International Webinar: Rebuilding Cities Post COVID-19
Topic 1: Urban Regeneration Post COVID-19
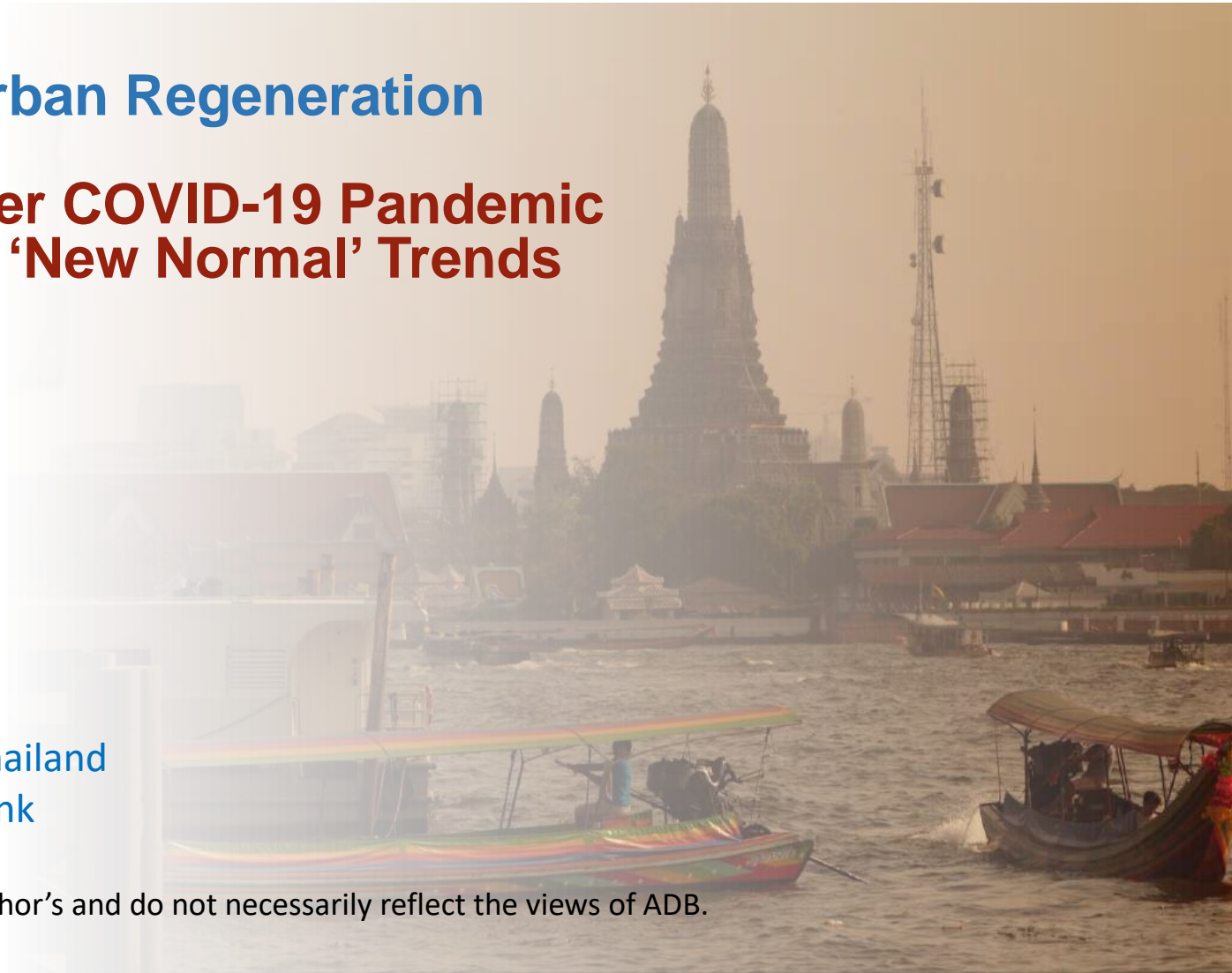24 October 2020

Bangkok Urban Regeneration

Experience under COVID-19 Pandemic and Emerging 'New Normal' Trends

Hideaki Iwasaki
Country Director for Thailand
Asian Development Bank

Cities: Urbanization and its Challenges

Urbanization is often linked to:
- improved economic opportunities
- better access to health and education services
- better living conditions

Urbanization, if uncontrolled, could exacerbate:
- environmental degradation
- increased social inequality
- disaster risks
- massive shortfalls in urban infrastructure

Source: ADB. 2019. Strategy 2030 Operational Plan for Priority 4 Making Cities More Livable, 2019–2024

Bangkok

Bangkok:

- is the capital of Thailand, and its economic, political and administrative center.

- is also a regional hub for many corporations operating internationally and multilateral/international organizations.

- was the most visited city in 2018 with more than 22 million international overnight visitors.*

- generates 47% of GDP of the country.

