

# Toward the Post-COVID-19 Resilient Cities - Building well-established neighborhood -

*Based on the result of Preparatory Study on Urban Environment Improvement against COVID-19 (CUREIP) conducted by JICA*

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## Self Introduction

### Motoko KANEKO

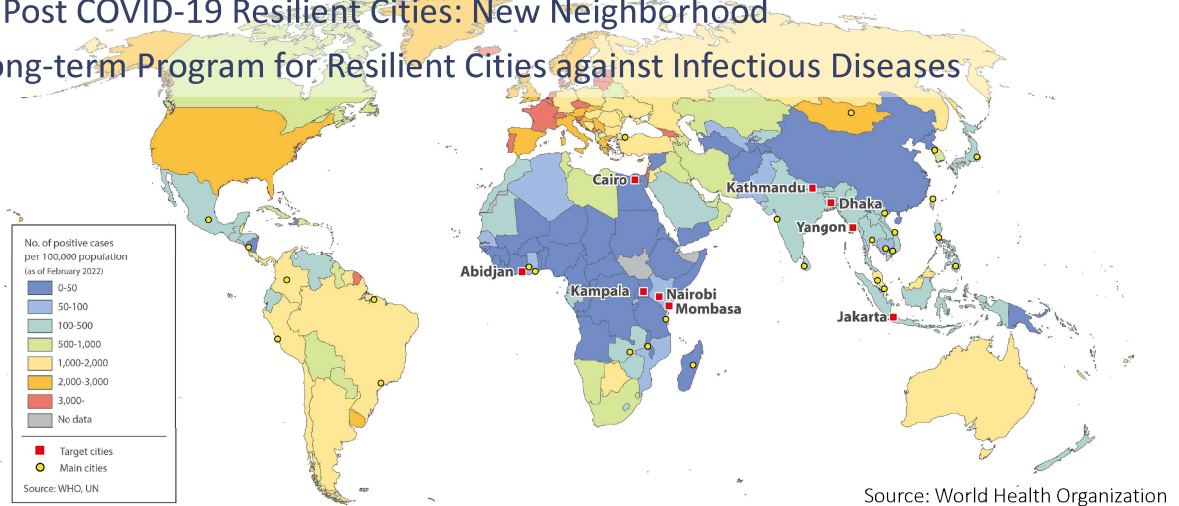
- ❑ Executive Officer, ALMEC Corporation  
*Planning and management consultant in urban and transportation sector*
- ❑ Biography
  - Bachelor and Master Degree, Dept. of Civil Engineering, Univ. of Tokyo
  - Joined ALMEC Corporation, Overseas Department
- ❑ Major experiences
  - Preparatory Study on Urban Environment Improvement against COVID-19 (CUREIP) (2021-2022)
  - The Project for Promoting Sustainability in Future Cities of Thailand (2015-2021)
  - Development of the Blueprint for the 2nd Mass Rapid Transit Master Plan in Bangkok Metropolitan Region (M-MAP-2, JICA) (2017-2019, 2021-2024)
  - WB Study on Japanese Experiences on Sustainable Urban Development (2010)
  - The comprehensive urban development programme in Hanoi Capital City of the Socialist Republic of Vietnam (2004-2007, JICA)



1. How has COVID-19 expanded in the cities of developing countries?
2. How have cities responded to COVID-19 ?
3. How will cities change in the post COVID-19 era?
4. What is the topic for with / post COVID-19 cities?
5. Toward the Post COVID-19 Resilient Cities: New Neighborhood
6. Mid- and Long-term Program for Resilient Cities against Infectious Diseases



Kathumandu



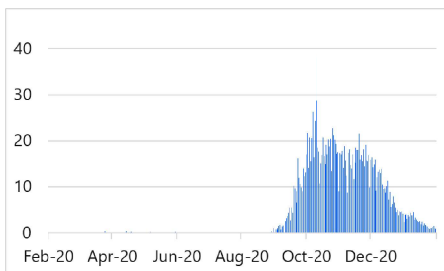
Source: World Health Organization



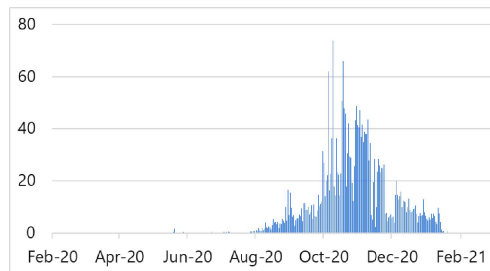
Uganda

1. How has COVID-19 expanded in the cities of developing countries?

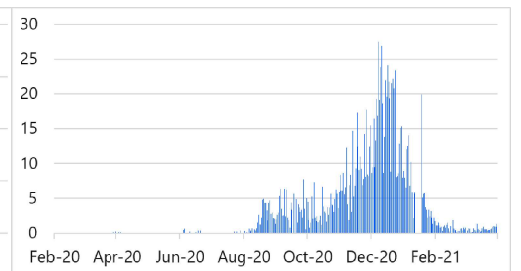
Change in daily positive cases per 100,000 population in 9 cities



