

**Coordinating Ministry for Economic Affairs
Republic of Indonesia**

**JABODETABEK Urban Transportation
Policy Integration Project Phase 2
in the Republic of Indonesia**

**Annex 07: Report on TOD-Related Laws, Plans,
and Regulations**

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Table of Contents

Chapter 1 Review of Upper Laws, Regulations and Plans.....	1
1.1 Review of Upper Laws and Organization.....	1
1.1.1 Development Related Laws.....	8
1.1.2 Spatial Planning Related Laws.....	12
1.1.3 Transportation Related Laws.....	16
1.2 Review of Development Plan Document	20
1.2.1 National Mid-term Development Plan Year 2015-2019	20
1.2.2 Regional Mid-term Plan	21
1.2.3 Local Mid-term Plan.....	23
1.3 Review of Spatial Planning Documents	26
1.3.1 National Spatial Plan	26
1.3.2 JABODETABEKPUNJUR Spatial Plan	27
1.3.3 Regional Spatial Plan	29
1.3.4 Local Spatial Plan.....	36
1.4 Transportation Plans and Regulations	53
1.4.1 National Transportation Plan.....	53
1.4.2 JABODETABEK Urban Transportation Master Plan (RITJ)	53
1.4.3 Regional Transportation Plan	57
1.4.4 Local Transportation Plan	58
1.5 Review of Land Regulations.....	62
1.5.1 Law No. 5 Year 1960 Regarding Basics of Agrarian Law.....	62
1.5.2 Regulation of Head of National Agency Number 4 Year 1991 Regarding Land Consolidation.....	65
1.5.3 Law Number 2 Year 2012 Regarding Land Procurement for Public Interest	67
Chapter 2 Review of TOD Related Laws, Regulations, and Projects	72
2.1 TOD Regulations of ATR/BPN, BPTJ, DKI Jakarta	72
2.1.1 Regulation of Minister of ATR/BPN.....	72
2.1.2 Regulation of the Head of BPTJ.....	76
2.1.3 Governor Decree of DKI Jakarta Number 67 Year 2019	77
2.2 Regulations Related to Project Implementation	82
2.2.1 Land Consolidation	82

2.2.2	Public Facilities (road, social facility, park, etc.)	94
2.2.3	Finance (subsidy, tax, etc.)	104
2.2.4	Incentive and Disincentive	110
2.2.5	Public Consultation	118
2.2.6	Public Private Partnership	118
2.3	Designated TOD Areas/Projects in JABODETABEK.....	125

List of Tables

Table 1 Summary of Laws and Plans	1
Table 2 Related Organizations in Urban Planning and TOD	5
Table 3 Comparison of Development Planning Document	9
Table 4 Authority in Each Level of Government regarding Spatial Planning.....	13
Table 5 Working Unit and Responsible Institution	18
Table 6 General Provision of Spatial Utilization Intensity in DKI Jakarta Province	31
Table 7 Intensity of Spatial Utilization in Setiabudi District	35
Table 8 General Provision of Spatial Utilization Intensity in Kota Tangerang.....	37
Table 9 Spatial Utilization Intercity in the Centers of Activity of Kota Tangerang.....	38
Table 10 General Provision of Spatial Utilization Intensity in Kota Tangerang Selatan	39
Table 11 Spatial Utilization Intercity in the Centers of Activity of Kota Tangerang Selatan ..	40
Table 12 General Provision of Spatial Utilization Intensity in Kota Bogor.....	43
Table 13 General Provision of Zoning in Kabupaten Bogor	44
Table 14 General Provision of Zoning in Kota Depok.....	47
Table 15 Spatial Utilization Criteria and Minimum Requirement	50
Table 16 General Provision of Mass Building in Kota Bekasi.....	50
Table 17 General Provision of Mass Building in Center of Activity Kota Bekasi.....	51
Table 18 TOD Typologies and Location in JABODETABEK	54
Table 19 Function and Criteria of 3 TOD Typology	80
Table 20 Substance of Area Study	81
Table 21 Land Consolidation Type	86
Table 22 Land Consolidation Criteria	86
Table 23 Project Working Unit of Planning / Implementation Team.....	89
Table 24 Project Working Unit of Coordination Team.....	92
Table 25 Technical Criteria of Road Network Function	94
Table 26 Specific Criteria of Green Space Provision.....	99
Table 27 Criteria of Backyard Open Space	100
Table 28 The Criteria of Settlement Open Space	102
Table 29 Budget of Kota Tangerang in Fiscal Year 2017	108
Table 30 Financial Instruments for Each Activity.....	109
Table 31 PPP Scheme in The Provision of Infrastructure	120
Table 32 TOD Typologies and Status	126

List of Figures

Figure 1 Organization Structure of MoT of The Republic of Indonesia	6
Figure 2 Basic Spatial Planning Classification.....	12
Figure 3 Hierarchy of Spatial Planning	15
Figure 4 JABODETABEK Spatial Structure in 1:1,000,000 Scale.....	27
Figure 5 Spatial Pattern Map of JABODETABEKPUNJUR Area (Draft)	29
Figure 6 Transportation Plan Map of DKI Jakarta (Draft).....	32
Figure 7 Setiabudi Zoning Map.....	34
Figure 8 Spatial Structure of Kota Tangerang.....	37
Figure 9 Spatial Structure of Kota Tangerang Selatan	39
Figure 10 Spatial Structure of Kabupaten Tangerang	41
Figure 11 Transportation Network Map of Kota Bogor.....	42
Figure 12 Spatial Structure Plan of Kabupaten Bogor	44
Figure 13 Transportation Network Map of Kota Depok	46
Figure 14 Transportation Network Map of Kota Bekasi	49
Figure 15 Spatial Structure Plan of Kabupaten Bekasi	52
Figure 16 TOD Locations in JABODETABEK Area	56
Figure 17 Typologies of TOD Area	73
Figure 18 Illustration of Transfer Development Right.....	74
Figure 19 Illustration of Land Consolidation	75
Figure 20 Land Consolidation Implementation.....	83
Figure 21 Vertical Land Consolidation.....	84
Figure 22 Site Selection: Spatial & Attribute Analysis Method/Planning Document.....	88
Figure 23 Land Consolidation Implementation Steps	91
Figure 24 Example of Neighborhood Park.....	99
Figure 25 Example of District Park.....	100
Figure 26 Example of Green Belt in Right of Way	102
Figure 27 Example of Roadside Green Space	103
Figure 28 Example of Parking Area.....	104
Figure 29 Example of Recreational Area	104
Figure 30 Sources of State Revenue.....	105
Figure 31 National Expenditure in Fiscal Year 2018.....	106
Figure 32 National Budget (APBN) Based on Function Year 2018.....	106
Figure 33 Subsidy Allocation on the National Budget (APBN) 2019.....	107
Figure 34 Sources of Local Revenue.....	108

Figure 35 Composition of Budget by Function in Kota Tangerang Fiscal Year 2017	109
Figure 36 Direction on the Determination of Incentives and Disincentives in DKI Jakarta ..	112
Figure 37 Area of Incentives and Disincentive Implementation in DKI Jakarta.....	113
Figure 38 Semanggi Interchange Illustration	115
Figure 39 Children Friendly Park (RPTRA) Cililitan	117
Figure 40 Case Study of TOD Tanjung Barat	132
Figure 41 Masterplan Area of Dukuh Atas	134
Figure 42 Illustration of Development Area.....	134

Abbreviations

AKAP	<i>Antar Kota Antar Provinsi</i> (Inter City and Inter Province)
AKDP	<i>Antar Kota Dalam Provinsi</i> (Inter City and Intra Province)
APBD	<i>Anggaran Pendapatan dan Belanja Daerah</i> (Regional Revenue and Expenditure Budget)
APBN	<i>Anggaran Pendapatan dan Belanja Negara</i> (State Revenue and Expenditure Budget)
ATCS	Area Traffic Control System
ATR/BPN	<i>Agraria Tata Ruang/Badan Pertanahan Nasional</i> (Ministry of Agrarian and Spatial Planning/National Land Agency)
BAPPEDA	<i>Badan Perencanaan Pembangunan Daerah</i> (Regional Development Planning Agency)
BAPPENAS	<i>Badan Perencanaan Pembangunan Nasional</i> (National Development Planning Agency)
BCR	Building Coverage Ratio
BKPRD	<i>Badan Koordinasi Penataan Ruang Daerah</i> (Regional Spatial Planning Coordinating Body)
BPN	<i>Badan Pertanahan Nasional</i> (National Land Agency)
BRT	Bus Rapid Transit
BPJS	<i>Badan Penyelenggara Jaminan Sosial</i> (National Insurance Program for Social Security)
BPTJ	<i>Badan Pengelola Transportasi JABODETABEK</i> (Greater Jakarta Transportation Authority)
BUMD	<i>Badan Usaha Milik Daerah</i> (Regional Owned Enterprise)
BUMN	<i>Badan Usaha Milik Negara</i> (State Owned Enterprise)
CBD	Central Business District
CMEA	Coordinating Ministry of Economic Affairs
DAK	<i>Dana Alokasi Khusus</i> (Specific Allocation Fund)
DAU	<i>Dana Alokasi Umum</i> (General Allocation Fund)
DBH	<i>Dana Bagi Hasil</i> (Revenue Sharing Fund)
DED	Detail Engineering Design
Dinas Citata	<i>Dinas Cipta Karya, Tata Ruang, dan Pertanahan</i> (Human Settlements, Spatial Planning, and Land Agency)
DKI Jakarta	Jakarta Special Capital Province (Provinsi Daerah Khusus Ibukota Jakarta)
FAR	Floor Area Ratio
Hak Pakai	Use Right
HGB	<i>Hak Guna Bangunan</i> (Building Right)
HGU	<i>Hak Guna Usaha</i> (Cultivation Right)
HPL	<i>Hak Pengelolaan</i> (Management Right)
IDR	Indonesian Rupiah
IMB	<i>Izin Mendirikan Bangunan</i> (Building Construction Permit)
ITF	Intermodal Transfer Facility
ITS	Intelligent Transportation System
JABODEBEK	Jakarta, Bogor, Depok, and Bekasi
JABODETABEK	Jakarta, Bogor, Depok, Tangerang and Bekasi
JABODETABEKPUNJUR	Jakarta, Bogor, Depok, Tangerang, Bekasi, Puncak, and Cianjur
Jagorawi	Jakarta, Bogor, Ciawi
Jakpro	Jakarta Propentindo (a regional owned enterprise for LRT Jakarta)

Jamkesda	<i>Jaminan Kesehatan Daerah</i> (Regional Health Insurance)
JICA	Japan International Cooperation Agency
JORR	Jakarta Outer Ring Road
JUTPI	Project for JABODETABEK Urban Transportation Policy Integration
JUTPI 2	JABODETABEK Urban Transportation Policy Integration Project Phase 2
K/L	<i>Kementerian/Lembaga</i> (Ministry/Institution)
Kab (Kabupaten)	District or Regency
Kantah	<i>Kantor Pertanahan</i> (land agency in a city or regency level)
Kanwil	<i>Kantor Wilayah</i> (land agency in a provincial level)
<i>Kawasan Andalan</i>	Prominent area
Kelurahan	Sub district
Kecamatan	District
KLB	<i>Koefisien Lantai Bangunan</i> (Floor Area Ratio)
KDB	<i>Koefisien Dasar Bangunan</i> (Building Coverage Ratio)
Kota	City
KSN	<i>Kawasan Strategis Nasional</i> (National Strategic Area)
LOS	Level of Service
LRT	Light Rail Transit
Minapolitan	A concept of area development based on marine and fisheries economy.
MP	Master Plan
MoF	Ministry of Finance
MoT	Ministry of Transport
MRT	Mass Rapid Transit
MRTJ	<i>Moda Raya Terpadu</i> (Mass Rapid Transit) Jakarta
Musrenbang	<i>Musyawarah Perencanaan Pembangunan</i> (Development Planning Deliberation)
NJKP	<i>Nilai Jual Kena Pajak</i> (Taxable Sales Value)
NJOP	<i>Nilai Jual Objek Pajak</i> (Sales Value of Taxable Project)
NPOPTKP	<i>Nilai Perolehan Objek Pajak Tidak Kena Pajak</i> (non-taxable tax object acquisition value)
PAD	<i>Pendapatan Asli Daerah</i> (Local Government Revenue)
PBB	<i>Pajak Bumi dan Bangunan</i> (Land and Building Tax)
PD	<i>Perusahaan Daerah</i> (Regional Company)
PERDA	<i>Peraturan Daerah</i> (Local/Regional Regulation)
PERGUB	<i>Peraturan Gubernur</i> (Governor Decree)
PERPRES	<i>Peraturan Presiden</i> (Presidential Decree)
PERUMDA	<i>Perusahaan Umum Daerah</i> (Local Company)
PERUMNAS	<i>Perusahaan Umum Pembangunan Perumahan Nasional</i> (National Housing Corporation)
PJPK	<i>Pejabat Pembuat Komitmen</i> (Government Contracting Agency)
PMK	<i>Peraturan Menteri Keuangan</i> (Regulation of Ministry of Finance)
PP	<i>Peraturan Pemerintah</i> (Government Regulation)
PPD	<i>Pengangkutan Penumpang Djakarta</i> (Indonesia state-owned company in transportation sector)
PPP	Public-Private Partnership
PRK	<i>Pedoman Rancang Kota</i> (Urban Design Guideline)
Provinsi	Province
PSL	<i>Pola Sifat Lingkungan</i> (Environment Pattern)

