

Introduction to City Planning in Japan

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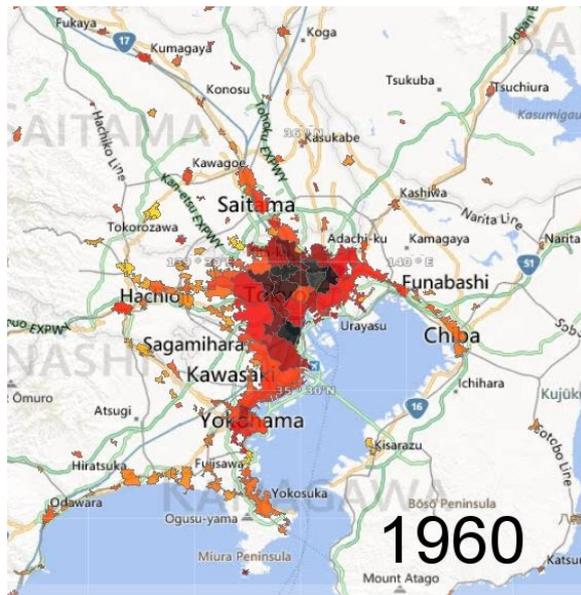
Government
of Japan



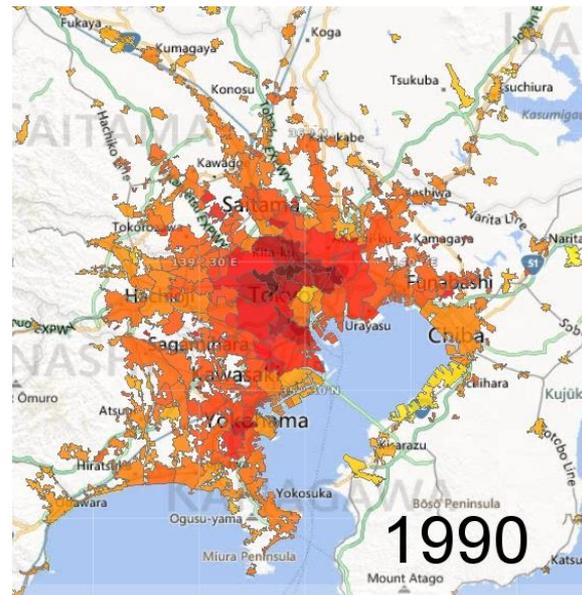
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Urban Expansion of Tokyo

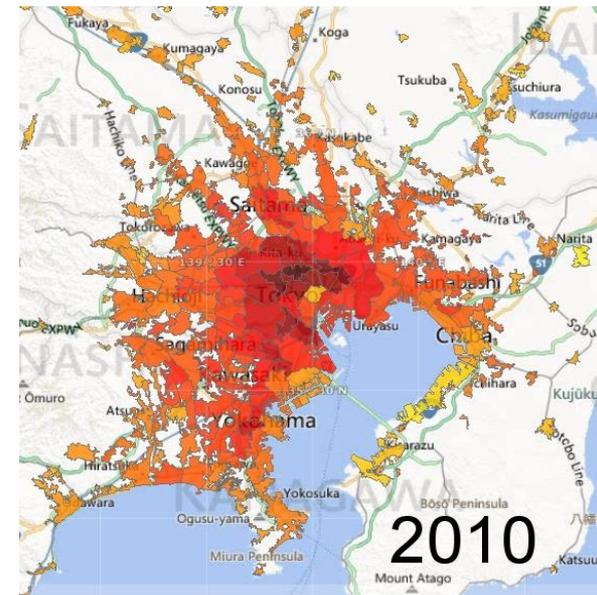
Rapid expansion took place first before WWII, and then in 50s and 60s.
Tokyo stabilized since, but expansion in the suburbs continued till the late 80s.



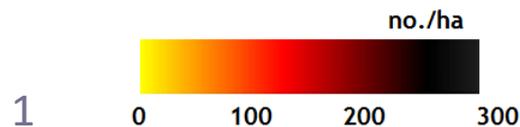
Highly concentrated
Taito Ward exceeding 320/ha
Rural areas at the periphery
Less extensive Tokyo Harbor



Largest urban area by 1970
"Fingers" of development along rail
Tokyo proper losing population to suburbs



Redensification of the Tokyo proper
Greater Tokyo population reaching 30 million excluding rural areas



Source: <https://perihele.wordpress.com/2014/04/18/mapping-japanese-city-spaces-greater-tokyo/>