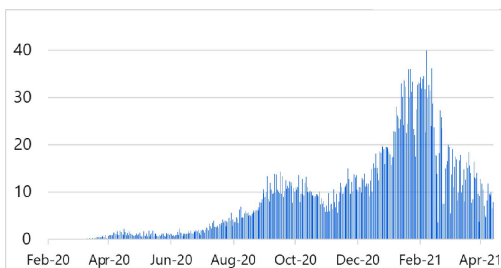
Yangon, Myanmar



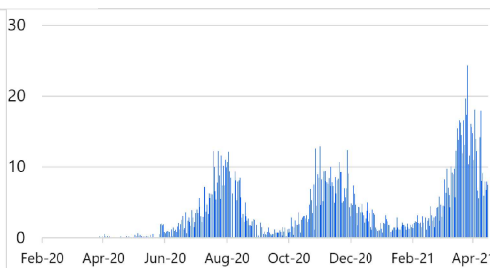
Kathmandu, Nepal



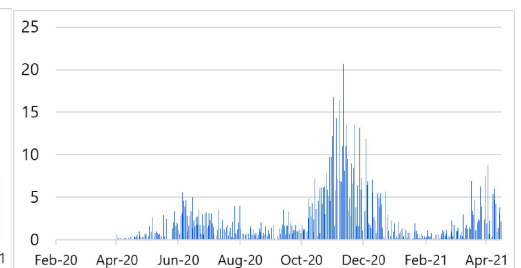
Kampala, Uganda



Jakarta, Indonesia



Nairobi, Kenya

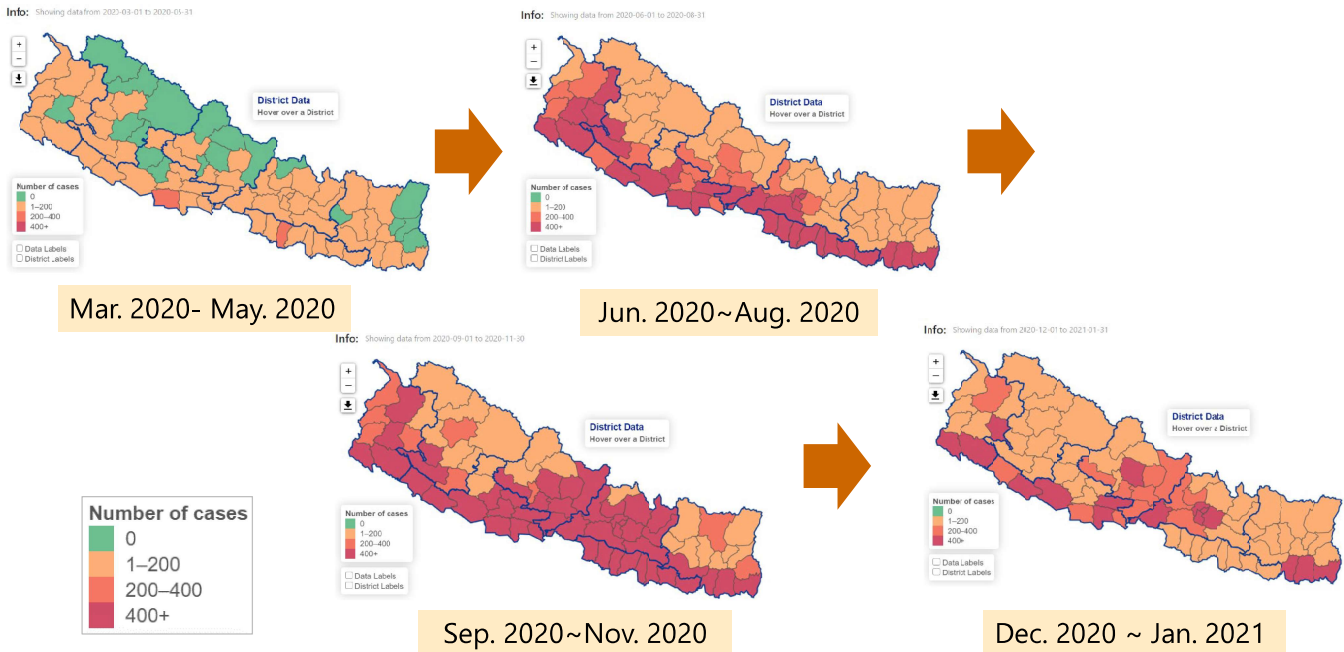


Mombasa, Kenya

# 1. How has COVID-19 expanded in the cities of developing countries?

## Change in daily positive cases by district in Nepal

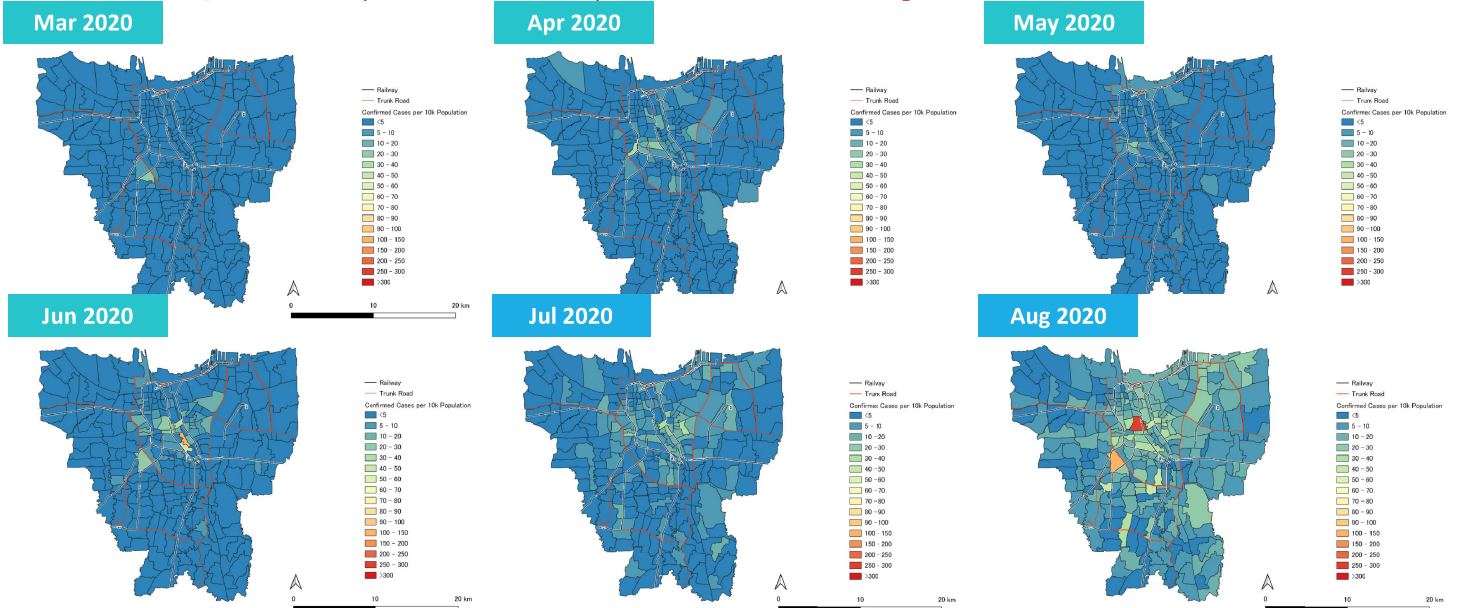
**[Nepal]** Migrant workers carried virus from India, which was gradually expanded nationwide.