PSN	<i>Proyek Strategis Nasional</i> (National Strategic Project)
PSO	Public Service Obligation
PT	<i>Perusahaan Terbatas</i> (a limited liability company in Indonesia)
PT. KAI	PT. Kereta Api Indonesia
PT. KCI	PT. Kereta Commuter Indonesia, subsidiary company of PT. KAI for commuter railway in JABODETABEK, previously known as PT. KCJ
PT. PGI	<i>Pancakarya Grahatama Indonesia</i> (a corporation that manages and revitalizes Baranangsiang Terminal in Bogor City)
PT. PP	<i>Pembangunan Perumahan</i> , A State-Owned Company in Construction
PTM	<i>Pola Transportasi Makro</i> (Macro Transportation Pattern)
PUPR	<i>Pekerjaan Umum dan Perumahan Rakyat</i> (Public Works and Housing)
RAPBD	<i>Rencana Anggaran Pendapatan Belanja Daerah</i> (Draft of Regional Budget Plan)
RAPBN	<i>Rencana Anggaran Pendapatan Belanja Negara</i> (Draft of National Budget Plan)
RDTR	<i>Rencana Detail Tata Ruang</i> (Detailed Spatial Plan)
RENJA	<i>Rencana Kerja</i> (Working Plan)
RENSTRA	<i>Rencana Strategis</i> (Strategic Plan)
RITJ	<i>Rencana Induk Transportasi JABODETABEK</i> (JABODETABEK Urban Transportation Master Plan)
RKP	<i>Rencana Kerja Pemerintah</i> (Government Working Plan)
ROE	Regional Owned Enterprise
RPTRA	<i>Ruang Publik Terbuka Ramah Anak</i> (Children Friendly Public Open Space)
RPJM	<i>Rencana Pembangunan Jangka Menengah</i> (Medium-Term Development Plan)
RPJMD	<i>Rencana Pembangunan Jangka Menengah Daerah</i> (Regional Medium-Term Development Plan)
RPJMN	<i>Rencana Pembangunan Jangka Menengah Nasional</i> (National Medium-Term Development Plan)
RPJP	<i>Rencana Pembangunan Jangka Panjang</i> (Long-Term Development Plan)
RPJPD	<i>Rencana Pembangunan Jangka Panjang Daerah</i> (Regional Long-Term Development Plan)
RPJPN	<i>Rencana Pembangunan Jangka Panjang Nasional</i> (National Long-Term Development Plan)
RT	<i>Rukun Tetangga</i> (the smallest neighborhood unit)
RTH	<i>Ruang Terbuka Hijau</i> (Green Open Space)
RTNH	<i>Ruang Terbuka Non Hijau</i> (Non-Green Open Space)
RTR	<i>Rencana Tata Ruang</i> (Spatial Plan)
RTRW	<i>Rencana Tata Ruang Wilayah</i> (Regional Spatial Plan)
RW	<i>Rukun Warga</i> (small neighborhood unit consists of several RTs)
SISTRANAS	<i>Sistem Transportasi Nasional</i> (National Transportation System)
SKPD	<i>Satuan Kerja Perangkat Daerah</i> (Regional or Local Government Agency)
SLF	<i>Sertifikat Laik Fungsi</i> (Certificate of Building Proper Function)
SOE	State Owned Enterprise
Tatralok	<i>Tataran Transportasi Lokal</i> (Local Transportation Arrangement)

Tatranas	<i>Tataran Transportasi Nasional</i> (National Transportation Arrangement)
Tatrawil	<i>Tataran Transportasi Wilayah</i> (Regional Transportation Arrangement)
TDM	Transportation Demand Management
TDR	Transfer Development Right
TOD	Transit-Oriented Development
TPZ	<i>Teknik Pengaturan Zonasi</i> (Zoning Arrangement Technique)
UU	Undang-Undang (Act)

Chapter 1 Review of Upper Laws, Regulations and Plans

1.1 Review of Upper Laws and Organization

Review of upper laws, regulations and plans consist of development policies, spatial-related laws and plans, transport-related laws and plans, and land-related laws and plans. Below is the summary table of laws and plans related to the abovementioned issues.

Table 1 Summary of Laws and Plans

	Laws/ Regulations	Plans		
		National	Provincial	Local
Development Policy	<ul style="list-style-type: none"> • Law Number 25 Year 2004 regarding National Development Planning System. • Law Number 17 Year 2007 regarding Long-term Development Plan. • Presidential Regulation (Perpres) Number 2 Year 2015 	<ul style="list-style-type: none"> • National Long-term Development Plan (RPJPN 2004)-2024. • National Medium-term Development Plan (RPJMN) 2015-2019. 	<ul style="list-style-type: none"> • Regional Medium-term Development Plan (RPJMD) of DKI Jakarta Province 2013-2017. • RPJMD of West Java Province 2013-2018 • RPJMD of Banten Province 2012-2017 	<ul style="list-style-type: none"> • RPJMD of Kota Tangerang 2014-2018 (will be revised this year RPJMD 2019-2023) • RPJMD of Kota Tangerang Selatan 2011-2016 (has been revised with RPJMD 2016-2021) • RPJMD of Kabupaten Tangerang 2013-2018 (will be replaced this year with RPJMD 2019-2023) • RPJMD of Kota Bekasi 2013-2018 (process of arranging RPJMD 2018-2023) • RPJMD of

	Laws/ Regulations	Plans		
		National	Provincial	Local
				Kabupaten Bekasi 2017-2022 <ul style="list-style-type: none"> • RPJMD of Kota Bogor 2015-2019 • RPJMD of Kabupaten Bogor 2013-2018 • RPJMD of Kota Depok 2016-2021
Spatial	<ul style="list-style-type: none"> • Law Number 26 Year 2007 regarding Spatial Planning. • Government Regulation (PP Number 13-year 2017 regarding National Spatial Plan (RTRWN) • Law Number Spatial Plan of JABODETABEK Area (RTR JABODETABEK PUNJUR) stipulated by Presidential Regulation Number 54-year 2008 	<ul style="list-style-type: none"> • National Spatial Plan (RTRWN) • Spatial Plan of JABODETABEK Area (RTR JABODETABEK PUNJUR) 	<ul style="list-style-type: none"> • Provincial Spatial Plan (Stipulated by local regulation): 1. RTRW of DKI Jakarta Province Year 2010-2030 2. RTRW of West Java Province Year 2009-2029 3. RTRW of Banten Province Year 2011-2031 	<ul style="list-style-type: none"> • City/Regency Spatial Plan (Stipulated by City or Regency Government): 1. RTRW of Kota Tangerang 2012-2032 (on revision) 2. RTRW of Kota Tangerang Selatan 2011-2031 (on revision) 3. RTRW of Kabupaten Tangerang 2011-2031 (on revision) 4. RTRW of Kota Bogor 2011-2031 (on revision) 5. RTRW Kabupaten Bogor 2016-2036 6. RTRW of Kota Depok 2012-2032 (yet to be revised) 7. RTRW of Kota Bekasi 2011-2031 (on revision)

	Laws/ Regulations	Plans		
		National	Provincial	Local
				<p>8. RTRW of Kabupaten Bekasi 2011-2031 (on revision)</p> <ul style="list-style-type: none"> • Detailed Spatial Plan (including Zoning Regulation and zoning map), • Mass Building Plan.
Transportation	<ul style="list-style-type: none"> • Law Number 38 Year 2004 regarding road • Law Number 23 Year 2007 regarding railway • Law Number 22 Year 2009 regarding traffic and road transport • Minister of Transportation Regulation Number 49 Year 2005 regarding National Transportation System. • Government Regulation Number 32 Year 2011 regarding traffic assessment • Presidential Regulation Number 55 Year 2018 regarding JABODETABEK transportation master plan 	<ul style="list-style-type: none"> • Tatanas (National Transportation Arrangement) 	<ul style="list-style-type: none"> • Macro Transportation Pattern (PTM) of DKI Jakarta (Stipulated by Governor Regulation Number 103 Year 2007) • Regional Regulation Number 5 Year 2014 regarding transportation • Tatrawil (Regional Transportation Arrangement): <ol style="list-style-type: none"> 1. Tatrawil of West Java Province (Stipulated by Governor Decree Number 21 Year 2014) 	<ul style="list-style-type: none"> • Tatralok (Local Transportation Arrangement) <ol style="list-style-type: none"> 1. Transport Management Engineering of Kota Tangerang 2. Transportation Masterplan of Kota Tangerang Selatan 3. Transportation Masterplan of Kota Bogor 4. Masterplan of Traffic and Road Transport Kabupaten Bogor 5. Transportation Master Plan of Kota Depok 6. Tatralok of Kota Bekasi 7. Tatralok of Kabupaten Bekasi
Land	<ul style="list-style-type: none"> • Law Number 5 Year 1960 regarding 	N/A	N/A	N/A

	Laws/ Regulations	Plans		
		National	Provincial	Local
	<ul style="list-style-type: none"> • Basic Agrarian Law • Law Number 2 Year 2012 regarding Land Provision for Development of Public Interest • Government Regulation Number 16 Year 2004 regarding Land Utilization • Head of Land Affair Regulation Number 4 Year 1991 Regarding Land Consolidation • Head of Land Agency Regulation Number 12 Year 2019 			
TOD Regulations	<ul style="list-style-type: none"> • Minister of ATR/BPN Regulation Number 16 Year 2017 • Regulation of Head of BPTJ No: PR .377/AJ.208/BPTJ-2017 • Governor Regulation Number 67 Year 2019 	N/A	N/A	N/A
Green Open Space	<ul style="list-style-type: none"> • Minister of Public Works Regulation Number 5/2008 	N/A	N/A	N/A
PPP	<ul style="list-style-type: none"> • Presidential Regulation no. 38/2015 	N/A	N/A	N/A
Public Housing	<ul style="list-style-type: none"> • Law No. 1 Year 2011 • Law No. 20 Year 2011 	N/A	N/A	N/A

Source: JUTPI 2, 2019

TOD is an integrated approach of elaborating urban development and transportation planning. In this approach, many organizations involved in accordance with their roles and functions to carry out the process from planning, implementation, until evaluation and monitoring stage. In case of JABODETABEK, there are many transport infrastructures and transport modes which managed by different organization. Generally, some ministries, institutions, local government, operators, developers, and community will be involved in the process.

Below is the table showing some sectors, process, and organizations related to TOD.

Table 2 Related Organizations in Urban Planning and TOD

Sector	Sub-Sector	Function						
		Planning	Implementation				Licensing	Evaluation/ Monitoring
			Infrastructure Development		Transit Operation			
			Budgeting	Construction Supervision	Financial Arrangement	Train/ Bus Operator		
Urban Development & TOD	Master Plan	Local Gov. Master Dev.	Local Gov/ Master Dev.	Local Gov/ Master Dev.	Master Dev.	Spatial Planning Agency	Governor/ Mayor/ Regent	Master Dev./ Spatial Planning Agency
	Connectivity (integration facility)	Local Gov/ Operator	Operator	Operator	Operator	Operator	BPTJ/ Local Gov.	Local Gov/ Operator
	Access road	Local Gov.	Loc.Gov./ Master Dev.	Local Gov.	Local Gov.	Local Gov.	PUPR/ Bina Marga /Local Gov	BPTJ/Head of Regional and Local Gov.
	Public Housing	Central/ Local Gov	Central/ Local Gov	Central/ Local Gov	Central/ Local Gov	Central/ Local Gov	PUPR/ Local Gov	PUPR/ Local Gov
	Commercial area	Master Dev.	Master Dev.	Master Dev.	Master Dev.	Master Dev.	Local Gov.	Master Dev.

Source: JUTPI 2

In terms of mass transit, each type of railway-based transport is operated by different providers and in each process from planning to evaluation, varied of stakeholders could be found. Public sector is responsible with the upper planning, implementing, and regulation issue, including license and guidelines. As one of the main actors in TOD, some railways operators will be in charge of area master developer with housing contractors or private sectors.

Based on the classification, there are 3 main sectors related to TOD area development, namely rail-based transport, road network, and urban development. Each sector is represented by a ministry, namely Ministry of Transportation (MoT), Ministry of Public Works and Public Housing (PUPR), Ministry of Agrarian and Spatial Planning/National Land Agency (ATR/BPN), and BPTJ.

a. Ministry of Transportation (MoT)

MoT is responsible in undertaking government tasks in the field of transportation. Among others, its functions are formulation of policies and technical guidance, implementation of a safe and secure transport, management of state assets, and supervision of some government tasks. MoT consists of several Directorate General that specialized in land transport, sea transport, civil aviation transport, and railway. Besides, there is also an internal body dedicated for JABODETABEK transportation, namely Greater Jakarta Transportation Authority (*Badan Pengelola Transportasi JABODETABEK/BPTJ*).

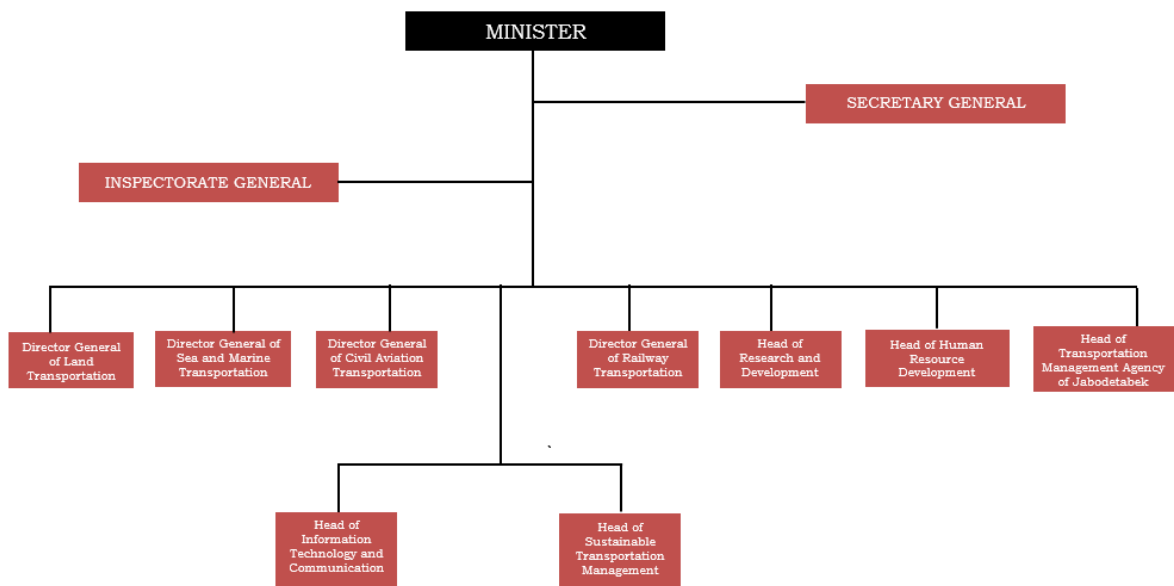


Figure 1 Organization Structure of MoT of The Republic of Indonesia

Directorate General in MoT is an echelon 1 level that is responsible for technical matter and formulation of policies in land transport, railway transport, sea transport, etc. Some directorate general levels that are closely related to TOD are Directorate General of Land Transport, Directorate General of Railway, and Greater Jakarta Transportation Authority (BPTJ) which is on the same level as directorate general.

