Transit Oriented Development in Japan

Nobuo Seki

City Planning Information and Survey Office,

City Planning Division, City Bureau, MLIT

Ministry of Land, Infrastructure, Transport and Tourism

Contents



TOD Model in Japan

- Suburban Area
- City Center Area

Role of Government in Urban Development

Contents





- Suburban Area
- City Center Area

Role of Government in Urban Development

Transit Oriented Development : TOD

Model(1): **Development synchronized** with railway infrastructure construction

Model²: Hub station oriented highly integrated complex development



Source: Architecture and Urbanism October 2013 Special Issue

3

Contents





- Suburban Area
- City Center Area

Role of Government in Urban Development

Transit Oriented Development : TOD



Model(1): **Development synchronized**

with railway infrastructure construction

- Stimulate ridership
- Provide a stable revenue source for the railway by increasing the number of permanent residents
- Preserve and enhance the value of the route by managing overall development along the entire route



Road network in Edo period





- —— : Main 5 roads
- === : Other main roads
- ----- : Others

[Total extension] Main 5 roads : About 1,575km Other main roads : About 3,500km Others : About 7,000km



Japanese transportation policy

In Meiji period, government had focused on railway construction.
Road construction started in earnest after World War 2.



「高速道路便覧2002」

Watkins Report in 1956

The roads of Japan are incredibly bad. No other industrial nation has so completely neglected its highway system.



High Economic Growth in Japan

Progress of industrialization and urbanization during the high economic growth period(FY1960-FY1970) in Tokyo metropolitan area.



9

Congested Roads and Railways in the High Growth Economic Period

During the high growth economic period, roads and railways became severely congested due to the increase in population and vehicle ownership and to the concentration of the population in urban areas.



Roads in the Tokyo metropolitan area during the high growth economic period



Congested railways during the high growth economic period

Transition of railway network, urbanization and number of car possession



Development model along railway lines by private company



In case of developing along a railway line, a railway company builds leisure facilities such as theaters, Universities to produce two-way flows

of people.

Transit Oriented Development : TOD



Examples of TOD Projects : New Town Development



Urban Development integrated with Public Transportation

OUrban development by public government.

ONew construction of two radial private railways with direct connection to central Tokyo ONew construction of a loop of Tama Intercity Monorail with connection to Tachikawa City



Land Readjustment Project

 Comprehensive infrastructure development by utilizing reserved Land from land readjustment project

Compared to the project by purchase of land, enable to reduce public budget



Mechanism of TOD

 By implementing urban development integrated with railway, railway passengers will increase. Thereby fare revenue will increase. On the other hand, improvement of convenience by the railway development will contribute to enhance the value and appeal of the land.





Supporting systems related to TOD

 (1) Supporting systems to construct, extend and renovate railways
 ○Supported by Japan Railway Construction, Transport and Technology Agency (JRTT)

⊜Supported by the national government and local governments

制度名	概要		
都市鉄道利便促進事業	短絡線などの整備による速達性の向上、周辺整備と一体的な駅設備に対する補助(補助率国1/3、地方1/3)		
地下高速鉄道整備事業	公営・第3セクター、東京地下鉄による地下鉄の新線建設、浸水対策及び大規模 改良工事等に対する一部補助(補助率 国35%、地方35%)		
ニュータウン鉄道等補助	公営・第3セクターによるニュータウン鉄道、空港アクセス鉄道の建設に対する 補助(ニュータウン鉄道:補助率国15%,地方15%空港アクセス鉄道:国 18%,地方18%)		
幹線鉄道等活性化事業	▶ 貨物線の旅客線化に対する補助(補助率 国2/10, 地方2/10)		
鉄道駅総合改善事業	鉄道利用者の安全性や利便性の向上を図るために、市街地再開発事業、土地区 画整理事業、自由通路の整備等都市側の事業と一体的に鉄道駅のホームやコン コースの拡幅、バリアフリー化等を行い、駅機能を総合的に改善する事業。(補 助率 国2/10、地方 2/10)		
交通結節点改善事業	鉄道駅等交通機関間の円滑な乗り換え、鉄道による市街地分断の解消、駅周辺の放置自転車問題やバリアフリー化への対応等のため、駅前広場、自由通路、パークアンドランド駐車場、自転車駐車場などを整備し、道路と鉄道等他の交通施設との結節性の向上を図る。(補助率 国5/10 ※事業内容によって異なる)		



Supporting systems related to TOD

(2) Systems to collect money from beneficiaries, for example, land owners and developers, and re-invest it in railway facilities.

