

The COVID-19 Pandemic and Cities: Challenges, Early Responses, and Opportunities

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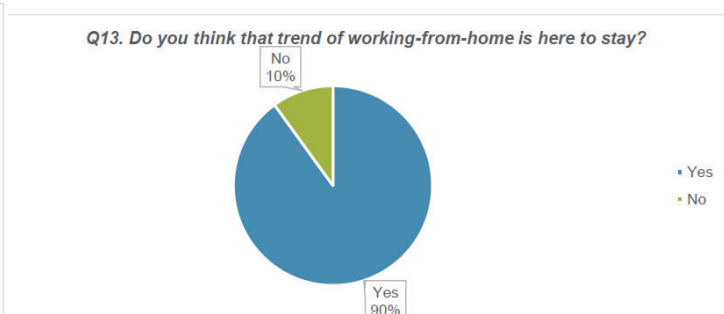
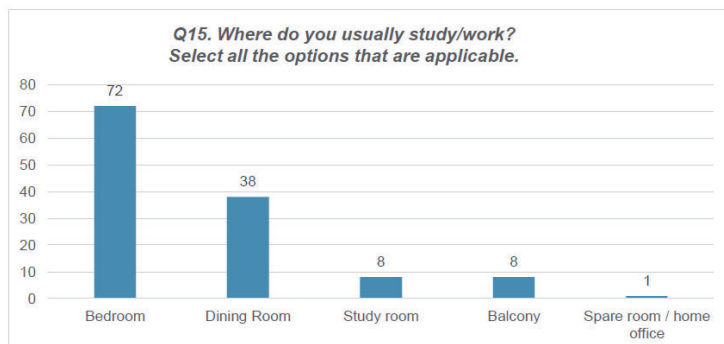
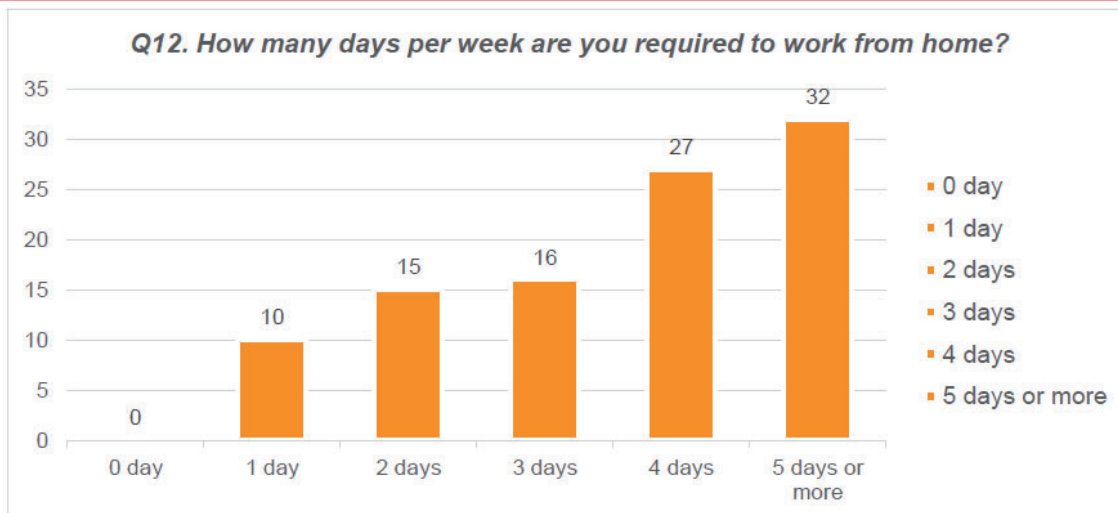
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Outline

- Challenges to Urban Environment
 - Working from Home as the New Normal
 - Housing Demand Change
 - Mobility and Consumption
 - Increasing Spatial Inequality
- Early Planning Responses
 - Spatial Restructuring
 - Residential Town Planning
- Some Proposals and Opportunities

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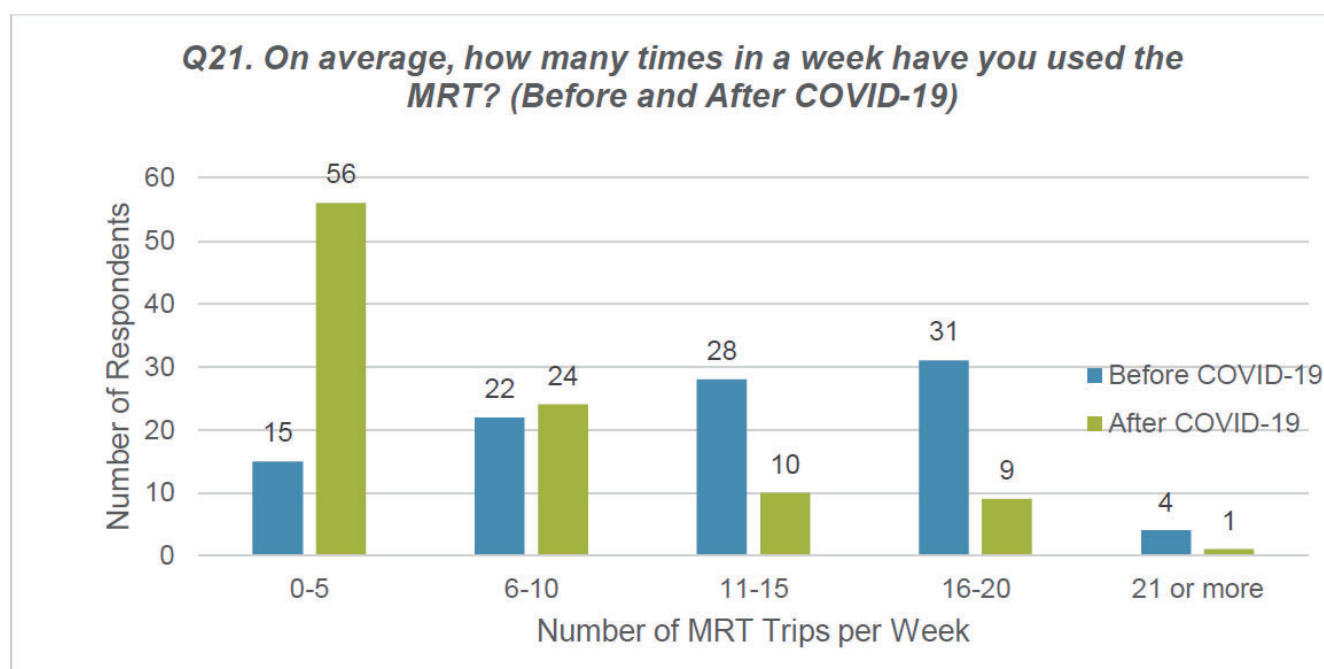
WORKING FROM HOME AS THE NEW NORMAL



Source: Soo Si Ying (2022)

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WORKING FROM HOME AS THE NEW NORMAL