- Directorate General of Land Transport is responsible to carry out duties such as policy formulation, implementation of policies, compilation of norms, standards, procedures, and criteria, provision of technical guidelines, supervision, and evaluation in the field of traffic, mode, facility, infrastructure, traffic system and road transport, river, lake, crossing, and multimode transport, also improvement of intermode integration and land transport safety.
 - Directorate General of Railway Transport is responsible to carry out duties such as policy formulation, implementation of policies, compilation of norms, standards, procedures, and criteria, provision of technical guidelines, supervision, and evaluation in the field of railway transportation.
 - JABODETABEK Transportation Body (BPTJ) is responsible to develop, manage and improve transportation service in JABODETABEK area in integrated manner. The main task of BPTJ is to formulize transportation development plan of JABODETABEK. In relation to TOD, BPTJ has a function to provide recommendations in spatial planning that is mass transit oriented. Moreover, BPTJ also given the function to give technical recommendation for the development of the proposed TOD areas.
- b. Ministry of Public Works and Public Housing (PUPR)
- Ministry of PUPR is one of the biggest Ministries in terms of budget and staff. It has the duty of administering government affairs in the field of public works and public housing to assist the President in organizing the state government. The main function of PUPR is regarding formulation, determination, and implementation of policies in the field of water resources management, road management, housing provision and residential area development, housing finance, building arrangement, water supply systems, waste water management systems and environmental drainage as well as solid waste, and guidance for construction services. In case of TOD, there are 2 directorate generals that are closely related to, namely Directorate General for Housing Provision and Directorate General for Housing Financing.
- c. Ministry of Agrarian and Spatial Planning/National Land Agency (ATR/BPN)
- Ministry of Agrarian and Spatial Planning/National Land Agency (ATR/BPN) has the task of carrying out government affairs in the field of agrarian/land and spatial planning to assist

the President in organizing state government. The main function of this ministry is for the formulation, stipulation, and implementation of policies in the field of spatial planning, land/land infrastructure, land/land legal relations, land/land use management, land acquisition, land use control and land tenure control, and handling of agrarian / land issues, spatial utilization and land.

In case of TOD, this ministry has a specific directorate which is in charge of formulating TOD guideline for area development, namely directorate of spatial utilization under directorate general of spatial planning.

- d. Bappeda and Human Settlements, Spatial Planning, and Land Affairs Agency (*Dinas Cipta Karya, Penataan Ruang, dan Pertanahan (Dinas Citata)*) of DKI Jakarta Province
Bappeda or Regional Planning and Development body is responsible for the planning, budgeting, and formulating the spatial plan (RTRW) Of DKI Jakarta. Meanwhile, the Spatial Planning, and Land Affairs Agency (*Dinas Cipta Karya, Penataan Ruang, dan Pertanahan (Dinas Citata)*) is responsible for detail spatial plan and urban design guideline formulation. Lastly, there is a city planning and environmental bureau under the regional secretary that is in charge of governor regulation regarding TOD implementation in DKI Jakarta Province.

1.1.1 Development Related Laws

Development related laws consists of various regulations from Act, regulation, and plan. First and foremost, there is the Act Number 25 Year 2004 regarding national development planning system. In this Act, National Development Planning system is a method to produce development plan in the long term, medium term, and annual which conducted by officials and community in the level of central, regional, and local. It is aimed at ensuring linkages and synchronization also coordination among stakeholders, to create an integrated and consistent planning as well as to optimize community participation to utilize and manage resources efficiently.

In conducting the process, it is emphasized that national development should be based on democracy with the principles of togetherness, justice, sustainability, environmental insight, and independence by maintaining a balance of progress and national unity. The national development planning is arranged systematically, directed, integrated,

comprehensive, and responsive to changes which implemented based on the General Principles of State Administration.

The terms of development plan are divided into three periods, namely:

1. Long-term Development Plan (abbreviated: RPJP) is a planning document for 20-year period
2. Medium-term Development plan (abbreviated: RPJM) is a planning document for 5-year period
3. Annual Development Plan (abbreviated: RKP) is an annual planning document that details RPJM.

Besides, there is also strategic development plan document called *Rencana Strategis (Renstra)* that valid for 5 years period in the level of ministries and local government agencies.

National RPJP (**RPJPN**) contains vision, mission and direction of national development which refers to the Constitution of 1945. National RPJM (**RPJMN**) describes president's vision, mission, and programs that refer to RPJPN and contains national development strategy, general policy, ministries programs, interregional programs, macroeconomic framework as well as regulation and financing framework. **RKP** is a description of RPJMN which contains development priority, macroeconomic design, fiscal regulation, and indicative financing framework.

Table 3 Comparison of Development Planning Document

Development Planning Document	National Level	Regional (Province Level)	Local (City/Regency Level)	Drafted by	Stipulated by	Period
RPJP	National RPJP (RPJPN)	Provincial RPJPD (RPJPD Provinsi)	RPJPD Kota/ Kabupaten	National: Minister of Planning	National: Law (Undang-Undang)	20 years
				Regional: Head of Bappeda	Regional: Regional/ Local Regulation (Perda)	

Development Planning Document	National Level	Regional (Province Level)	Local (City/Regency Level)	Drafted by	Stipulated by	Period
RPJM	National RPJM (RPJMN)	Provincial RPJMD (RPJMD Provinsi)	RPJMD Kota /Kabupaten	National: Minister of Planning	National: Presidential Regulation (Perpres)	5 years
				Regional: Head of Bappeda	Regional: Head of Region Regulation	
RKP	RKP	RKPD Provinsi	RKPD Kota/ Kabupaten	National: Minister of Planning	National: Presidential Regulation	1 year
				Regional: Head of Bappeda	Regional: Regulation of Region's Head	
Renstra	RENSTRA K/L (Strategic Plan of Ministries/ Institutions)	RENSTRA SKPD (Strategic Plan of Regional Institutions)	RENSTRA SKPD (Strategic Plan of Local Institutions)	National: Ministries/ Institution	National: Head of Ministries/In stitution	5 years
				Regional: of Agency	Regional: Regulation of Head of Agency	
Renja	RENJA K/L (Working Plan of Ministry and Institution)	RENJA – SKPD (Working Plan of Regional Institutions)	RENJA – SKPD (Working Plan of Local Institutions)	National: Ministries/ Institution	National: Head of Ministries/In stitution	1 year
				Regional: of Agency	Regional: Regulation of Head of Agency	

Source: Law No. 25 Year 2004

Regional/Local RPJP (RPJPD) states vision, mission, and orientation of regional development that refers to National RPJP and considers RPJMN. In addition, it contains the direction of regional financial policies, regional development strategies, general policies, and regional work unit programs, cross regional work units, and regional programs accompanied by work plans within the indicative regulatory framework and

funding framework.

Regional RPJM (RPJMD) is an elaboration of the vision, mission, and program of the head of the region (Governor/Mayor/Regent) whose preparation is guided by the Regional RPJP and takes into account in the National RPJM, includes the direction of regional financial policies, regional development strategies, general policies, and regional unit work programs, across regional work units, and the territorial program is accompanied by work plans in an indicative regulatory and funding framework.

Regional Government Working Plan (RKPD) is an elaboration of the Regional RPJM and refers to the RKP, containing the design of the Regional economic framework, Regional development priorities, work plans and funding, both implemented directly by the government and pursued by encouraging community participation.

Renstra-KL (Strategic Plan of Ministry and Institution) contains the vision, mission, goals, strategies, policies, programs, and development activities in accordance with the duties and functions of the Ministries/Institutions which are prepared based on the National RPJM and are indicative.

Renja-KL is prepared by referring to the Strategic Plan-KL and refers to the National development priorities and indicative ceilings, and includes development policies, programs and activities both directly carried out by the government and implemented by encouraging community participation.

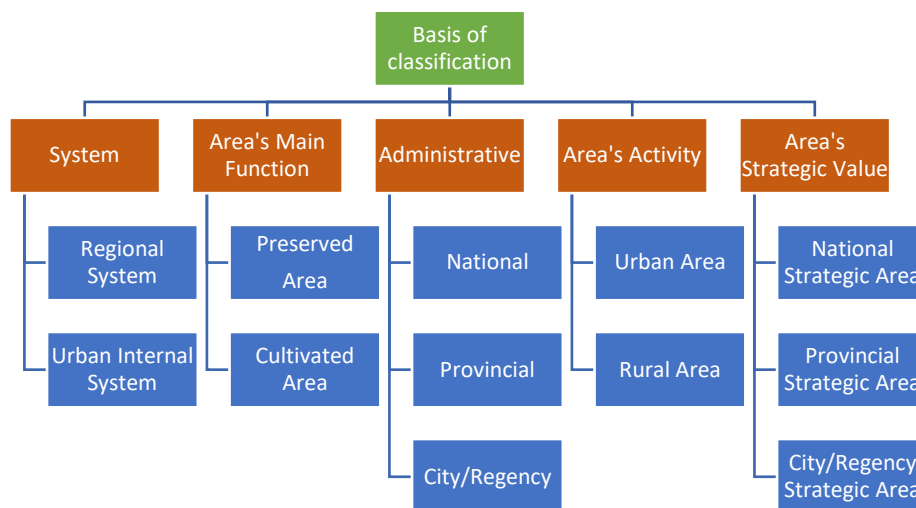
Stages of national development planning consist of plan arrangement, plan stipulation, control of planning implementation, and evaluation of the planning implementation. Minister of National Development Planning/Head of Bappenas drafted the National RPJP and RPJM while head of *Bappeda* drafted the regional RPJP in accordance to the deliberation for development plan (Musrenbang). RPJPN is stipulated by the Law and RPJPD is stipulated by local regulation. Meanwhile, RPJMN is stipulated by Presidential Regulation and RPJMD is stipulated by the regulation of the local head. RKP is stipulated by Presidential Regulation each year to be the basic guideline for drafting the national budget (RAPBN). In regional level, RKPD is the basis to arrange the Regional Budget (RAPBD) in the level of province and city/regency.

1.1.2 Spatial Planning Related Laws

Spatial planning related laws have been legalized by Act Number 26 Year 2007 regarding spatial planning that consists of planning, utilization, and control of spatial utilization. This law then specified and detailed into government regulation number 15 Year 2010 regarding the implementation of spatial planning that consists of regulating, steering, implementing, and monitoring activity.

Spatial Planning Act Number 26 Year 2007 was stipulated by Minister of Public Works of the Republic of Indonesia under the Directorate General of Spatial Planning. It determines the elements and provisions of spatial planning in terms of planning, utilization, and control of space. The basic and goals of this plan are cohesiveness, synchronization and balance, sustainability, effective and efficient, openness, cooperation, protection of public interest, law enforcement and justice, and accountability. Implementation of spatial planning aims at embodiment of national space that is secure, safe, productive, and sustainable.

In this Act, there are some basis of spatial planning classification is classified as system, area's main function, administrative region, area's activity, and strategic value of an area.



Source: Spatial Planning Act Number 26 Year 2007

Figure 2 Basic Spatial Planning Classification

- Spatial planning based on the system consists of regional systems and urban internal systems.

- Spatial planning based on the main function of the area consists of protected areas and cultivation areas.
- Spatial planning based on administrative regions consists of spatial planning of the national territory, provincial region, and city/regency areas.
- Spatial planning based on regional activities consists of spatial planning in urban areas and rural areas.
- Spatial planning based on regional strategic values consists of spatial planning of national strategic areas, provincial strategic areas, and city/regency strategic areas.

Spatial planning was conducted by considering the physical condition of the country, which is vulnerable to disaster, some resources: natural, human, economic, social, culture, politics, law, defense, also science and technology as a unity, and geostrategy, geopolitics, and geo-economics. In addition, spatial planning is conducted in a hierarchical and complementary manner. In the framework of organizing the spatial planning, each government can draft a guideline for the implementation of spatial planning at its own level.

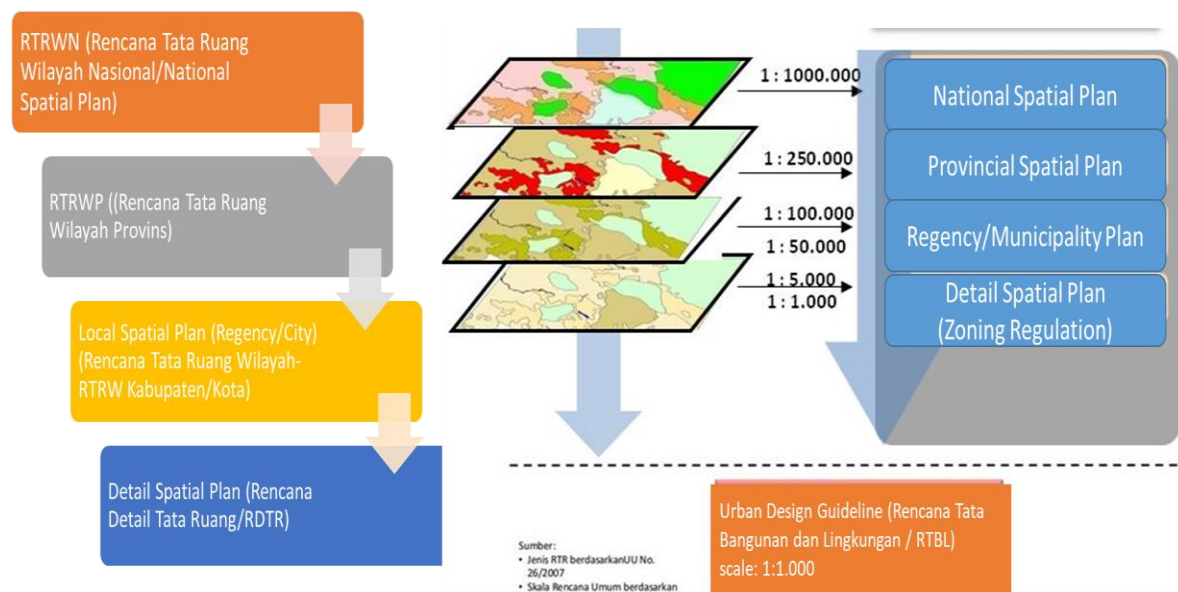
Table 4 Authority in Each Level of Government regarding Spatial Planning

Government Level	Authority in Organizing Spatial Planning	Authority in Executing National Spatial Planning	Authority in Executing National Strategic Area
National Government	<ul style="list-style-type: none"> - Arrangement, steering, and monitoring towards the spatial planning implementation on the national, provincial, city/regency as well as the strategic area; - Implementation of national spatial planning - Implementation of national strategic area - Spatial planning cooperation among countries - Facilitating spatial planning 	<ul style="list-style-type: none"> - National spatial planning - National spatial utilization - National spatial utilization control 	<ul style="list-style-type: none"> - Stipulation of national strategic area - Spatial planning on the national strategic area - Spatial utilization of national strategic area - Control of the spatial utilization of national strategic area

Government Level	Authority in Organizing Spatial Planning	Authority in Executing National Spatial Planning	Authority in Executing National Strategic Area
	cooperation among provinces		
Provincial Government	<ul style="list-style-type: none"> - Arrangement, steering, and monitoring towards the spatial planning implementation on the provincial, city/regency as well as the strategic area. - Implementation of provincial spatial planning - Implementation of provincial strategic area - Spatial planning cooperation among provinces - Facilitating spatial planning cooperation among cities/regencies 	<ul style="list-style-type: none"> - Provincial spatial planning - Provincial spatial utilization - Provincial spatial utilization control 	<ul style="list-style-type: none"> - Stipulation of provincial strategic area - Spatial planning on the provincial strategic area - Spatial utilization of provincial strategic area - Control of the spatial utilization of provincial strategic area
Local Government (City/Regency) Level	<ul style="list-style-type: none"> - Arrangement, steering, and monitoring towards the spatial planning implementation on the city/regency as well as the strategic area. - Implementation of provincial spatial planning - Implementation of provincial strategic area - Spatial planning cooperation among provinces - Facilitating spatial planning cooperation among cities/regencies 	<ul style="list-style-type: none"> - City/Regency spatial planning - City/Regency spatial utilization - City/Regency spatial utilization control 	<ul style="list-style-type: none"> - Stipulation of city/regency strategic area - Spatial planning on the city/regency strategic area - Spatial utilization of city/regency strategic area - Control of the spatial utilization of city/regency strategic area

Source: Spatial Planning Act Number 26 Year 2007

Spatial planning is conducted to produce general spatial plan and detail spatial plan. General spatial plan consists of hierarchical structure namely national spatial plan, provincial spatial plan, and city/regency spatial plan. Meanwhile, detail plan consists of island plan and national strategic area plan, provincial strategic area plan, and city/regency detail spatial plan. Detail plan is functioned as the operational instrument of general plan and basis for zoning regulation. It is arranged when necessary, for instance: the general plan cannot be basis for the spatial utilization and control, and if the map scale needs to be detailed before being operated.