# 1. How has COVID-19 expanded in the cities of developing countries?

## Change in daily positive cases per 10,000 by Kelurahan in Jakarta

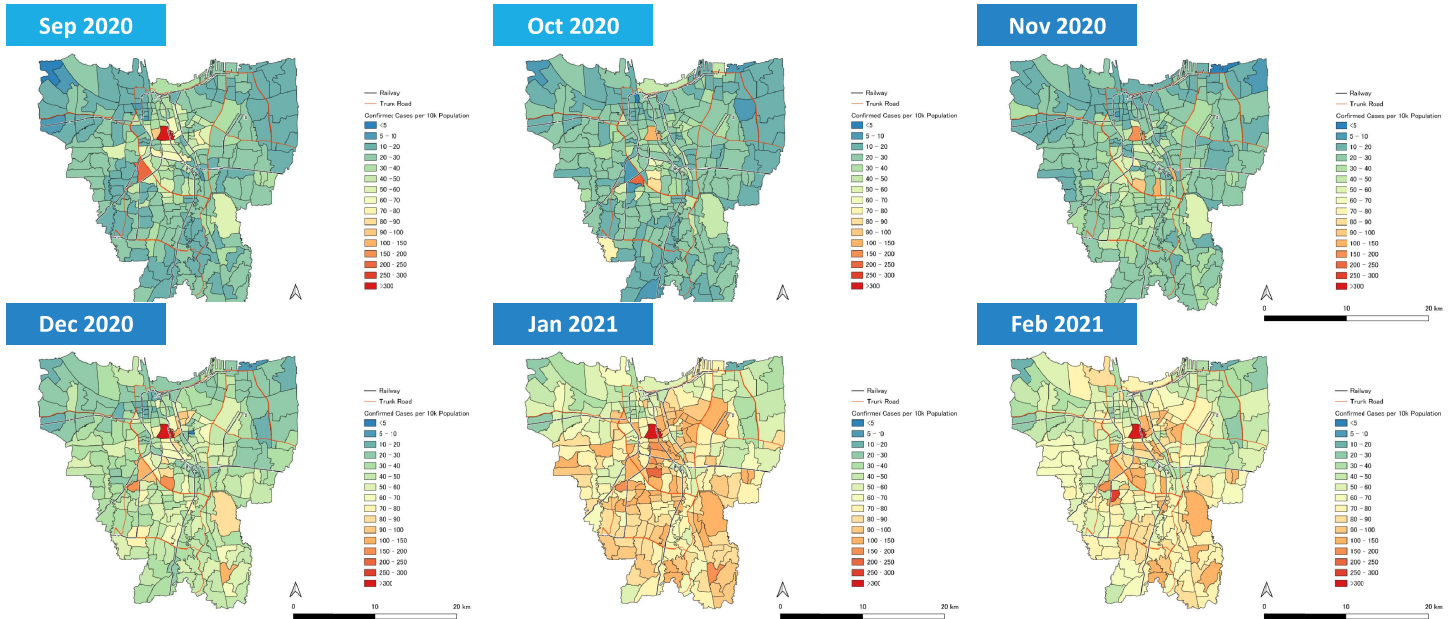
**[Jakarta]** COVID-19 spread from the city center into surrounding areas



Source: Jakarta's COVID-19 Response Team

# 1. How has COVID-19 expanded in the cities of developing countries?

**[Jakarta]** COVID-19 further expanded particularly in southeast direction



Source: Jakarta's COVID-19 Response Team

# 1. How has COVID-19 expanded in the cities of developing countries?

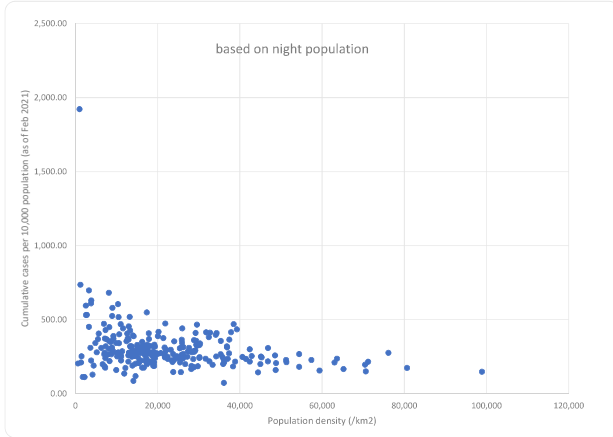
## □ Analysis on COVID-19 Infection Status and its Influence on the Cities

Urban Structure	Density	Building-scale congestion	• Clusters in closed spaces (offices, religious facilities, events, etc) drive the infection spread
		District-level population density	• No clear correlation between pop. density and COVID-19 infection status has been observed (negative correlation in some cities)
	People's Movement	Inter-city/regional travel	• Infection in neighboring countries spread across borders and along regional corridors • Urban lockdown causes unemployment migrant workers to return to rural areas spreading the infection throughout the country
Intra-city travel		• Infection spread through commuting and daily leisure trip	
Hygiene Environment	Access to water	• Many developing cities recognized the risk of infection without any quantitative analysis.	
	Sanitary conditions		
	Health care management system	• Dissemination of appropriate information of infection prevention measures contributing infection prevention • Community-level primary health care system	

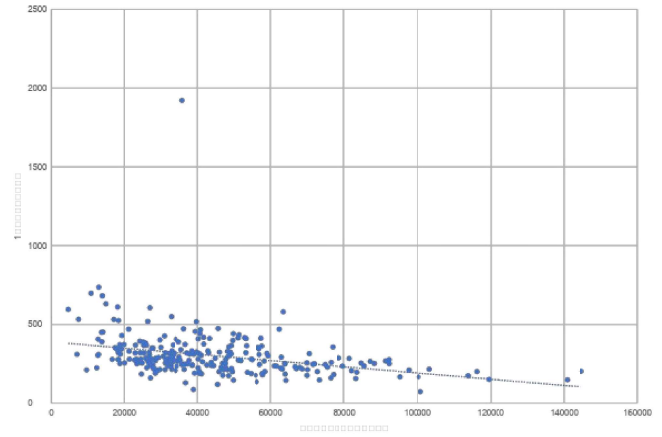


Weak correlation between population density and spread of infection

[Jakarta] No relationship with population density  
(by lowest administrative unit (Kelurahan), cumulative data as of Feb. 2021)



(Jakarta, Indonesia)  
COVID-19 per 10,000 and  
population density (gross)



(Jakarta, Indonesia)  
COVID-19 per 10,000 and  
net population density (residential area)

