WORLD BANK GROUP
Transport

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LAND VALUE CAPTURE (LVC) AND TRANSIT ORIENTED DEVELOPMENT (TOD)

- WITH CASES FROM JAPAN

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Different Schemes of Land Value Capture

Land value can be captured through tax/fee based or development based LVC schemes.

Who creates the 'value' (and are they the recipient too)?

1. Transit developer through the transit service
2. Land use authority through better development potential

Schemes of LVC:

Value Creator and Recipient	Tax or Fee based LVC	Development based LVC
Same (Transit Dev / Land Use Authority owns land)	-	(prior land acquisition and) • Sale or lease of land • Own development, Joint Development
Different	• Property tax • Betterment charge / special assessment • Business Improvement District (BID) • Tax Increment Finance (TIF)	• Joint Development • Air rights sale • Land Readjustment (LR) • Urban Redevelopment Scheme

Source: Author, based on Financing Transit-Oriented Development with Land Values (Suzuki et al, World Bank)

Captured land value can be put back into the transit for its development and operation.

Why do you want to capture the land value?

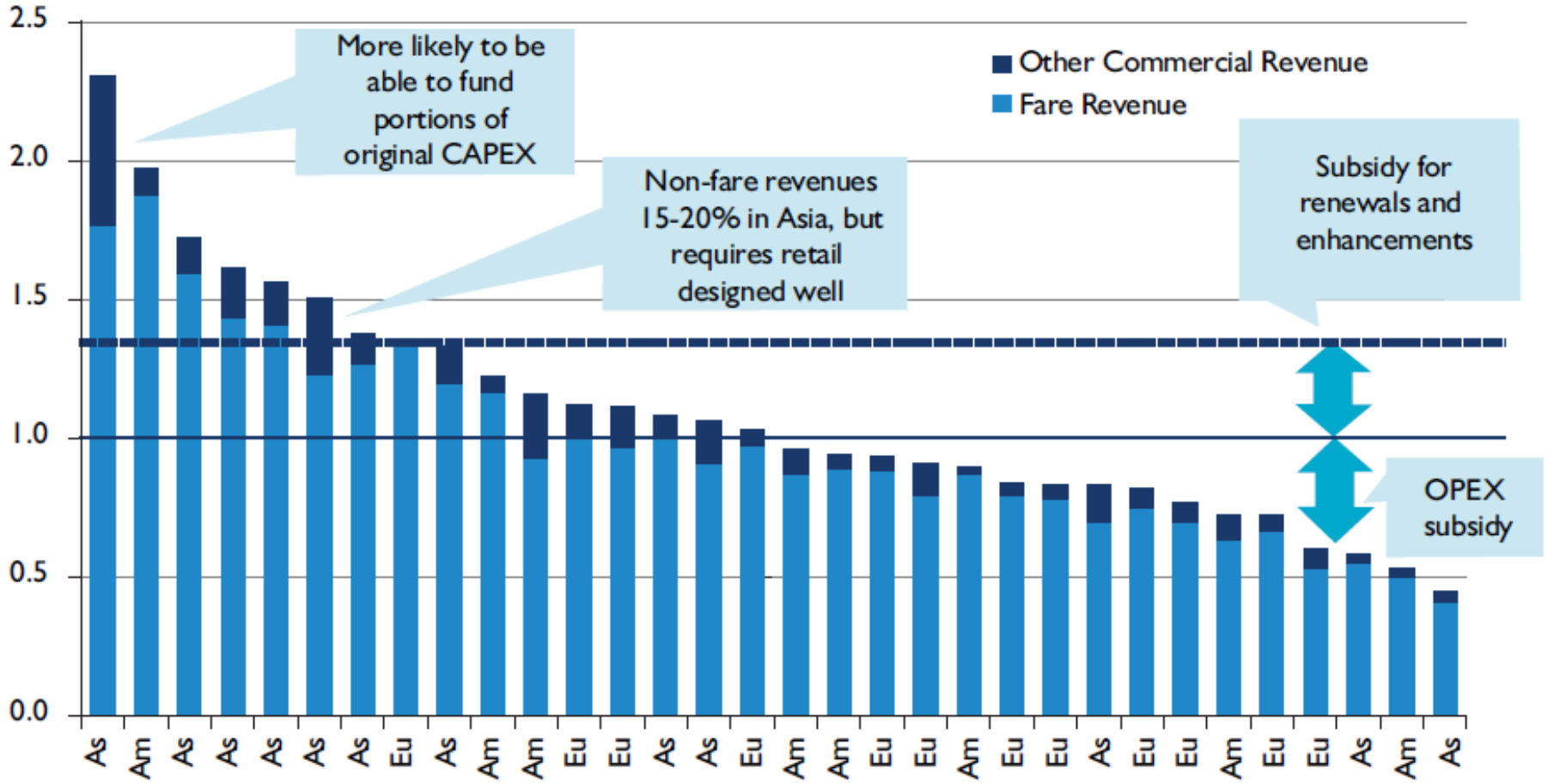
1. Looking at how the value is created –
   It is a windfall gain and it should belong to the value creator.