Source: Ministry of ATR/BPN

Figure 3 Hierarchy of Spatial Planning

Contents of spatial plan cover spatial structure plan and spatial pattern plan. Spatial structure plan consists of center of settlement system and infrastructure network system plan. On the other hand, spatial planning pattern consists of preservation area and cultivation area. Those functions are dedicated for several activities such as preservation, social, culture, economy, defense, and security. Spatial plan document in each level of government is valid for 20 years and can be reviewed every 5 years, but in case of force major, this plan can be reviewed more than once in 5 years. In terms of city planning, it is stated that green open space in the city must meet the minimum requirement of 30%, consists of 20% public green open space and 10% private green open space.

Spatial utilization is an execution of planning which conducted by program implementation and the funding. The spatial utilization can be done both vertically and underground which is intended to optimize the use of space. Lastly, there is a control of spatial plan utilization which is carried out by stipulating zoning regulation, permission, incentives and disincentives, and imposition of sanctions. Zoning regulations are based on detailed spatial plans for each zone of spatial use (national, provincial, city/regency). Permission is only allowed for activities that is in line with spatial plan and to be issued by appropriate procedure. Incentive is an instrument to provide rewards for carrying out activities that are in line with spatial planning, for example:

- a. tax relief, compensation, cross subsidies, rewards, space rent, and stock returns;
- b. infrastructure development and procurement;
- c. ease of licensing procedures; and/or
- d. awards to the community, private and/or local government.

Disincentives is an instrument to prevent, limit growth, or reduce activities that are not in line with spatial planning, in the form of:

- a. imposition of high taxes that are adjusted to the amount of costs needed to overcome the impact caused by the use of space; and/or
- b. restrictions on the provision of infrastructure, the imposition of compensation and penalties.

Both incentive and disincentive can be given by central government to local government, among local governments, and from central government to the community. The last controlling instrument is sanction which is a control measures taken against the use of space that is not in accordance with the spatial plan and zoning regulations. Further rules and provisions about spatial control is going to be detailed by Government Regulation.

1.1.3 Transportation Related Laws

There were three main laws regarding transportation that related to urban development and TOD, namely Road Act, Traffic and Transportation Act, and Railway Act. Road Act was stipulated in 2004 by the Act Number 38 Year 2004 under the Directorate of Highway (*Bina Marga*), Ministry of Public Works which followed by Railway Act in

2007 by the Act Number 23 Year 2007 under Directorate General of Railway, Ministry of Transportation, while traffic and transport act was stipulated in 2009 by the Act Number 22 Year 2009 under Directorate General of Land Transport, Ministry of Transportation. Among those regulations, Act Number 22 Year 2009 is considered as the most comprehensive as it covers road, public transport, and traffic management as well.

1. Road Act (UU No. 38 Year 2004) generally depicts the management and arrangement of road in Indonesia, the function, the classes, and the authorities or level of government that responsible for the road's implementation and maintenance. Scope of roads which is arranged by this act are covering: common (general) road, toll road, and special road. General road is classified into 4 functions, namely arterial, collector, local, and neighborhood/access road. Based on the status (authority), general road is classified into 5 levels, national road, provincial road, regency' road, city road, and rural road. In order to road utilization and arrangement, road is divided into some classes, i.e. non-barrier road (toll road), highway, medium road, and small road. All the specification of each class is described more detail in the government regulation (*Peraturan Pemerintah/PP*) Number 34 Year 2006 regarding road.
2. Railway Act (UU No. 23 Year 2007) defines railway system as a unity of system that consists of infrastructure, facility, and human resource, as well as norm, criteria, requirement, and procedure to implement railway transportation. Railway and its components such as the infrastructure, line, network line, rail/track, facilities, and mode have been defined in order to support the railway system operation. Railway system hierarchy is divided into the 8 types, namely: normal speed train, high speed train, monorail, linear induction motor, air motion, magnetic levitation, tram, and cable train/car. Based on its function, railway system consists of general railway, and special railway. General railway consists of urban train and intercity train while special railway is used for specific purposed by an industry or company.

In terms of hierarchy, railway system is covering the national railway, provincial railway, and regency/city railway. National, provincial, and city/regency railway masterplan shall be arranged with consideration of national, provincial, and city/regency's spatial plan as well as other transport mode network masterplan.

Therefore, the national government will draft and stipulate the national railway masterplan, provincial government will conduct the regional/provincial railway masterplan, and local government will draft the city/regency railway master plan. Railway masterplan in each level of authority shall be able to explain the policy direction, estimation of people/freight movement in accordance to their origin and destination, demand (plan needs) of railway infrastructure and facility, and the estimation for human resource need. In this Act, station was explicitly explained as one of the railway's infrastructure along with rail/track and train's operational facility. The main functions of station are for dropping on and off passengers, loading and unloading the freight; and/or operational necessity of train. For the passengers, station shall be equipped with sort of facilities: safety, security, convenient, drop on and drop off, disables, healthcare facility, and public facility. Stations are categorized into 3 types: big/grand, medium, and small class based on their operational facility, traffic frequency, number of passengers, freight volume, number lines, and supporting facilities.

3. Road Transport and Traffic Act Number 22 Year 2009. In 2009, Transport and Traffic Act was issued which emphasized on the general provision of road, public transport, and transport nodes (terminal) as well as traffic management, and feasibility requirement for motorized vehicles. In this Act, government in each level of authority has a task regarding the transport and traffic management steering which comprises planning, arrangement, control, and supervising/monitoring. The implementation of traffic and road transport is conducted by the government in accordance to the function and main task of each institution.

Table 5 Working Unit and Responsible Institution

Unit Work/Activity	Responsible Institution
Road Network	Ministry of Public Works and Housing
Traffic and Road Transport Infrastructure and Facility	Ministry of Transportation
Development of the Industry of Traffic and Road Transport	Ministry of Industry
Traffic and Road Transport Technology	Ministry of Research and Higher Education

Unit Work/Activity	Responsible Institution
Development	(Technology Assessment and Implementation Body)
Registration and Identification of Driver, Law Enforcement, Management Operational, Traffic Engineering and Education.	National Police

Source: Compiled from various regulations

In order to embody an integrated traffic road transport, then traffic network and road transport development is planned to connect all the regions based on a masterplan. The masterplan of traffic network and road transport consists of national masterplan, provincial, and city/regency masterplan which arranged by considering the needs for transportation and space for national-scaled activities. Moreover, this masterplan shall contain estimation of people/freight movement according to their origin and destination, direction and policy of traffic role and road transport in whole transportation modes, location plan and the needs for nodes, and the need plans (demand) for the traffic space. Since road space is one of the most important elements in terms of traffic as to accommodate mobility, this Act also covering some technical criteria for the road class, road usage, and road ornament.

Terminal was briefly explained as a transit node to support the smooth movement of people and/or goods as well as the integration of intramode and inter mode in certain places. Terminal consists of 2 types, namely passenger terminal and freight terminal. Passenger's terminal is divided into 3 types: terminal A, B, and C according to the level of service. Type A is the largest type of terminal that serves intercity and cross provincial movement, under the maintenance of central government. Type B terminal is provincial terminal which serves intercity under the same province. Last is type C terminal which serve local trip on the same city.

Supporting facilities for the implementation of traffic and road transport covers:

- sidewalk
- bicycle lane
- pedestrian crossing/deck
- shelter; and/or

- special facility for people with disability and elderly.
4. Government Regulation Number 32 Year 2011 regarding traffic assessment
- In this regulation, TOD is considered as a strategy of transport demand management (TDM) which is going to be conducted simultaneously and integrated. One of the strategies is to encourage and facilitate integrated planning between spatial and transport, both planned and existing. In that case, TOD and compact city concept has been acknowledged as a strategy to bridge spatial planning and transportation aspect and conduct the plan in integrated manner.

1.2 Review of Development Plan Document

1.2.1 National Mid-term Development Plan Year 2015-2019

There are some agenda on the national development stated in *Rencana Pembangunan Jangka Menengah/RPJMN* to realize president's mission which socialized in the name of "Nawa Cita" or "Nine Goals". Some of the agenda are related to political establishment, good governance, inclusive economy, law enforcement, economic productivity and self-reliability. Agenda that is closely related to TOD is regarding enhancement of people's productivity and competitiveness in the international market.

TOD is part of urban mass transportation development strategy. The objectives of the urban mass transport are to achieve 32% modal share of public transport in metropolitan area and enhancement of transport performance with minimum speed of 20 km per hour. In addition, the proposed number of cities which implementing mass transit (road-based and rail-based) is 34 cities.

Policy direction and strategies related to TOD in the national mid-term development plans are:

1. Developing a modern and advance mass transit system which is road-based and railway-based completed by ITF with some strategies as follow:
 - a. Rail-based mass transit development: MRT, elevated loop line, LRT/monorail/tram
 - b. Development of urban railway in 10 metropolitans

- c. Development of BRT
 - d. Provision of public service obligation (PSO)/subsidy for the implementation of mass transit
2. Improving the capacity and quality of urban road network through strategies:
 - a. Enlarge the ratio of urban road as minimum as 10% of the total area
 - b. Development of capacity and quality of road which considering public accessibility to public transport
 - c. Rearrangement of urban national road status
 3. Developing a balance urban transport management by paying attention to interaction between transport and land use through some strategies:
 - a. Access improvement towards public transport with TOD
 - b. Provision of supporting facility for intermodal transfer such as park and ride
 - c. Implementation of traffic information system in real time, ATCS, and visual mobility
 - d. Reinforcement of implementation mechanism of urban transportation system and reduction of urban congestion through transport demand management with push and pull approach
 4. Strengthening urban transport institution through acceleration of establishment of urban transportation institution with strong authority.

1.2.2 Regional Mid-term Plan

- i. Regional Mid-term Plan of DKI Jakarta Province (RPJMD) 2013-2017 (Regional Law Number 1 Year 2018)
RPJMD DKI Jakarta year 2017-2022 has stated TOD as the main method of area development, as mass transit has constructed. Some points that emphasized the emergence of TOD are:
 - TOD is one of the basic macro assumptions which projected to be developed along the MRT and LRT line.
 - Pasar Senen area in Central Jakarta is directed to be the center for trade and services as well as integrated stations and several transfer points and modes with the concept of Transit Oriented Development. This means that TOD has become

a development direction in Central Jakarta by the arrangement of Senen Area (terminal and station surrounded by commercial facilities: shopping malls, offices, hotels, and traditional market).

- Development of Tanah Abang Area as the primary center which integrated with commuter line station and proposed stop point, as well as interconnection between intermodal facility and mass transit which realized by pedestrian integrated movement.
- Development of mass transit, including TOD area development in:
 - MRT Jakarta (North – South, East – West) construction
 - LRT construction
 - BRT development
 - Elevated loop line/circular line
 - Intermodal integration.
- Development of TOD in 5 years ahead in MRT North – South Phase I (Lebak Bulus – Bundaran HI), MRT North – South Phase 2 (Bundaran HI – Kampung Bandan), and LRT Phase 1 (Kelapa Gading – Velodrome). There are some characteristics and theme in each development, adjusted with the local condition. For MRT North South Phase 2, there are five locations selected: Sarinah, Monas, Harmoni, Kota Tua, and Kampung Bandan. Thematic developments are described as follow:
 - Sarinah as CBD zone
 - Monas as integrated transit area (civic center zone)
 - Harmoni, Sawah Besar, Mangga Besar, and Glodok are directed for vertical housing and trade area (North Jakarta Downtown Zone)
 - Kota Tua functioned as tourism area will be developed as a historical and cultural zone
 - Kampung Bandan is an integrated transit area with a mixed use and high intensity.
- TOD as a sectoral strategy: In the market and industrial cluster, TOD is a strategic and highly economic asset development by coordination and partnership with local owned company, state-owned company and business

entities.

- ii. Mid – term Development Plan of West Java Province Year 2018 – 2023 (Regional Law Number 9 Year 2019)

TOD was not specifically mentioned or referred in this plan, but for the transportation system, mass transit is being developed. One of their programs is a rail-based urban mass transit network development and improvement of railway safety. The focus of the mass transit is to enhance the regional connectivity to achieve the development balance and “transport champion”.

- iii. Mid-term Development Plan of Banten Province Year 2017 – 2022 (Regional Law Number 7 Year 2017)

Considering some of the national strategic projects, Banten Province proposed transit oriented development (TOD), which is an orientation model which adopts mixed use land and maximizing the use of mass transit such as railway and bus, so that the trip will be dominated by public transport which directly connect with destination, stop points with high density. As a model policy, TOD should be placed on:

1. Main network of mass transit
2. High frequency bus corridor
3. Bus line on which time travel is less than 10 minutes from the mass transit network

Some of the mixed-use plan which is transit- oriented development consists of:

1. Mixed-used land consists of housing, offices, and supporting facility
2. High density marked by residential development.

1.2.3 Local Mid-term Plan

- i. Mid-term Development Plan of Kota Tangerang Year 2014-2018

Kota Tangerang is now doing some preparations to actualize mass transit in the city. In the mid-term development plan of Kota Tangerang, TOD was directed to realize sufficient and representative public transport service system will be achieved by development of network and accessibility in an integrated public transport system.