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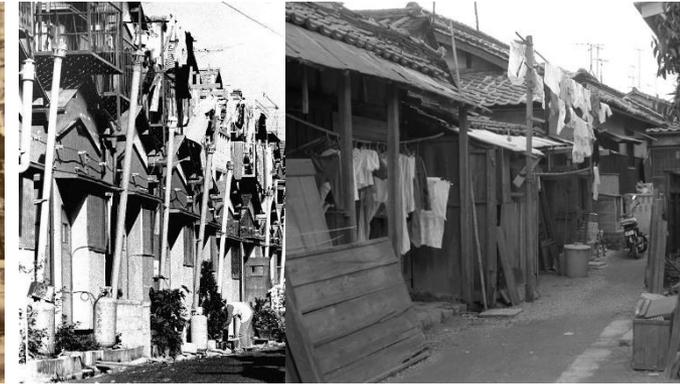
Adverse Impacts due to Densification



“Commuting Hell”



Traffic Congestion



Inadequate and Dense Housing



Air Pollution



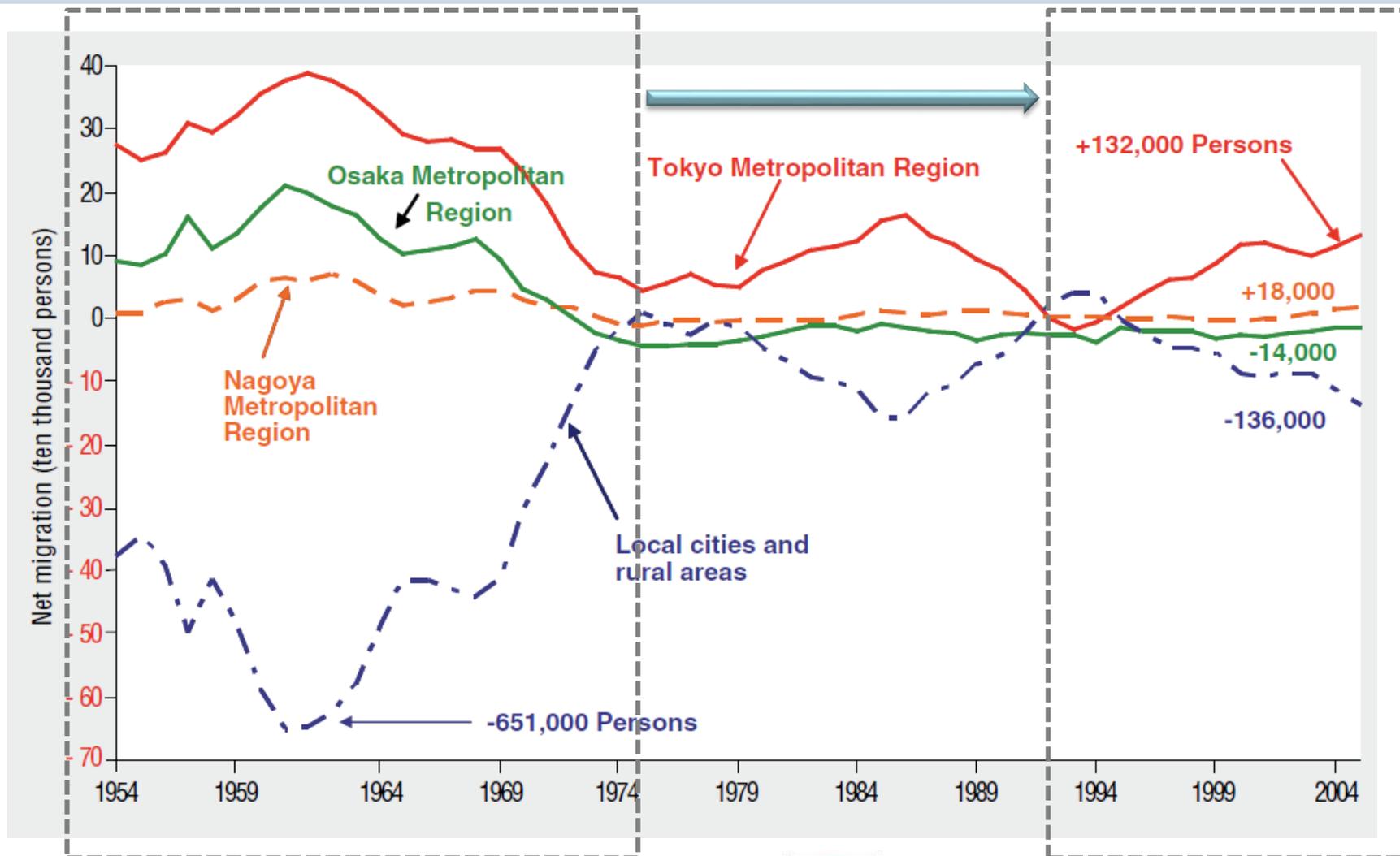
**Frequent Floods and
Water Contamination**



