Country Report



On December 11th, 2020

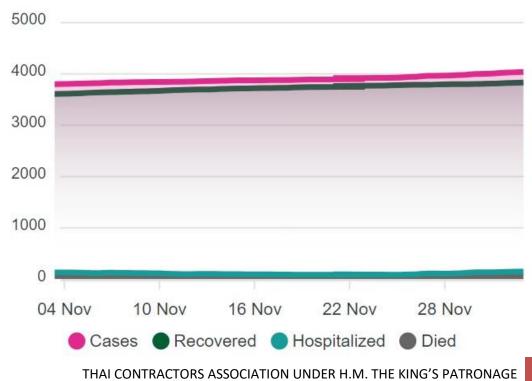
By Thai Contractors Association under H.M. the King's Patronage

1. COVID-19 Status

COVID-19 virus was confirmed to have reached Thailand on January 13th 2020, when the country made the first confirmation of a case outside China. The first local transmission was confirmed on January 31st. The number of cases remained low throughout February, but surged in mid-March, soon rising to over a hundred per day. Emergency decree had been announced, effective on March 26th and has been extended to January 15th 2021. Night curfew from 10PM to 4AM went into effect from April 3rd to June 15th. During the surge, the government announced restrictions on inter-provincial travel. All commercial international flights were suspended from April 4th, and lockdown measures were implemented in varying degrees throughout the country. The rate of new cases gradually dropped throughout April, and by mid-May, locally transmitted infection rates had fallen to near-zero, and easing of restrictions was gradually implemented. However, by the end of November, there were the new confirmed cases in the northern region caused by unofficial land crossing to avoid state quarantine, the strict investigation has been proceeded, including quarantine on people who may have come into close contact with them, to prevent COVID-19 second wave.

The number of the confirmed cases in Thailand, as of December 3rd, 2020

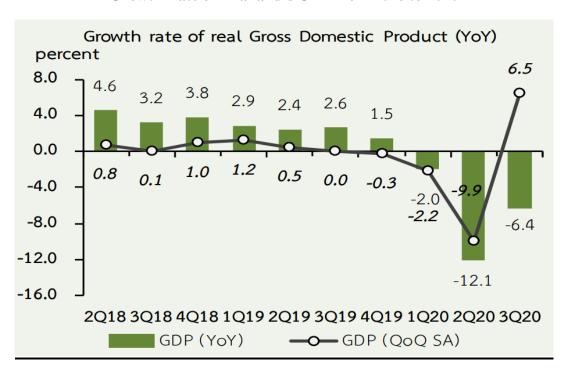




2. Overview of the Economics situations and the Construction Industry

Gross domestic product in Q3/2020 shrank by 6.4%, recovering from a 12.1% plunge in Q2/2020. Agricultural production declined by 0.9%. Non-agricultural production also decreased by 6.8%, compared to a drop of 12.9% in Q2. This improvement was attributable to both domestic and external factors such as easing lockdown measures and measures for COVID-19 infection prevention and control together with the government's economic stimulus packages resulting to signs of recovery in the industrial and service sectors. In addition, the household began to ease COVID-19 anxiety which resulted in higher household consumption expenditure and the improved sign of exported goods. These reflected improved contribution to the economy. GDP in Q3/2020 expanded by 6.5% on a quarter-on-quarter seasonally-adjusted basis, rebounding from three consecutive quarters contraction.

A. GDP Growth Growth Rate of Thailand's GDP from 2018 to 2020



Source: Office of the National Economic and Social Development Council, Thailand

B. Construction Sector Growth

Real Gross Fixed Capital Formation Growth Rates (%YoY)

	2019p1 -	2019p1				2020p1		
		Q1	Q2	Q3	Q4	Q1	Q2r	Q3
Construction	1.9	3.1	3.6	2.8	-2.1	-9.7	7.5	10.7
Private	1.3	1.8	0.9	-0.1	2.9	-4.3	-2.0	0.3
Public	2.4	4.1	5.8	5.1	-6.1	-13.4	15.6	18.6