Basic data of Bangkok**
Population: 16.8 million in 2018 (24.3% of the country)
Land area : 7,762 square km (1.5% of the national land area)
Gross Regional Product per capita in 2018: $14,156
(93% higher than the national GDP per capita of $7,329)
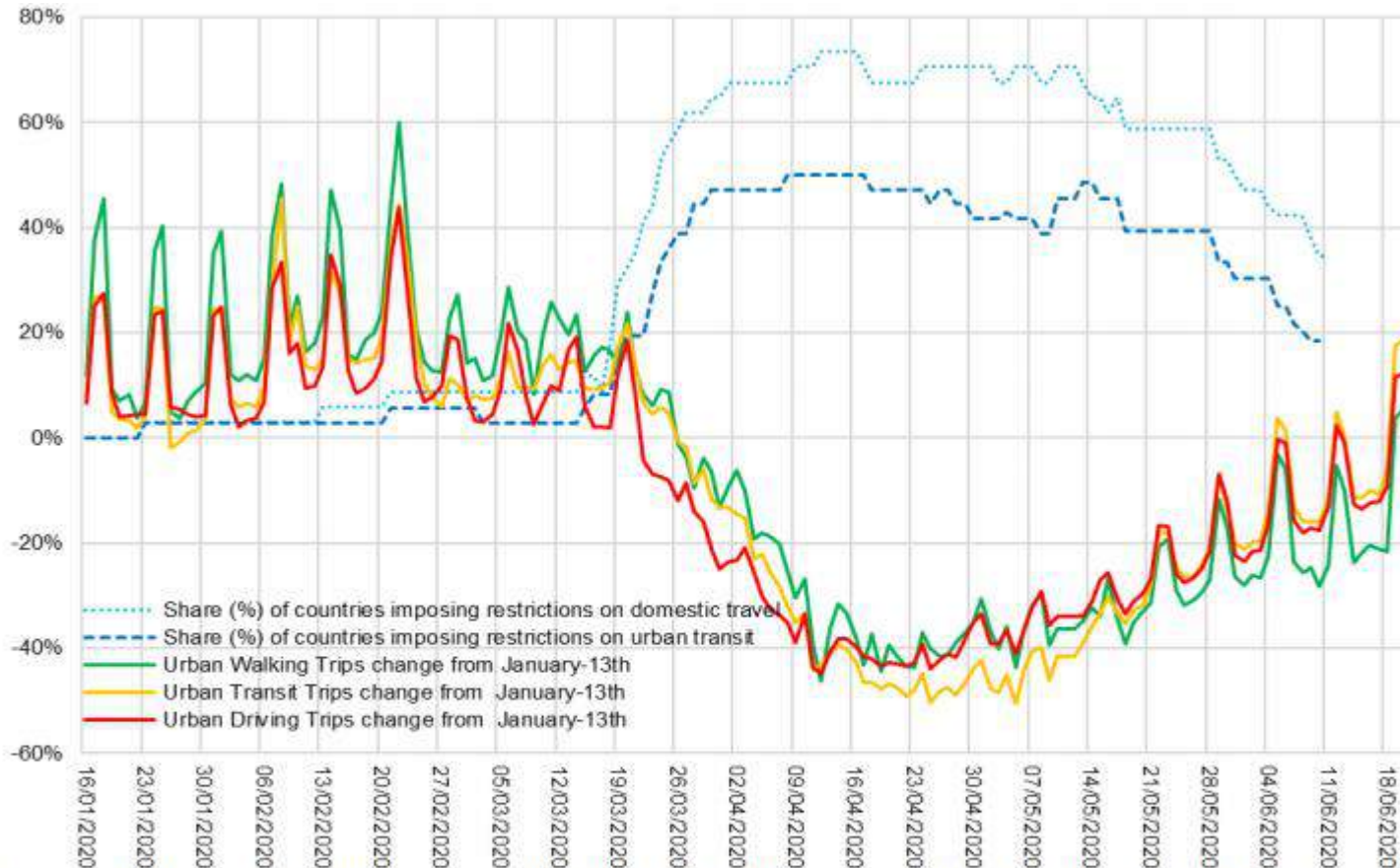
Source:
* Mastercard Global Destination Cities Index 2019
** Bangkok Metropolitan Region comprising Bangkok, Nakhon Pathom, Nonthaburi, Pathum Thani, Samut Prakan and Samut Sakhon
Other data: NESDC

Impact of COVID-19 on Transport in Asia and the Pacific

Sources: H Thomas et al. 2020. Oxford COVID-19 Government Response Tracker, Blavatnik School of Government.
https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker.
Google LLC "Google COVID-19 Community Mobility Reports". Retrieved: 24/06/2020.
https://www.google.com/covid19/mobility/.
Apple (2020) "Apple's Mobility Trend Reports" Retrieved 24/06/2020. https://www.apple.com/covid19/mobility/.

4

From ADB. 2020. Guidance Note on COVID-19 and Transport in Asia and the Pacific

Possible post COVID-19 Trends for Transport Sector in ADB Member Countries

Trend 1: Demand returns on public transport

Demand on public transport returns to pre-pandemic levels.

Factors:
- The virus is under control and there is no reason to avoid public transport.

OR:
- Staying home is not an option for economic reasons.
- There is high proportion of captive users on public transport.
- There is lack of viable alternatives (e.g. absence of NMT facilities and connectivity).

Trend 3: Private transport (car and motorcycle) is king

There is unwillingness to return to public transport. Private transport is preferred.

Factors:
- There is lack of public confidence in public transport (health concerns).
- Users can afford to switch to other modes (e.g. private cars or motorcycles).
- Walking and cycling are not seen as adequate alternatives.

Trend 2: Shifts to active transport modes (walk and cycle)

Travel mode shifts to walking, cycling, and 2–3 wheelers. There is less reliance on public transport. Private car mode may hold, or be slightly suppressed through road space reallocation.

Factors:
- Safe and viable alternatives on non-motorized transport modes are available.
- Road space is reallocated for non-motorized transport modes.

Trend 4: Decreased travel demand

Work from home and e-commerce, and/or economic recession result in an overall lower frequency of travel.

