on full integration. There is an urgent need to continue the upgrading of the country's human resources, research capacity, and education system if Thailand is to avoid the middle-income trap—the slowing of growth brought about by a failure to move up the value chain into innovation-driven realms of production. Thailand must also find welfare solutions to an aging society, and otherwise strengthen the social safety net.

From ADB's point of view, the principal challenge is adjusting its business modalities to match Thailand's status as a MIC.

THE WAY FORWARD

As in the past, the precise shape and form of the partnership between ADB and the Government of Thailand will be negotiated and agreed between the two sets of parties, based on the twelfth national plan and ADB's Strategy 2020. Discussions might focus on some of the following key areas:

RCI will continue to be a priority focus, given Thailand's strategic position as a regional hub and the centrality of RCI to ADB's development agenda. ADB will continue to partner with Thailand to help neighboring countries. Emphasis will be placed on seeking to ensure that connectivity leads to integration, and that the collective development potential of regional cooperation is realized. The recent opening up of Myanmar provides a timely opportunity for intensifying the process of RCI.



Building on past work in the field of renewable energy and other climate-friendly innovations, ADB aims to focus on cutting edge, niche, and pioneering investments, helping Thailand explore new paths toward sustainability and competitiveness that commercial financial sources may be reluctant to back, but which are essential to Thailand's path toward future growth. ADB can use its knowledge resources and strong credit rating to underpin confidence at the vanguard of future development. ADB will continue to play a role as catalyst to private enterprise and the furtherance of PPP in both

the economic and social sectors at the national and subnational levels. ADB will also continue to lend support to the strengthening of Thailand's infrastructure development and natural ecological systems, with a particular emphasis on river basin management.

ADB stands ready to assist Thailand in adopting the Thai Economy 4.0 model of development, which would help with the transformation of the country toward a value-based economy, in the process avoiding the middle-income trap. The building of a



Photo Credit: Bangkok Expressway and Metro Public Company Limited 

digital economy, the promotion of innovative finance and financial technology (fintech) and a means of strengthening financial inclusion, smart farming and smart enterprise, high value-added services, creative culture, and so on will require considerable investment in human resources, technology, worker skills, and innovation capacity. ADB will provide financial support to Thailand to enhance research and technology, as well as improve innovation management to accelerate inclusive and sustainable economic development, and contribute to improving overall living conditions. ADB will also continue to use its knowledge resources to underpin good governance, which the government recognizes as an essential ingredient of competitiveness, justice, and inclusive and green growth.

ADB will continue to develop innovative financing products and smart knowledge solutions commensurate with Thailand's status, and its effects here may serve as a model of other countries seeking to make the same transition from an upper MIC to a high-income country.

At the same time, ADB will continue with the tried and tested fields of investment, building upon the relationships which have been established with public bodies and, increasingly, private sector entities since the formation of ADB's TRM. These include sustainable energy, with a focus on rooftop solar panels and energy efficiency, the biocultivation of increasingly scarce natural resources, and building on Thailand's leading role in organic and safe food production, as well as leading the dissemination of such technologies to neighboring countries.

The rail system will also provide an important focal point for ADB's partnership with Thailand, including continued involvement in the expansion of the MRTS, and helping Thailand to accelerate rail connectivity within the country and with its neighboring countries.

New directions might include helping Thailand to strengthen the sustainability of its rapidly growing tourism sector, lending assistance to the public health and education sectors, and supporting both biomedical and biotechnology development.

ADB will continue to develop innovative financing products and smart knowledge solutions commensurate with Thailand's status, and its effects here may serve as a model of other countries seeking to make the same transition from an upper MIC to a high-income country..



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ABBREVIATIONS

ADB	Asian Development Bank	NEDA	Neighbouring Countries Economic Development Cooperation Agency
AEDP	Alternative Energy Development Plan	OECD	Organisation for Economic Co-operation and Development
ASEAN	Association of Southeast Asian Nations	PDMO	Public Debt Management Office
BAAC	Bank for Agriculture and Agricultural Cooperatives	PEA	Provincial Electricity Authority
BCP	Bangchak Petroleum Public Company	PPP	public-private partnership
CTF	Clean Technology Fund	PRC	People's Republic of China
DMC	developing member country	RCI	regional cooperation and integration
DOH	Department of Highways	SET	Stock Exchange of Thailand
EGAT	Electricity Generating Authority of Thailand	SFI	specialized financial institution
FPO	Fiscal Policy Office	SMC	Secondary Mortgage Corporation
GMS	Greater Mekong Subregion	SMEs	small and medium-sized enterprises
GSB	Government Savings Bank	SPP	small power producer
IBRD	International Bank for Reconstruction and Development	SRT	State Railway of Thailand
IFCT	Industrial Finance Corporation of Thailand	TA	technical assistance
IFI	international financial institution	TRM	Thailand Resident Mission
km	kilometer	TICA	Thailand International Development Cooperation Agency
kWh	kilowatt-hour	VSPP	very small power producer
MIC	middle-income country		
MOPH	Ministry of Public Health		
MRTS	mass rapid transit system		
MW	megawatt		

ADB and Thailand

A Development Partnership toward Inclusive Growth

Over the past 50 years, the Asian Development Bank (ADB) is proud to have participated in the remarkable transformation of Thailand, one of ADB's founding member countries. Today, ADB supports the addressing of environmental challenges, the building of institutional and operational capacity, and the strengthening of Thailand's international competitiveness. This publication reflects on Thailand's impressive development journey over the past 50 years, and its rise to upper-middle income country status. It is hoped that this publication can also lay the groundwork for future policy directions between ADB and Thailand. As a trusted provider of knowledge and finance, ADB will continue to support sustainable and inclusive growth in Thailand.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to a large share of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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