



# Construction of Tsukuba Express and Urban Development Based on the Integrated Development Law

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# 1. Background to the Law

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## Characteristics of Railway Construction

### **1) External economy of railways**

- ✓ Railway will increase the value of the land
- ✓ Railway construction is effective to develop residential areas and business districts.

### **2) Necessity of Integrated Development**

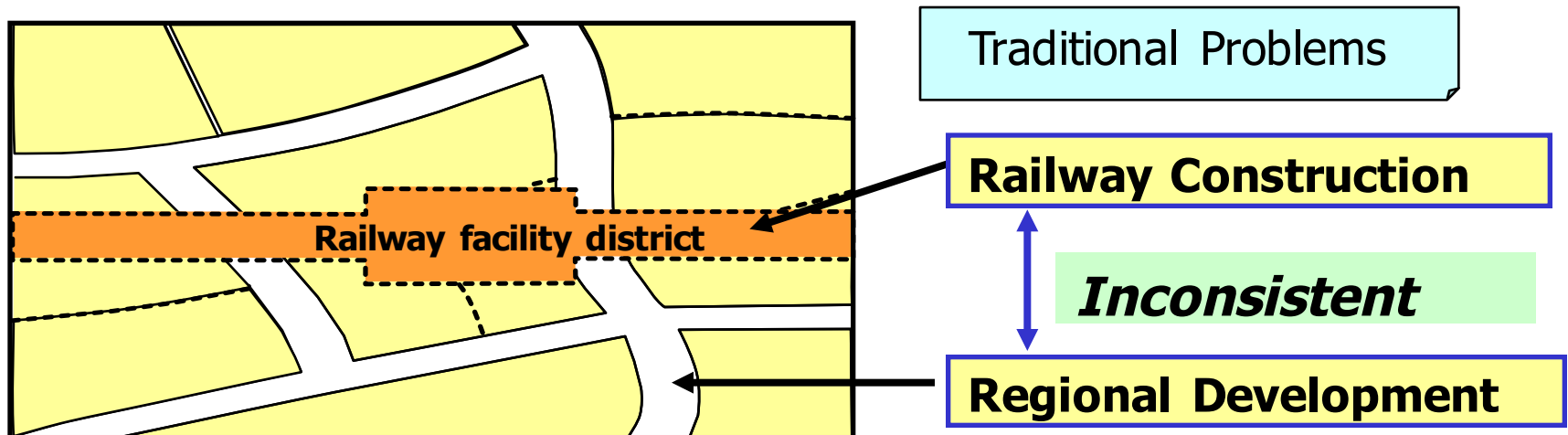
- ✓ Stations should be planned in coordination with regional planning such as bus stations and roads.

# 1. Background to the Law

## Problems before the Act

### ■ **Inconsistency with regional development**

- ✓ Regional development usually occurred after the railway line started its operation.
- ✓ Inconsistency with regional development such as road planning.