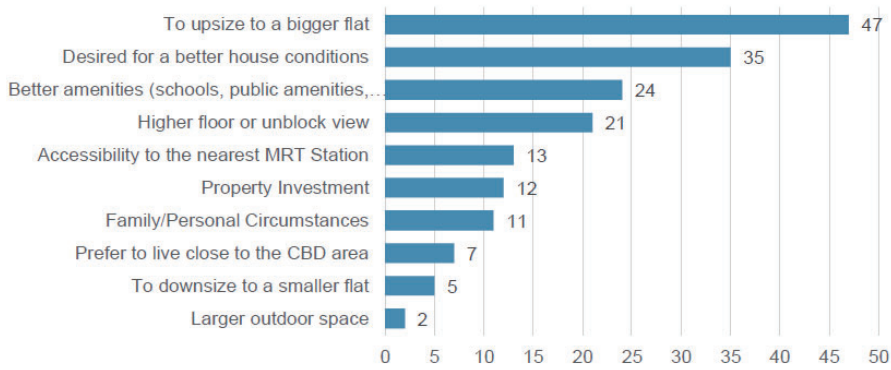


Source: Soo Si Ying (2022)

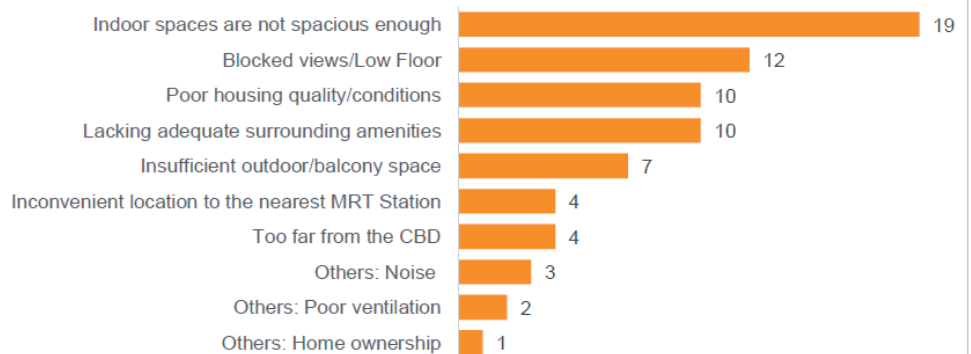
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HOUSING DEMAND CHANGE

Q8. If you had answered yes to Q7, select the top three reasons for purchasing/renting a new property?



Q11. If you have answered no in Q7, what are the downsides of your current unit? Select multiple options.



Source: Soo Si Ying (2022)

HOUSING DEMAND CHANGE

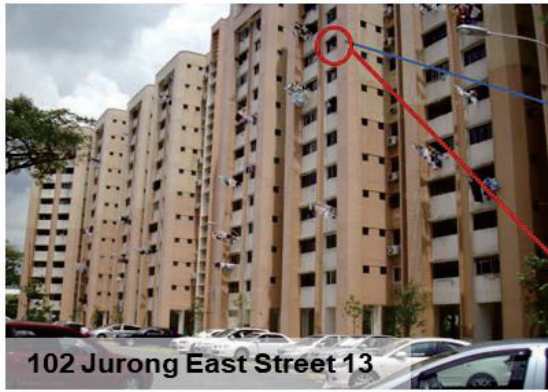
COVID-19 Effects on Price Premiums for Key Housing Features in Singapore

Dependent Variable: resale price per square meter

	(1) High floor	(2) More rooms	(3) Proximity to public transport	(4) Proximity to CBD
Post-COVID-19	318.36***	287.34***	354.89***	347.64***
Post-COVID-19 × 10 th or higher floor	56.11***			
10 th or higher floor	295.67***			
Post-COVID-19 × four or more rooms		83.86***		
four or more rooms		-152.96***		
Post-COVID-19 × near MRT			-51.25***	
near MRT			244.71***	
Post-COVID-19 × near CBD				-45.74***
near CBD				64.80***
Location characteristics	Y	Y	Y	Y
Unit characteristics	Y	Y	Y	Y
Year & Month FE	Y	Y	Y	Y
Street FE	Y	Y	Y	Y
_cons	6842.69***	5393.52***	6410.19***	6731.76***
N	116,397	116,397	116,397	116,397
adjusted-R ²	0.89	0.90	0.90	0.91

Source: Lee and Lee (2022)

HOUSING DEMAND CHANGE



102 Jurong East Street 13

[2019-10-24]

minutes walk Jurong east MRT near JEM
JCube westgate MRT amenities

[2020-11-27]

68 sqm high floor unblocked windy
21 years experience sell 2888 house



278 Bishan Street 24

[2019-09-28]

rare unit located Bishan street 24 rarely
available pineapple block vicinity
convenient location

[2020-12-02]

high floor park view open ethnic group
citizenship rare 4 room flat sale high floor

Source: Lee and Lee (2022)

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HOUSING DEMAND CHANGE



335C Anchorvale Crescent

[2019-10-13]

5room corner designer decorated
convenient location Anchorvale Crescent
block 335c

[2021-03-30]

spacious renovated 5room premium
unit sale remain lease 93 years 112 sqm



80C Telok Blangah Street 31

[2019-10-13]

corner 4room unit near MRT amenities
greater southern waterfront new list
extremely rare nicely renovated

[2021-03-30]

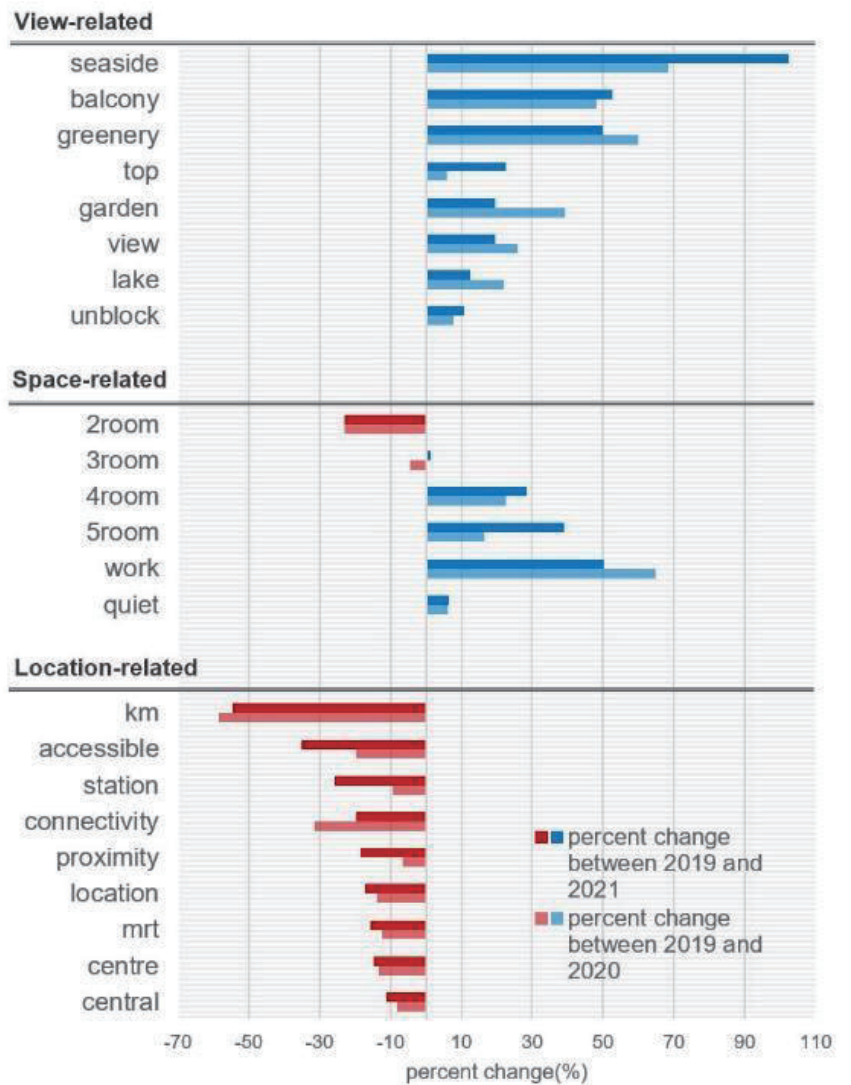
awesome unit great view Telok Blangah
tower new exclusive unit sale awesome rare
home sale