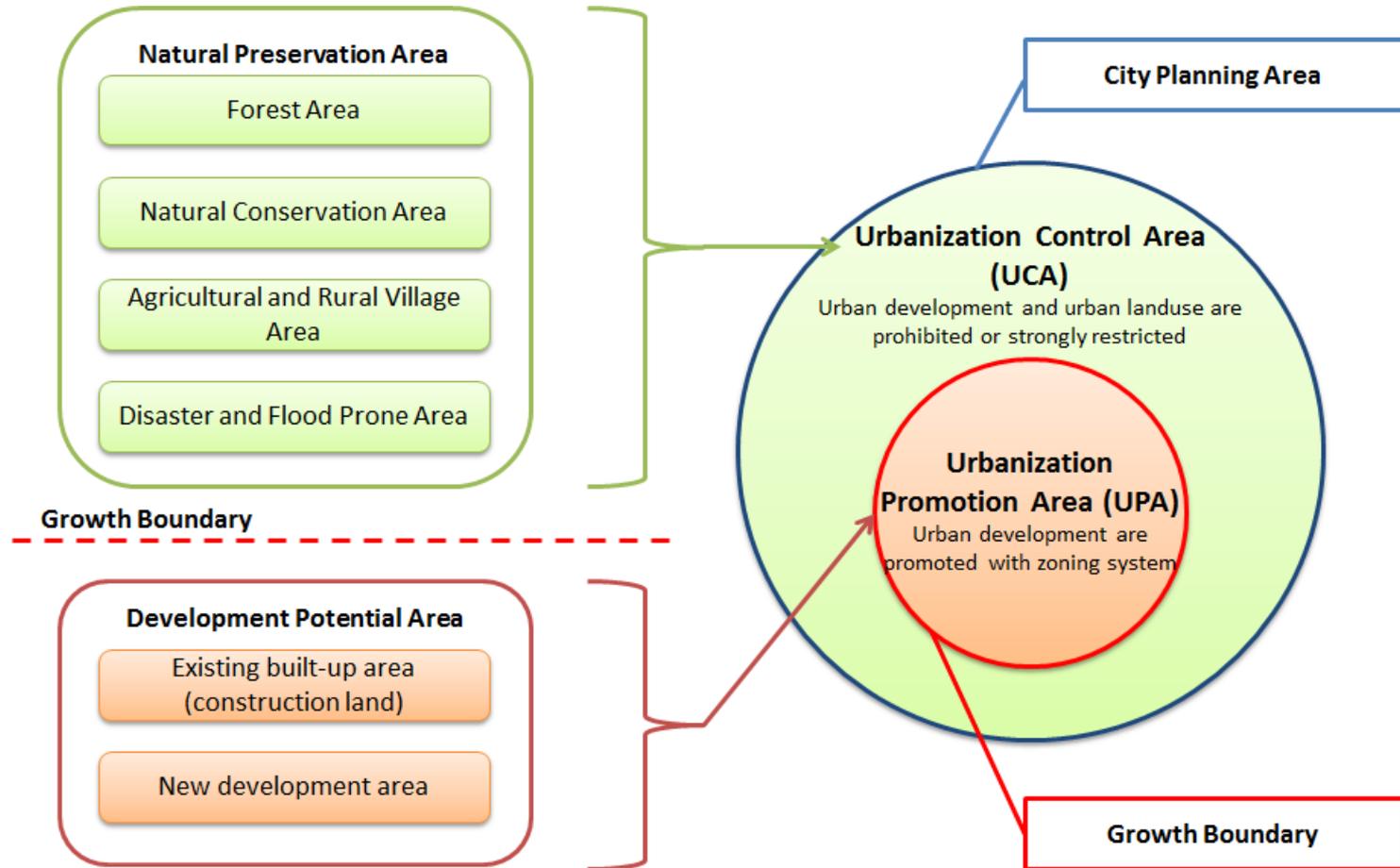
Waste Management Issues

Population Dynamics: Metropolis vs Others

Long-term trend of Rural-Urban Migration



City Planning Area and UPA/ UCA



Land Use Zones

- Regulates the **use, density and form** of buildings in guiding land use.
- Must be designated in the entire Urbanization Promotion Area.
- Based on designated use zone by block. Floor Area Ratio (FAR), Building Coverage Ratio (BCR), and maximum building height are designated for each use zone to control volume of buildings by block.
- Pro-development in nature. Development which conforms to these land use zones are **in principle permitted by default**.