2. Looking at the actual value create –
   There are good use of the value, such as:
   - To do more, such for another transit line or renewal and enhancement cost.
   - To do better, such as for better Operation and Management (O&M) of the transit, and for station access improvement.

The value-capturing process can enable mutually-beneficial integrated land development, which further increase the capturable value.

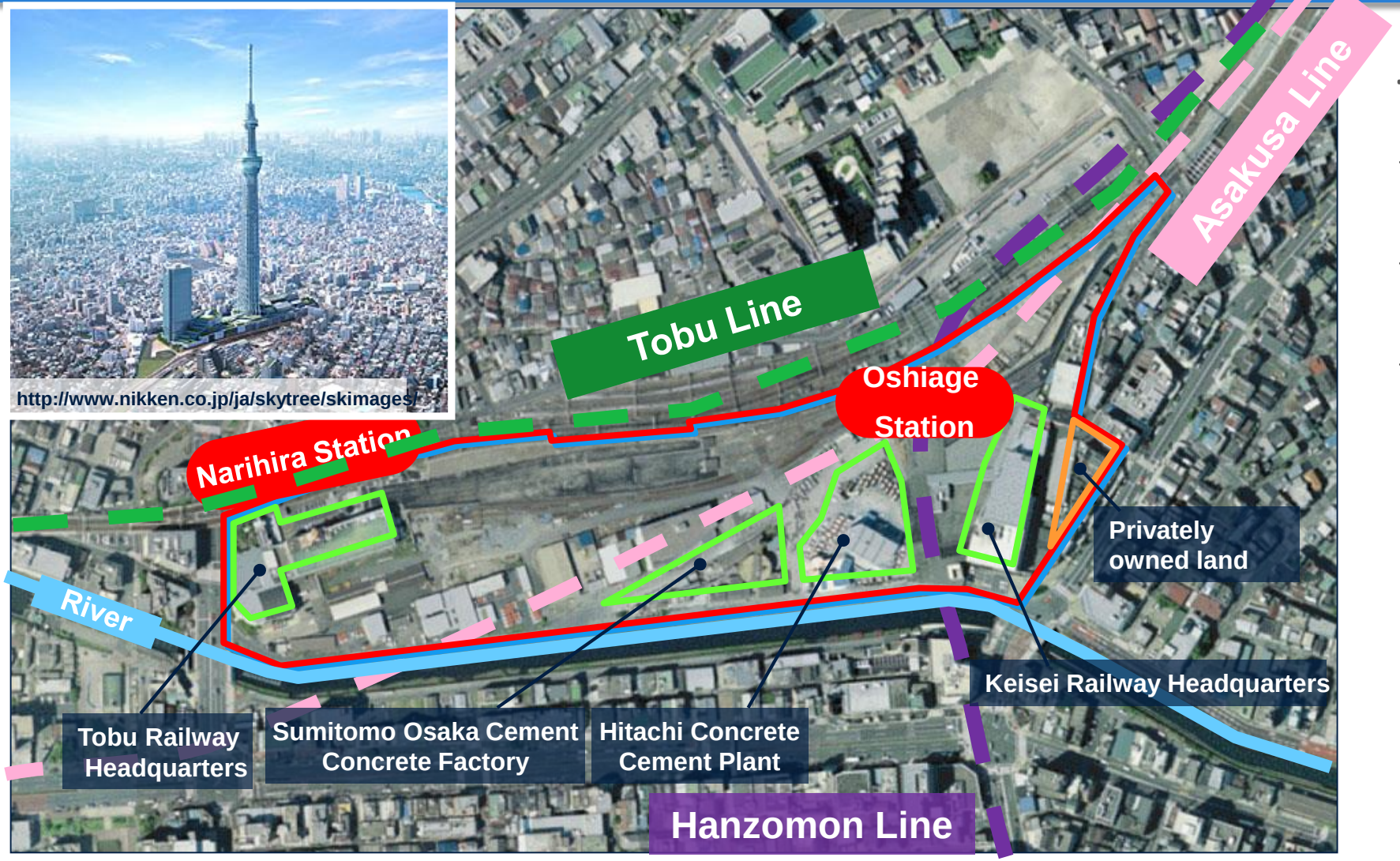
Why LVC? – For more and better transit.

Metro's cannot recover CAPEX and OPEX from its farebox revenue. Need more resource for O&M and renewal.



(Source: Community of Metros/Imperial College London)
Key: EU = European Metro; As = Asian metro; Am = American Metro
Source: The Operator's Story - A Study of Metro Systems Across the World, Railway and Transport Strategy Centre, World Bank / Imperial College London

By working together, an integrated development for a larger site can happen, which benefits all the parties.