Source: Lee and Lee (2022)

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HOUSING DEMAND CHANGE

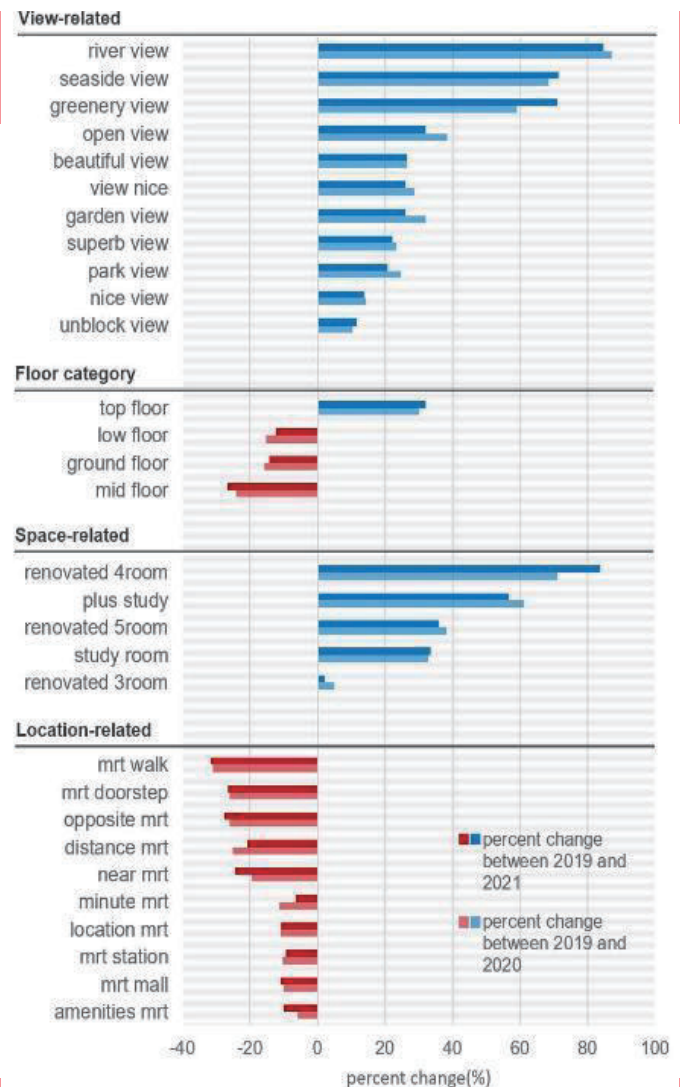
Unigram Analysis Results – Online Listing Keywords



Source: Lee and Lee (2022)

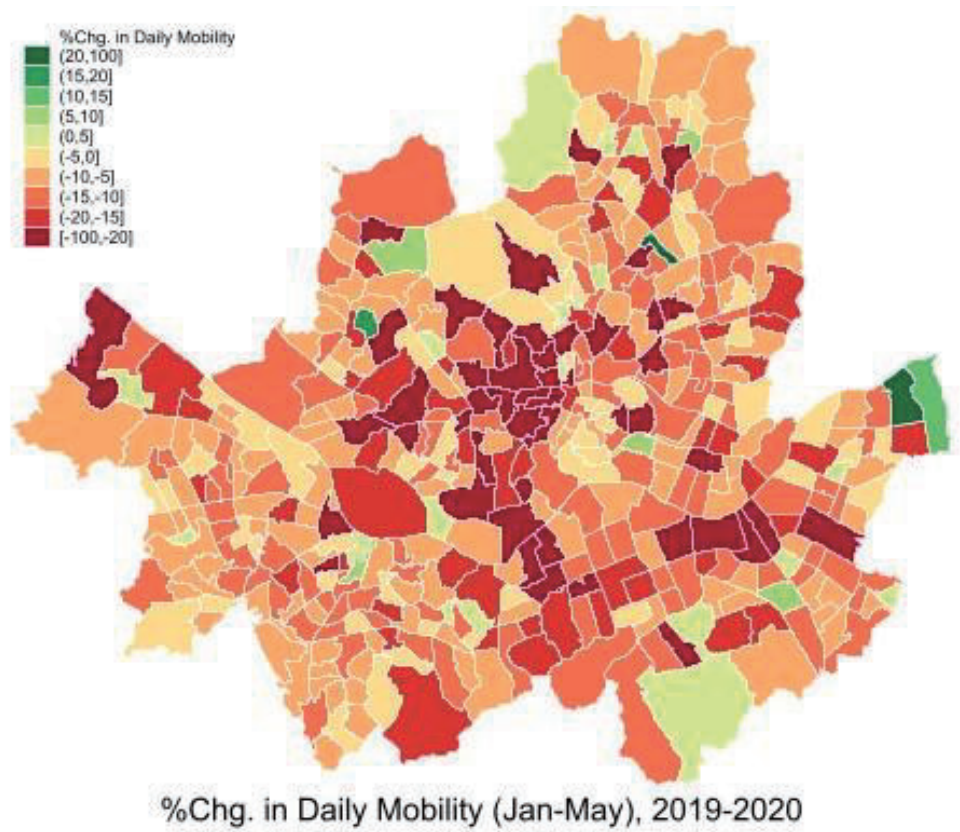
HOUSING DEMAND CHANGE

Bigram Analysis Results – Online Listing Keywords



Source: Lee and Lee (2022)