Factors:
- Economic downturn reduces demand for passenger and freight transport.
- There is reasonably high level of digital inclusion and literacy (e.g. availability of digital infrastructure and services).
- E-commerce penetration is high.
- The types of occupations allow commuters to work remotely.

Source: ADB. 2020. Guidance Note on COVID-19 and Transport in Asia and the Pacific

5

Macroeconomic situation:

Thailand's management of COVID-19 is one of the most successful in the world
- Strong national health care system
- Significant experience in managing recent pandemics
- Successful precautionary measures implemented by government

Data on 22 October 2020
10 new cases (all imported cases)
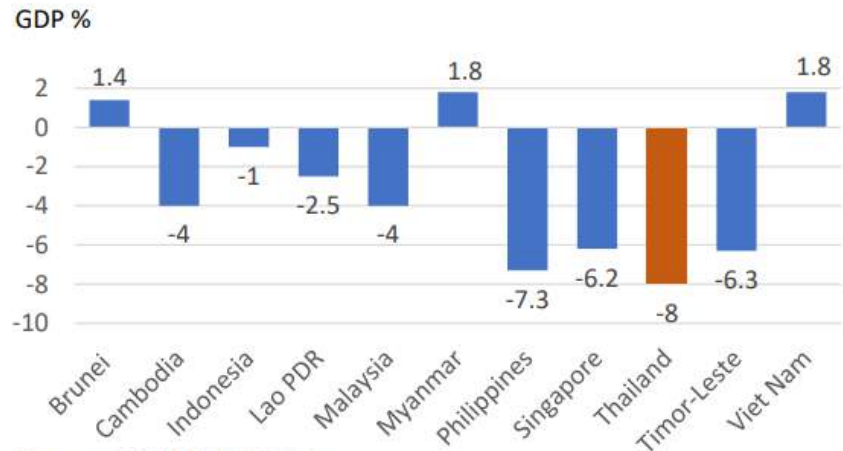**Total 3,719 confirmed cases**
59 deaths
3,514 recoveries

…………………HOWEVER…………………..

It has caused Thailand's first economic contraction since the Global Financial Crisis.
- Total economic loss caused by COVID-19 estimated at $45.9 billion
- GDP growth estimated to be around -8%
- Thailand may be the region's worst hit economy by COVID-19 in 2020

Thailand may be the region's worst hit economy by COVID-19 in 2020

GDP %

	GDP %
Brunei	1.4
Cambodia	-4
Indonesia	-1
Lao PDR	-2.5
Malaysia	-4
Myanmar	1.8
Philippines	-7.3
Singapore	-6.2
Thailand	-8
Timor-Leste	-6.3
Viet Nam	1.8

Source: ADO 2020 Update

Tourism Receipts from Foreign and Thai Tourists

THB million   Source: Ministry of Tourism and Sports

Thai / Foreigner

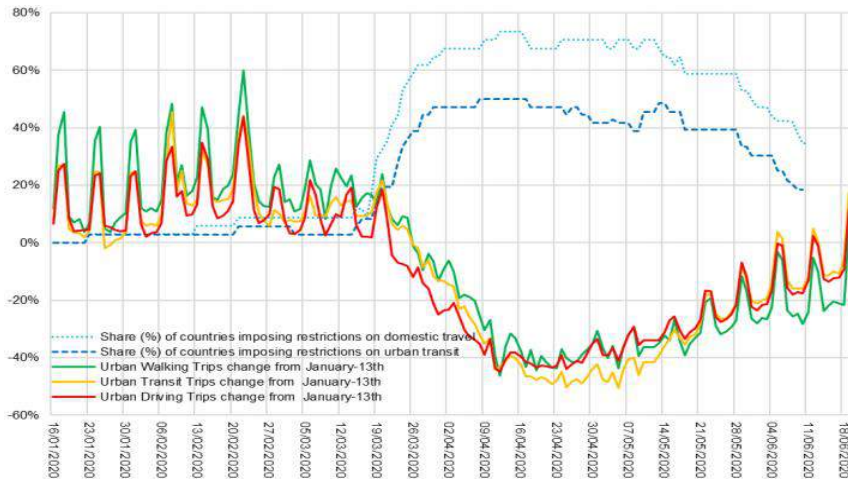|	Thai	Foreigner
2015	+14.6%	+16.7%
2016	+9.9%	+20.8%
2017	+11.6%	+16.3%
2018	+8.3%	+9.9%
2019	+1.2%	+4.3%
Jan-Jun 2020	-62.2%	-65.9%