区 分	制度名	対象路線	負担者	負担方法
沿線單	ニュータウン開発者負担制度	北総開発鉄道 京王相模原線 小田急多摩線 千葉急行線	開発区域内に鉄道路線を有す る新住宅市街地開発事業、土 地区画整理事業の施行者	 > 鉄道用地の素地価格での提供 > 施工基面下工事費の1/2負担 > その他負担
 発 者	宅地開発指導要綱に基づく負担	神戸市高速鉄道	須磨ニュータウン内駅の駅政 権内で大規模開発を行う開発 者	 > 鉄道用地の無償提供 > 施工基面下工事費の全額負担 > 他建設費の一部負担
	合意に基づく任意の負担	能勢電鉄日生線	阪急日生ニュータウン開発者	▶ 延伸・輸送力増強に係る工事 費の1/2
	鉄道事業者による利益の内部化	東急田園都市線	東急田園都市の区画整理事業 者	区画整理事業を一括代行した 対価を保留地で鉄道事業者に 支払う
	請願駅	関西本線三郷駅 横浜線成瀬駅 他	駅周辺の土地区画整理事業者	 > 工事費の全額負担 > 用地の無償譲渡 > 駅前広場 > 関連道路の整備 等
	連絡工事分担金	営団地下鉄	ビル所有者	▶ ビル連絡通路工事費を分担

Contents





Transit Oriented Development : TOD

MLIT

Model²: Hub station oriented

highly integrated complex development

- Highly and multi functional (Office, Commercial etc) development intended to enhance the potential value of the land
- Face of the city
- Exploit the value of surrounding district
- Environmentally-friendly
- Communicates a positive image of the city in Japan and abroad



Suburban residential area expansion

Transit Oriented Development : TOD



Urban Redevelopment Project

тыт

O Promote the development of public facilities by utilizing advanced by development interests into a joint site by urban redevelopment project.



Urban Redevelopment Project

Outline of Hikifune Station-mae Urban Redevelopment Project

- Project area: approx. 2.8 ha
- ✓ Implementation period: FY 2003–2010
- ✓ Implementing body: Urban Renaissance Agency
- ✓ Project budget: approx. 390 billion yen



narrow lane

Floor Area Ratio Bonus System

If developers establish the more efficient infrastructure than one subscribed by an urban plan, they can use more floor area than designated floor area ratio without traffic congestion and environment problems.

- Ex.) Public Space, Public Facilities (Railway Station, Pedestrian Space)
 - Green Facilities
 - Residence
 - Accommodation etc.



Examples of TOD Projects : Shibuya Station Area



Contents



> TOD Model in Japan

- Suburban Area
- City Center Area

Role of Government in Urban Development



Roles in urban development, including public transportation, between national government, local governments and private enterprises

	System	Plan	Project
National Government	 National Spatial Planning Law City Planning Law Land Readjustment Law Subsidy (for local governments and private enterprises) Tax system Finance 	 National Spatial Plan Metropolitan Area Development Plan (Tokyo- Kinki-Chubu) Priority Plan for Infrastructure Development (Port, Airport, Road, Railway, etc) 	 Nationwide PT Survey Urban Development (large scale project) Expressway Shinkansen Sewerage System (large scale project)
Local Government (prefecture/ municipalities)	 Subsidy (for private enterprises) Taxation Finance etc 	 City Planning Regulation and Guidance for Urban Development etc 	 PT survey in each urban area Urban Renewal Land Readjustment Public Transport (Unprofitable) Urban Infrastructure (Road, Park, Water supply, Sewerage system, etc)
Private Enterprise			 Private Urban Development Public Transport (Profitable) etc 28

OLaws and Regulations

To promote the development/ improvement of urban transportation system and to secure the safety operation, Government of Japan has made several laws and regulations.

OFinancial Support

To facilitate the development/ improvement of urban transport as well as integrated urban development project, Government of Japan subsidizes or loans to local government and public transportation companies.

OImplementation of traffic surveys

To support local governments / public transportation companies for planning the urban transportation system, Government of Japan carries various types of traffic survey by itself.

Conclusion



- 1. Japanese TOD has been promoted by cooperation between Governments and private enterprises against the background of population inflow from rural areas and lack of useful roads etc. at that time.
- 2. As a result, Tokyo Metropolitan Area keeps growing as an efficient, convenient and safety city. It is entirely due to synchronized the urban development with railway infrastructure construction.
- 3. Profit can not be earned before the integrating Railway Development with Urban Development. But it should be kept in our mind that to enjoy the profit we have to take corresponding risks.
- 4. To execute this kind of development, supports from Governments in planning and financing are very important.



Thank you for your attention!