Source: Office of the National Economic and Social Development Council, Thailand

Construction Sector in 2020

Construction grew by 10.7%, accelerating from an expansion of 7.5% in Q2. This positive outcome came from the expansion in both the private and public sector. For the private sector, the expansion was driven by a recovery in construction of other buildings and industrial plants, while overall residential buildings construction decreased in Q3, according to a record of permission for construction area for condominium, townhouse, detached house, flat house, and apartment in Bangkok and its vicinity as well as in the municipal area, however, residential building construction in the sub-district administrative area continuously rose following its previous quarter. The public sector was mainly driven by general government construction, in accordance with an increase in disbursement for land and building item, partly due to a delay in passing the 2020 fiscal year budget bill causing government agencies to speed up their investment disbursement in the latter half of the fiscal year. Although, the state enterprise construction dropped in Q3, mostly their investments in this quarter were the construction of on-going projects, such as the transmission line system construction of the Electricity Generating Authority of Thailand (EGAT), and the water pipelines system construction of the Metropolitan Waterworks Authority (MWA).

- Private construction increased by 0.3%, recovered from a fall of 2.0% in Q2/2020. The growth was resulted from a 5.2% contraction in residential building construction, improving from a 6.3% decrease in Q2, which contributed by a reduction in construction in Bangkok and its vicinity area and municipal area. However, construction in the subdistrict administrative area continued to increase. Construction of non-residential buildings

- dropped by 0.1%, compared to a fall of 0.4% in Q2/2020, mainly contributed by the construction of commercial buildings, and business and transport services buildings with a fall of 6.3%, and 11.0%, respectively. Construction of the industrial plants grew by 17.5%; meanwhile, construction of other buildings expanded by 22.9%.
- Public construction grew by 18.6%, rising from 15.6% in Q2/2020. The government construction surged by 27.9%, accelerating from 22.3% in Q2. This expansion partly resulted from the disbursement of the Ministry of Transport on the project of construction, repair and improvement of roads, bridges and other structures, and Ministry of Agriculture and Cooperatives on the project of water resource management plan. Meanwhile, state enterprise construction dropped by 0.2%, in contrast to an increase of 3.4% in Q2. There were the ongoing projects from state enterprises in Q3 such as the transmission line system construction of the Electricity Generating Authority of Thailand (EGAT), and the water pipelines system construction of the Metropolitan Waterworks Authority (MWA).

3. Update Issue Related to the Construction Industry in Thailand

A. Building/Construction Material Cost Indices

Price of Construction Material in Bangkok

Descriptions	Unit	Price in Cash (USD) / 2020					
		Aug	Sep	Oct	Nov		
Ready Mixed Concrete	m^3	74.87	74.87	74.87	74.87		
240 ksc, Cube		(THB 2,261)	(THB 2,261)	(THB 2,261)	(THB 2,261)		
Concrete Block Standard Type	pcs	0.23	0.23	0.23	0.23		
19 x 39 x 7 cm		(THB 7)	(THB 7)	(THB 7)	(THB 7)		
Concrete block: Light Weight	m^3	4.97	4.97	4.97	4.97		
20 x 60 x 7.5 cm		(THB 150)	(THB 150)	(THB 150)	(THB 150)		
Clay Brick	pcs	0.05	0.05	0.05	0.05		
7 x 16 x 3.5 cm		(THB 1.48)	(THB 1.48)	(THB 1.48)	(THB 1.48)		
PVC water pipe class 8.5	pcs	1.20	1.20	1.21	1.24		
½" x 4 m		(THB36.15)	(THB 36.12)	(THB 36.54)	(THB 37.38)		
Round bar SR.24	ton	560.71	578.37	583.89	588.30		
6 mm x 10 m		(THB 16,933.33)	(THB 17,466.67)	(THB 17,633.33)	(THB 17,766.67)		

Source: Bureau of Trade and Economic Indices, Ministry Commerce, Thailand

Note : Exchange Rates 30.20 Thai Baht / USD

B. Labour/Human Resource

Employed persons by industry,2013-2019 (in Thousands)