6

Bangkok: What is happening *now*

Asia and the Pacific

Impact of COVID-19 on Mobility
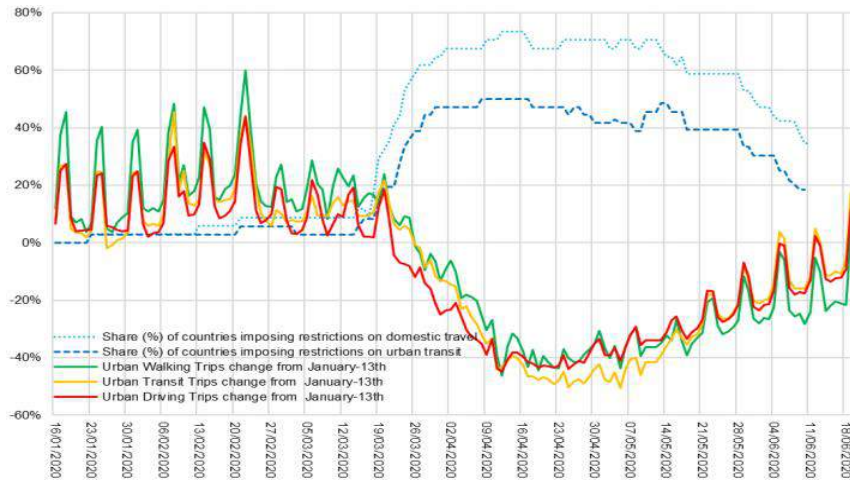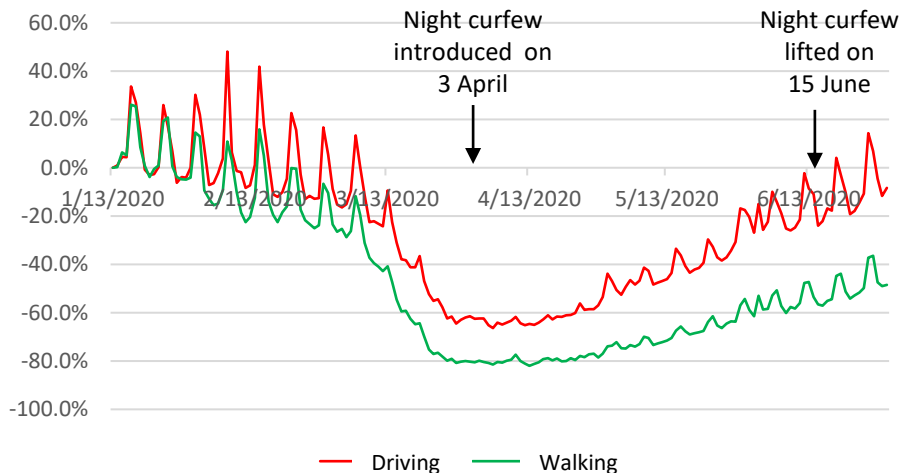
Bangkok: What is happening *now*

Asia and the Pacific

Impact of COVID-19 on Mobility

- In Bangkok, restrictions on movement were imposed on 3 April, gradually reduced and fully lifted on 15 June.

Bangkok (Jan-Jun)

Night curfew introduced on 3 April

Night curfew lifted on 15 June

Driving — Walking

7

Data source: Apple. 2020 "Apple's Mobility Trend Reports" Retrieved on 19/10/2020. https://www.apple.com/covid19/mobility/.

Asia and the Pacific

Impact of COVID-19 on Mobility

- In Bangkok, restrictions on movement were imposed on 3 April, gradually reduced and fully lifted on 15 June.
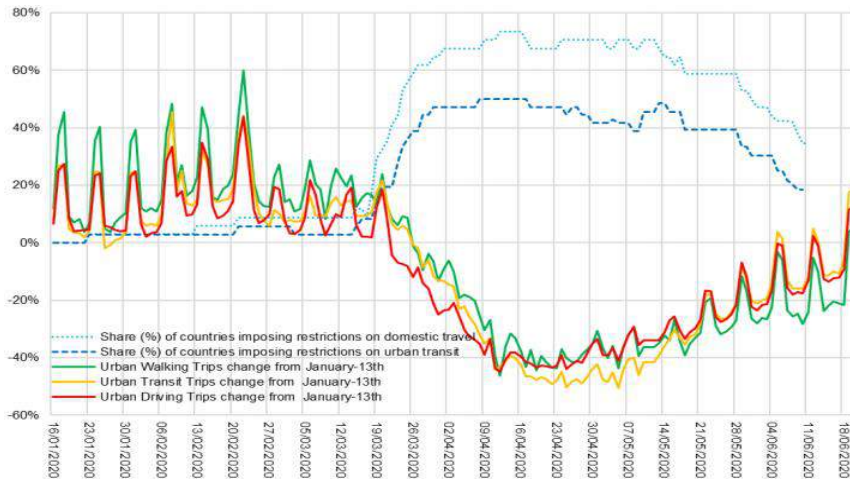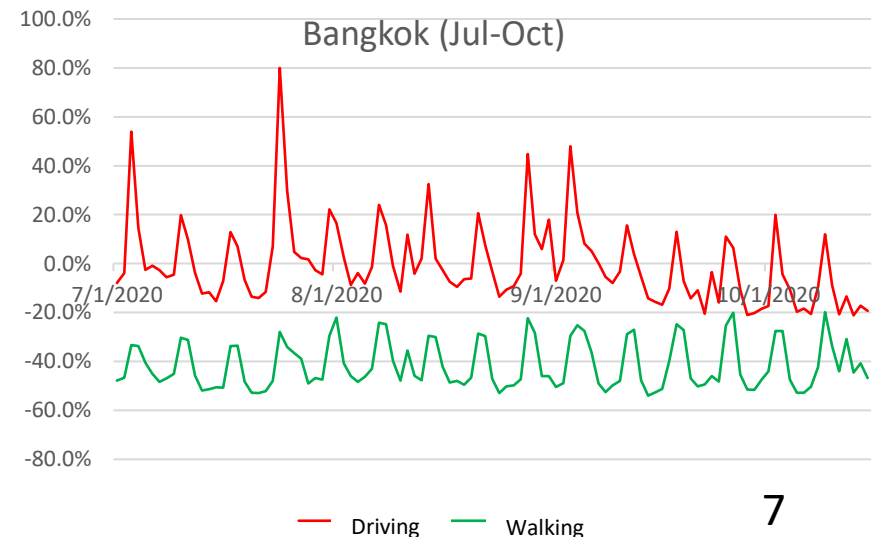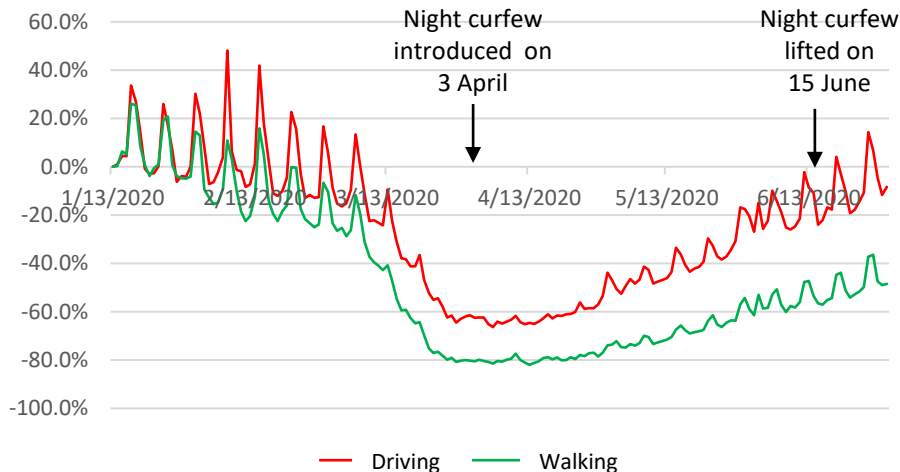
- Even after restrictions are lifted, impacts on mobility appear to be continuing.