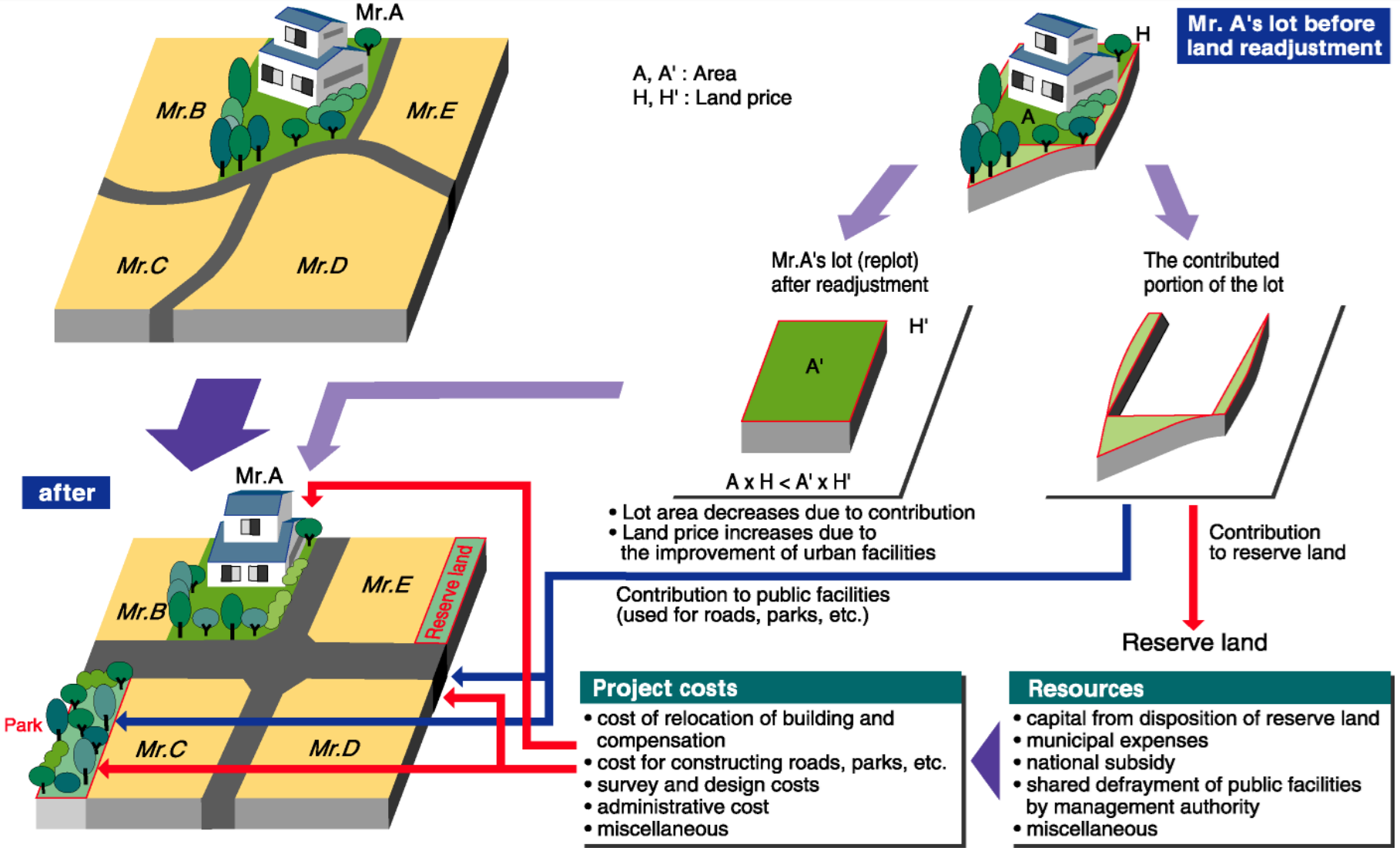
Tokyo Sky Tree Station

- Value creation: land use regulation change
- Value capture mechanism: Land Readjustment
- Benefits received:
  - Landowners: reshaped land, improved access, integrated development
  - Transit: Better station access, passenger demand to the site
  - Municipality: road and park

Slide courtesy of Urban Renaissance Agency, East Japan Urban Renaissance Headquarters (modified)