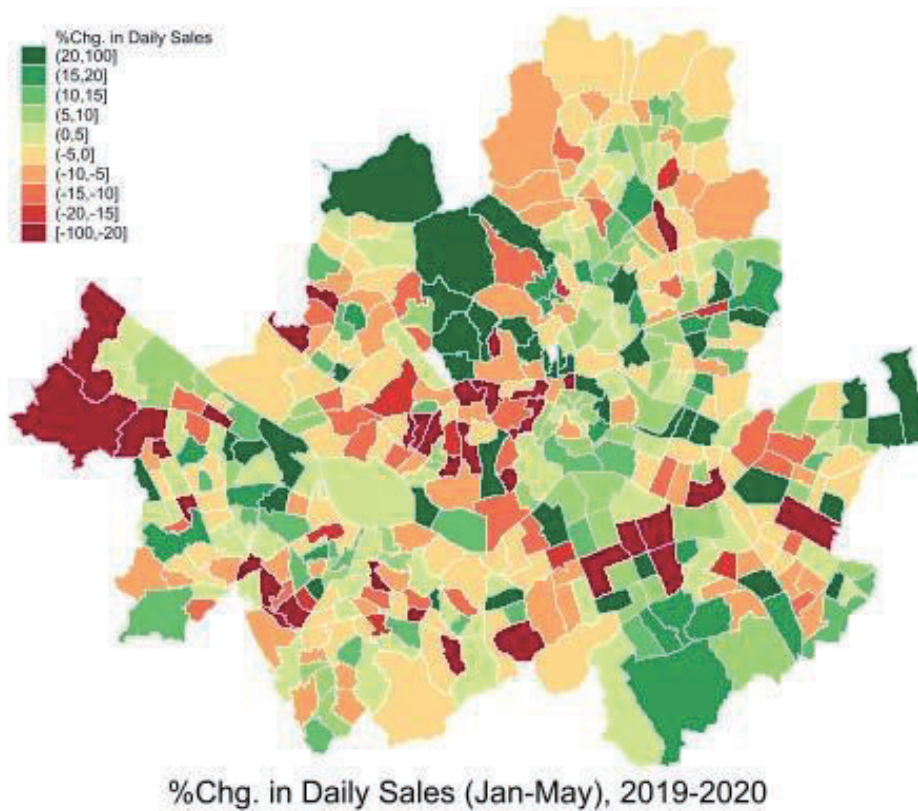
MOBILITY AND CONSUMPTION



Source: Lee and Lee (2021)

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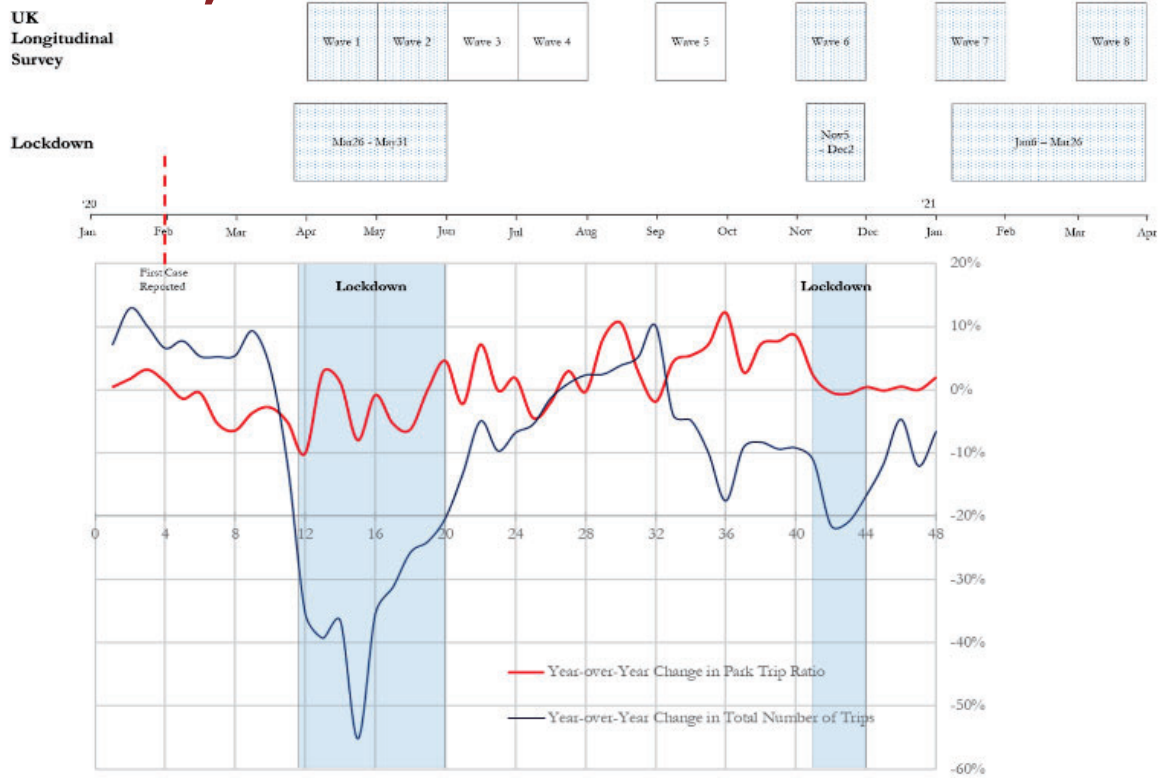
MOBILITY AND CONSUMPTION



Source: Lee and Lee (2021)

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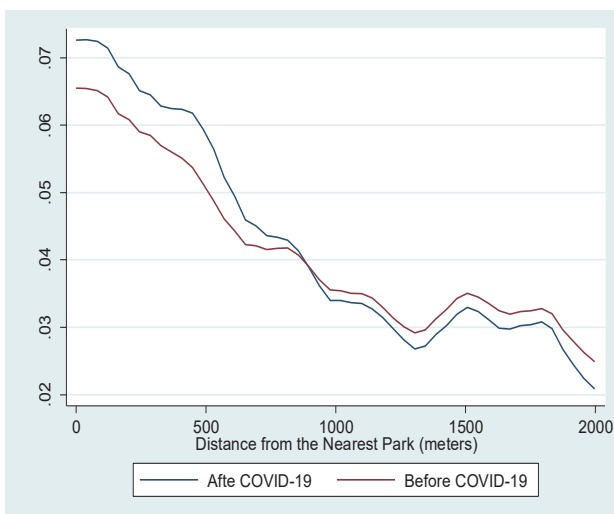
Importance of Park Trips during COVID-19 in London, UK



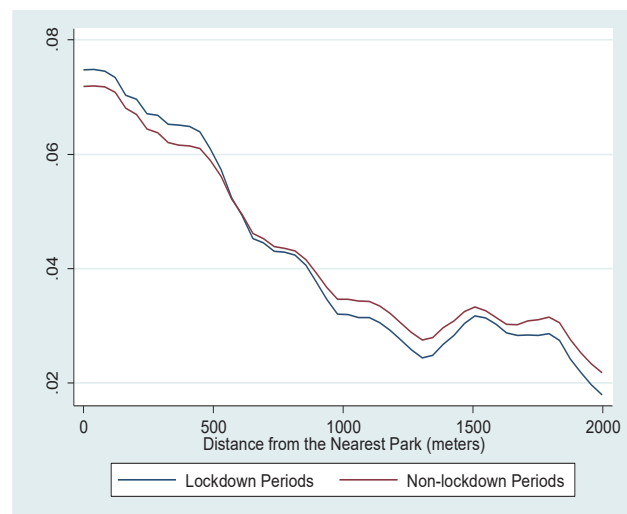
Source: Lee, Mai and Park (2022)

Distance to Parks Matter!