Category I exclusively low-rise residential zone



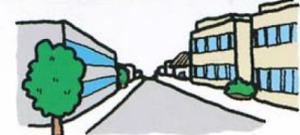
This zone is designated for low rise residential buildings. The permitted buildings include residential buildings which are also used as small shops or offices and elementary/junior high school buildings.

Category II exclusively low-rise residential zone



This zone is mainly designated for low rise residential buildings. In addition to elementary/junior high school buildings, certain types of shop buildings with a floor area of up to 150m² are permitted.

Category I mid/high-rise oriented residential zone



This zone is designated for medium to high residential buildings. In addition to hospital and university buildings, certain types of shop buildings with a floor area of up to 500m² are permitted.

Category II mid/high-rise oriented residential zone



This zone is mainly designated for medium to high rise residential buildings. In addition to hospital and university buildings, the permitted buildings include certain shops and office buildings with a floor area of up to 1,500m² to provide conveniences for the local community.

Category I residential zone



This zone is designated to protect the residential environment. The permitted buildings include shops, offices and hotel buildings with a floor area of up to 3,000m².

Category II residential zone



This zone is designated to mainly protect the residential environment. The permitted buildings include shops, offices and hotel buildings as well as buildings with karaoke box.

Quasi-residential zone



This zone is designated to allow the introduction of vehicle-related facilities along roads while protecting the residential environment in harmony with such facilities.

Neighborhood commercial zone



This zone is designated to provide daily shopping facilities for the neighbourhood residents. In addition to residential and shop buildings, small factory buildings are permitted.

Commercial zone



Banks, cinemas, restaurants and department stores are constructed in this zone. Residential buildings and small factory buildings are also permitted.

Quasi-industrial zone



This zone is mainly occupied by light industrial facilities and service facilities. Almost all types of factories are permitted excepting those which are considered to considerably worsen the environment.

Industrial zone



Any type of factory can be built in this zone. While residential and shop buildings can be constructed, school, hospital and hotel buildings are not permitted.

Exclusively industrial zone



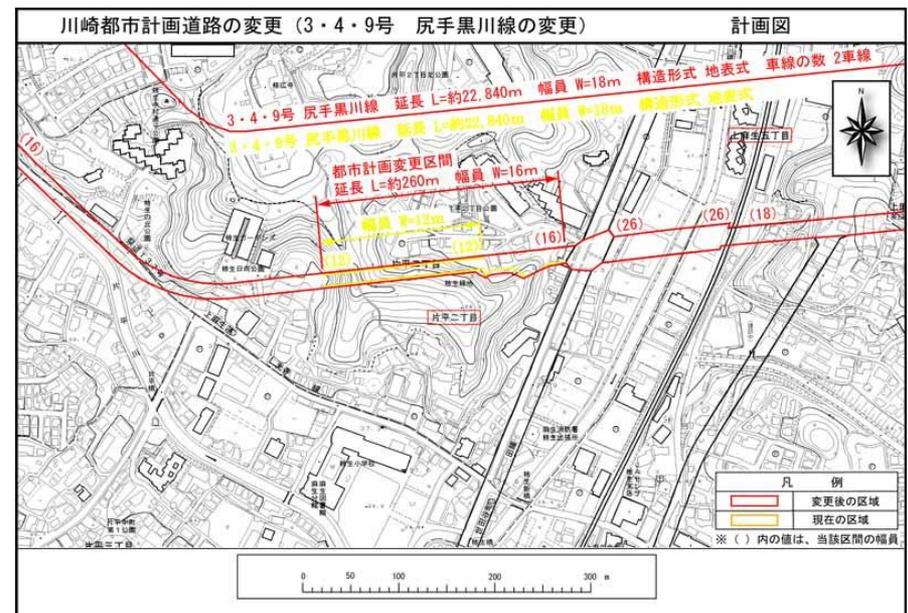
This zone is designated for factories. While all types of factory buildings are permitted, residential, shop, school, hospital and hotel buildings cannot be constructed.

Urban Facilities

- Urbanization happened very quickly and hence became **very costly to secure land in a built-up area for urban facilities in urban areas.**
- Hence, location and area of Urban Facilities are stipulated in advance to:
 - **Tightly regulate the building and land development activities** of the land plots and;
 - **Ensure the consistency** across land use, projects and facilities, ensuring the effective consultation with relevant agencies and general public.
- This is done through a “City Planning Decision” otherwise known as *toshi keikaku kettei*. **Developments subject to the decision will be restricted.**

Urban Facility includes...

Transport facilities, parks, open space, utilities, waterways, education/ cultural facilities, medical/ welfare facilities, etc.