In this document, TOD was not specifically mentioned but referred as a policy to achieve standard of service from local official. Moreover, TOD is part of the urban

transit system framework which provides solutions regarding socioeconomic issues such as congestion handling and development of mass transportation to support the existing BRT.

ii. Mid-term Development Plan of Kota Tangerang Selatan Year 2011-2016

TOD was not specifically mentioned in the development plan document, but it was really related to the general policy regarding improvement of integration and synchronization of spatial function and its utilization which supported by an adequate urban infrastructure.

iii. Mid-term Development Plan of Kabupaten Tangerang Year 2013-2018

TOD has been acknowledged in the mid-term development plan of Kabupaten Tangerang which mentioned as one of the railway network system development strategies. Kabupaten Tangerang is planned to develop five stations as transit-oriented development area, namely Cikuya Station, Tigaraksa Station, Cicayur Station, Cisauk Station, and Balaraja Station. TOD area development will be conducted in line with railway network plan development in Kabupaten Tangerang such as LRT, MRT, and capacity enhancement through double track construction towards the west side of this region.

iv. Mid-term Development Plan of Kota Bekasi Year 2013-2018

General policies of Kota Bekasi development plan have indicated some potentials for development of TOD area, although it was not explicitly mentioned. There is a direction of implementing an integrated transportation facility and infrastructure through development of pedestrian path, bicycle lane, commuter transit parking of MRT planning and main terminal.

v. Mid-term Development Plan of Kabupaten Bekasi Year 2017-2022

There is no specific plan for TOD in Kabupaten Bekasi, since there are some issues regarding transportation. First is no mass transit that has been built despite the growing demand of mobility for people and freight especially in industrial area. Secondly, the less optimal coordination, integration, and synchronization for transportation arrangement. Generally, there is no adequate facility and infrastructure of transportation in Kabupaten Bekasi.

vi. Mid-term Development Plan of Kota Bogor Year 2015-2019

The development plan of Kota Bogor did not state TOD as a policy or program, but in relation to mass transit, there are some directions of realizing a transportation system which promotes accessibility of economic activity, social, and culture towards the implementation of a qualified transportation and environmentally sound and synergized with the spatial planning. This policy will be achieved through improvement of transportation infrastructure, mass transit development, arrangement of public transport, development of environmentally sound transportation infrastructure, and traffic management.

TOD development would be a potential to overcome transportation issue regarding the arrangement of transport system which has not been maximal. There are several transportation problems due to overcapacity, decrease of public transport (*angkot*) usage, and high demand of commuter line users which does not supported by adequate facilities to accommodate. Therefore, a mass transit and environmentally sound transport system is suggested to be developed in line with the city's vision of creating Bogor as a green city. In addition, some of TOD elements will be promoted to improve quality of pedestrian facilities and bicycle users.

vii. Mid-term Development Plan of Kabupaten Bogor Year 2013-2018

In the mid-term development plan of Kabupaten Bogor year 2013-2018, TOD was stated as the promoted program which aimed at realizing center of activity (both regional and local scale) located in Kecamatan Bojong Gede and Kecamatan Cileungsi. Moreover, TOD is defined as a mixed residential and commercial areas with high accessibility to mass public transport, where mass transit stations and terminals are the central to areas with high density buildings. As for Kabupaten Bogor, this concept has been acknowledged as part of infrastructure network system, specifically for road transport and traffic network service.

viii. Mid-term Development Plan of Kota Depok Year 2011-2016

There is no statement about TOD in this document but in terms of transportation, there is a necessity to provide a mass transit to accommodate high demand of commuters from Depok to Jakarta and its surrounding. Overall objective of transport arrangement is to handle city congestion by improving supply and quality of transport infrastructure and the arrangement of city strategic area.

1.3 Review of Spatial Planning Documents

Review of spatial planning documents are divided into national planning, JABODETABEK Spatial Plan, Regional (provincial level), and local plan (city and regency level).

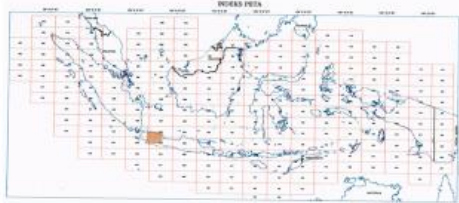
1.3.1 National Spatial Plan

National spatial plan (*Rencana Tata Ruang Wilayah Nasional/RTRWN*) is the basis for arranging national long-term and mid-term development plan, spatial utilization and control, setting up location and function of space for investment, and to embody an integration, interconnectivity, and development balance among provinces and harmonization among sectors. This document is stipulated for 20 years period under the Ministry of Agrarian and Spatial Planning (Ministry of ATR/BPN).

National spatial plan document did not regulate the TOD in specific since the scope of area is very macro and covers the entire nation and some areas which stipulated due to its function. In the notion of national scale, JABODETABEK metropolitan area is a part of the prominent area (*Kawasan Andalan*) and national strategic area (*Kawasan Strategis Nasional/KSN*) which directed to encourage economic growth and the planning is prioritized, considering its strategical position and impact.

In terms of spatial structure, the national spatial plan directed JABODETABEK as a backbone for national transportation which is explained by the stipulation of some functions such as national road network, sea transport and air transport hub. National road network system consists of Intra and Intercity Highway spanned from west to east. In this regulation, there are five intercity toll roads that highlighted, and 27 of inner-city toll roads which connect all part of JABODETABEK Area.

Jabodetabek Spatial Structure in National Spatial Plan (RTRWN)



Scale: 1:1.000.000



Source: National Spatial Plan (RTRWN)

Figure 4 JABODETABEK Spatial Structure in 1:1,000,000 Scale

Other than road network, there is a seaport which is pointed as a national sea transportation hub, consists of main ports of Tanjung Priok (DKI Jakarta) as one system with Kalibaru, Bojonegara (Banten Province), Banten (Banten Province) and Jawa Barat Seaport (North) (West Java Province), and Collected Port of Kalibaru, Marunda, and Sunda Kelapa. As for the international and domestic connectivity, JABODETABEK area has two Airports as the national air transportation hub: Primary Collector (Soekarno Hatta) and Secondary Collector (Halim Perdanakusuma).

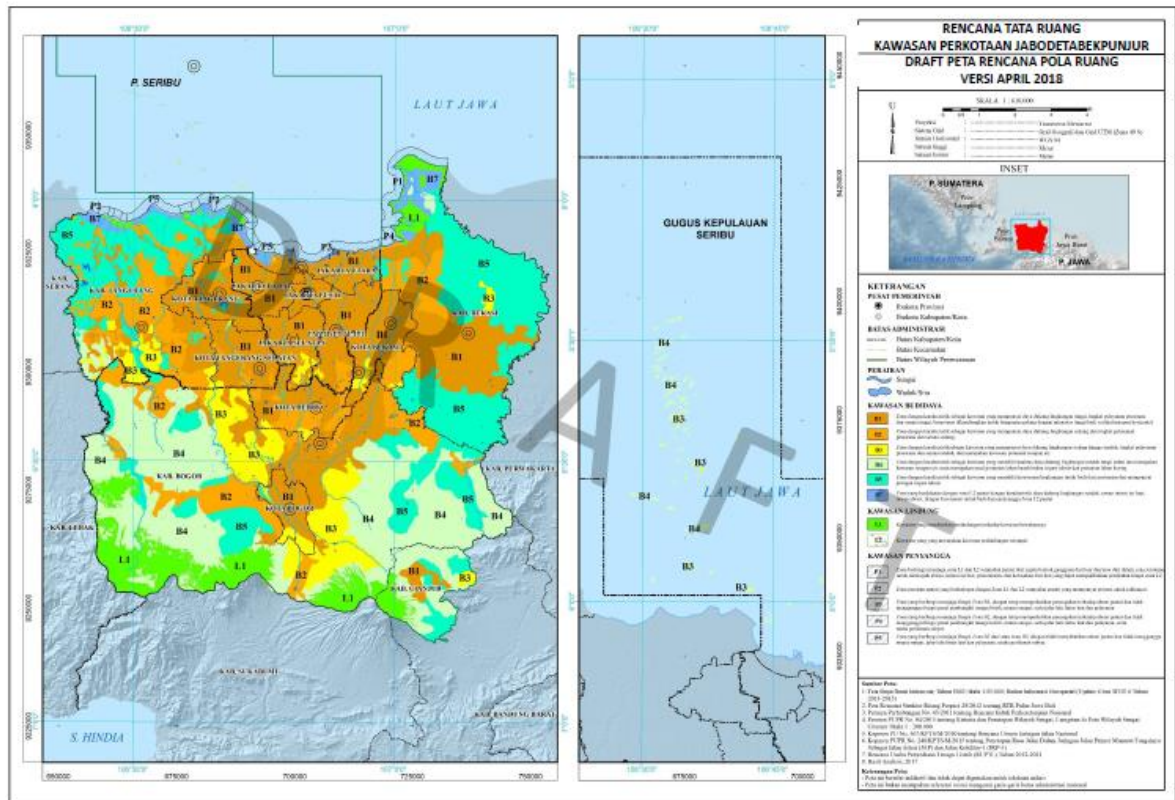
1.3.2 JABODETABEKPUNJUR Spatial Plan

JABODETABEKPUNJUR Spatial Plan is now under revision and waiting for the legalization as it was stipulated by presidential decree (*Peraturan Presiden/Perpres*) number 54 Year 2008 on the spatial plan of national strategic area (KSN) JABODETABEKPUNJUR. On the latest draft of the revised regulation, TOD has been regarded as an important feature in the urban spatial planning. In scope of JABODETABEK, TOD has determined as a strategy of spatial arrangement to promote the policy on improving the relationship between the city core and hinterland as well as enhancing the connectivity in the national and international context. This policy includes TOD as a concept proposed to develop transport system integration in urban area. In line

with TOD concept, there were several strategies namely, to develop mass transport system through road-based, railway-based, and water-based transport.

Furthermore, there are some stations that mentioned in this document to be developed with TOD concept. The station which have function to serve the integration of station with the center of activities, center of residential area, and other transportation modes will be developed with TOD concept with typology of 'city TOD'. The appointed stations are:

1. Manggarai Station
2. Dukuh Atas Station
3. Bogor Station
4. Cibinong Station
5. Depok Baru Station
6. Poris Station
7. Balaraja Station
8. Ciputat – Jurang Manggu Station
9. Rawa Buntu Station
10. Bekasi Barat Station
11. Bekasi Timur Station.



Source: Draft of RTR JABODETABEKPUNJUR, 2018

Figure 5 Spatial Pattern Map of JABODETABEKPUNJUR Area (Draft)

1.3.3 Regional Spatial Plan

Regional spatial plan consists of DKI Jakarta Spatial Plan, West Java Province, and Banten Province.

i. Spatial Plan of DKI Jakarta Province 2010-2030

TOD has been clearly defined and mentioned in DKI Jakarta's spatial plan as it being regarded as a concept and policy for implementing spatial planning policy. In the Article 84, TOD area is defined as a mixed-use area of residential and commercial with a high accessibility towards mass transit station, where mass transit station and terminal placed as the center of the area with high density building.

There are 2 policies regarding TOD, first is to develop center of activities in order to enhance productivity and competitiveness of the city and second is the provision of infrastructure and facilities in the activity centers and inter-centers according to the

standard. Strategies to undertake those policies include TOD concept to develop center of activities in the mass transit node and to integrate area development around terminal, shelter, and mass transit station in accordance to TOD concept.

Locations for terminal/station/shelter with TOD concepts shall meet these requirements:

- a. Intersection of two or more mass transit
- b. Area with a high economic value or predicted will have high potential
- c. Area which is planned or designated as the center of activities.

Some development principals of TOD area are as follows:

- a. Planning approach in regional/city scale which prioritize compactness with the arrangement of transit
- b. Activity
- c. Planning that placed community facility with various and mixed function.
- d. Development that can trigger area development around the transit center
- e. Environmental establishment which prioritize the needs of pedestrian; and
- f. Design approach which prioritizing convenient of life in the public space and environmental center as well as maintaining green space.

TOD concept is proposed in some areas as an integrated station and transfer points of some transportation modes, namely:

- a. Jatinegara
- b. Dukuh Atas
- c. Manggarai
- d. Harmoni
- e. Senen
- f. Blok M
- g. Grogol

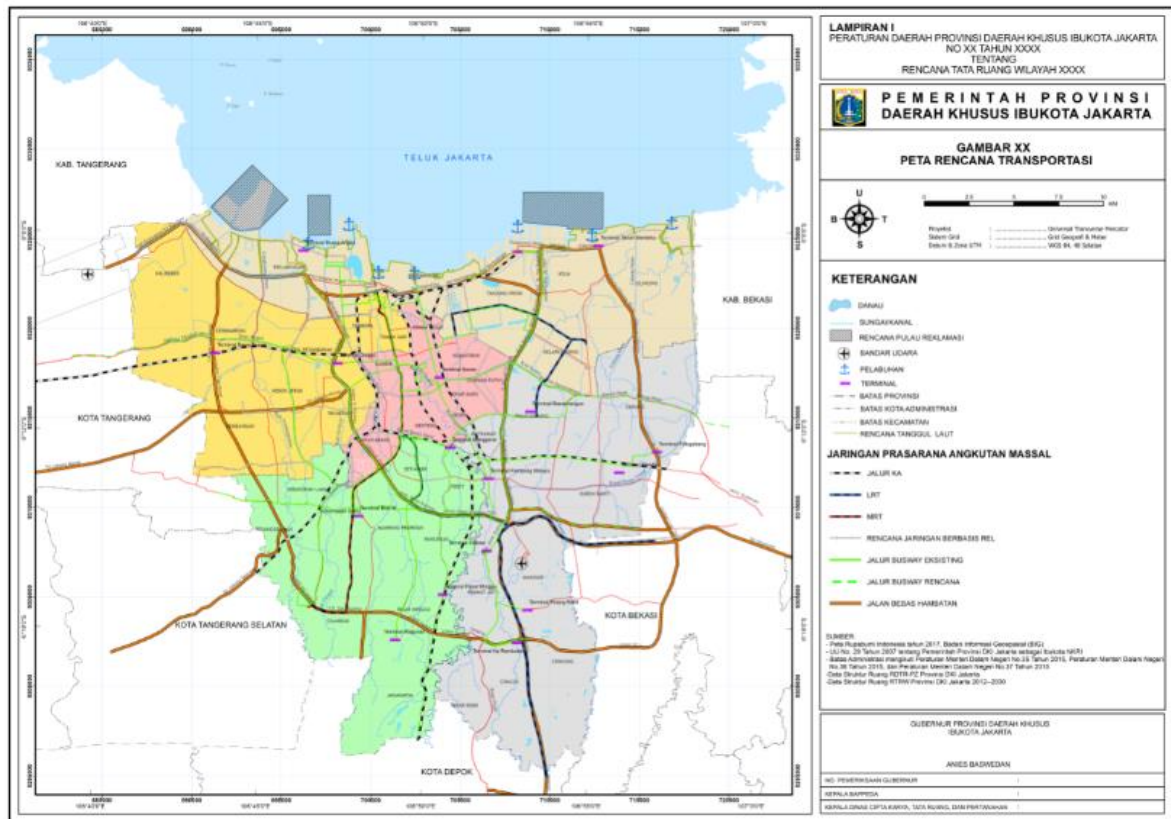
In terms of building intensity, the general provision for the intensity of spatial utilization in DKI Jakarta which is depicted by the percentage of floor area ratio (FAR), maximum floor (F), and building coverage ratio (BCR) shows that the highest FAR in the city is 400 for office and 300 for mixed use.