Before vs. After COVID-19 Outbreak



Non-lockdown vs. Lockdown



Source: Lee, Mai and Park (2022)

Negative Impact of Living Closer to Green Spaces on Psychological Distress

	Difference-in-Difference	Difference-in-Difference
Living within 800 meters from the nearest park	0.1338* (0.0789)	0.1291 (0.0805)
Lockdown	0.3794*** (0.0383)	0.6050*** (0.0589)
Living within 800 meters from the nearest park & Lockdown	-0.1031** (0.0502)	-0.1059** (0.0501)
Observations	31,259	31,259
R-squared	0.0958	0.1118
Demographic characteristics	Yes	Yes
Economic characteristics	Yes	Yes
Health status	Yes	Yes
City fixed effect	No	Yes
Wave fixed effect	No	Yes

Source: Lee, Mai and Park (2022)

SPATIAL RESTRUCTURING

I. Polycentric City with Regional Centers

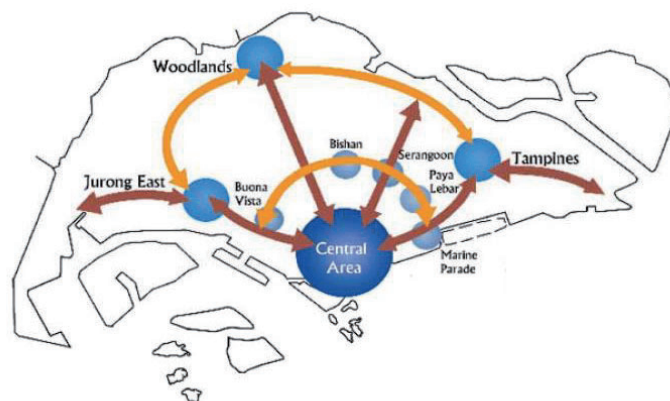
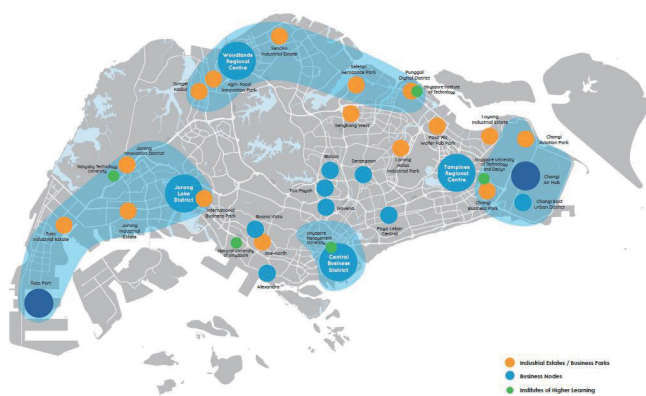
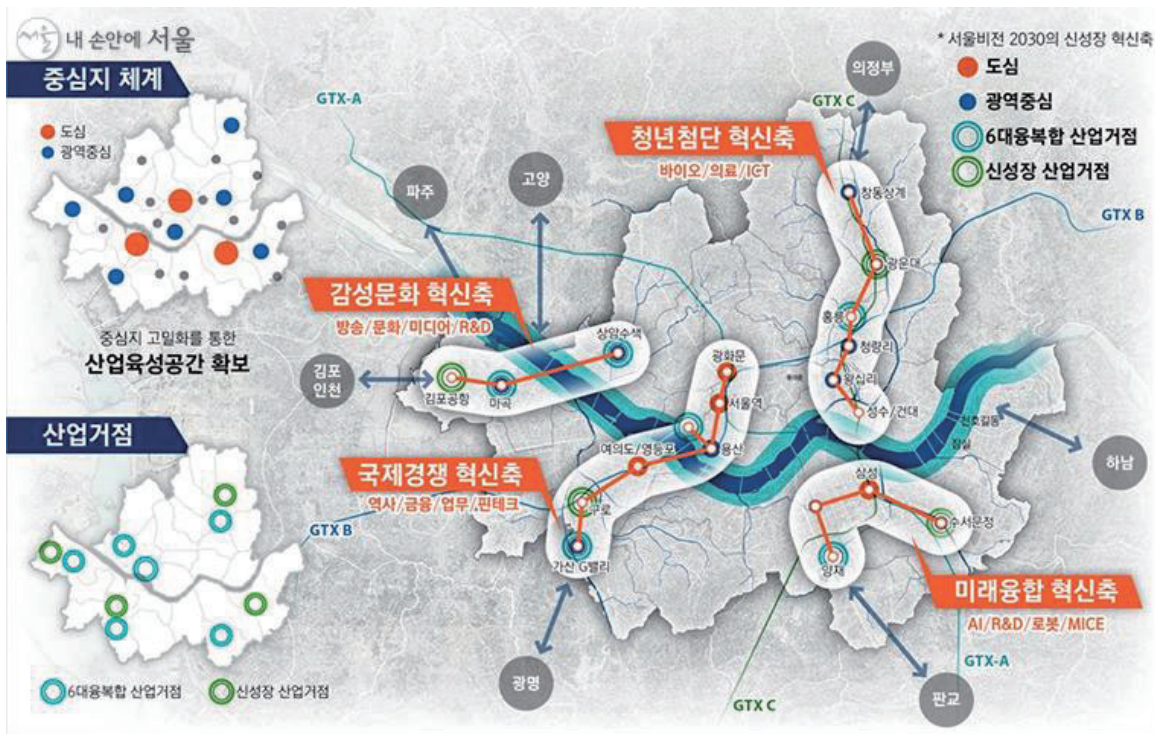


Exhibit 3. Singapore adopts a polycentric development approach, with regional centres in different parts of the city. Image courtesy of the Urban Redevelopment Authority.

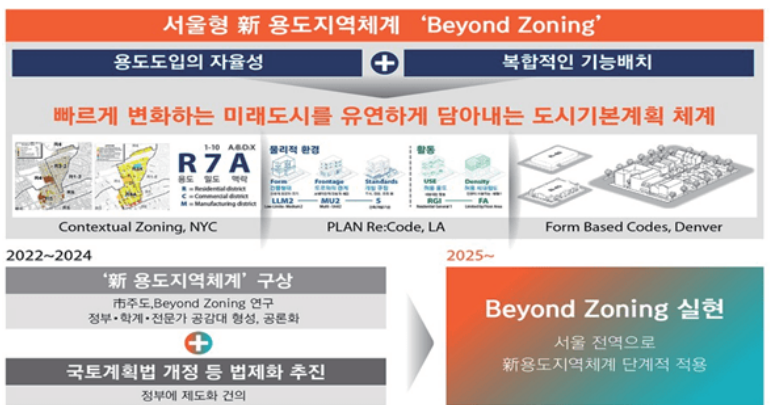
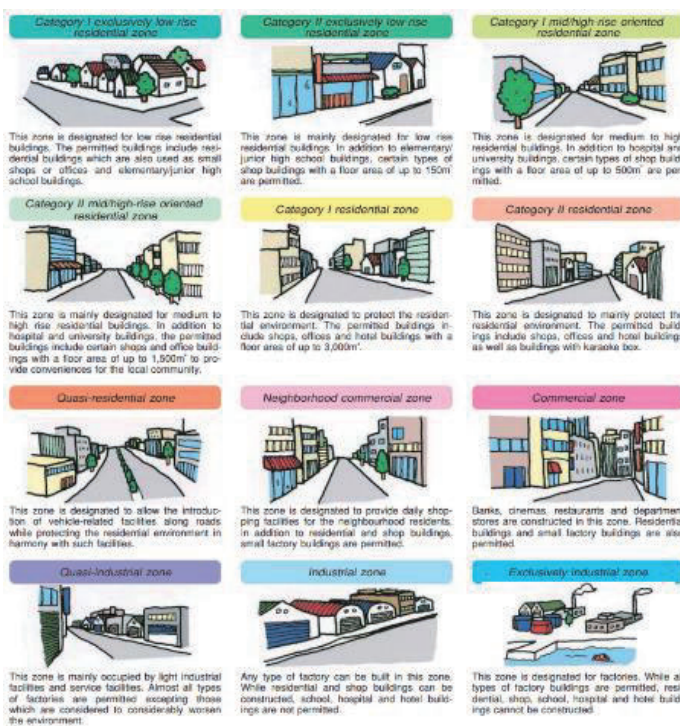
Source: URA