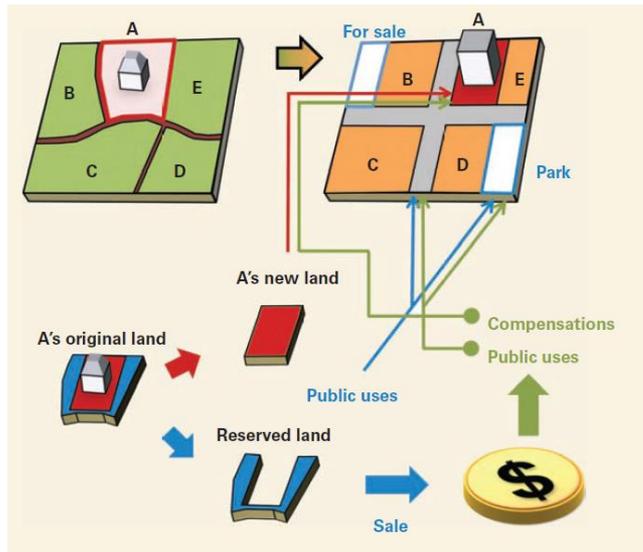


Source: Kawasaki City, Japan

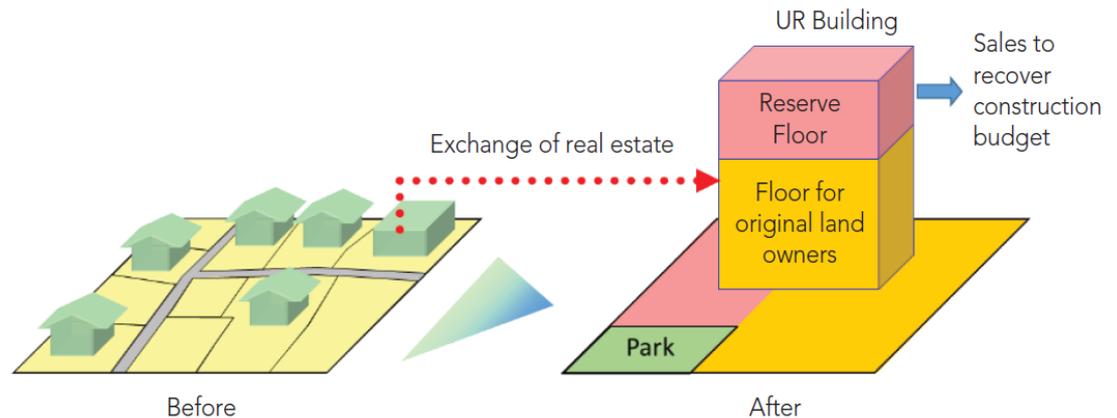
Various Urban Development Projects Schemes

- Enables the **public and private sector to carry out necessary development projects to serve public interests** through provision of infrastructure and service delivery.
- Can be done through land use conversion schemes (below) or whole purchase schemes.