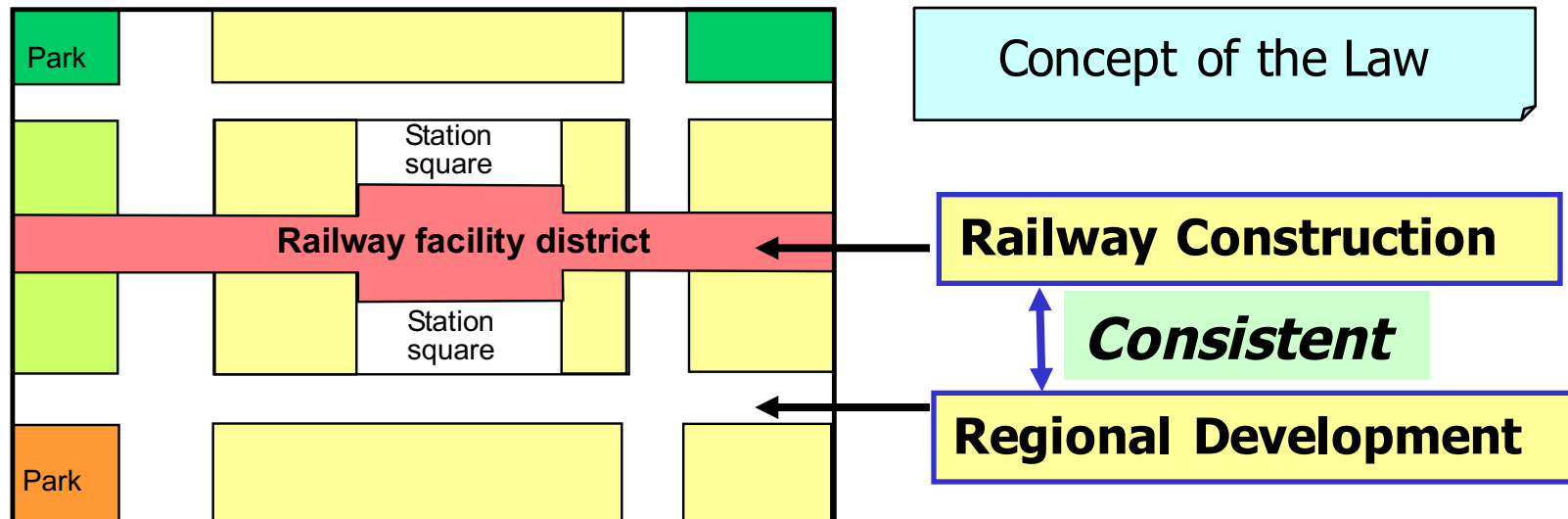


## 2. Integrated Development Law

### Aim of the Law

- **To solve inconsistency between railway planning and regional planning.**

⇒ *The law promotes to supply large area of residential/business district in an integrated manner .*

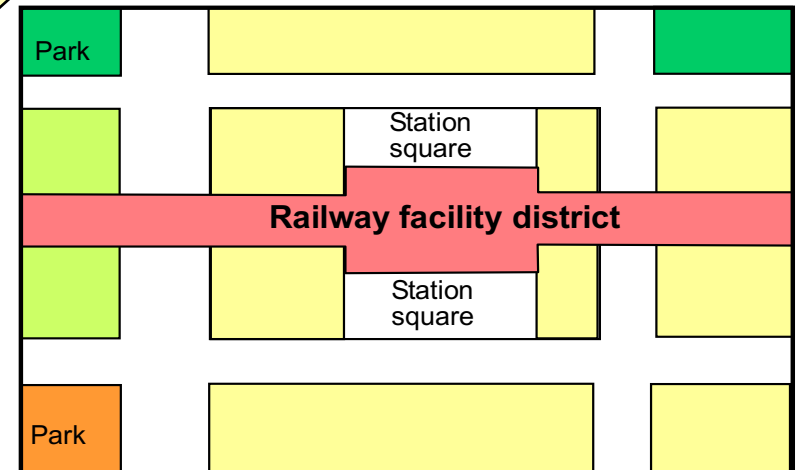
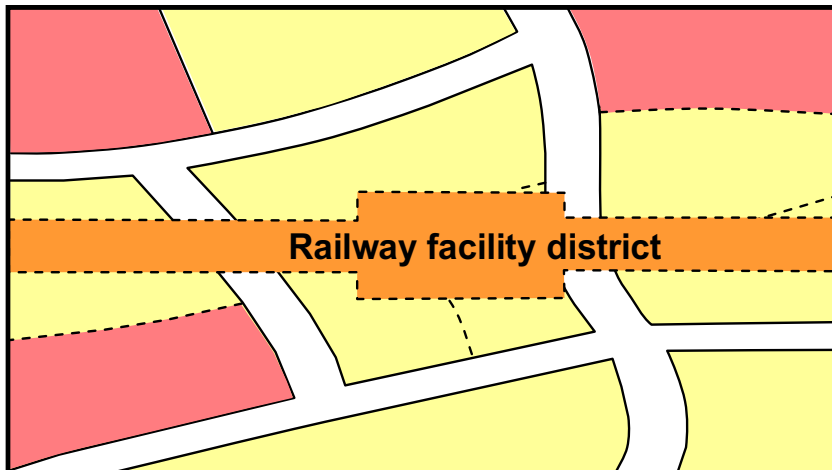