2040 Seoul Plan for New Growth Axes



Source: Seoul Metropolitan Government

II. Enhanced Flexibility in Land Uses



Source: <https://www.rahulshankar.com/>
Seoul Metropolitan Government

Singapore's White Site Approach

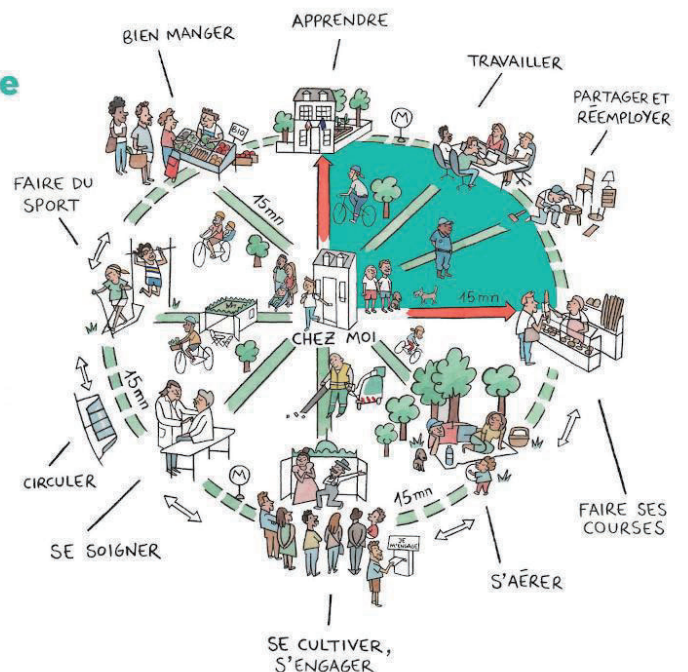
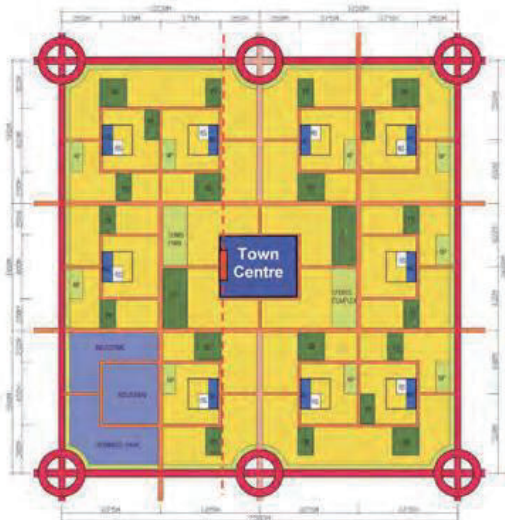


Source: DBS, Marina One website, Stacked

RESIDENTIAL TOWN PLANNING

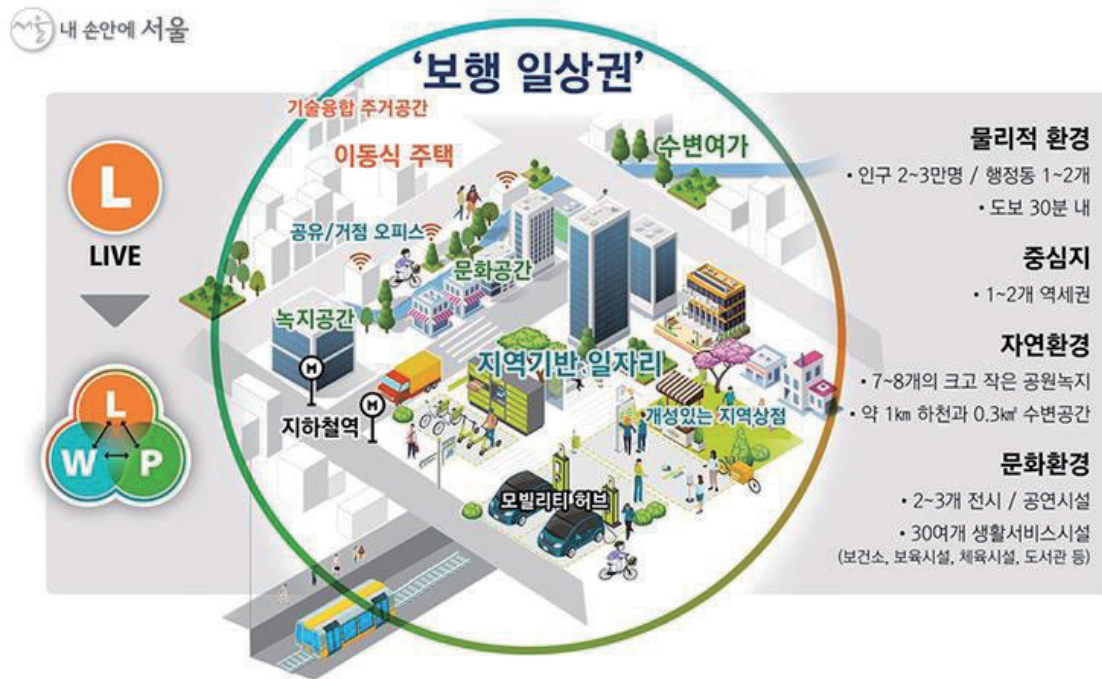
I. Self-Sufficiency of Residential Towns

La ville du quart d'heure



Source: HDB

2040 Seoul Plan for Walkable Towns



Source: Seoul Metropolitan Government

Diverse Neighborhood Amenities in Singapore's HDB Towns



Source: Propertyguru.com.sg, Ng Shu Wen (2015)

II. Enhancing Green Accessibility

“Urban Redevelopment Authority sets requirements on public spaces and the provision of greenery through various schemes...