Land Readjustment

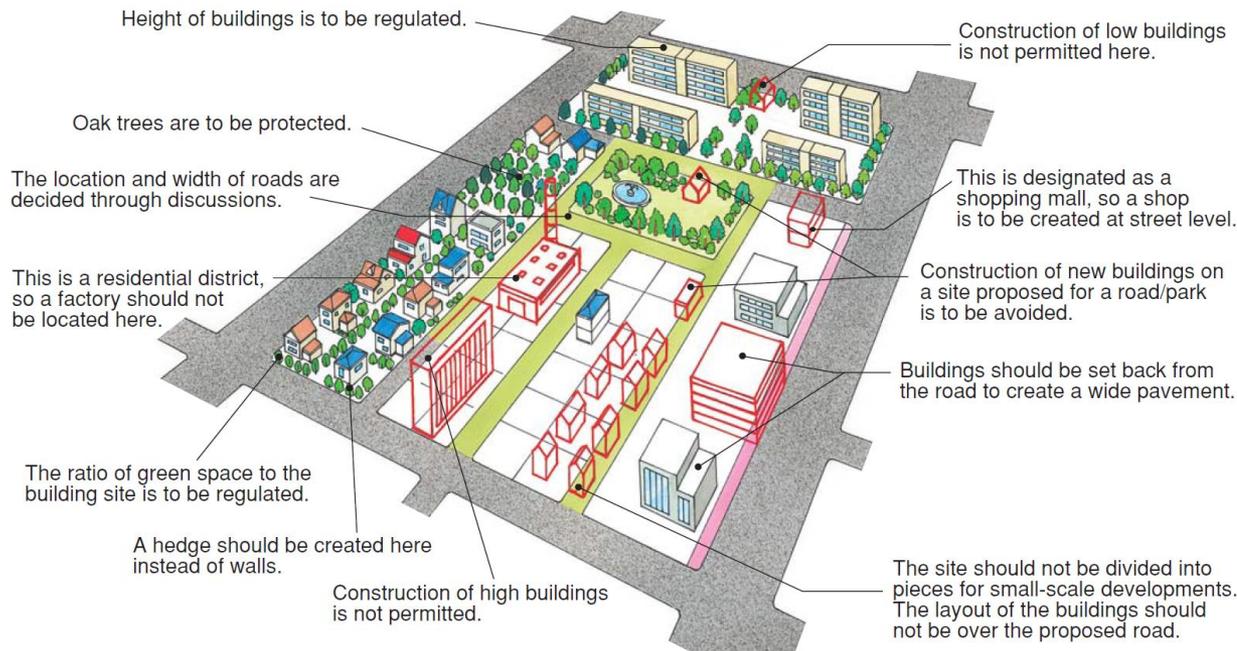


Urban Redevelopment Projects



District Plans

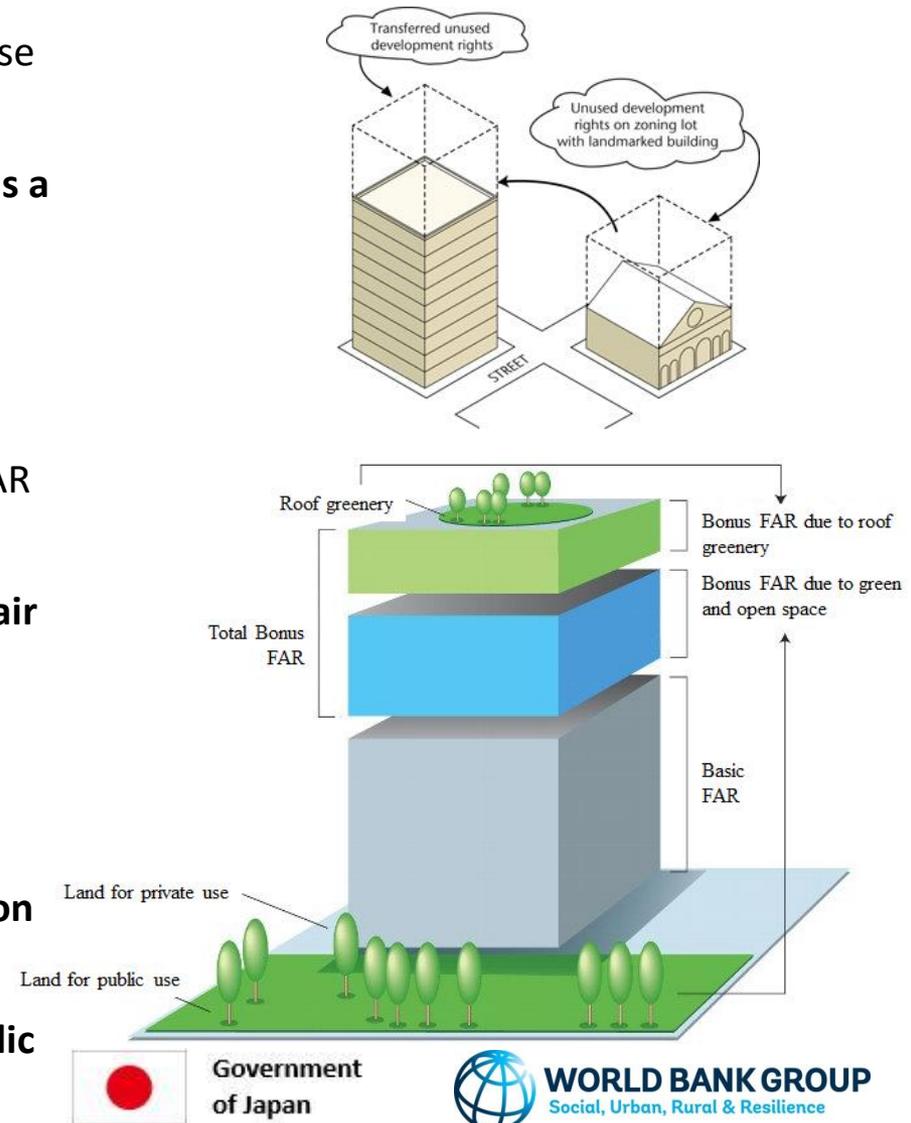
- District Planning was introduced in 1980 as a detailed land use planning system applying to areas with several hectares, often with **theme-specific development purposes**.
- It is **stipulated by the municipality** and must be drafted through **consultation with land owners**.
- It is an **overlay regulation** over primary regulations (Urbanization Promotion Area/ Urbanization Control Area, Land Use Zones) to provide more detailed regulation on land use and building activities to cater to the specific needs of the area.