## 2. Integrated Development Law

### Characteristic of the Law

- *Integration of “railway construction” and “land readjustment”*

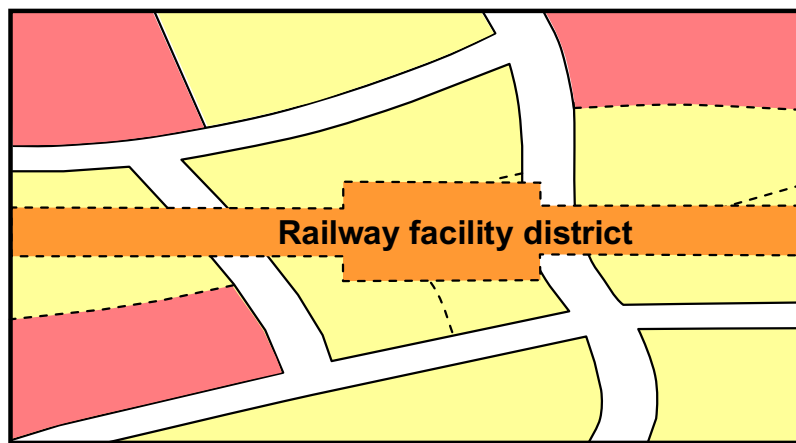
***Approach of “land readjustment”***



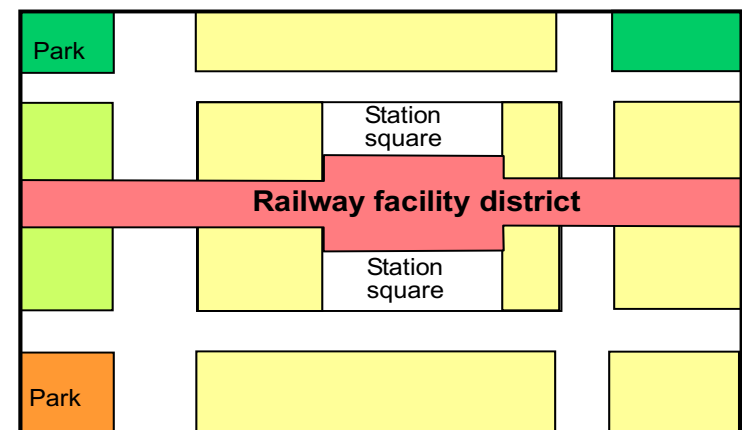
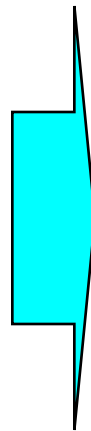
## 2. Integrated Development Law

### Approach of Land Readjustment

- ✓ Effective for comprehensive regional development converting the land from agricultural to urban/residential area.
- ✓ Infrastructure is financed by the sale of a part of the reserved area.