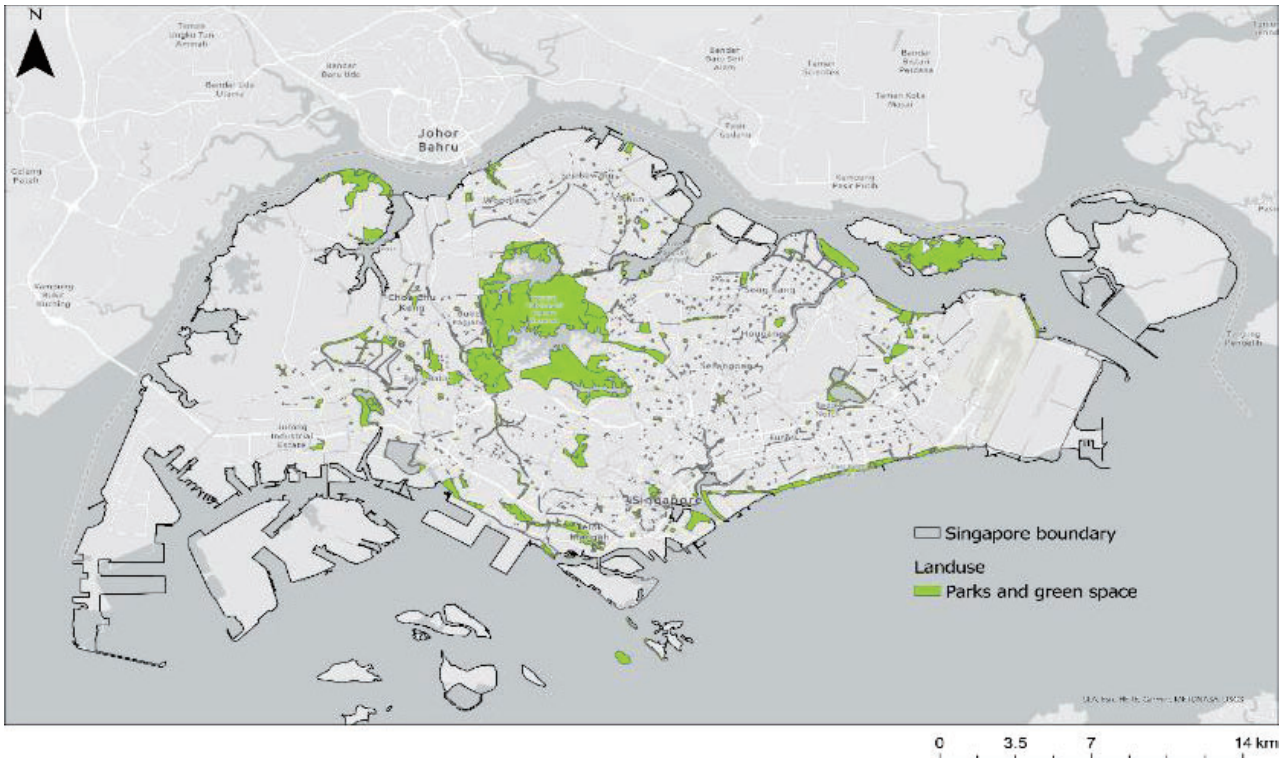
...aims for every household to be within a 10-minute walk of a park by 2030”

- Prime Minister’s Office Minister Indranee Rajah @ World Cities Summit



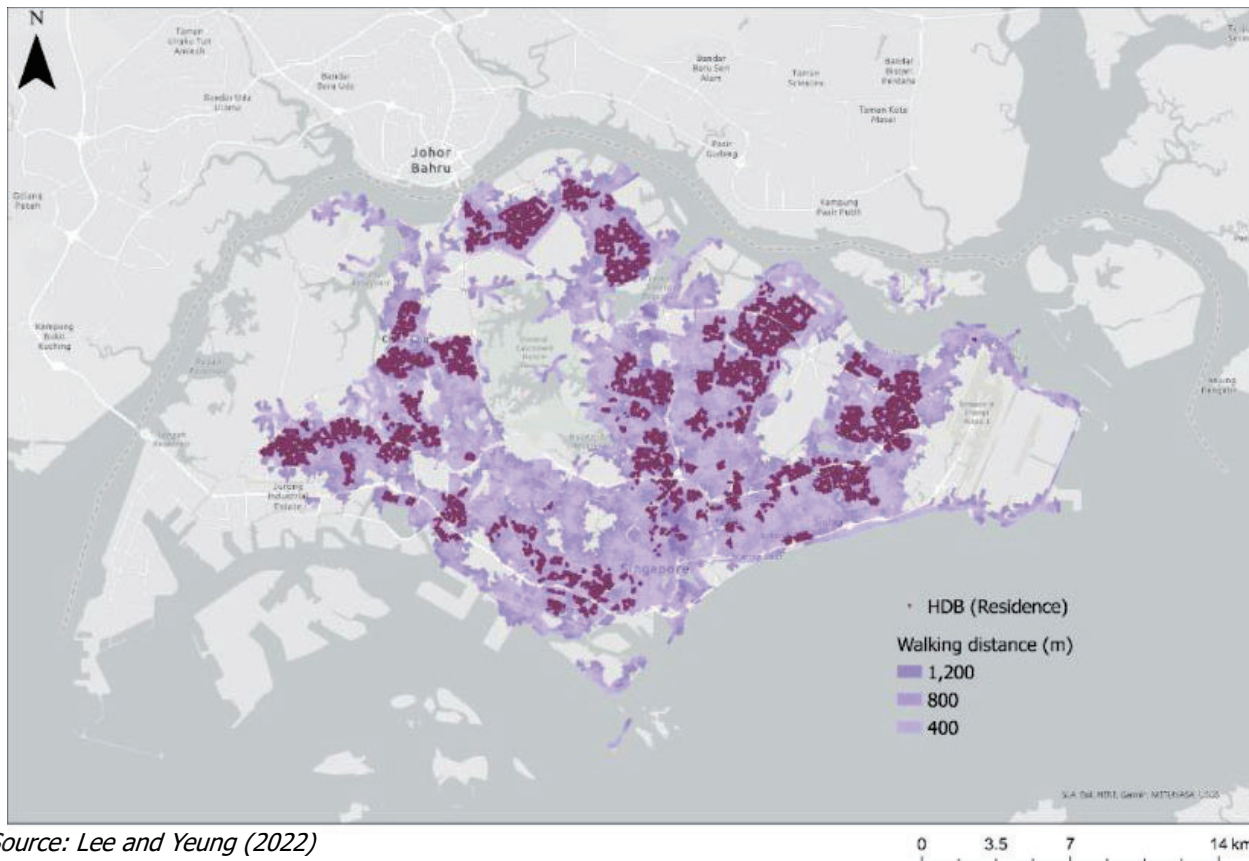
Source: HDB

Green Space Distribution in Singapore



Source: Lee and Yeung (2022)

Green Space Accessibility in Singapore



Source: Lee and Yeung (2022)

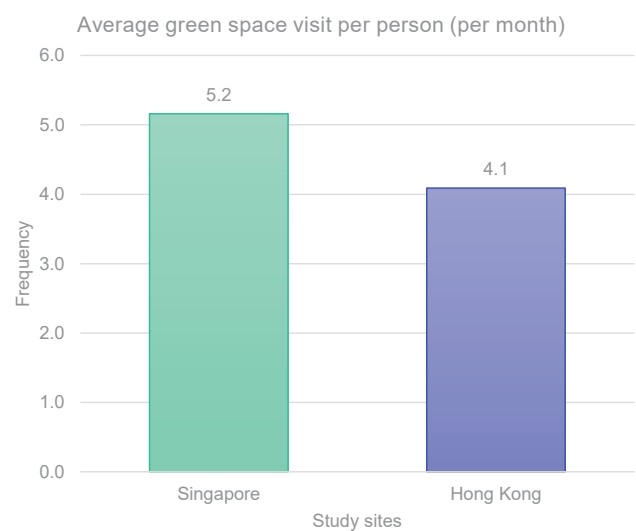
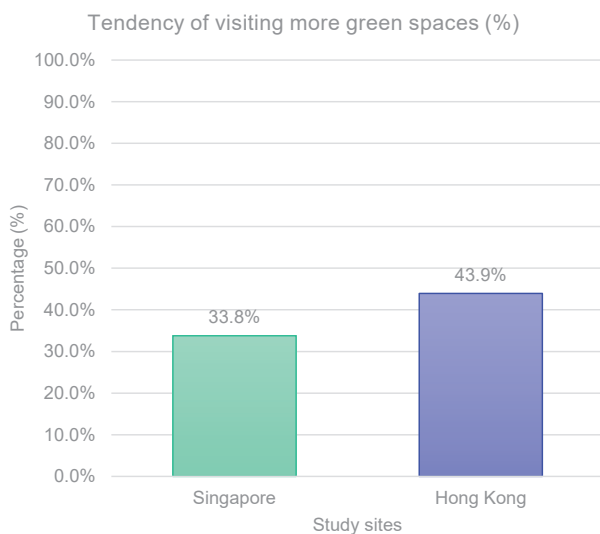
Green Space Accessibility in Singapore