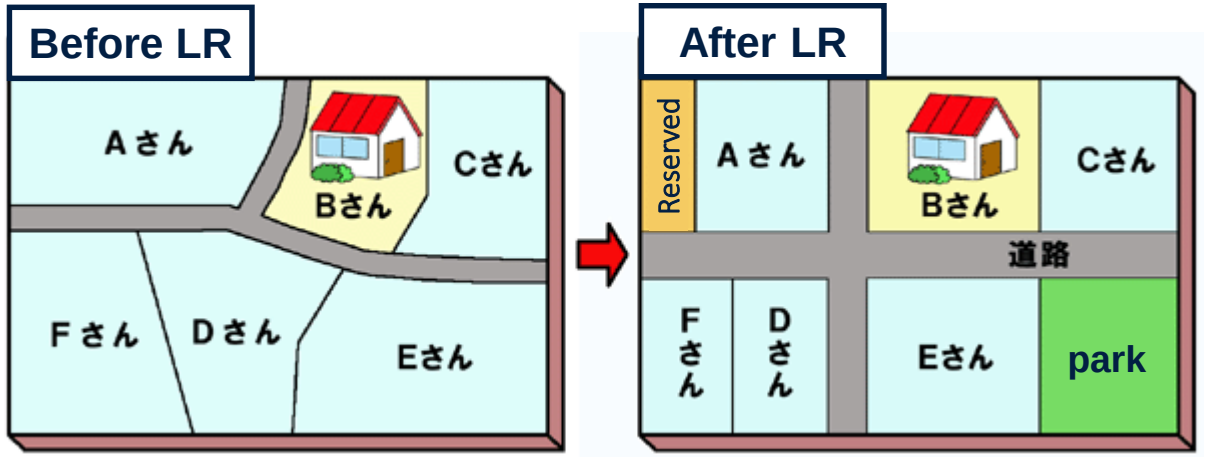
Land Readjustment

LR reshapes and consolidates plots, construct infrastructure, and capture the value all at the same time.



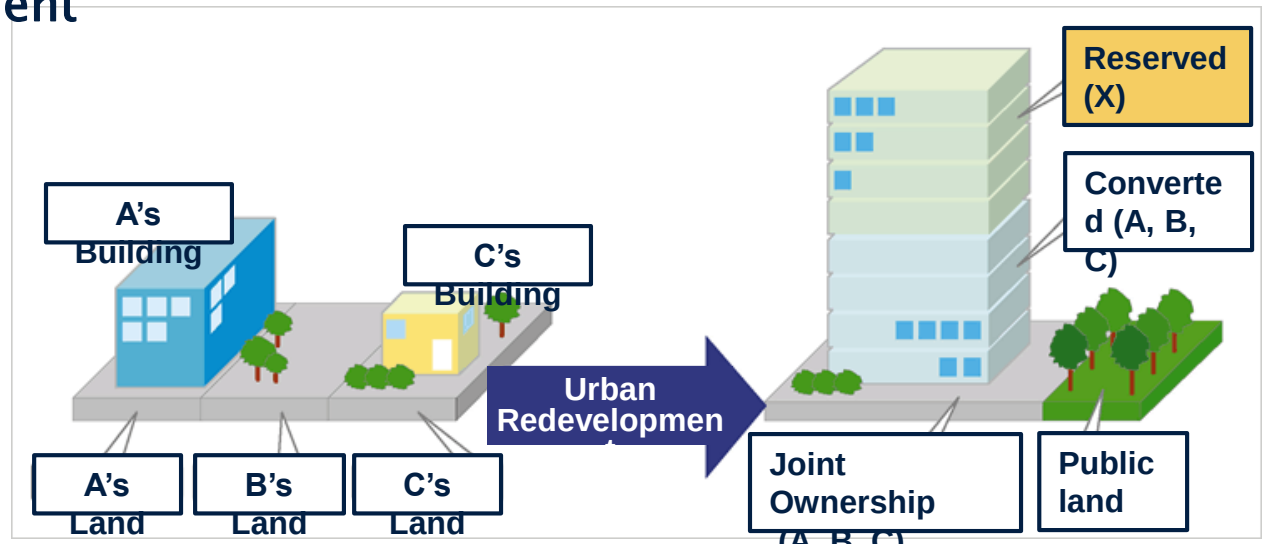
URS constructs buildings and implements the conversion of land and building ownership.