People's movement can cause initial infection expansion

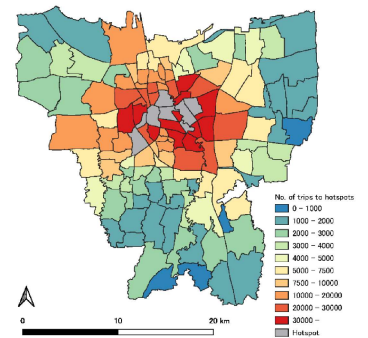
[Jakarta] Analysis on positive cases with travel pattern

- Phasing based on COVID-19 Infection Status  
Phase 1 (March 2020 -June 2020)  
Phase 2 (July 2020-October 2020)  
Phase 3 (November 2020 -February 2021)
- Identified *hotspot* of Phase 1  
(Kelurahan with more than 20 positive cases per 10,000)
- Analyze the correlation of positive cases per 10,000 with number of trips to the hotspot

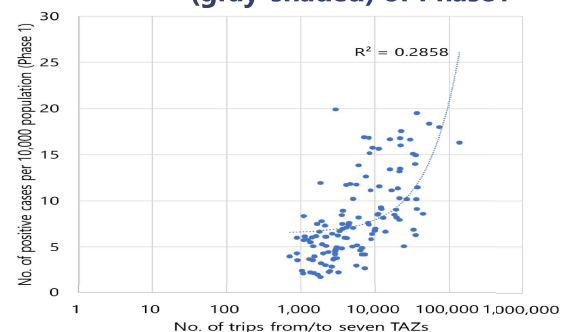


(initial stage of infection)  
Kelurahan with the higher trip rate to the hotspot  
has the higher rate of positive.

Relationship of the positive  
cases with no. of trips



Number of trips to hotspots  
(gray-shaded) of Phase 1



## □ Contribution of primary health care system

### [Jakarta] Guideline of COVID-19 infection prevention measures

- Roles of RT/RW (community unit as the lowest administrative unit)
- Deliver of information on infection control measures, distribution of infection prevention measures, support for quarantined people



Source: AMREF Website

### [Uganda] Existing Primary Health Care System

- Community-based Village Health Teams (VHTs) in charge of primary health care (community information management, awareness raising, health service provision)
- Under COVID-19, providing infection preventive measures with support of international donors.

### [Thailand] Primary health care network of Public/Village Health Volunteer

- Community-based PHV/VHV are assigned nationwide
- Awareness raisins of infection prevention measures, follow-up with quarantined persons, support for hospital visits

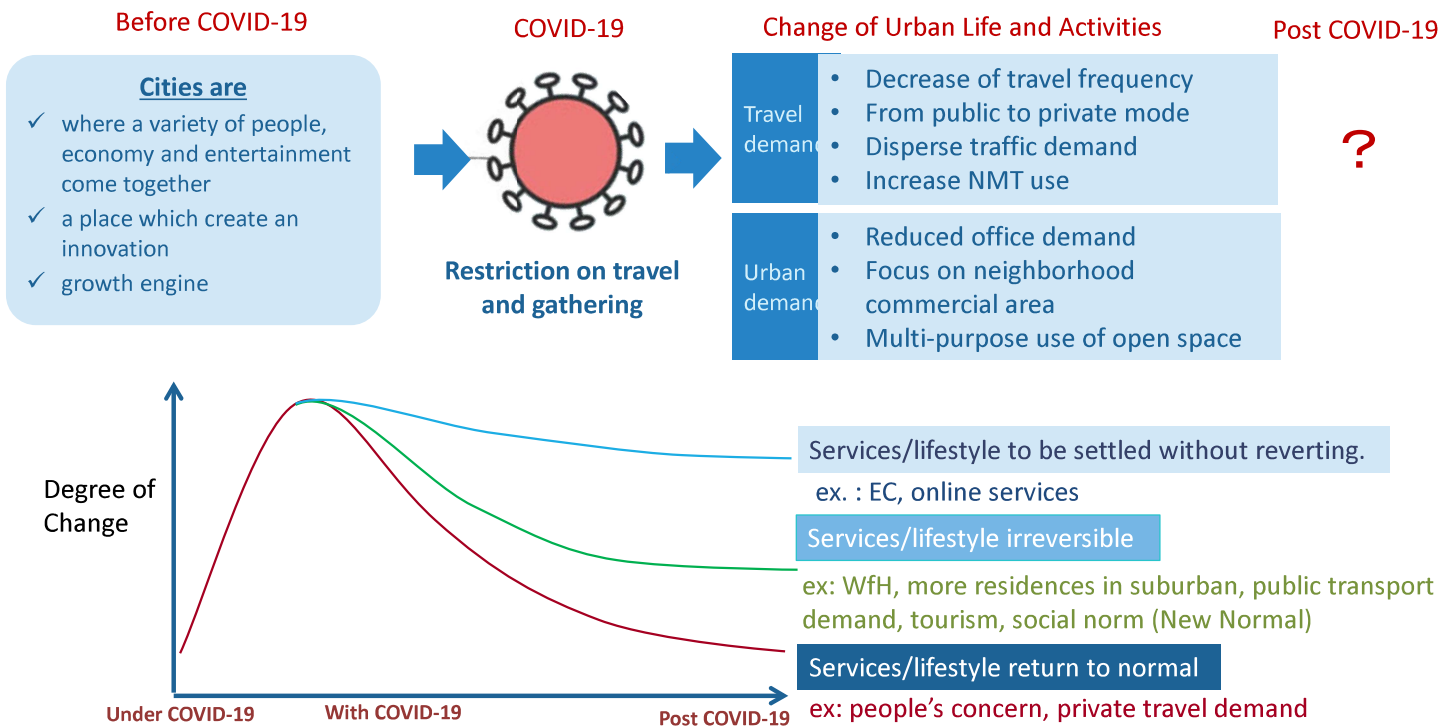


Source: WHO News

## □ Countermeasures against COVID-19

Purpose	Measure	Examples
(1) Infection prevention measures	Information sharing and awareness-raising	<ul style="list-style-type: none"> <li>• Information dissemination of infection status through SNS</li> <li>• Guidelines and seminars on infection prevention measures</li> </ul>
	Testing system	<ul style="list-style-type: none"> <li>• Testing for any applicants / Testing for symptomatic persons only</li> </ul>
	Close contact identification	<ul style="list-style-type: none"> <li>• Isolation of close contacts</li> <li>• Contact tracing application</li> </ul>
	Follow-up for people under self-quarantine	<ul style="list-style-type: none"> <li>• Community-level information dissemination and health management by health volunteers</li> </ul>
	Personal protective equipment	<ul style="list-style-type: none"> <li>• Distribution of facial masks / Disinfection</li> </ul>
(2) Closure and isolation for containment	Travel restriction	<ul style="list-style-type: none"> <li>• Compulsory lockdown</li> <li>• Voluntary stay-at-home order / promotion of work-from-home</li> <li>• Curfew / domestic travel restriction / closure of national border</li> </ul>
	Facility closure	<ul style="list-style-type: none"> <li>• Closure of large commercial facilities   ▪ School closure</li> <li>• Workplace closure                   ▪ Suspension of public transport</li> </ul>
	Social Distancing	<ul style="list-style-type: none"> <li>• Gathering prohibition</li> <li>• Frequency and capacity control of public transport</li> <li>• Entry control in markets       ▪ Check-in application</li> <li>• Public space utilization       ▪ Road space reallocation</li> </ul>