Table 6 General Provision of Spatial Utilization Intensity in DKI Jakarta Province

	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agri- culture	Open Space	Public Service	Mixed Use
FAR (%)	120	120	120	240	400	160	0	0	200	300
MF (F)	2	2	2	4	24	4	0	0	4	8
BCR (%)	60	60	60	60	45	40	0	0	50	60

Source: RTRW DKI Jakarta 2010-2030

Development of integrated transportation infrastructure and facility is stipulated in the transit meeting points of some transportation modes by implementing TOD concept. Specifically, spatial utilization for the cultivation function has determined TOD area among other functions such as residential, office, trade, and service, and industrial area, but in case of TOD, the area is not depicted in the map due to its functional state and can be attached or combined with other function or land use. Moreover, in the residential area that is close to TOD area, office, or trade and service area the development shall be conducted with land consolidation emphasized in vertical housing (simple flat). Area that proposed as TOD is directed to be equipped with pedestrian path and bicycle line.



Source: Draft of RTRW Revision, 2019

Figure 6 Transportation Plan Map of DKI Jakarta (Draft)

Some restrictions will be applied for TOD area, one of which is prohibition to develop high density area in accordance to the spatial planning in TOD area before the mass transit network plan has been realized. As the regulation regarding TOD area development has been stipulated, DKI Jakarta has revised the current spatial plan and classified the type of TOD as follow:

- City TOD: TOD Kampung Rambutan, Blok M, Lebak Bulus, TOD Dukuh Atas, Tanjung Priok, Grogol, Rawa Buaya, Jakarta Kota, Cawang-Cikoko, Pasar Senen, and Tanah Abang.
- Sub City/Neighborhood TOD: TOD Tanjung Barat Station, Juanda Station, Harmoni, Mangga Dua, Manggarai, Cibubur, and Pancoran.

ii. Detailed Spatial Plan (RDTR of DKI Jakarta Province)

As a technical document, *Rencana Detail Tata Ruang/RDTR* explained RTRW in

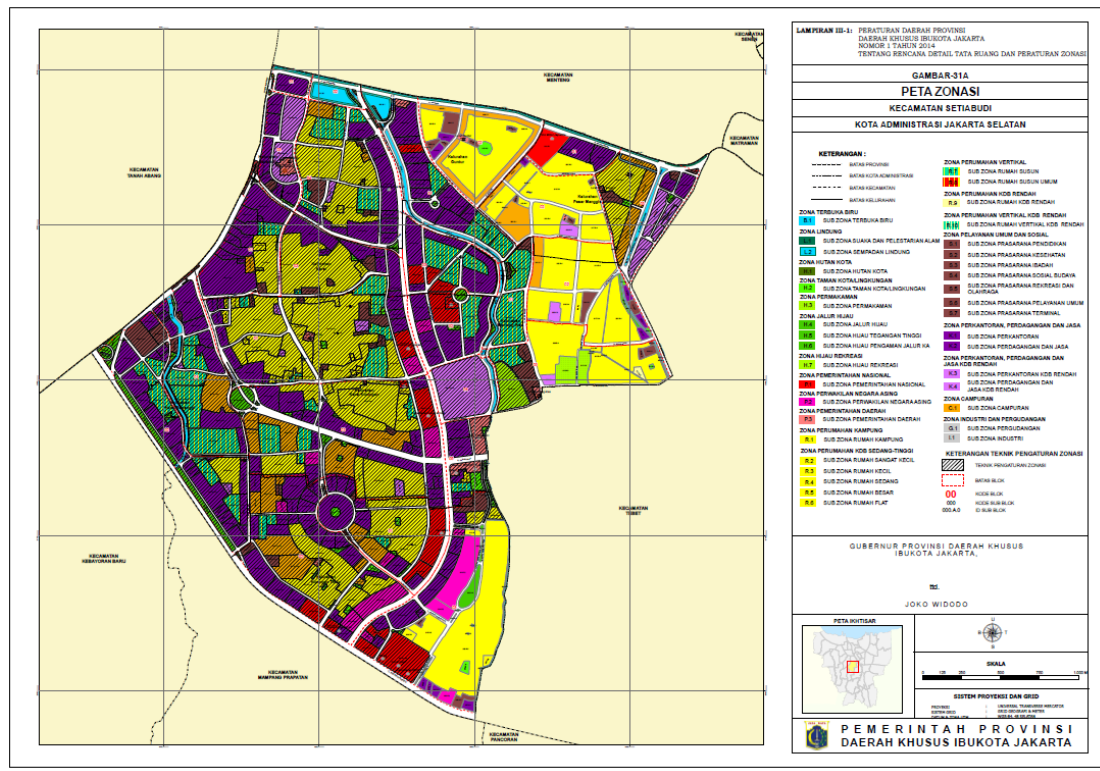
more detail, including direction for TOD concept development and implementation in several areas. Moreover, TOD has been appointed in 9 *kecamatan* (districts) as one objective of spatial planning which can be summarized as follows:

- a. Gambir District: to realize Harmoni area as secondary center for offices, service, and integrated station and intermodal transfer points with TOD concept.
- b. Senen District: realization of transportation infrastructure integrated with pedestrian walk, mass transit, and other public transport to support TOD. Moreover, the prioritized area in Senen will be developed with horizontal, vertical, and compact, center of offices, trade and services which supported by infrastructure with TOD concept.
- c. Grogol Petamburan District: to realize secondary center of integrated station and transfer points of some transportation mode with TOD concept. In detail, the priority of the area planning will direct Grogol area as the center of secondary activity with development function of office area, trade, and service, residential, recreational, and international level of sport facility integrated with service area of TOD concept.
- d. Kebayoran Baru District: realization of secondary activity center of Blok M area as terminal/integrated station and intermodal transfer points with TOD concept.
- e. Kebayoran Lama District: realization of terminal/integrated station and intermodal transfer points with TOD concept.
- f. Setiabudi District: focusing the arrangement of Dukuh Atas area as center of primary activity with integrated station and intermodal transfer points with TOD concept.
- g. Tebet District: focusing the arrangement of Manggarai area as center of primary activity with integrated station and intermodal transfer points with TOD concept.
- h. Cakung District: focusing the arrangement of Pulo Gebang terminal as the location of intermodal transfer points with TOD concept integrated with Sentra Primer Timur area.
- i. Jatinegara District: Realization of integrated station and intermodal transfer points with TOD concept in Jatinegara area.

Environment Pattern (*Pola Sifat Lingkungan/PSL*) in the development area with TOD

concept shall meet the proportion of 65% of the commercial building at the highest and residential building of at least 35%. Zoning arrangement technique (Teknik Pengaturan Zonasi/TPZ) has given flexibility of zoning regulation in the sub zone. In case of TOD area, TPZ bonus will be given in form of extension of floor area or FAR and directed in these locations:

- a. Primary activity center, secondary activity center, and strategic area for economic interest
- b. Integrated and compact area with TOD concept
- c. Areas which have function as park and ride and
- d. Location of mass transit intersection.



Source: RDTR of DKI Jakarta 2014

Figure 7 Setiabudi Zoning Map

Table 7 Intensity of Spatial Utilization in Setiabudi District

Sub Block	Zone	Sub Zone	ID Subblock	BCR	FAR	Building Height	Green Coefficient	Building Site Coefficient	Type	Environmental Characteristic
001	Blue Open Space	B.1	01.001.B.1	0	0	0	0	0	-	-
002	Blue Open Space	B.1	01.002.B.1	0	0	0	0	0	-	-
003	Green Line Zone	H.4	01.003.H.4.a.b	0	0	0	0	0	-	P
004	Green Line Zone	H.4	01.004.H.4.a.b	0	0	0	0	0	-	P
005	Blue Open Space	B.1	01.005.B.1	0	0	0	0	0	-	-
006	Green Line Zone	H.4	01.006.H.4.a.b	0	0	0	0	0	-	P
007	Blue Open Space	B.1	01.007.B.1	0	0	0	0	0	-	-
008	Office, Trade, and Service Zone	K.1	01.008.K.1.a.b	50	5.28	50	30	55	T	P
009	Blue Open Space	B.1	01.009.B.1	0	0	0	0	0	-	-
010	Office, Trade, and Service Zone	K.1	01.010.K.1.a.b	50	5.28	50	30	55	T	P
011	Office, Trade, and Service Zone	K.1	01.011.K.1.a.b	40	3.5	28	30	55	T	P
012	Office, Trade, and Service Zone	K.1	01.012.K.1.a.b	40	5	32	30	55	T	P
013	Vertical Housing Zone	R.7	01.013.R.7.a.b	43	3.6	32	30	55	T	P

Source: RDTR of DKI Jakarta 2014

TPZ of transfer development right (TDR) in a plot of land/sub zone to another plot/sub zone according to consensus is directed in the location as follow:

- a. Integrated and compact area developed with TOD concept;
- b. Primary and secondary center of activity; and
- c. Area which have urban design guideline.

Furthermore, it is allowed to conduct transfer development right from one plot to

another plot in the same zone or administrative boundary but in case of TOD concept, floor area transfer should be in different block. The transferred floor should be at the highest of 50% from FAR that designated in the planned area.

iii. Spatial Plan of West Java Province 2009-2029

Local Regulation (*Peraturan Daerah/Perda*) Number 22 Year 2010 regarding Spatial plan of West Java Province year 2010-2030 did not mention or indicate the TOD development. As for the urban area of Bogor, Depok, and Bekasi which is part of West Java Province, it is directed to develop mass transit mode and to control the industrial expansion and big-scale housing alongside the Cikampek Toll road.

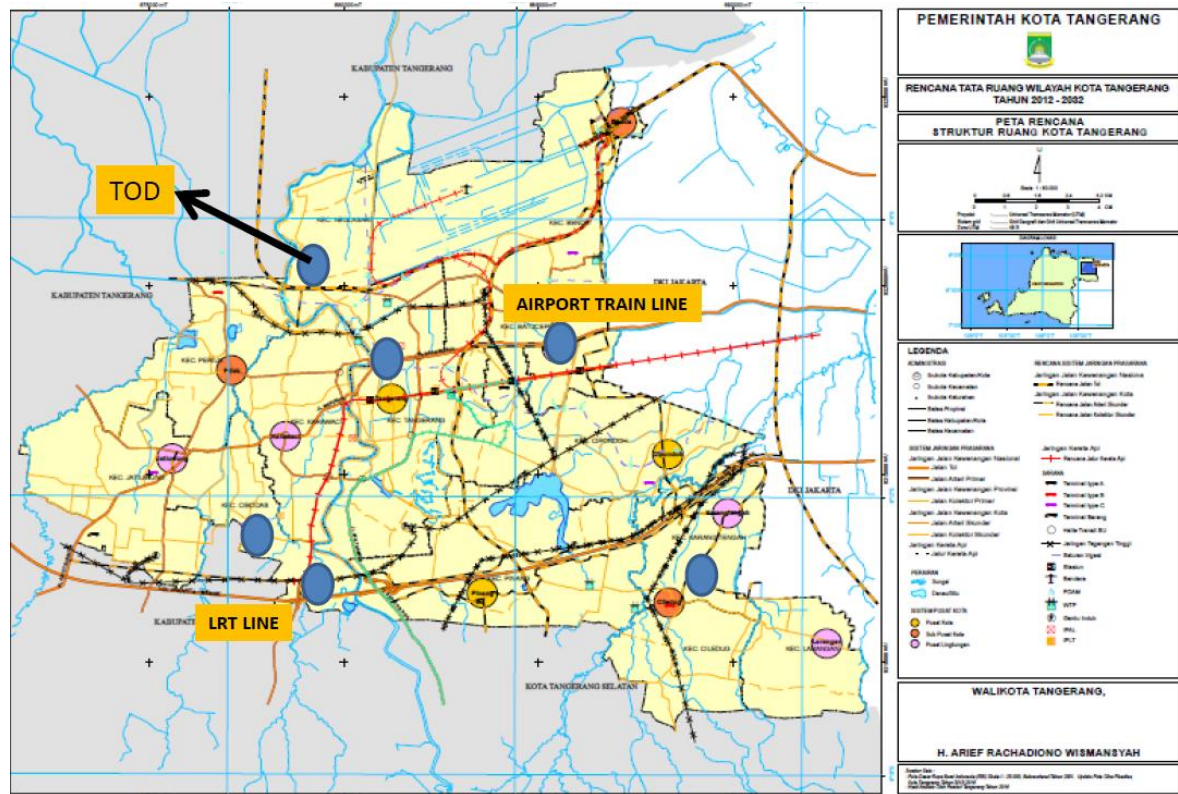
iv. Spatial Plan of Banten Province Year 2010-2030

TOD in Province has been generally included in the spatial plan as part of the railway development network, especially railway-based mass transit (MRT) in Tangerang – Serpong and Balaraja – Cikarang line, and other mass transit line in Banten Province. Moreover, TOD development plan has been stated in the main programs of Banten Province to promote railway development plan.

1.3.4 Local Spatial Plan

i. Local Spatial Plan of Kota Tangerang Year 2012-2032

There are some plans dedicated for railway development which consists of improvement of railway network, development of existing stations (Tangerang, Tanah Tinggi, Batuceper, and Poris) also some new stations to connect the center of city's service. In the revised version of RTRW Kota Tangerang, TOD has been acknowledged and accommodated in the spatial planning document since there are 4 locations proposed to be developed with TOD concept, namely City level TOD of Poris Plawad, sub city level TOD of Tangerang Station, Ciledug, and Palem Semi. In order to promote TOD, urban infrastructure has been planned to provide some facilities such as pedestrian and bicycle lane.



Source: RTRW of Kota Tangerang Year 2012-2032

Figure 8 Spatial Structure of Kota Tangerang

In terms of building intensity, here is the general provision for the spatial pattern in Kota Tangerang, showed by the percentage of floor area ratio (FAR), maximum floor (F), and building coverage ratio (BCR). The highest FAR in the city is 600 for commercial and business, residential and public service.