- Examples of Development Themes**
- ✓ Disaster prevention
 - ✓ Corridor development
 - ✓ Urban villages
 - ✓ Cultural heritage preservation
 - ✓ Intensive utilization of land in built-up areas

Special Districts and Bonus FARs

- **Relaxing the base FAR** (stipulated through Land Use Zones) is possible under certain circumstances. Significantly higher FARs allowances are **granted as a “bonus” in return for private investment in compensating public facilities** (e.g. station plazas, open space, pedestrian walkways, etc.)
- Unused FAR (difference of maximum permitted FAR of the area to the building’s actual FAR) can be **transferred to another building in the vicinity as air rights transfer** (possible only in certain District Planning areas).
- Underlying principle of this deregulation is the **optimal distribution of costs and benefits based on local conditions**. From the Government’s perspective, FAR bonuses are given to **realize public goods with no cost for the Government**.



What can we learn from Japan's experience?

1. **Effective land development controls on the urban fringe for future infrastructure** is crucial. Public space can become less affordable as the society gets wealthier.
2. Land development control systems requiring **allocation of certain proportion of land for public needs** is essential for long-term sustainable development.
3. LR is a powerful to achieve **compulsory dedication of private land to public uses**. However LR by itself **cannot** control urban sprawl without a combination with blanket restriction on development outside LR projects or universal building-line systems.
4. Pro-development policies may encourage growth/ productivity over urban amenity. Important to get the **basic urban patterns right at the time of rural to urban land conversion** (adequate control of private investments is key).
5. Weaker land development restrictions increase housing supply and keep prices down.
Is this really true?



What can we learn from Japan's experience?

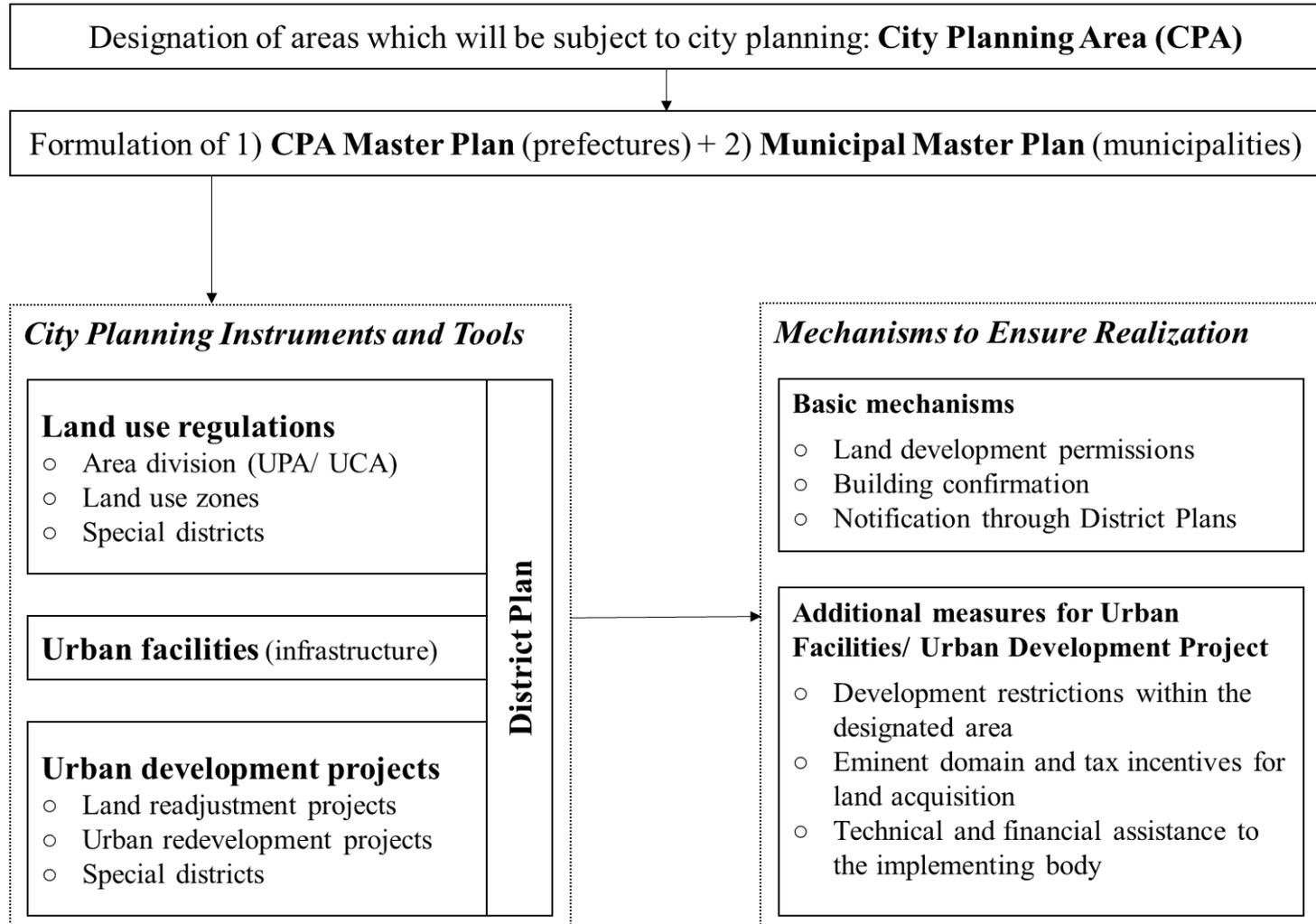
- 6. Existence of strong and civic organizations and a lively civil society** is highly important for urban governance and urban planning. Local environmental management through *machizukuri* (city building) organizations has been an important contributor.
- 7. Good public transit systems can mitigate many serious urban problems.** (transport accessibility for all, unifies job markets and increases economic competitiveness, decreases traffic congestion).
- 8. High intensity of mixed use in central cities** can be a positive force in keeping urban areas vital and interesting versus strictly segregated land use.