2556 (2013)	2557 (2014)	2558 (2015)	2559 (2016)	2560 (2017)	2561 (2018)	2562 (2018)	Industry	
38,216.6	38,077.4	38,330.4	37,692.7	37,458.3	37,864.6	37,613.4	Total	
13,041.5	12,732.7	13,005.7	11,746.6	11,783.3	12,168.3	11,820.9	Agriculture, forestry & fishing	
61.6	69.0	75.8	66.5	64.5	73.5	60.7	2. Mining and quarrying	
6,294.1	6,393.5	6,365.4	6,288.5	6,107.5	6,258.6	6,124.7	3. Manufacturing	
102.7	117.1	100.2	121.2	126.9	113.3	120.4	4. Electricity, gas, steam supply	
88.6	105.5	69.4	96.0	99.1	77.1	95.2	5.Water supply	
2,387.5	2,269.2	2,165.4	2,352.1	2,160.2	2,112.4	2,191.2	6.Construction	
6,199.5	6,184.9	6,111.3	6,331.4	6,320.8	6,277.3	6,245.4	7.Wholesale and retail trade	
1,144.3	1,192.3	1,223.5	1,198.5	1,232.2	1,259.9	1,301.2	8.Transportation storage	
2,536.4	2,567.8	2,584.8	2,729.4	2,778.3	2,827.1	2,850.1	9.Accommodation and food service	
265.0	247.9	239.3	231.3	219.7	199.0	196.3	10.Information and communication	
526.0	526.8	522.9	545.6	524.5	500.8	515.5	11.Financial & insurance activities	
164.7	159.2	209.4	186.3	204.4	184.1	201.6	12.Real estate activities	
327.5	316.7	348.4	354.4	363.5	386.8	380.0	13.Professional, scientific and technical	
483.7	495.3	517.5	579.4	586.8	560.0	601.5	14.Administrative and support services	
1,596.7	1,589.4	1,609.8	1,579.4	1,588.8	1,626.5	1,611.4	15.Public administration and defence	
1,156.8	1,152.7	1,164.7	1,184.8	1,185.1	1,164.3	1,157.1	16.Education	
627.4	683.7	652.0	706.3	719.5	658.7	643.3	17.Human health and social work	
241.6	255.9	266.4	252.0	242.7	248.2	266.9	18.Arts, entertainment	
675.0	736.1	781.4	829.3	842.4	881.5	932.1	19.Other service activities	
226.4	216.3	224.0	232.1	218.4	211.0	218.8	20.Activities of household as employers	
3.4	4.2	2.6	3.1	3.5	3.3	3.7	21.Activities of extraterritorial	
66.2	61.4	90.4	78.3	86.3	72.9	75.58	22.Unknown	

Source: Ministry of Labour, Thailand 2020

Bangkok Minimum Wage 2016 - 2020

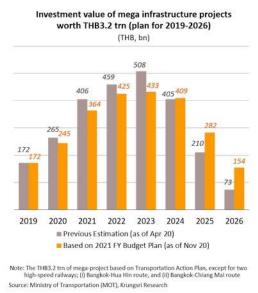
Year	Minimum Wage (USD)			
2016	10.26			
2017	10.26			
2018	10.76			
2019	10.76			
2020	10.96			

Source: The National Statistic Office of Thailand 2020 Note: Exchange Rates 30.2 Thai Baht/USD

4. Current Highlight of Construction Industry in Thailand

A. Opportunities in Thailand

Infrastructure investment would rise in 2021 despite a delay due to budget reallocation after COVID-19 crisis. The need for budget reallocation in response to COVID-19 impact caused some mega-infrastructure projects to start later than scheduled. The Dual-Track Railway project Phase 2 is now under PPP funding instead of solely by fiscal budget, and hence, it will start with only two new routes in 2021 (instead of 7 in 2020). The MRT West Orange Line (Thai Cultural Center – Bang Khun Non) project has been postponed by two years to start in 2022. Nonetheless, several mega-projects are expected to start in 2021, including MRT South Purple Line (Rat Burana), High Speed Airport Rail Link, and U-Tapao International Airport. The overall investment value of mega-infrastructure projects in 2021 would rise by 48.5% YoY, relative to 53.2% under the previous plan. Despite rising infrastructure investment, it would be slower than the original plan estimated in April. Domestic political uncertainty could also delay investments.