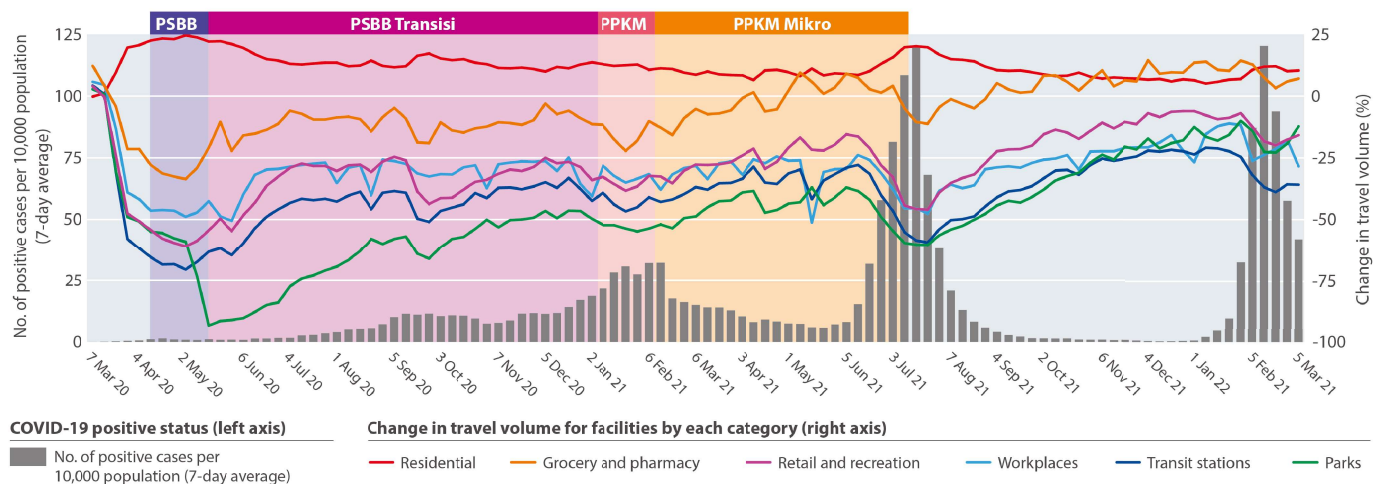
### 3. How will cities change in the post COVID-19 era?



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#### Change in urban activities

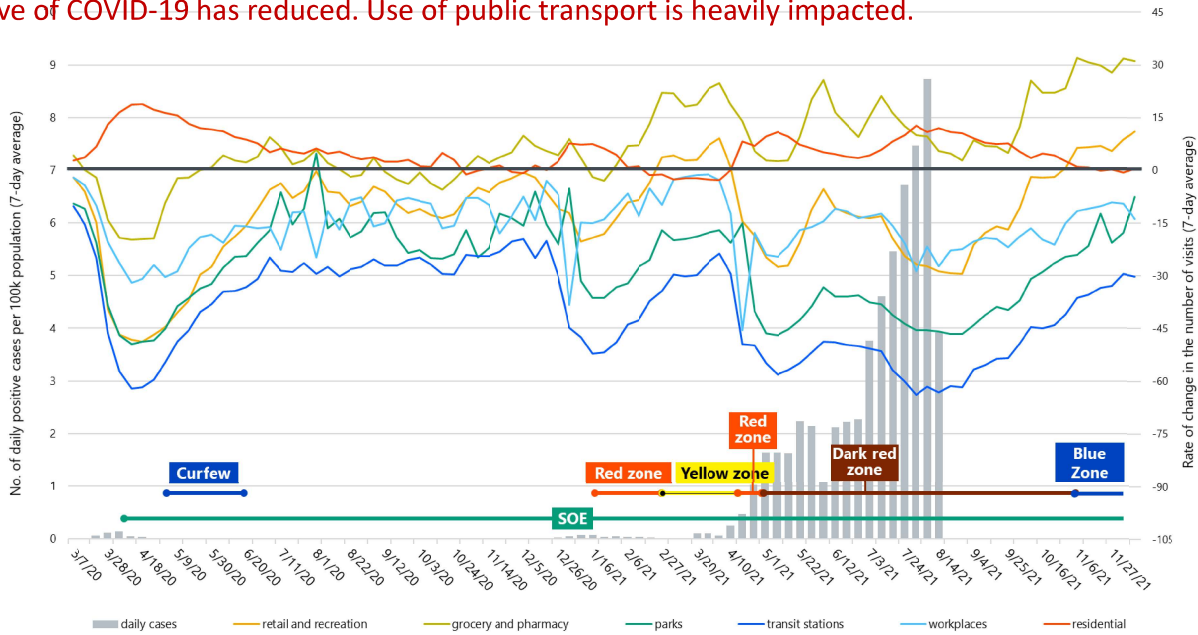
[Jakarta] With long-term restriction measures, volume of urban activities have been stagnated, particularly for use of parks in 2020.