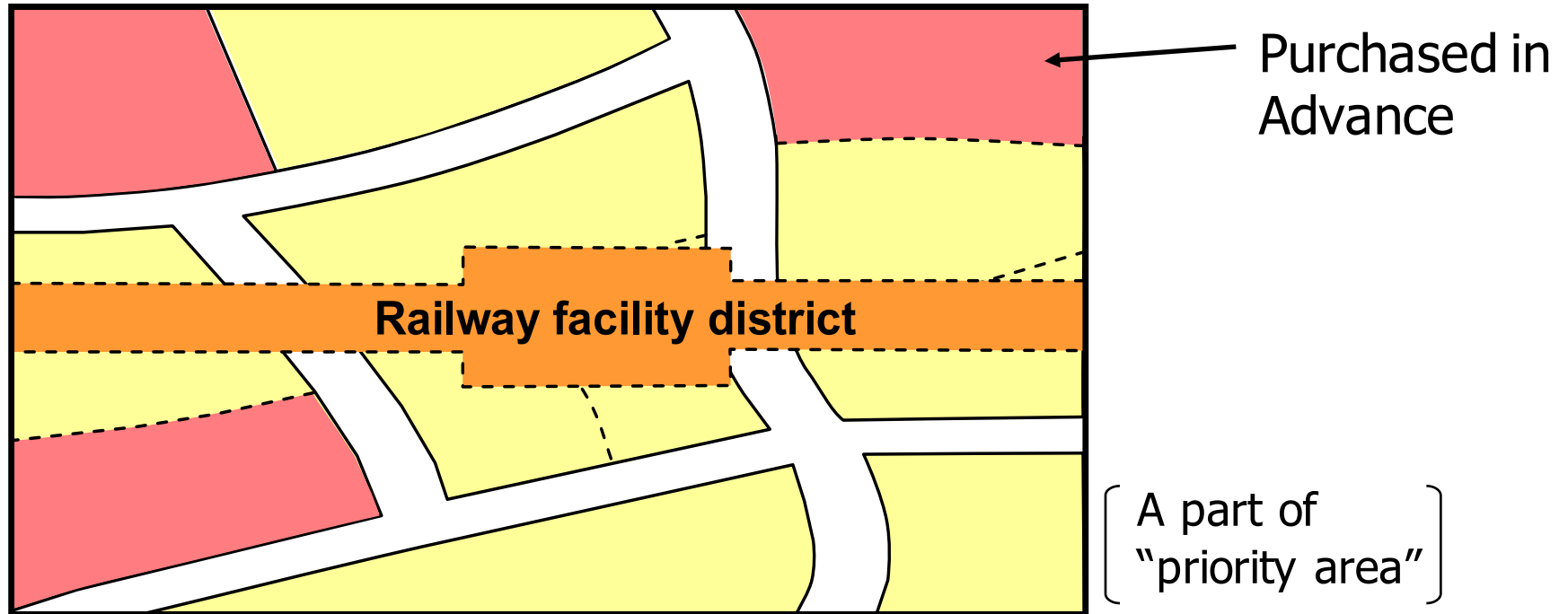
- *Different physical shape*
- *Poor public facilities*