Meters (m)	Number of residential building (HDB)	Proportion
0 – 400	3,169	32.1%
401-800	4,483	45.6%
801-1200	1,879	19.1%
1201-1,600	317	3.2%
Total	9,848	100%

Source: Lee and Yeung (2022)

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Green Space Visits during COVID-19 in Singapore vs HK



Source: Lee and Yeung (2022)

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I. Acceleration of Smart, Sustainable Urban Development



Source: Seoul Metropolitan Government

Punggol Digital District in Singapore



1. Business park
2. Residences
3. Market Village
4. Heritage Trail
5. Campus Boulevard
6. Singapore Institute of Technology (SIT)

Source: HDB, JTC

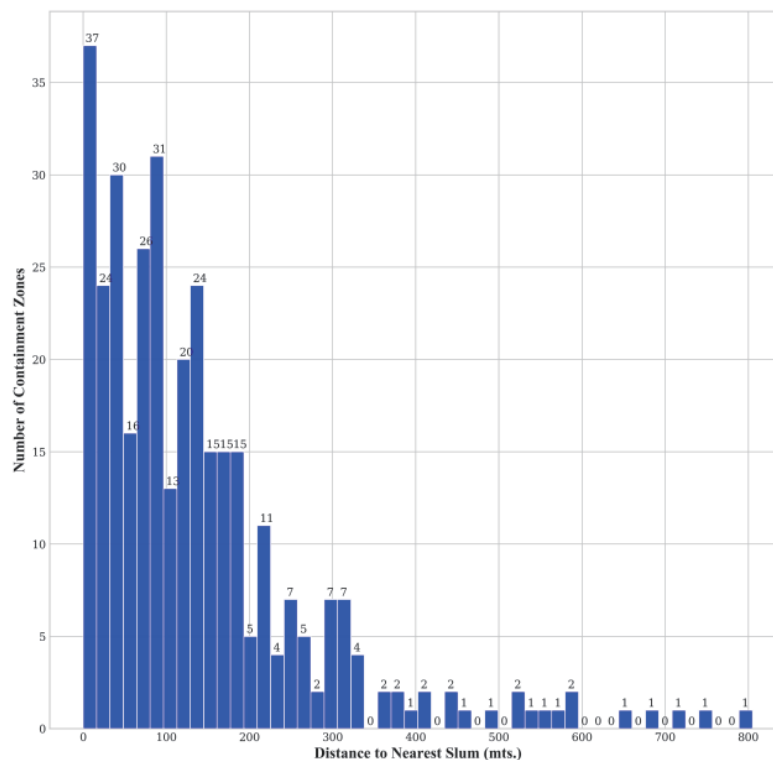
Car-free Tengah New Town



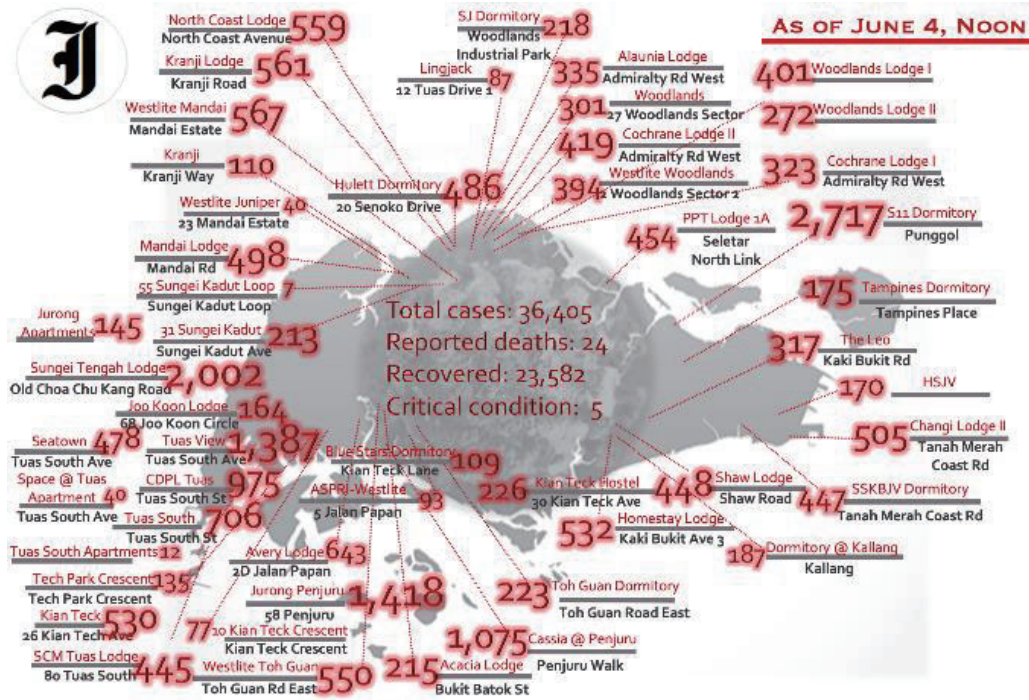
Source: Housing and Development Board



II. Toward Inclusiveness and Spatial Equality



Concentration of COVID-19 Cases in Foreign Workers' Dormitories in Singapore



COVID-19: CONFIRMED CASES IN DORMITORIES

Enhancing Within-town Connectivity for Elderly

ALL-IN-ONE VILLAGE

This integrated development next to Admiralty MRT combines housing, health-care and care facilities, and shops amid lush greenery in a bid to be a 'modern kampung'.

Studio apartments

- Two blocks with about 100 units, up for sale in the July Build-To-Order exercise
- New features: induction stoves, "resilient flooring" with a parquet design and retractable racks for easier drying of laundry

GREEN FEATURES

- Pneumatic waste conveyance system**
 - Household trash will zoom through vacuum pipes underground into a sealed container which will be collected by trucks.
- Bioswales**
 - Rainwater will be filtered through these sloping stretches of plants and soil on the ground floor.
- Solar panels**
 - The apartment blocks will be topped with solar panels to power common lighting, for instance.

Community park

- Features fruit trees such as rambutan and kaffir lime
- Includes a three-generational playground for both young and old

Community plaza and shops

- An airy space for community activities, from National Day dinners to cultural performances
- Grassroots organisations will provide feedback on what the 20 shops and two or three food and beverage outlets should offer

Supermarket

- After feedback from residents that supermarkets in the area were too small, the new one will cover 1,000 sq m

Basement carpark and bicycle parking

- Two basement floors will house the carpark and a mechanical bicycle parking system which can store 500 bicycles

Community farm

- Residents can grow vegetables, herbs and ornamental plants

Eldercare and childcare centre

- Located side by side to promote bonding between generations
- The eldercare centre has space for about 100 seniors, and the childcare centre will offer 200 places

Admiralty Medical Centre

- Spans two levels with an area of 8,500 sq m
- Offers outpatient consultation, day surgery, rehabilitation and diagnosis

Hawker centre

- Will have 50 cooked food stalls and about 900 seats

Kampong Admiralty for Senior Residents

Source: HDB

Kampong Admiralty for Senior Residents