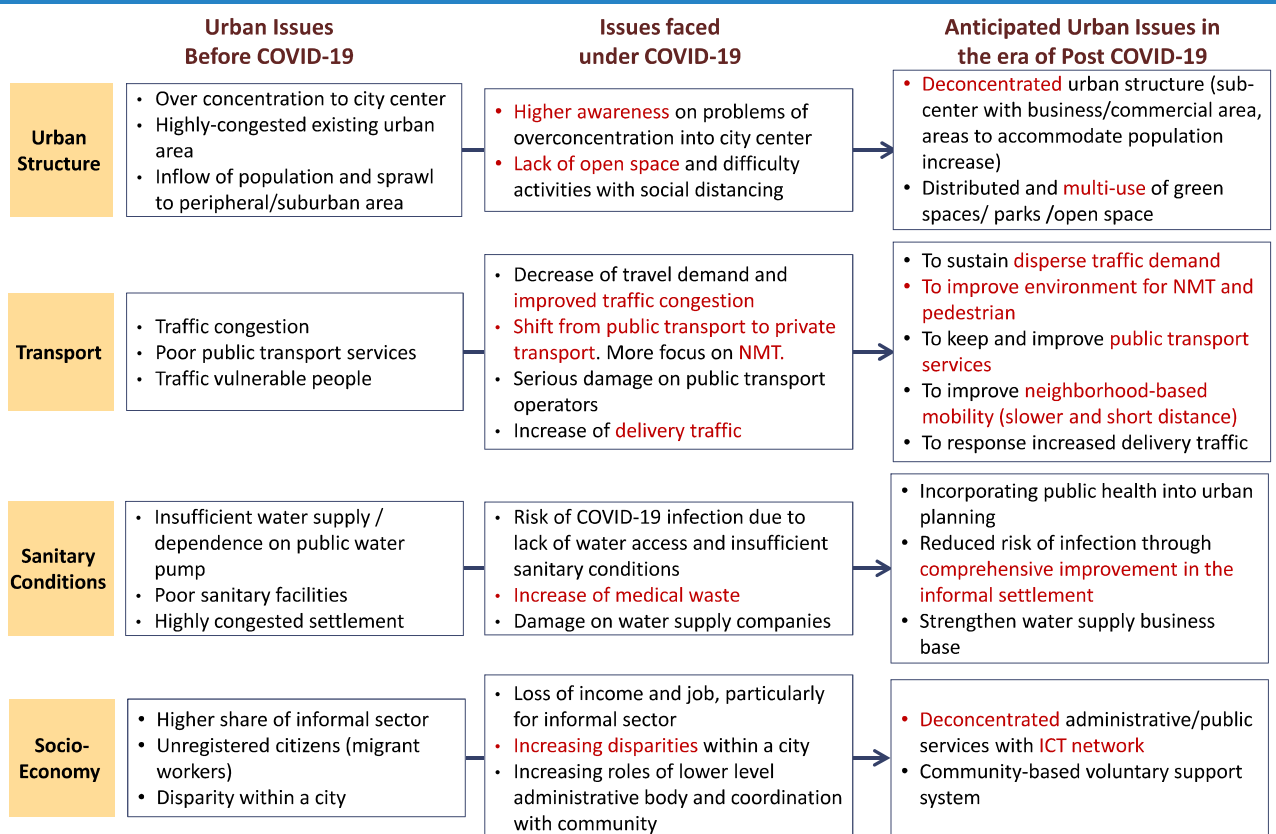
### 3. How will cities change in the post COVID-19 era?

#### Change in urban activities

[Bangkok] In 2020, urban activities have recovered somehow. After 2021, another wave of COVID-19 has reduced. Use of public transport is heavily impacted.



### 3. How





## 4. What is the topic for with / post COVID-19 cities?

### Emergency Response

- ✓ Prioritize containment of infection
- ✓ Accept inevitable restrictions on urban activities



### With COVID-19 (short-term)

- ✓ Take measures to resume urban economic activities
- ✓ To provide support for the vulnerable group



### Post-COVID-19 (mid and long-term)

- ✓ To create cities ready for future pandemic
- ✓ To recover quickly from its impact

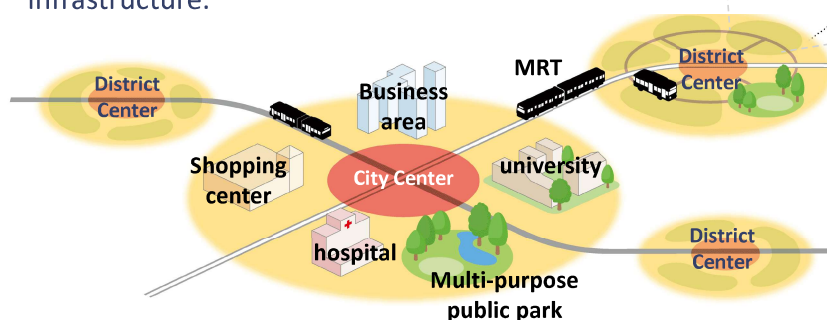
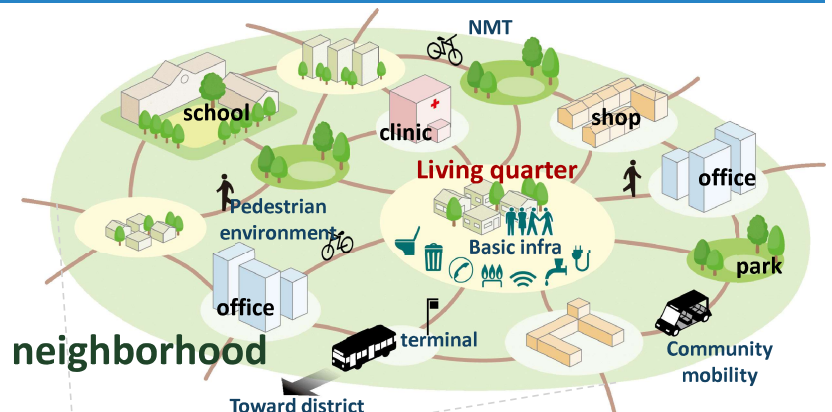


## 5. Toward the Post COVID-19 Resilient Cities: New Neighborhood

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### □ New Neighborhood Concept

- **Attention to neighborhood:** To enrich each neighborhood with functions such as “living” “working” “recreation”.
- **New Neighborhood Concept in developing countries:** in the cities in developing countries, which will continue to expand, aiming to enrich urban services as well as providing basic infrastructure.



- **Toward deconcentrated and connected city:** Creating self-sustaining neighborhoods contribute to realize deconcentrated and connected cities
- **District-level planning and implementation:** New neighborhood concept should be incorporated into administrative planning, preferably at a lower administrative level.