1) Land Readjustment



http://www.city.otaru.lg.jp/simin/sumai/machidukuri/totikukaku/

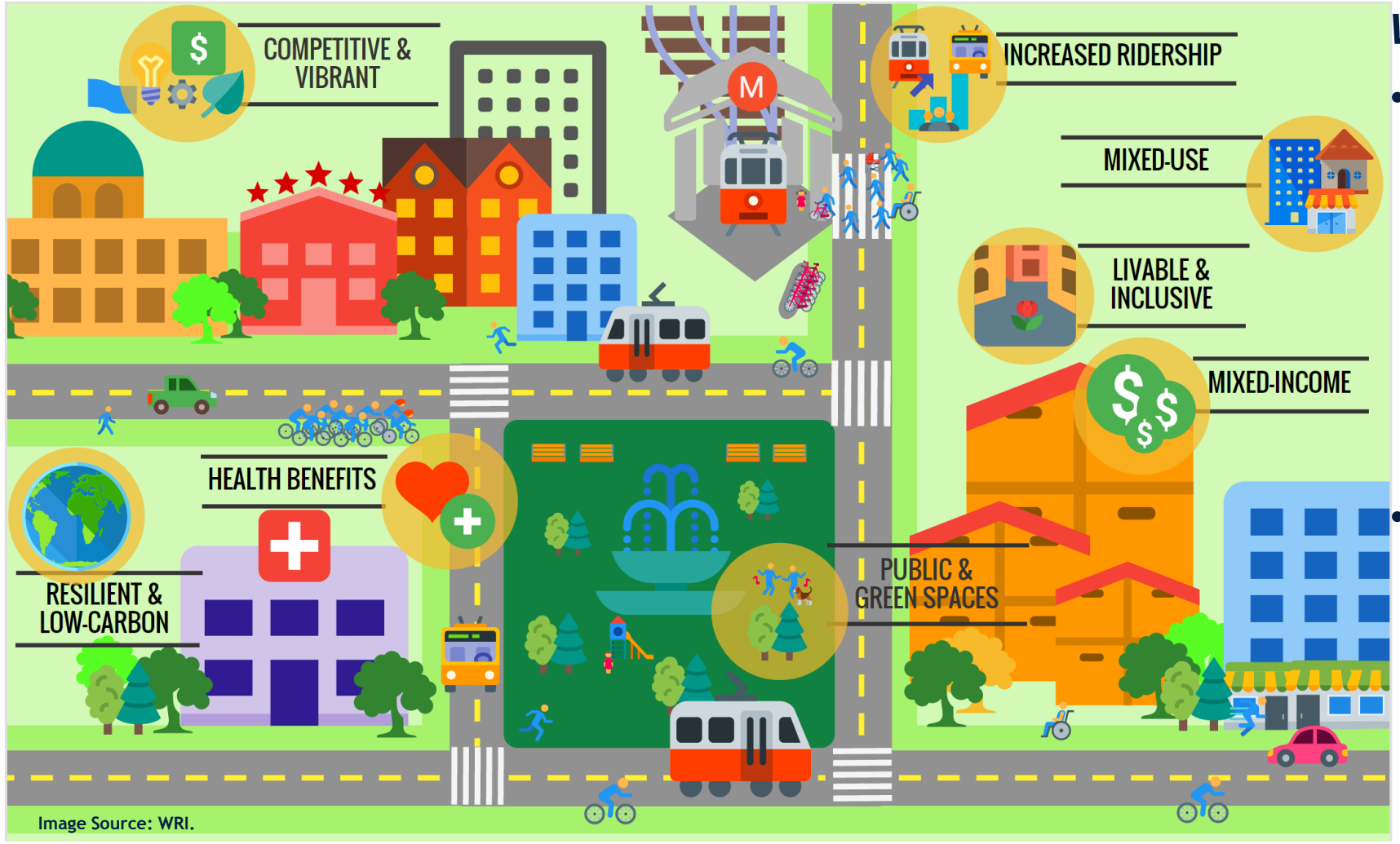
2) Urban Redevelopment



http://www.ur-net.go.jp/haru3/outline/

Why TOD in LVC?

TOD increases the value creation. Some of the schemes for TOD can allow value capture.