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On-going Projects			
Expressway (Rama 3-Dao Khanong)	29.2	2024	On Schedule
Motorway (Rama 2–Ban Paew)	40.1	2024	On Schedule
Suvarnabhumi Airport (Northern Terminal)	63.8	2025	On Schedule
New Projects, starting from 2021			
Dual-track Railways (Denchai – Chiang Khong)	85.3	2027	Delay
Dual-track Railways (Ban Phai – Nakhon Phanom)	68.0	2026	Delay
MRT: South Purple Line (Rat Burana)	101.1	2027	Delay
High Speed Airport Rail Link	224.5	2028	On Schedule
U-Tapao International Airport	215.0	2026	On Schedule
New Projects, expected to start in 2022			
Dual-track Railways (Khon Kaen – Nong Khai)	26.7	2027	Delay

Key ongoing and new mega-projects in 2021-2022

Completion

2028

Delay

Remarks: Most projects will be completed during 2027, later than the original plan that the majority of projects were expected to complete in 2026

74.4

128.0

Source: Krungsri Bank PLC, Thailand

SRT Suburb Rail

MRT: West Orange Line

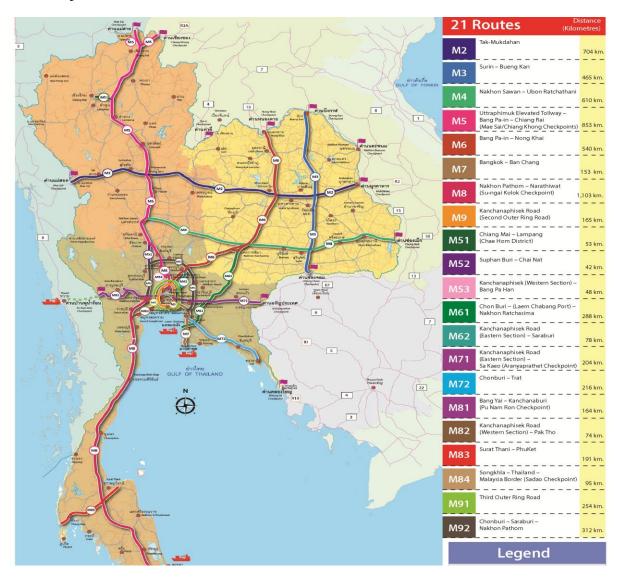
(Salava - Thammasat Uni Rangsit)

(Thai Cultural Center - Bang Khun Non)

• Public private partnership (ppp) : update status

In recent years, the Thai government has initiated the PPP program to facilitate implementation of those planned infrastructure projects. The example of those, which are currently under the bidding process.

 Public Private Partnership for Operation and Maintenance (O&M) Bang Pa-In – Nakhon Ratchasima Intercity Motorway Project and Bang Yai – Kanchanaburi Intercity Motorway Project



Source: Department of Highways, Thailand

- Project Overview

The Bang Pa-In - Nakhon Ratchasima Intercity Motorway Project (M6) covers the distance of approximately 196 km. in total. The project begins at the north section of Bangkok Outer Ring-Road (Kanchanapisek Road), Bang Pa-In District, Phra Nakhon Si Ayutthaya Province and ends in the vicinity of the Nakhon Ratchasima Bypass Road, Nakhon Ratchasima Province, with 9 toll plazas (namely Bang Pa-In, Wang Noi, Hin Kong, Saraburi, Kaeng Khoi, Muak Lek, Pak Chong, Si Khiu and Kham Thale So), 10 interchanges, 1 service center, 2 service areas and 5 rest stops; located along the project route.



Source: Department of Highways, Thailand

The Bang Yai - Kanchanaburi Intercity Motorway Project (M81) covers the distance of approximately 96 km. in total. The project begins at the west section of Highway No. 9, connected with Rattanathibet Road, Bang Yai District, Nonthaburi Province, in the vicinity of Bang Yai Elevated Interchange and ends at Highway No. 324 (Kanchanaburi Road - Phanom Thuan District), Tha Muang District, Kanchanaburi Province. This also includes an approximate 9-km. route alignment from Nakhon Chai Si Junction Interchange to connect with Nakhon Pathom – Cha-Am Intercity Motorway Project, which will be implemented in the future. There are 8 toll plazas (namely Bang Yai, Nakhon Chai Si, Nakhon Chai Si Junction, East Nakhon Pathom, West Nakhon Pathom, Tha Maka, Tha Muang, and Kanchanaburi), 8 interchanges, 2 service areas and 1 rest stop; located along the entire project alignment.