## 5. Toward the Post COVID-19 Resilient Cities: New Neighborhood

### □ Five Agenda for New Neighborhood



With enriched neighborhood, to become a **resilient city** that can recover from the impact of containment measures as well as minimize the spread of infection

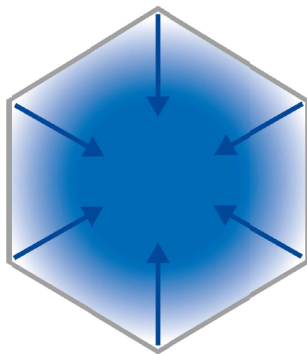
## 5. Toward the Post COVID-19 Resilient Cities: New Neighborhood

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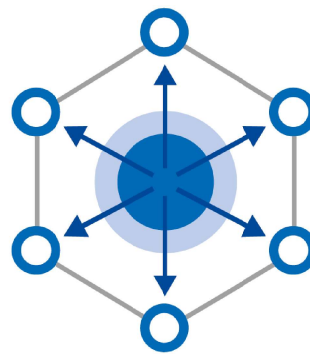


### Deconcentrated and Connected City

- To **deconcentrate** urban functions and services with effective connectivity.
- To **avoid over concentration** into city center with enriched self-sufficient neighborhood.
- To **strengthen connectivity** not only physical transport network but also with ICT network.



Adverse effects of unipolar structure

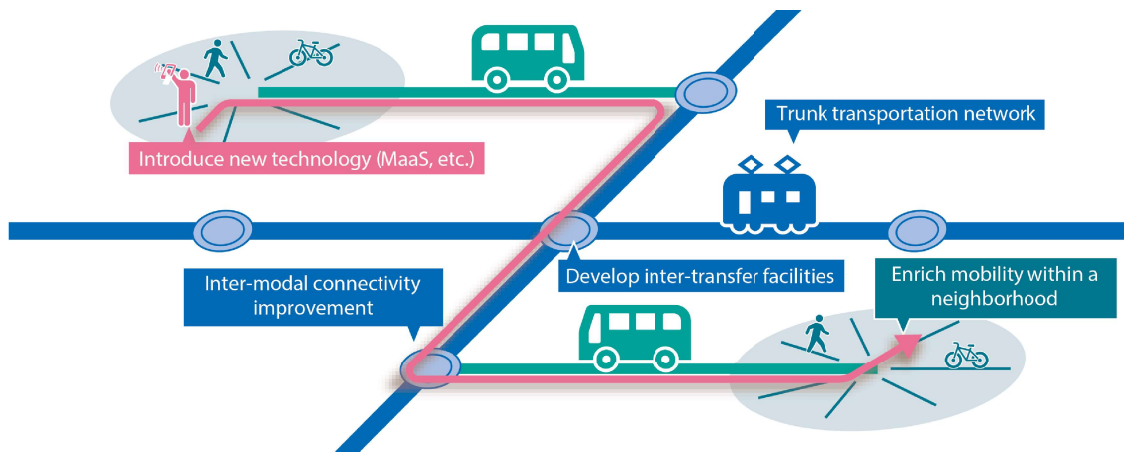


Deconcentrated and connected city



### Transport Network with Diversified Mobility Services

- ❑ To provide **core trunk transport network** supporting deconcentrated urban structure
- ❑ To provide **diverse** public transport services
- ❑ **NMT and pedestrian** improvement



### Inclusive Cities with Universal Access to Urban Services

- ❑ To support **urban vulnerable** groups, **comprehensive** living environmental improvement is required.
- ❑ Economic empowerment and enhancement of social security as well as to provide basic infrastructure services toward universal access

#### Coordination between communities and government

- Support community-based living environment management and improvement activities
- Enhance ICT-based coordination

#### Urban hygiene environment improvement

- Connect with water supply, develop communal taps
- Improve sanitation facilities (toilets)
- Develop sewage and wastewater facilities



#### Economic empowerment

- Create jobs, support entrepreneurship and employment
- Ensure financial access
- Promote tourism industry

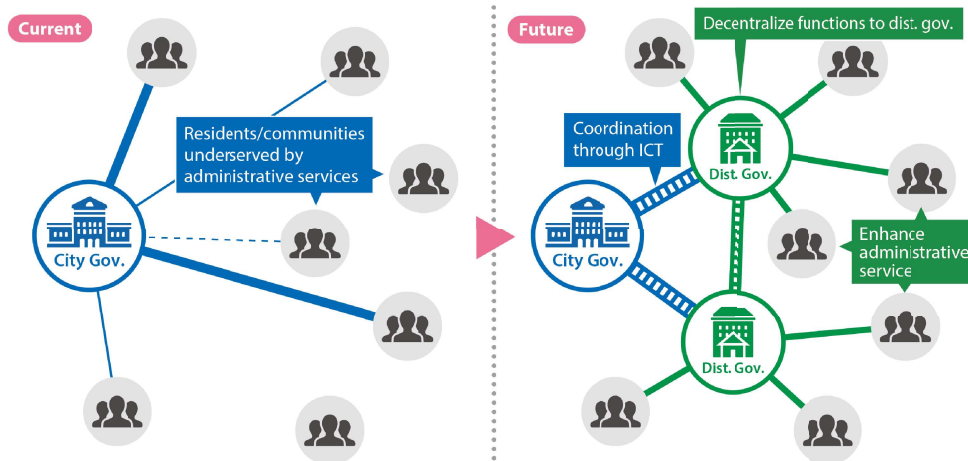
#### Strengthening Social Security

- Provide and ensure education opportunities
- Secure the right to housing
- Develop affordable housing



### Accessible Service Points by ICT Network

- ❑ **Deconcentrating** administrative service with a strengthened network to provide urban services tailored to the local needs.
- ❑ **Increased responsiveness** in case of pandemic.
- ❑ **ICT network** connecting administrative agencies