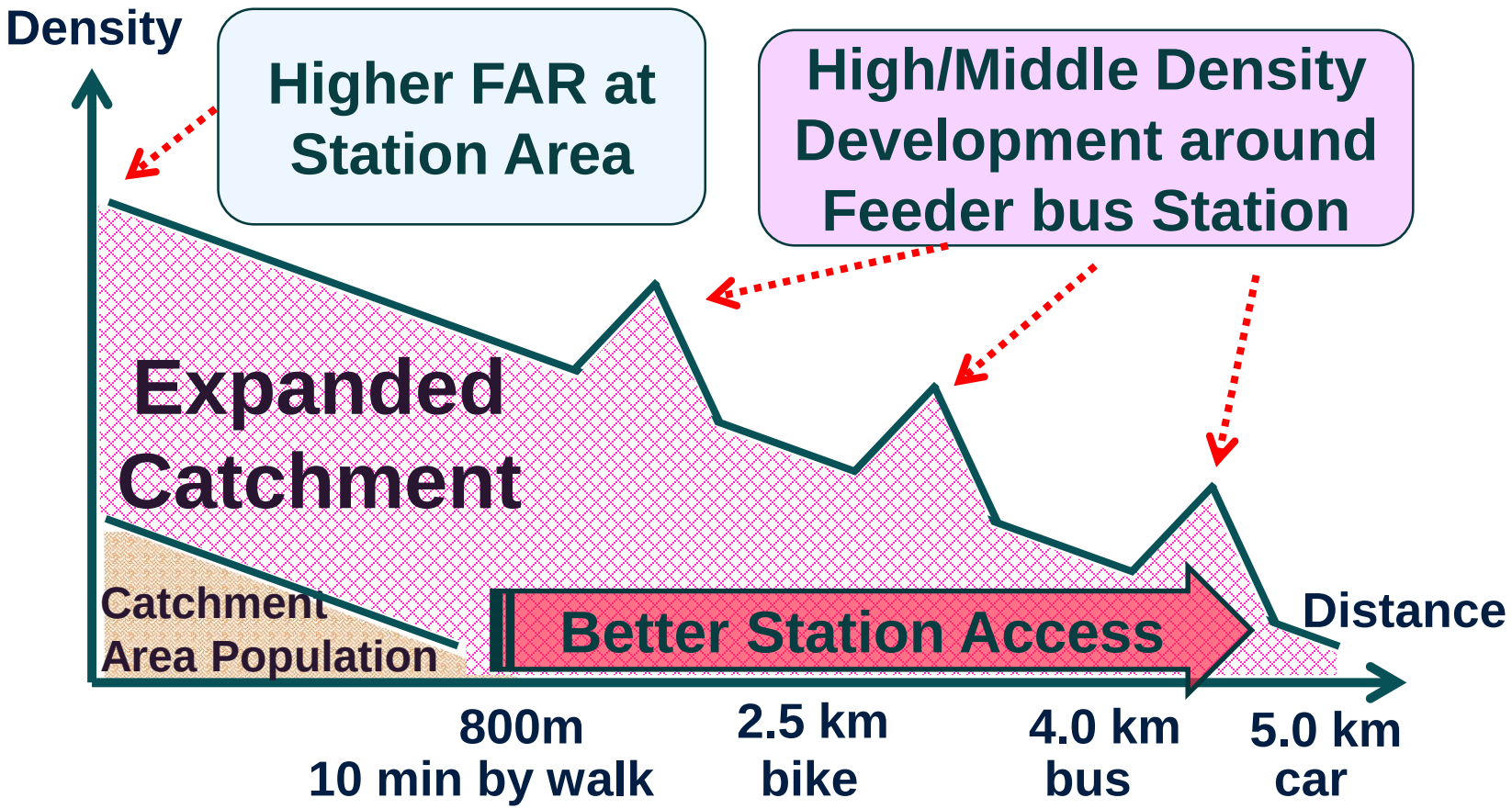


What is TOD?

- **A planning and design strategy** to ensure compact, mixed-use, pedestrian and two-wheeler friendly, and suitably dense urban development organized around transit stations.
- It embraces the idea that locating amenities, employment, education, retail shops and housing around transit hubs **promotes transit usage and non-motorized travel.**

TOD supporting LVC

Through higher density and better accessibility at station, value creation can be substantially enhanced.