Table 8 General Provision of Spatial Utilization Intensity in Kota Tangerang

	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agriculture	Open Space	Public Service	Mixed Use
FAR (%)	600	600	600	600	-	320	160	20	600	-
MF (F)	15	15	15	15	-	8	4	2	15	-
BCR (%)	50	50	50	50	-	60	40	10	60	-

Source: RTRW of Kota Tangerang Year 2012-2032

In terms of city structure, there are some differences regarding provision of FAR and BCR which highlighted the maximum height in the city center that must follow the

flight regulation.

Table 9 Spatial Utilization Intercity in the Centers of Activity of Kota Tangerang

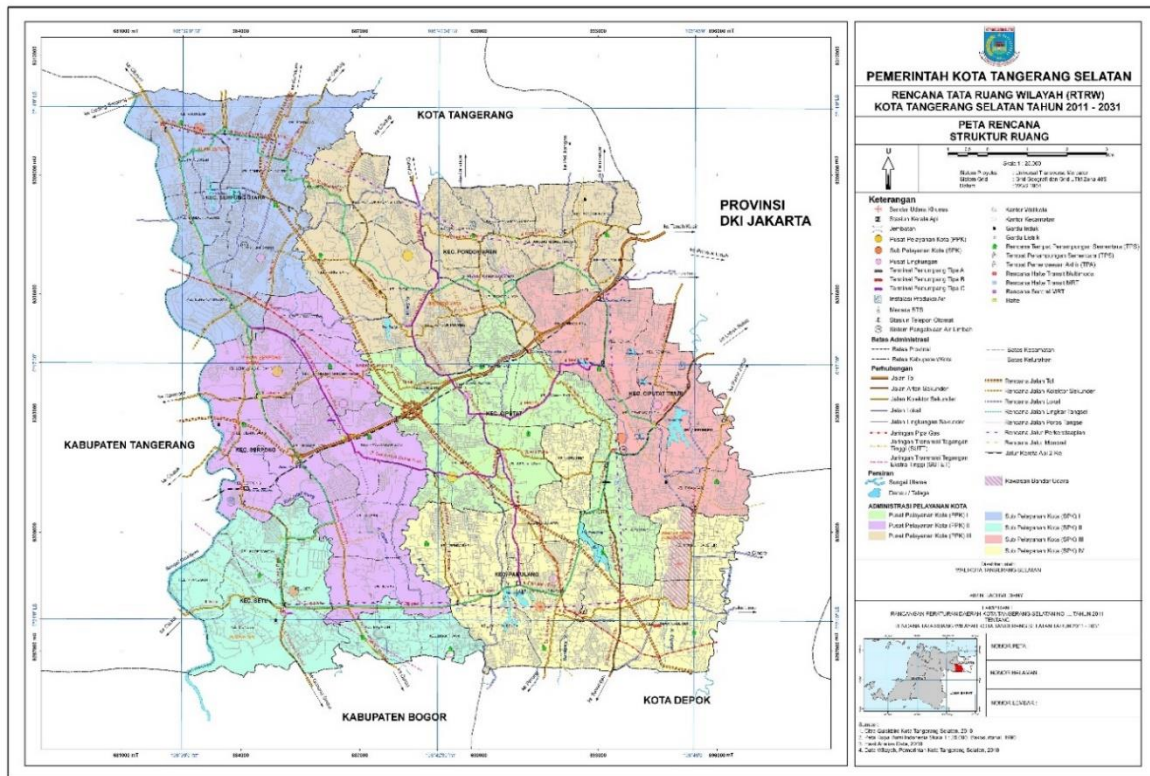
	City Service Center	Sub City Service Center	Neighborhood Center
FAR (%)	2000	1400	600
MF (F)	In accordance with flight restriction	35	15
BCR (%)	60	60	60
Green Coefficient	10	10	10

Source: RTRW of Kota Tangerang Year 2012-2032

ii. Local Spatial Plan of Kota Tangerang Selatan Year 2011-2031

Due to the extensive plan for railway-based mass transit development which connects Kota Tangerang Selatan internally and externally to Jakarta and surrounding area, then spatial structure and pattern were adjusted to cope with these plans:

- Development of Railway Based Mass Transit in Serpong – Tangerang – Bandara Soekarno Hatta
- Lebak Bulus – Ciputat – Pamulang – Rawa Buntu
- Lebak Bulus – Ciputat – Bintaro
- Bintaro – Serpong Utara.



Source: RTRW of Kota Tangerang Selatan

Figure 9 Spatial Structure of Kota Tangerang Selatan

RTRW of Kota Tangerang Selatan has been revised by proposing some area to be developed with TOD concept, both for city and sub city TOD as follow:

- City TOD: Jurangmangu and Rawa Buntu Station
- Sub City/Neighborhood TOD: TOD Pondok Cabe, TOD Sudimara, TOD Pondok Ranji, and TOD Serpong.

Table 10 General Provision of Spatial Utilization Intensity in Kota Tangerang Selatan

	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agriculture	Open Space	Public Service	Mixed Use
FAR (%)	120	120	120	800	320	320	120	20	400	-
MF (F)	-	-	-	-	-	8	4	1	8	-
BCR (%)	60	60	60	70	50	70	30	20	60	-

Source: RTRW of Kota Tangerang Selatan Year 2011-2031

Table 11 Spatial Utilization Intercity in the Centers of Activity of Kota Tangerang Selatan

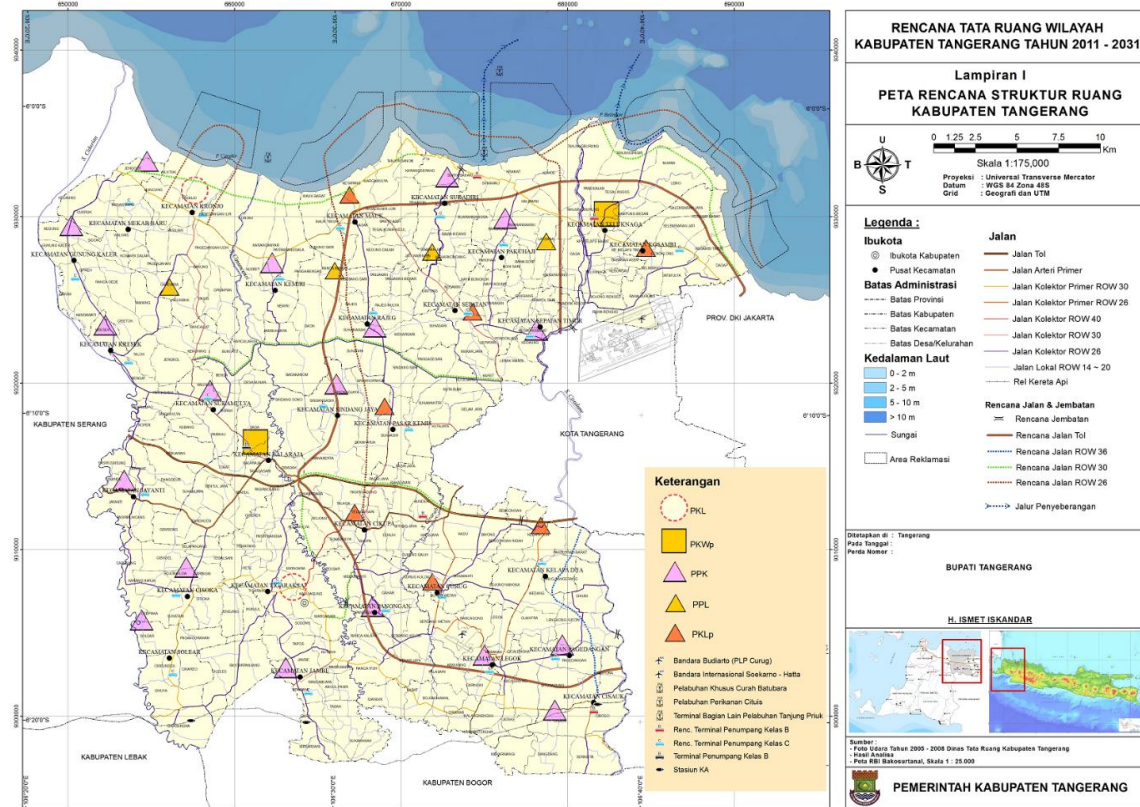
	City Service Center	Sub City Service Center	Neighborhood Center
FAR (%)	800	720	400
MF (F)	-		
BCR (%)	70	70	60
Green Coefficient	10	10	10

Source: RTRW of Kota Tangerang Selatan Year 2011-2031

iii. Spatial Plan of Kabupaten Tangerang Year 2011-2031

Kabupaten Tangerang is a coastal area which functions as an agricultural area, industrial area, and *minapolitan* area. Therefore, a regional approach is being emphasized rather than urban revitalization. Nevertheless, many of transportation infrastructure are necessary to be planned.

- Construction of Serpong - Balaraja Toll Road
- Construction of the Kamal - Teluk Naga JORR II Toll Road - Rajeg
- Construction of Semanan - Rajeg - Balaraja Toll Road
- Bitung Cikarang Flyover
- Construction Construction/Improvement of *Jalan Jatimulya* - Dadap Road



Source: RTRW of Kabupaten Tangerang

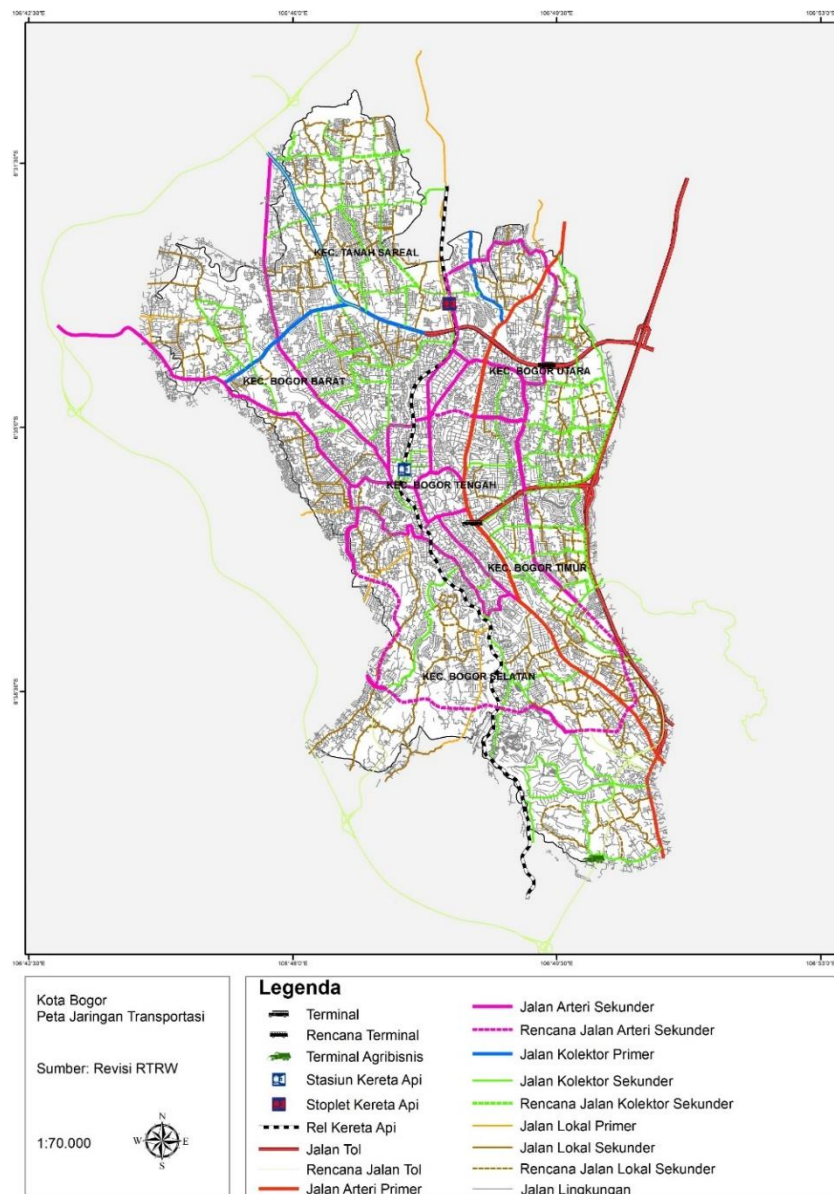
Figure 10 Spatial Structure of Kabupaten Tangerang

Along with the proposed railway based and toll road access, some major development (residential areas) by private developers and development of new public city of Maja. In terms of TOD, the revised plan has been accommodating TOD plans in RITJ which covers:

- City TOD: Balaraja and Tigaraksa
- Sub City and Neighborhood TOD: TOD Cisauk and TOD Cikoya

iv. Spatial Plan of Kota Bogor Year 2011 – 2031

Spatial plan of Kota Bogor emphasized on the goal towards service and tourism city by maintaining the characters of green city and smart city. Hence, there is a policy on the redistribution of city's function to strengthen the role of sub-city to distribute the load of city center and connected with TOD system. In accordance to TOD, there are some urban mass transport being planned, namely: LRT Cawang - Cibubur - Kota Bogor and LRT Inner City of Kota Bogor.



Source: RTRW of Kota Bogor

Figure 11 Transportation Network Map of Kota Bogor

There are 2 kinds of TOD that will be developed, city TOD and sub city TOD. City TOD consists of TOD Baranangsiang and TOD Bogor Station-Paledang, while sub-city/neighborhood TOD consists of TOD Sukaresmi, TOD Tanah Baru, TOD Bubulak, TOD Kertamaya, TOD Mulyaharja. TOD concept is very suitable for the development in Kota Bogor since they purpose a sustainable transport system by promoting the use of mass public transit (rail-based and road-based) and non-fuel energy.