- *Reshaped land*
- *Sufficient public facilities*

# 3. Flow of the Railway Construction

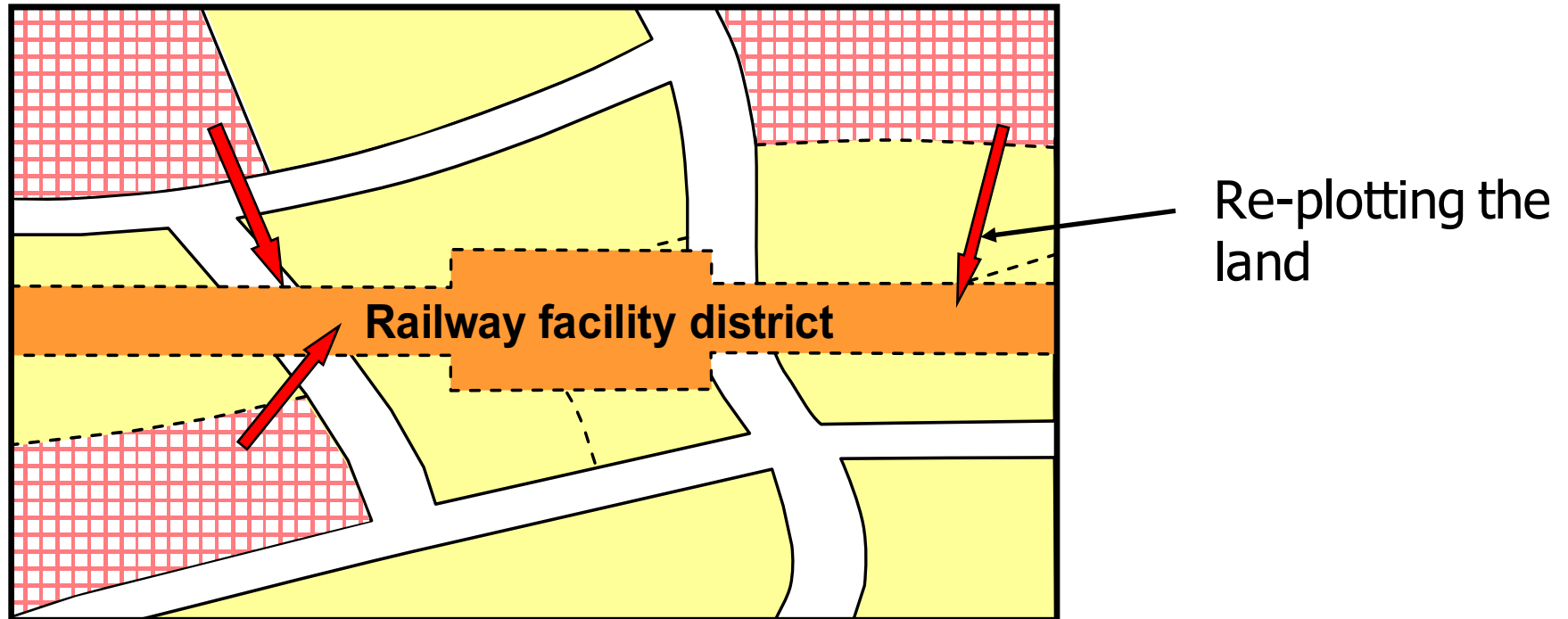
## 1st Stage



- ✓ "Priority area" is specified.
- ✓ Railway facility districts are also specified.
- ✓ A part of the land is purchased in advance by the public entities.

# 3. Flow of the Railway Construction

## 2nd Stage

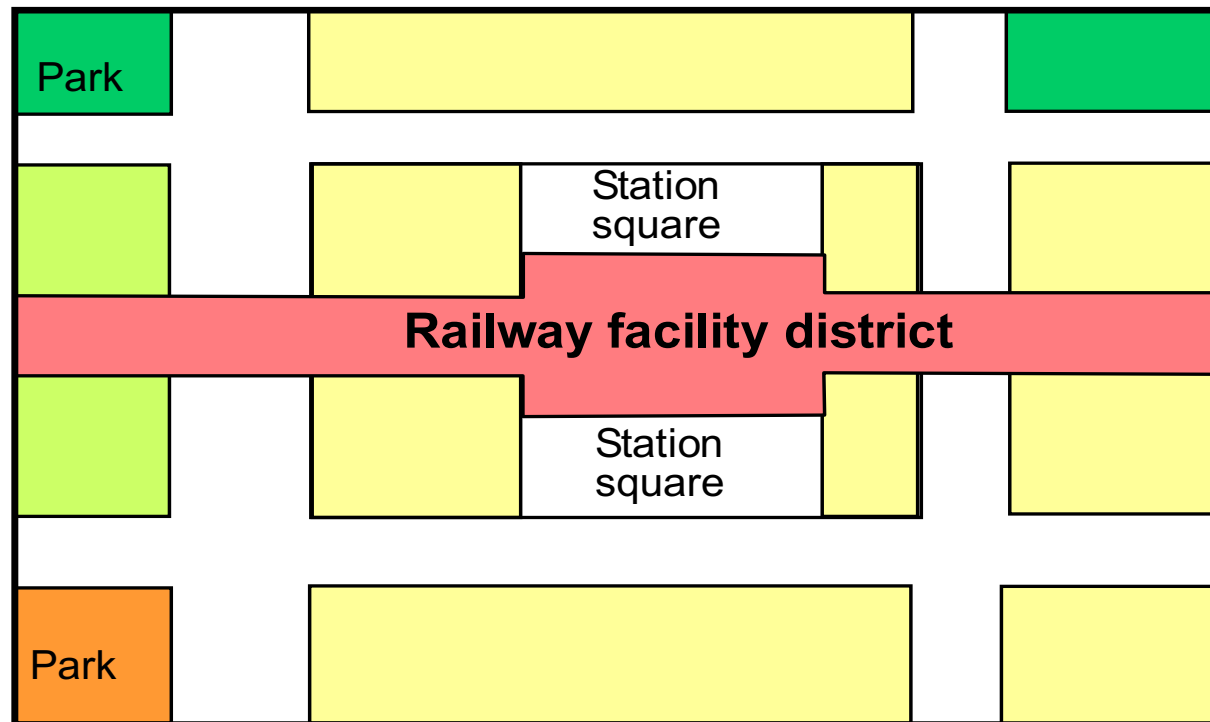


- ✓ “The land readjustment plan” is authorized, and land usage within a priority area is determined.
- ✓ The land purchased in advance is re-plotted.