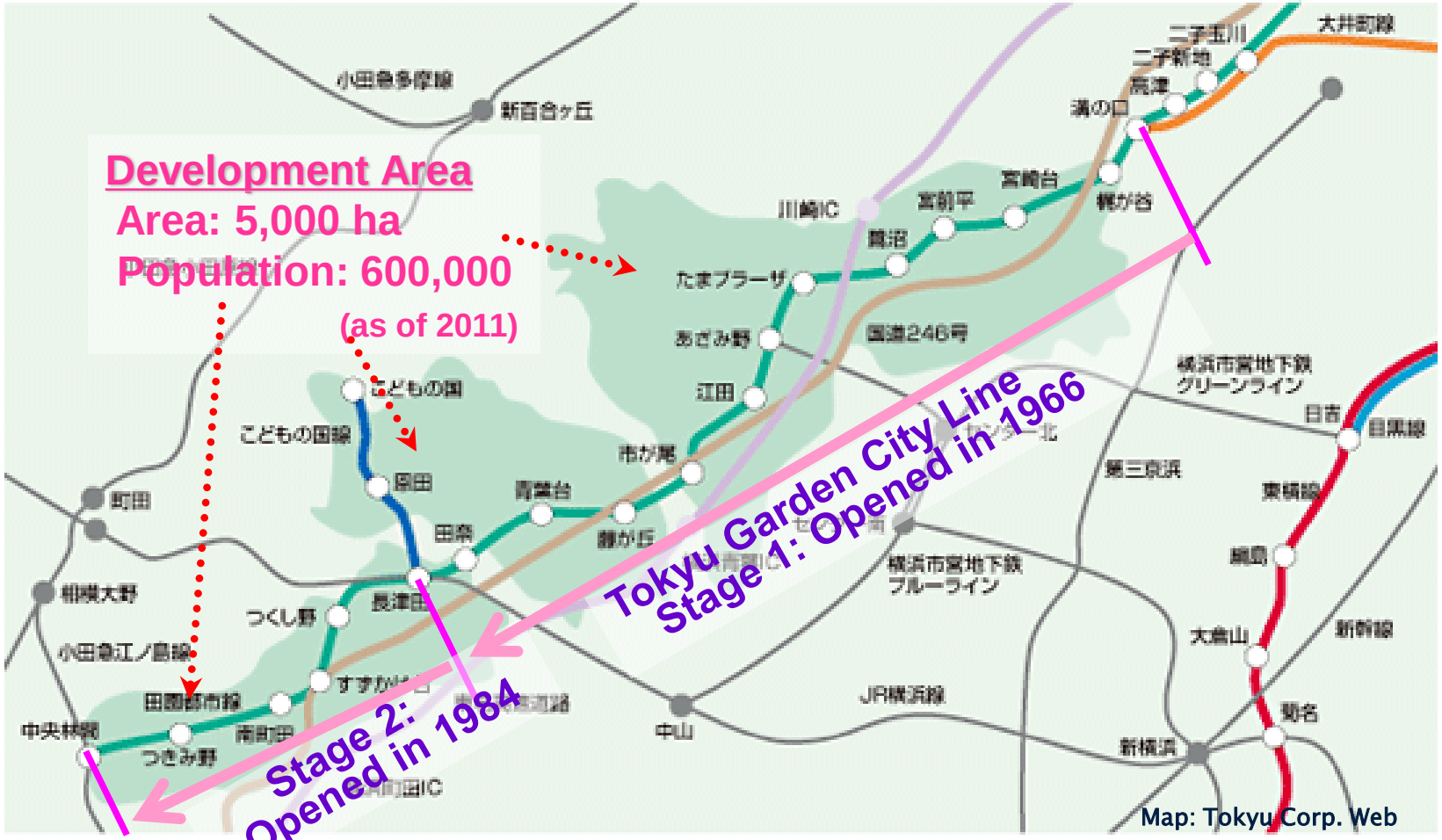


Station plaza

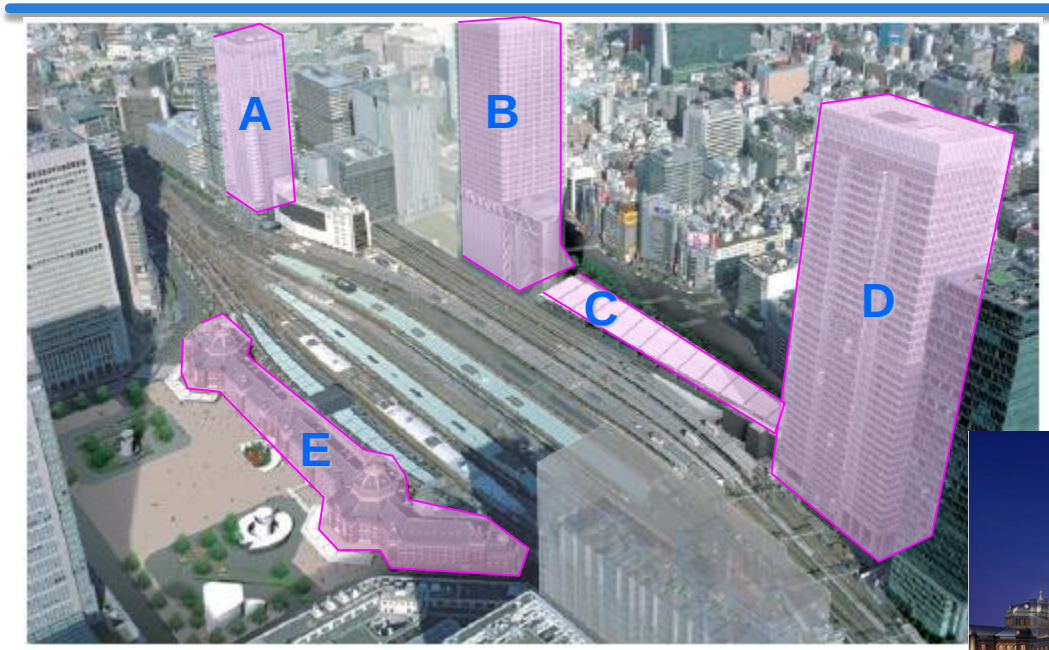
Bicycle parking

TOD and LVC in one projectg

‘Tama Garden City’ is a half-century rail corridor TOD project of 5,000ha where Tokyu Railway captured LV.



The development potential at and around Tokyo station is being exploited and the railway captures the value.



E: Tokyo Station Hotel

A: Sapia Tower: 35 fls 78,000 m² / Office, Hotel
B: Gran Tokyo North Tower: 43 fls, 212,000 m²* / Office, Department
C: Gran Roof: 4 Fls / Retail, Station facilities
D: Gran Tokyo South Tower: 42 fls, 140,000 m² / Office
E: Tokyo Station Hotel: Originally opened in 1915 and renovation completed in 2012.

*includes the area of Gran Roof

Railway Station PPP Redevelopment Guidebook

- **Objective:** To provide railways in developing countries with guidance and knowledge to help on the project design of railway station redevelopment.
- **Case Studies:** Grandi Stazioni (Italy), Madid Metro (Spain), Melboune (Australia), Denver (US), San Francisco (US), Kuala Lumpur (Malaysia), Tokyo (Japan)
- **To be published in June 2020.**

For Sustainable LVC in Vietnam

As a foundation for good LVCs to happen, land use and urban transport planning needs strengthened.

1. Land use regulation
   - What land use can I can have? Residential, commercial, industrial and etc.
   - What density is allowed? Floor Area Ratio and Site Coverage Ratio.
   - What is the (transparent, open and rigorous) procedure to change it?
   - Is there mechanism to grant bonus FAR or waive some of the requirements?