Bangkok (Jan-Jun)

Night curfew introduced on 3 April
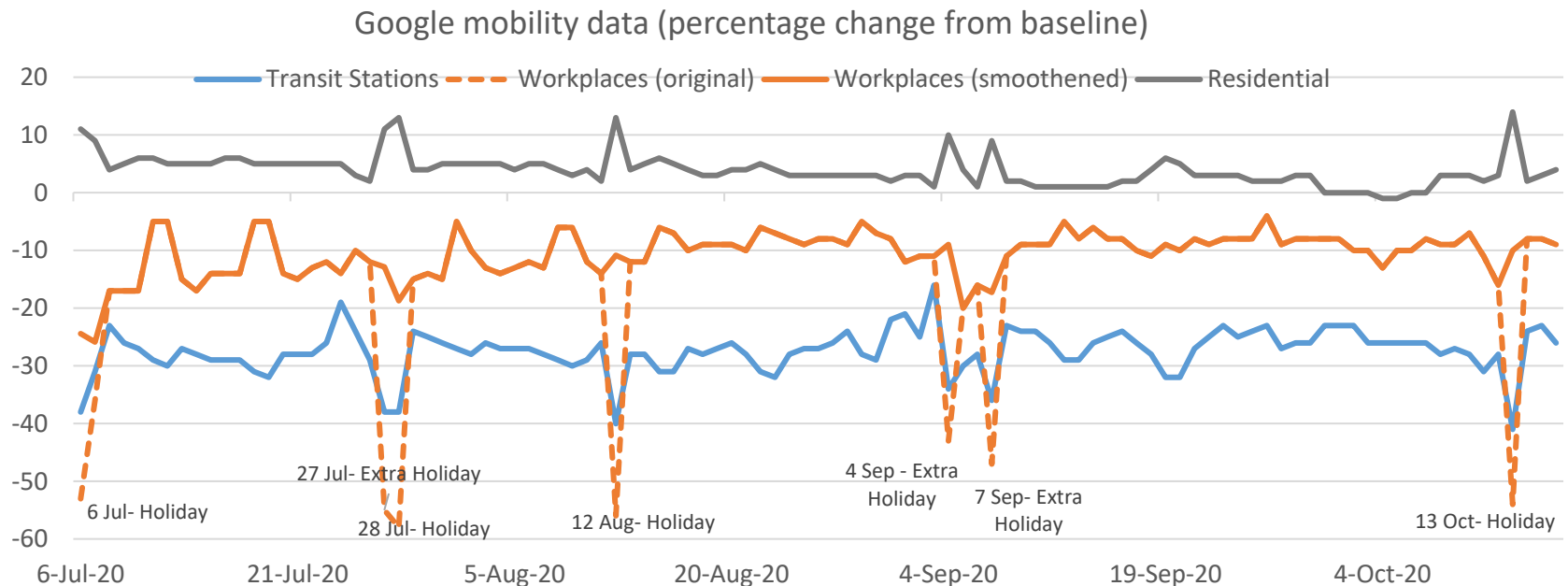
Night curfew lifted on 15 June

— Driving   — Walking

Bangkok (Jul-Oct)

— Driving   — Walking

7

Data source: Apple. 2020 "Apple's Mobility Trend Reports" Retrieved on 19/10/2020. https://www.apple.com/covid19/mobility/.

Impact of COVID-19 on Mobility: *Closer Look at Location Data*

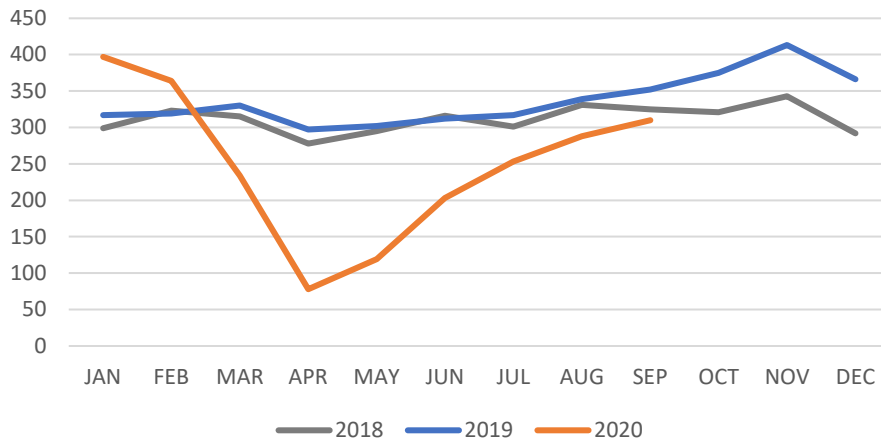Comparison with the baseline day = median value from 5 weeks pre-Pandemic 2020 (Jan3-Feb6)