Source: Department of Highways, Thailand

- The Private Party's Obligations
 - The private party shall design and finance the constructions of the motorway system works and the related facilities as well as provide operation and maintenance services for the entire project, including the civil works undertaken by the public sector and the works undertaken by the private party itself, in addition to the toll collection and handing over all the toll revenue to the DEPARTMENT OF HIGHWAYS. The private party's scope of work is divided into 2 phases as follows:
 - (1) Phase 1: Design and Construction The private party's obligations and responsibilities are to design, finance, and construct the motorway system works and the related facilities as well as carry out commissioning tests for all of them, in order to provide services to general public under the terms and conditions specified in the Request for Proposal (RFP), which include:
 - System works, which comprise toll collection system along with the civil works at toll plazas, traffic management and control system, including weight control system, central control building, network communication system, power transmission and distribution system, rescue unit, etc. Public Private Partnership for Operation and Maintenance (O&M) Invitation to Bid
 - Other relevant facilities, i.e. the civil works in addition to those constructed by the DEPARTMENT OF HIGHWAYS, such as U-turns, service roads, the works related to road safety measures, the works related to environmental impact mitigation measures, landscaping, high-voltage cable extension, maintenance warehouse, DEPARTMENT OF HIGHWAYS's superintendent building, highway police station, residential building for DEPARTMENT OF HIGHWAYS staff and highway police, etc.
 - Any other works to complement the operation and maintenance services of the intercity motorway according to the project objectives, including cooperation rendered when being assigned by the DEPARTMENT OF HIGHWAYS to perform any relevant tasks.
 - (2) Phase 2: Operation and Maintenance (O&M) The private party shall be responsible for the operation and maintenance (O&M) of the entire project, including toll collection and operation, provision of convenience and safety to users, traffic management and control, supporting the DEPARTMENT OF HIGHWAYS's and other agencies' operation in the areas of traffic management and law enforcement, maintenance and improvement of civil works, motorway system works and related facilities, procurement of all the project-related equipment and materials, providing sufficient number of personnel with relevant knowledge and expertise to operate the works specified in the DEPARTMENT OF HIGHWAYS's Requirement throughout the PPP contract period, as well as any other tasks specified in the RFP. The DEPARTMENT OF HIGHWAYS shall set up a regular evaluation program for the private party's work

performance in order to compare the private party's operation and maintenance capabilities with those required in the PPP contract. Throughout the PPP contract period, the private party shall provide technology and knowledge transfer to the DEPARTMENT OF HIGHWAYS via knowledge transfer processes, and support the DEPARTMENT OF HIGHWAYS in terms of data, knowledge and experts for training programs, meetings and seminars, including lecturers in different activities at the private party's expense. The private party shall employ as many Thai nationals as possible to work in various positions, including key technical personnel. This is except for the case when no Thai national is found to be decently qualified for the work that requires specialized expertise. In such case, foreign experts may be employed to perform such work. However, the private party shall ensure that such technology and knowledge shall be transferred to Thai staffs to replace the foreign experts within 5 years from the commercial operation date. The private party shall be responsible for payment of all applicable taxes as prescribed under the Thai and foreign tax laws, including the stamp duties, fees, and permits. The private party shall be responsible for other related expenses for the project that are deemed to be responsible by the private party as prescribed in the PPP contract.

- Contract Period

The contract period granted to the private party is divided into 2 phases as follows: (1) Phase 1: Design and Construction. The phase 1 period shall not exceed 3 years from the date specified by DEPARTMENT OF HIGHWAYS as the commencement date in the Notice to Proceed (NTP), except in the case of a time extension approved by the DEPARTMENT OF HIGHWAYS. In case the successful bidder fails to complete the works as scheduled, a penalty shall be imposed at the rates stipulated in the PPP contract. (2) Phase 2: Operation and Maintenance Services. The phase 2 period shall be 30 years, starting from the commercial operation date to the expiration date of the PPP contract, per the Cabinet Resolution.

- Update Status

Completing the bidding process, BGSR Consortium, which consists of BTS Group Holding Public Company Limited (BTS), Gulf Energy Development Public Company Limited (GULF), Sino-Thai Engineering and Construction Public Company Limited (STEC) and Ratch Group Public Company Limited (RATCH), proposed the lowest payment on investment and benefits of Operation and Maintenance.