   -> These are important to define the potential value creation and for a better-planned city.
2. Urban transport plan
   - Transit plans should be clear and realistic.
   - Transit plans should be supported by plans for feeder bus and access road plans.
   - Need a substantial shift from motorbike-dependent trip patterns.
3. Land use and urban transport integration
   - Transit plans should inform land use plans and vice versa.

Tokyo has guidelines for FARs for commercial land use zones.

Applicable Base FARs For Commercial Zone in Tokyo:

#	Characteristics of the area	Distance from Center	FAR
1	Areas not appropriate for high density use	All	200- 300%
2	Areas appropriate for high density use	All	400%
3	Outside Circular Road #7, facing 20+m wide road	>10km radius	400- 500%
4	Inside Circular Road #7, facing 20+m wide road	<20km radius	500- 600%
5	Near stations with 5M – 16M passenger use / yr	All	200-500%
6	Near stations with 16+M passenger use / yr	All	500-700%
7	Forming a Core area, through area development	>20km radius	700-800%
8	In center. Core of Sub-Center or a new Core. Through area development or facing 25+m wide road.	<10km radius	600-900%
9	In center. High level of infra available, such as surrounded by 4+ lane arterials or stations with multiple rail lines.	<10km radius	1000-1300%
10	Near center, or Core of Sub-Center. For commercial area with large catchment, or facing 20+m road.	<10km radius	500-700%

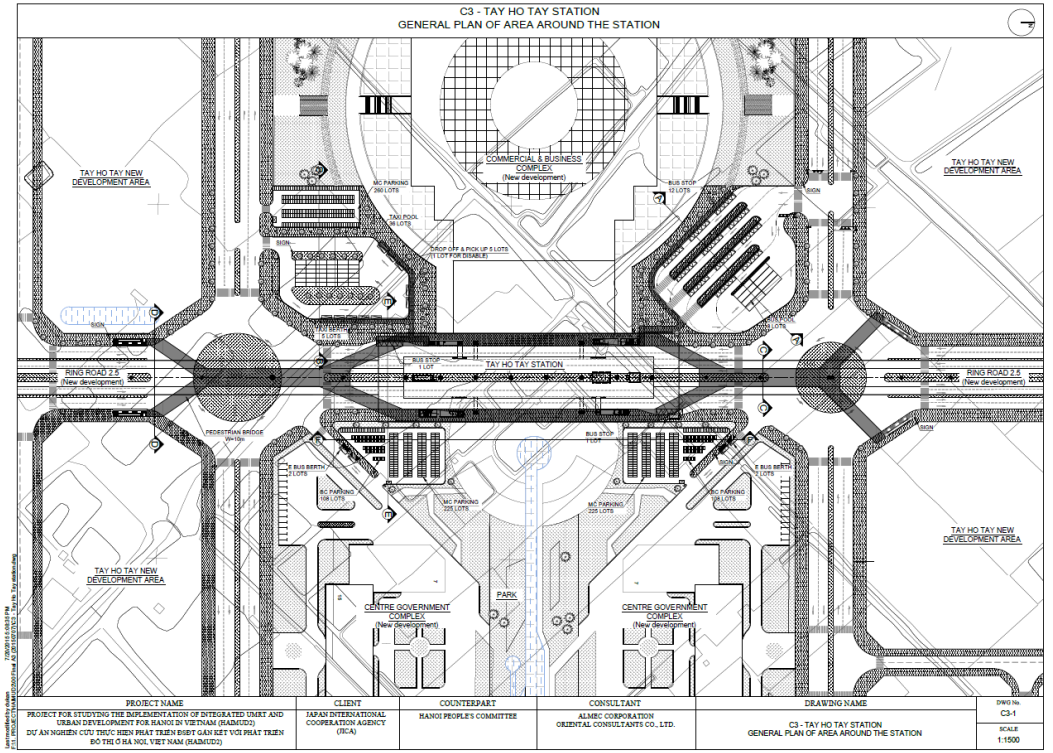
Source: Tokyo Metropolitan Government, 2002, Policy and Criteria for Determining Land Use Zones

As a foundation for good LVCs to happen, land use and urban transport planning needs strengthened.

1. Land assembly/consolidation scheme
   - Land assembly schemes such as LR are powerful in TOD and LVC as it gives an alternative to full land acquisition, which is costly and practically impossible.

   -> These are important to define the potential value creation and for a better-planned city.
2. Property appraisal system
   - A property appraisal system that all parties involved can trust and use will help remove areas for dispute and give transparency to the process.
   - It can be comprised of standards, appraiser certification, standard practice, etc.

Proposed Tay Ho Tay Station area drawing.
Line 2 Phase 1: Nam Thang Long - Tran Hung Dao



Source: JICA and Hanoi People's Committee, Project for Studying the Implementation of Integrated UMRT and Urban Development for Hanoi in Vietnam, November 2015

Thank you.

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