Thank you for your attention!



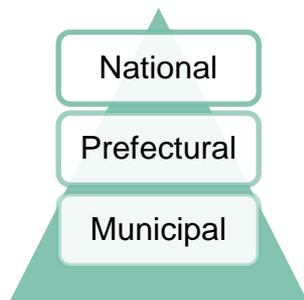
Overview of City Planning in Japan



Role Demarcation to Finance Infrastructure

Road Type		Manager	Financier	Costs borne by National Government	
				New/ Renewal	O & M
National Expressway	Toll road	National (MLIT)	Expressway Company	Company manages through bank loans, fare revenues, etc.	
	New direct		National, Prefectural	3 / 4	10 / 10
National Road	Direct	<u>New/ Renewal:</u> National <u>O & M:</u> National, Prefectural	Nation (MLIT), Prefectural	2 / 3	10 / 10
	Supplemental			1 / 2	Under 1 / 2
Prefectural Road		Prefectural	Prefectural	Under 1 / 2	Under 1 / 2
Municipal Road		Municipality	Municipal	Under 1 / 2	Under 1 / 2

Source: Ministry of Land, Infrastructure, Transport and Tourism (translated from original source)



Urban Development Project Schemes

	Land Readjustment	Urban Redevelopment	New Residential Area Development
Methods	Replotting and land rights exchange	Rights conversion from land to building floor	Whole purchase through compulsory expropriation
Objectives	<ul style="list-style-type: none"> • Development of Urban Facilities • Higher added value to land 	<ul style="list-style-type: none"> • Development of fire-resistant buildings • Development of Urban Facilities • Rational and sound high utilization of land 	<ul style="list-style-type: none"> • Large-scale development of housing with livable environments to ensure provision of housing for all
Application	Broadly from urbanized areas to new towns	Urbanized areas	New towns
Size	More than 100 hectares	Several hectares (1-3 ha)	More than 100 hectares
Achievements	395,206 ha	1,193 ha	17,943 ha

- Urban Development Project schemes enable the **public and private sector to carry out necessary development projects to serve public interests** through the provision of infrastructure and service delivery.
- Major schemes: land readjustment project, urban redevelopment project, new residential development project, residential district development project, industrial zone development project, and new urban infrastructure development project.

How are continuity of plans ensured in Japan?

1. **Bureaucrats** are the professionals in policy formulation and finance allocation.
 - a. Politicians influence specific sectoral policies of their interest: “road clan” “port clan” “pension clan”
 - b. Long Liberal Democrat Party representation at the national + local level, but nothing fundamentally changed when the Democrat Party recently had power for 3 years
 - c. This is also why plans and policies tend to be very rigid in Japan.

2. **Two-tier plan set-up ensures implementation on the ground.**
 - a. **Long term vision and strategies** defined in the 10-20 year time frame.
(e.g. Growth boundaries for UPAs and UCAs defined for next 10 years.)
 - b. **Specific plans** backed by financing for every 5 years.

3. **Plans are a shared democratic ground, a shared consensus of how a city should be developed by the people** – agreement by public consultation cannot be overridden even by politicians.
 - a. Not a compromise of all interests, but an agreement of what is important in the urban development direction
 - b. District Planning (neighborhood planning) non-statutory and overlay plan to the statutory
 - c. This is the theory at least...we are getting there 😊