- Workplace: around 10% below baseline
- Residential areas: slightly but constantly above than baseline
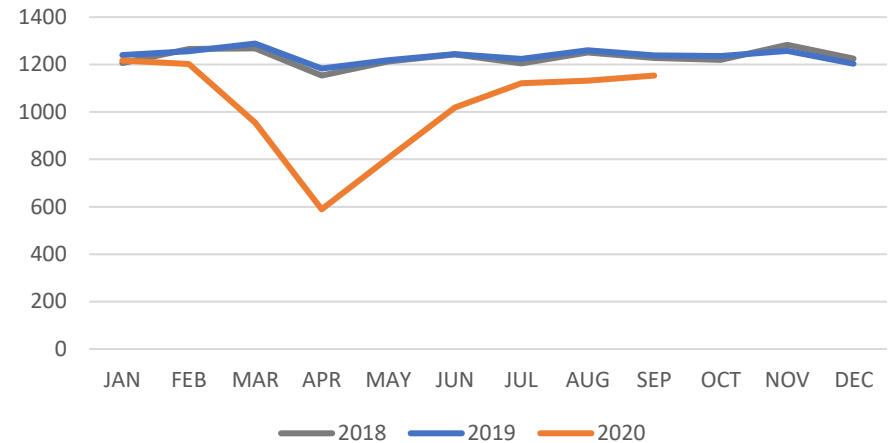- Transit stations: 20 to 30% below the baseline

Google mobility data (percentage change from baseline)

Legend: Transit Stations — Workplaces (original) — Workplaces (smoothened) — Residential

Annotations on chart:
- 6 Jul- Holiday
- 27 Jul- Extra Holiday
- 28 Jul- Holiday
- 12 Aug- Holiday
- 4 Sep - Extra Holiday
- 7 Sep- Extra Holiday
- 13 Oct- Holiday

8

Data source: Google. 2020. COVID-19 Community Mobility Reports. Retrieved on 19/10/2020. https://www.google.com/covid19/mobility/
Note: Workplaces graph is smoothened by removing the data fluctuations that appear to be due to holiday data compared with workday baseline.

Bangkok: What is happening *now*

Impact of COVID-19 on Mobility: *Ridership/Traffic Data*

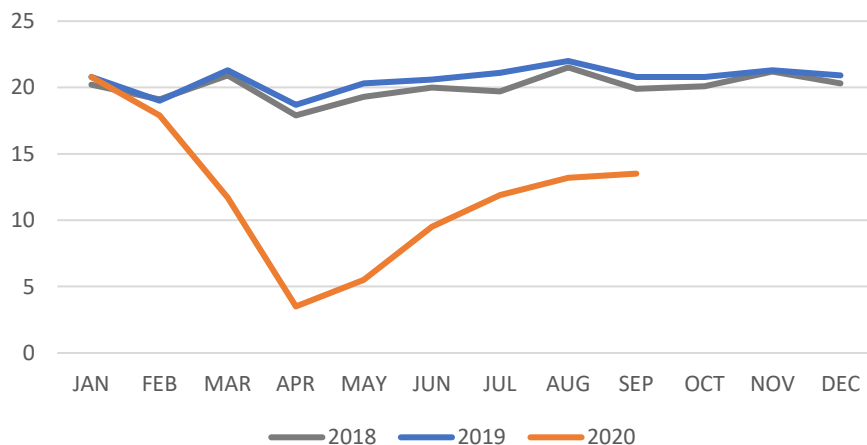### BEM MRT Av. Daily Ridership (thousand trips)

— 2018 — 2019 — 2020

Data source: https://investor.bemplc.co.th/en/ridership-report/ridership Retrieved on 19/10/2020

BEM Toll Road Av. Daily Traffic (in thousand)

— 2018 — 2019 — 2020

Data source: https://investor.bemplc.co.th/en/traffic-report/traffic-volume Retrieved on 19/10/2020

BTS Skytrain Monthly Ridership (million trips)

— 2018 — 2019 — 2020

Data source: SET Announcements available at https://www.btsgif.com/en/home Retrieved on 19/10/2020

Existing Metro Lines

Bang Yai - Tao Poon
Bang Sue - Hua Lamphong
Bang Pho - Tha Pra
ARL Phaya Thai - Suvarnabhumi Airport
Wat Mangkorn – Lak Song
National Stadium - Bang Wa
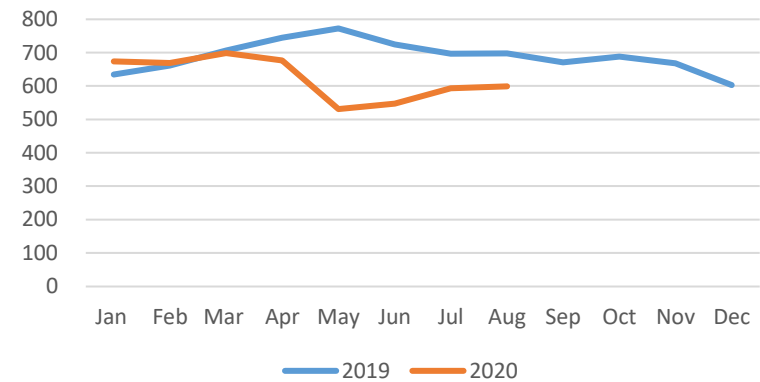Mochit - Kheha