## 3. Flow of the Railway Construction

### 3rd (final) Stage



**Completion**

- ✓ Public facilities are constructed by the sale of a part of the reserved area.
- ✓ Comprehensive urban development is completed.

## 4. Construction of Tsukuba Express Line



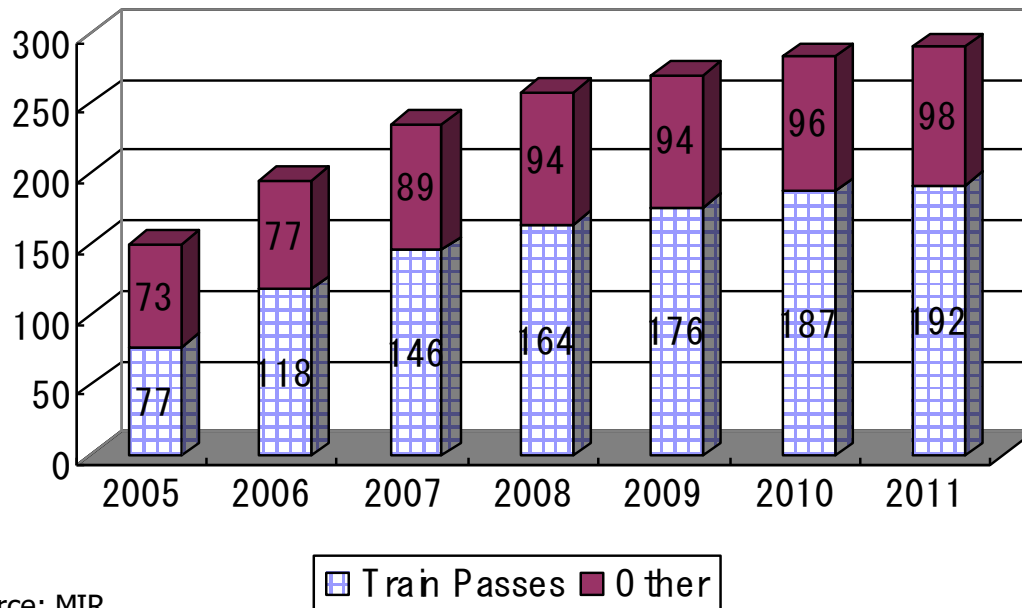
**The Law was applied to the construction of Tsukuba Express Line.**

Home page of TSUKUBA EXPRESS: <http://www.mir.co.jp/>

## 5. Outcomes of the Project and the Act

### Rider-ship of Tsukuba Express

Thousands of People / day



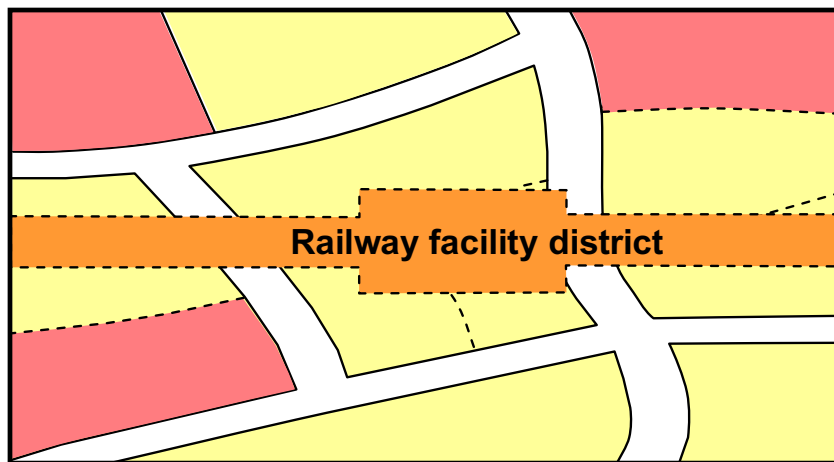
Passenger has been increasing steadily.