### Self-supportive and Responsive Community

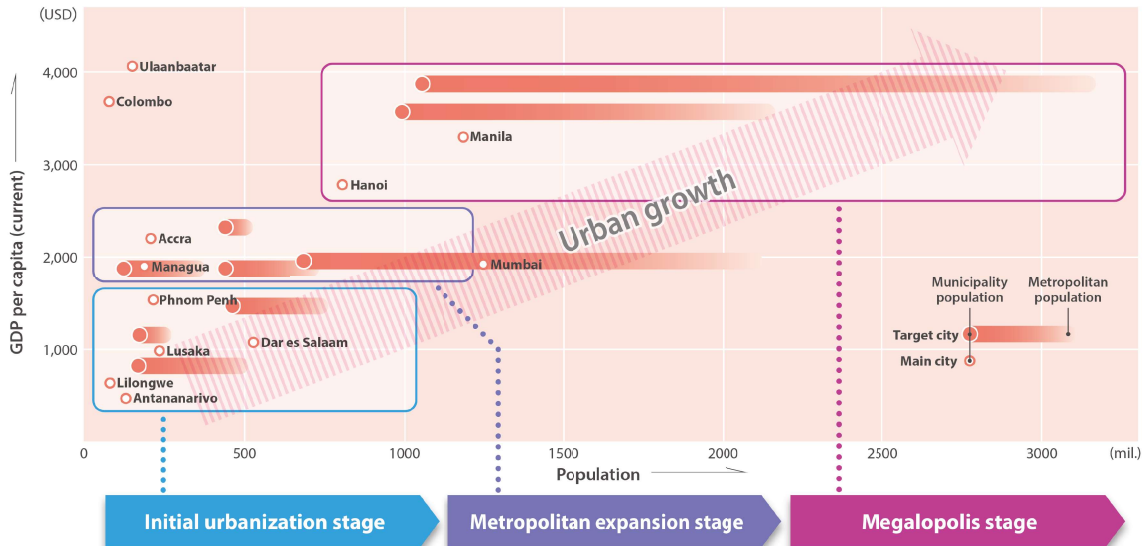
- ❑ To support **regular community urban management** at normal time, In order to have **emergency responsiveness**
- ❑ **Community establishment** through donor-supported project implementation



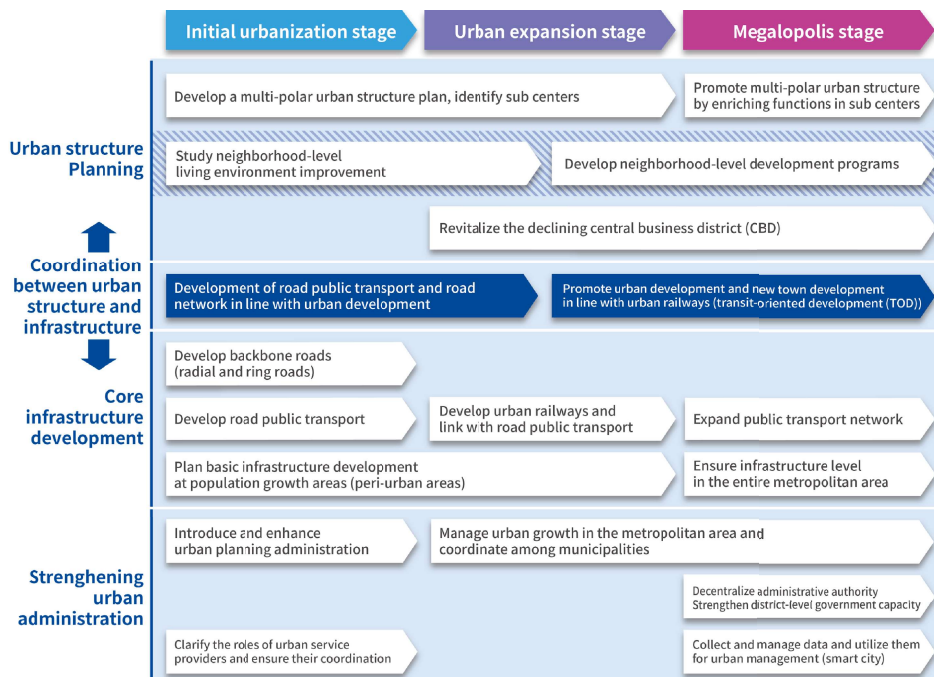


Deconcentrated and Connected Cities Development Program

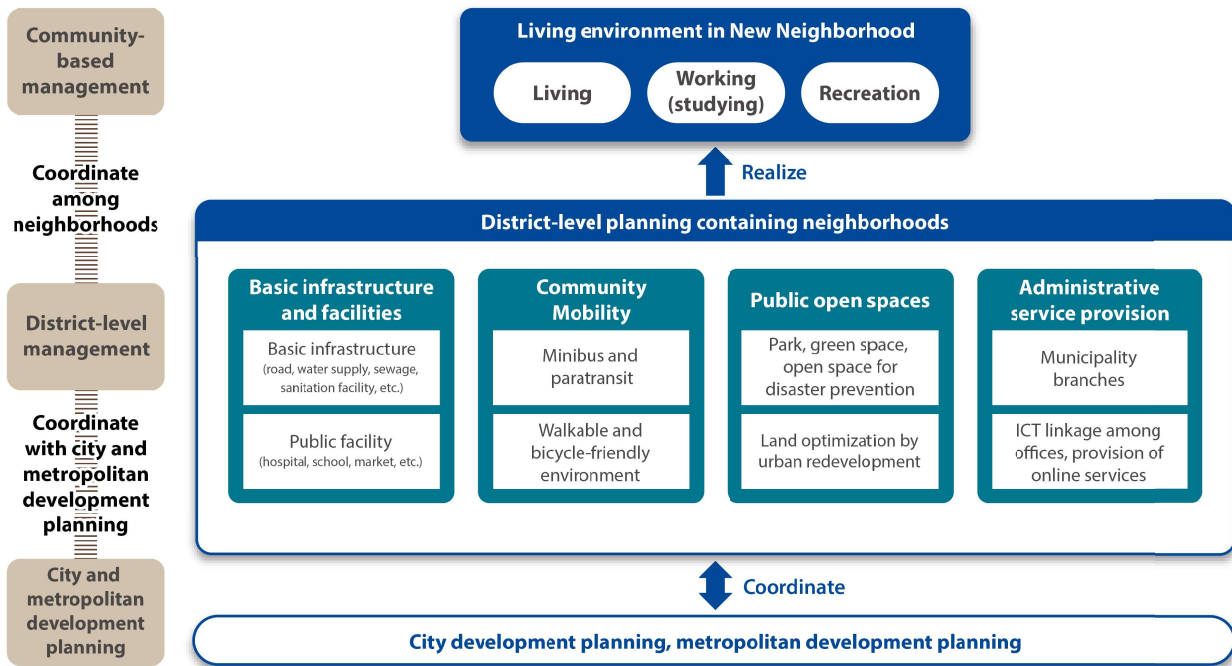
- Urban structure planning
- Core infrastructure development
- Strengthening urban administration



Deconcentrated and Connected Cities Development Program



□ New Neighborhood Improvement Program



□ Public Transport Network with Diversified Mobility Services Program