9
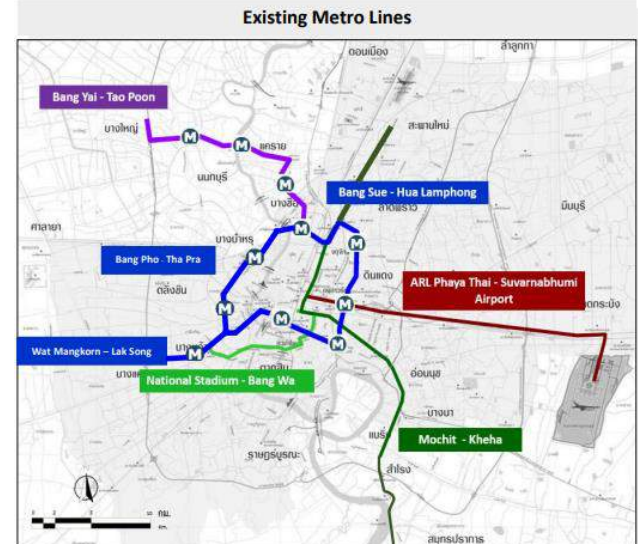
Bangkok: What is happening *now*

Impact of COVID-19 on Resource Usage: *Electricity Usage Data*
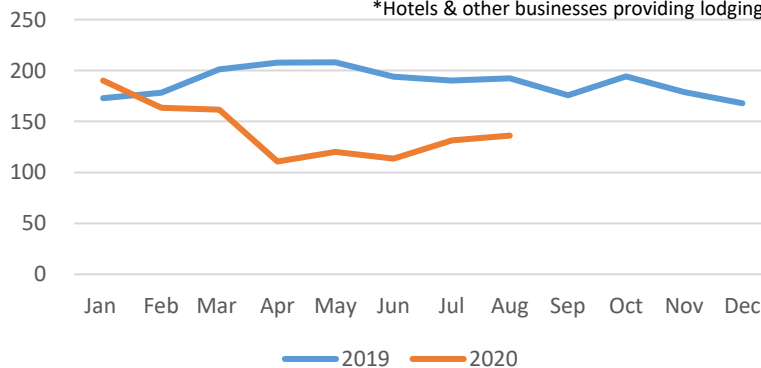

Large general service electricity usage (GWh)
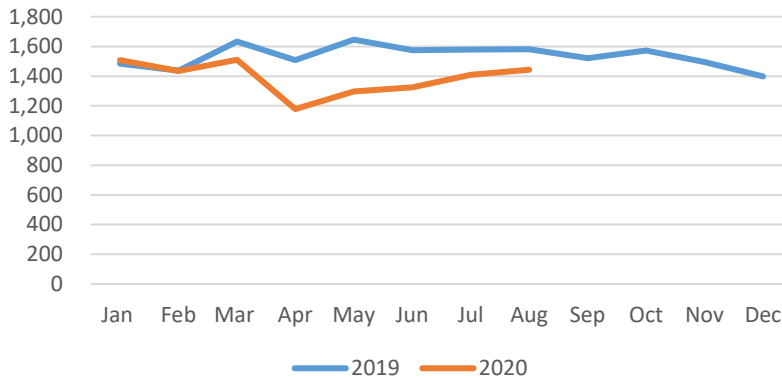
Small general service electricity usage (GWh)

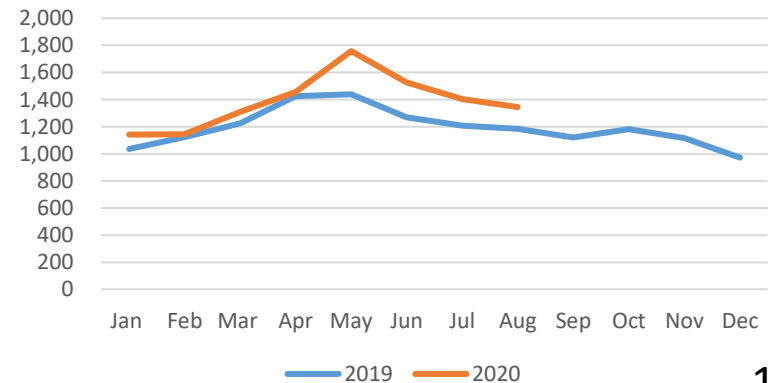
Specific business service* (GWh)

*Hotels & other businesses providing lodging

Residential electricity usage (GWh)

10

Data source: Metropolitan Electricity Authority website. Retrieved on 20/10/2020. https://www.mea.or.th/en/profile/122/125

Emerging Trends in Early Post-Pandemic Bangkok

It may still be too early to say what will be 'New Normal' but certain trends appear to be emerging.

From mobility, ridership and traffic data:

- **Trend 1: Demand returns on public transport**   **not happening (yet?)**

- **Trend 2: Shifts to active transport modes (walk and cycle)**   **not happening (yet?)**

- **Trend 3: Private transport (car and motorcycle) is king**   **highly likely happening**

- **Trend 4: Decreased travel demand**   **yes and continuing (so far)**

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From location data and electricity usage data:

- People spend more time staying home (or in residential areas) and consume more urban services and resources there.

- Some people have not returned to workplaces (or some workplaces remain closed), and less resources are consumed at workplaces.