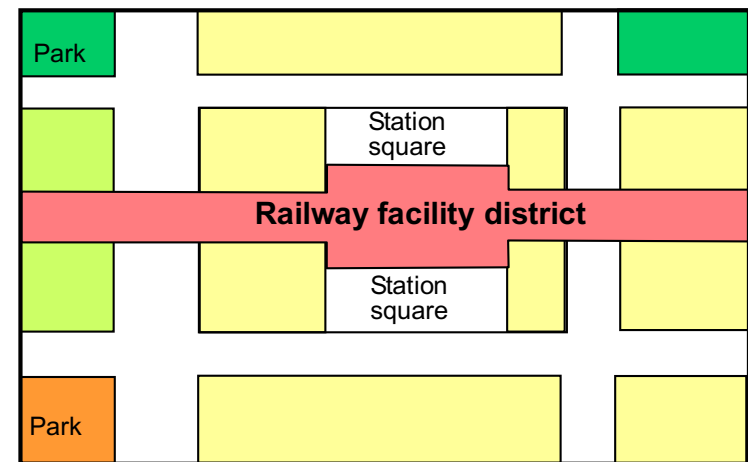
## 6. Discussions and Conclusions

### Concept of Comprehensive Development

- The Concept has worked well
  - ✓ Concept of integration between railway construction and urban development can be applied to other projects.



Before



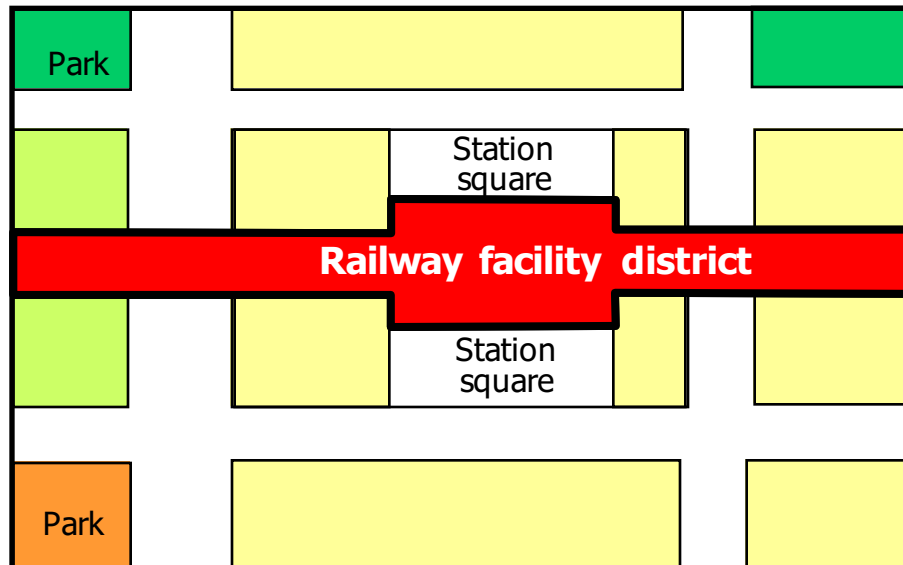
After



## 6. Discussions and Conclusions

### Application to other projects

- The model can be applied to a less profitable project.



#### Tsukuba Express

- ✓ Land and Infrastructure are assets of the railway company  
(Vertical Integration)



#### Other Projects (less profitable)

- ✓ Land and Infrastructure are assets of the public sector  
(Vertical Separation)

***We wish the concept of the Law would be applied to other projects.***

<References>

Kurosaki, F. and Ogura, M. (2013) Construction of Tsukuba Express and Urban Development Based on the Integrated Development Law, *Selected Proceedings for 13<sup>th</sup> WCTR*

※ The slides are based on the author's presentation for 13<sup>th</sup> WCTR in Rio de Janeiro on 15<sup>th</sup> July 2013.

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