Emerging Trends in Early Post-Pandemic Bangkok

Are the emerging trends good news or bad news?

Emerging Trends in Early Post-Pandemic Bangkok

Are the emerging trends good news or bad news?

Good news

- Public transport will be less congested (lower/flattened peak)

- Roads are still less congested (hopefully so).

- Overall, people travel less, meaning less environmental footprints.

- Infrastructure capacity in residential areas/suburbs may be utilized more fully.

- Less demand for city-center facilities and infrastructure (less pressure for further expansion).

12

Source: Author

Emerging Trends in Early Post-Pandemic Bangkok

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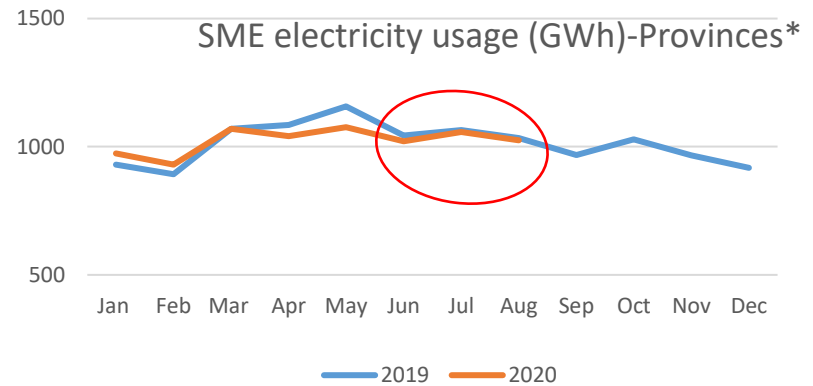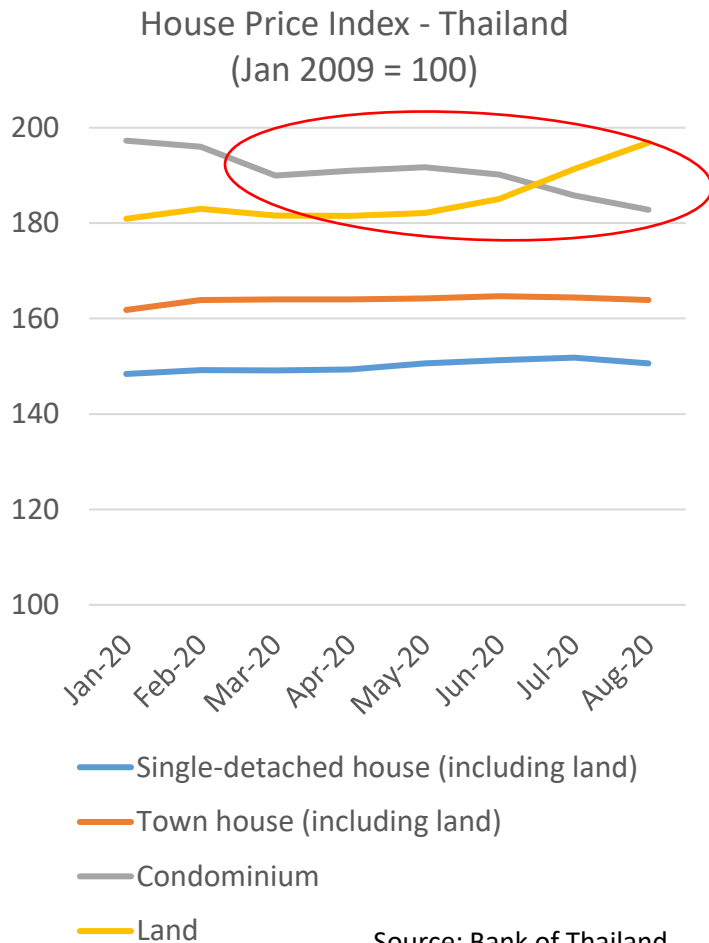
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Bad news

- Public transport projects may face further financial viability challenges.

- Roads may eventually get more congested (people continue to shy away from using public transport).

- Less travels mean less consumption slowing economic recovery.

- Infrastructure capacity or service level in residential area/suburbs may not be sufficient to serve higher demand for longer hours.

- City-center facilities and infrastructure (existing/being expanded) may not be fully utilized.

Source: Author

Some interesting trends in country-wide and provincial data are also emerging.

House Price Index - Thailand
(Jan 2009 = 100)

SME electricity usage (GWh)-Provinces*

2019   2020

Source: Provincial Electricity Authority
*Provinces excluding Bangkok, Nonthaburi and Samut Prakan

Single-detached house (including land)

Town house (including land)

Condominium

Land

Source: Bank of Thailand

Employment – Thailand
(thousand persons)

Agriculture   Non-Agriculture

Source: National Statistical Office of Thailand

13

For Post COVID-19 Urban Regeneration

It is still too early to recommend any concrete actions, but here are some initial thoughts and ideas for post COVID-19 urban regeneration:

1. Continue to monitor and identify emerging trends using data and technologies that are newly available now – big data, satellite imagery, data from smart utilities, etc.

2. Challenge the existing assumptions for urban development, considering the changed (and changing) responses to the pandemic (and to similar types of risk) by different economic and social sectors, and in different geographical areas.

3. Primate cities are important, but let's not forget about the rest of the country, including the secondary cities and rural communities (these are all inter-linked).

4. Good lessons can be learned among similar-sized cities in the region. Further information sharing would be useful.

14

Source: Author

Thank you. Terima Kasih. ขอบคุณครับ

For further inquiries, please contact: hiwasaki@adb.org