Table 12 General Provision of Spatial Utilization Intensity in Kota Bogor

	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agriculture	Open Space	Public Service	Mixed Use
FAR (%)	300	300	300	200	420	150	-	-	350	-
MF (F)	3	3	3	5	5	3	-	-	-	-
BCR (%)	60	60	60	60	60	50	-	-	50	-

Source: RTRW of Kota Bogor

v. Spatial Plan of Kabupaten Bogor Year 2016-2036

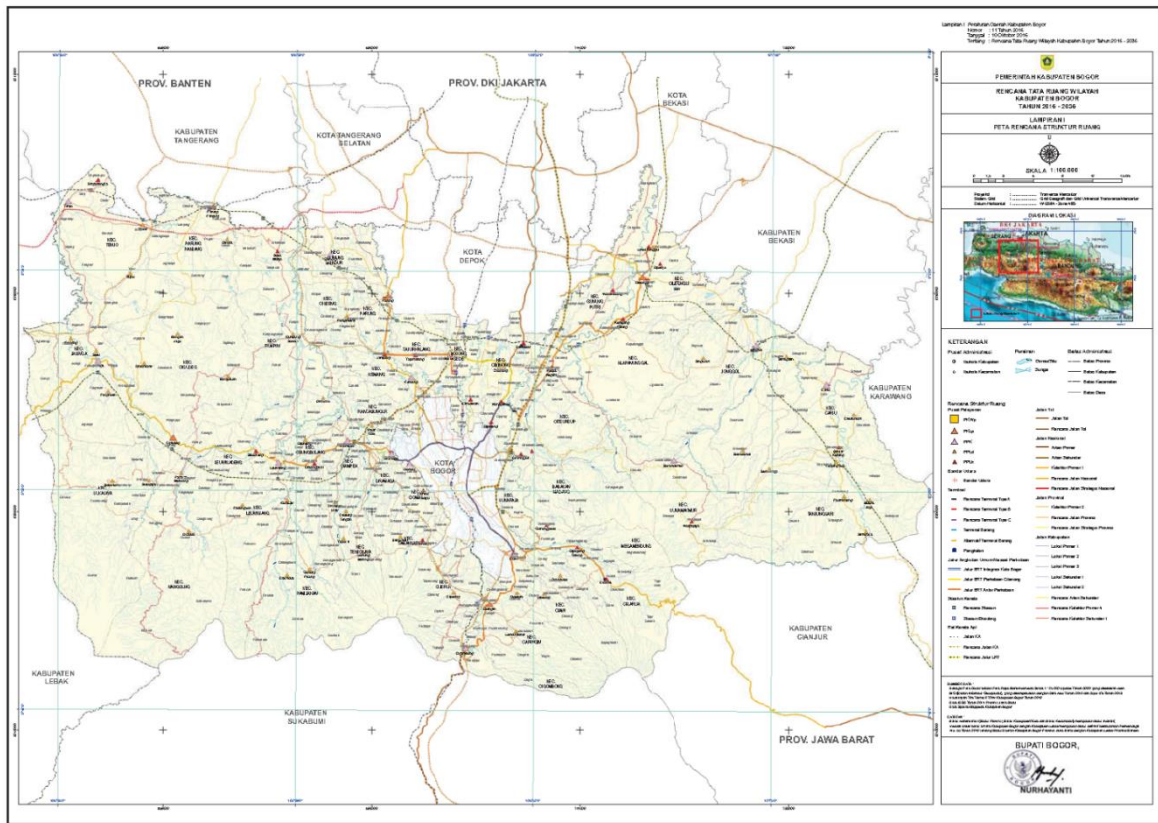
Kabupaten Bogor is the largest regency in JABODETABEK area. Considering its strategical position and potential, Kabupaten Bogor sets the vision of “Towards the most developed regency in Indonesia”. Enroute to achieve this vision, Kabupaten Bogor is planned to build several transportation infrastructures from toll road, railway development plan, and BRT development plan.

Toll road development plans consist of:

- Jagorawi II + Bogor Ring Road
- JORR phase III

Railway development plans consist of:

- Serpong – Maja line
- Bogor – Jakarta line
- Citayam – Nambo
- Nambo – Cibitung/Bekasi for future development



Source: RTRW of Kabupaten Bogor

Figure 12 Spatial Structure Plan of Kabupaten Bogor

There are some plan priorities regarding TOD, they are:

- TOD areas are planned at the transportation modes crossing between railways and toll roads to accommodate high movement of transportation
- Availabilities of land as consideration to make new high-density development
- TOD is proposed to reduce unplanned high-density settlement
- Private sector cooperation to covered TOD investment.

There are 4 locations proposed to be developed as TOD area, namely: TOD Sentul, TOD Cibanon, TOD Gunung Putri, and TOD Susukan.

Table 13 General Provision of Zoning in Kabupaten Bogor

	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agriculture	Open Space	Public Service	Mixed Use
FAR (%)	400	400	400	-	-	1200	200	-	-	-

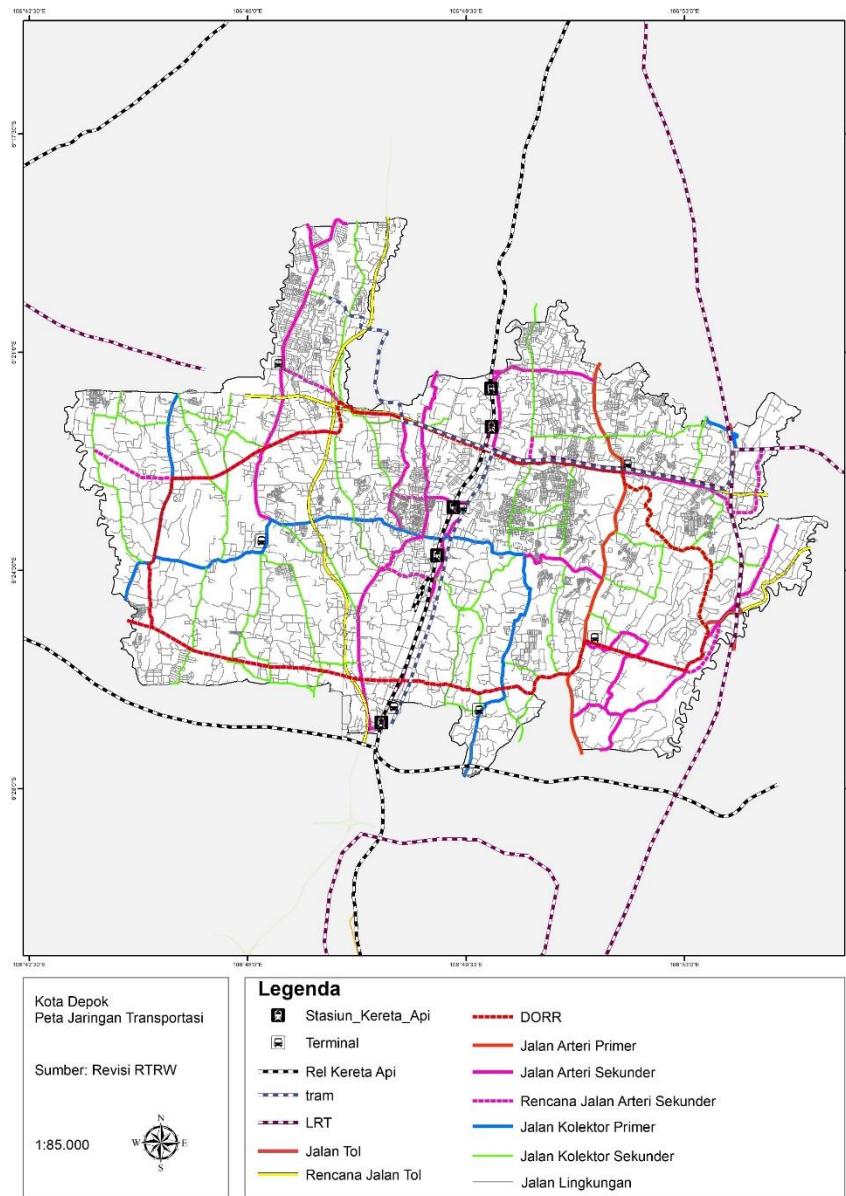
	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agriculture	Open Space	Public Service	Mixed Use
MF (F)	-	-	-	-	-	-	-	-	-	-
BCR (%)	40	50	60	-	-	70	30	-	-	-

Source: RTRW of Kabupaten Bogor

vi. Spatial Plan of Kota Depok Year 2012 – 2031

TOD concept will be developed along with railway-based network development plan which emphasized development of integrated inter mode and intra mode based on TOD. Besides, there are also some plans to support railway network development as well as TOD such as:

- a. Opening of new line:
 - Outer loop line of Parung Panjang – Citayam – Nambo – Cikarang – Tanjung Priok; and
 - Inner loop line of Kamal Muara – Rawa Buaya – Lebak Bulus – Margonda – Cibubur – Cakung – Pulo Gebang – Tanjung Priok.
- b. Provision of railway facilities
- c. Repairment and maintenance of railway facilities
- d. Development of cooperation with central government and railway implementer
- e. Spatial arrangement along the railway track and at the stations.



Source: RTRW of Kota Depok

Figure 13 Transportation Network Map of Kota Depok

Furthermore, there is no explanation about proposed location for TOD in the document, but the revised version of this spatial plan will accommodate some TOD plans in Kota Depok, namely Depok Baru and Cinere for city-scale TOD, also Pondok Cina, Jatijajar and Citayam for sub city and neighborhood TOD.

Table 14 General Provision of Zoning in Kota Depok

	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agriculture	Open Space	Public Service	Mixed Use
FAR (%)	400	600	600	800	600	600	200	600	-	-
MF (F)	-	-	-	-	-	-	-	-	-	-
BCR (%)	45	60	75	75	60	60	30	20	-	-

Source: RTRW of Kota Depok

vii. Spatial Plan of Kota Bekasi Year 2011-2031

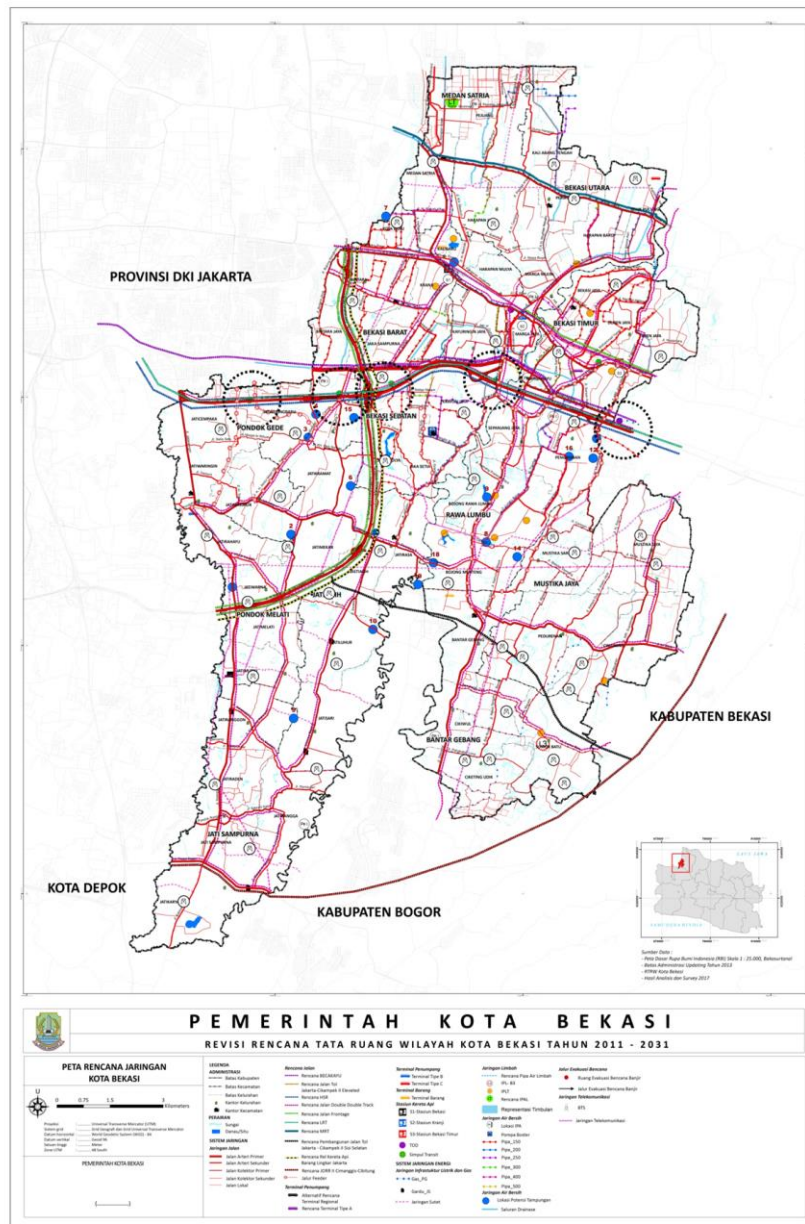
TOD has been acknowledged as a development concept of a transit node that focuses on the integration of the transportation mode service system and the strategy of developing concentrated and compact areas. TOD is included in a high density and centralized mixed area located in the mass public transportation mode that has high accessibility by using unmotorized transport.

The revised version of spatial plan of Kota Bekasi have stated TOD in some programs to improve transportation system and promotion of integrated transport system. Development of TOD is directed in 2 locations: TOD Bekasi and TOD Bekasi Timur.

Zoning regulation also stated in this document which described some general provision in activities in 8 points as follow:

- a. Allowed activities include the development of parking systems that encourage the use of mass transportation modes in the form of parking arrangements at certain points;
- b. TOD activities that are permitted to be Regional TOD, City TOD and Regional TOD;
- c. TOD activities can be served by heavy rail transit, light rail transit, bus rapid transit, and local buses that are integrated with commercial functions, office blocks, and high intensity housing;
- d. Allowed activities are trade areas that are equipped with green spaces and non-green open spaces in development. Existing facilities are generally in the form of retail, offices, supermarkets, restaurants, services, and entertainment.

- e. Regional TOD/City service center including developing the area as the center of the economy to function primary and regional culture and diversity of space utilization is 20% for housing and 80% for non-housing (housing developed is balanced housing as an effort to realize regional social and economic diversity) and at a minimum activities carried out in the area for 18 hours;
- f. City TOD- Sub-City Center TOD is as a character of developing the area as the center of the economy, especially the secondary function and regional culture with a variety of space utilization is 30% for housing and 70% for non-housing (developed housing is balanced housing) and minimal activities that significant in the area for 16 hours.
- g. TOD Environment with character development of the area as the center of local economic activity and local communities with a variety of space utilization is 70% for housing and 30% for non-housing (housing developed is balanced housing) and a minimum of 16 hours of significant activity in the area.



Source: RTRW of Kota Bekasi

Figure 14 Transportation Network Map of Kota Bekasi

General provision of spatial utilization and minimum requirement of infrastructure and facilities can be summarized in table 15 below.

Table 15 Spatial Utilization Criteria and Minimum Requirement

No	Spatial Utilization	Minimum Requirements
1.	<p>Regional TOD</p> <p>BCR maximum: 70%</p> <p>FAR maximum: >5</p> <p>Housing density: 20-75 units/1000m²</p> <p>Number of floors: from 11 to > 40</p> <p>Minimum street frontage: 90%</p> <p>Function of mix used activities and spatial utilization is 20% - 60% for housing and 40%-70% for non-housing</p>	<p>1. Required facilities in this area include city parks, plazas, public facilities such as libraries, police station, firefighters, government offices, etc.</p> <p>2. Building Site Coefficient:</p> <ul style="list-style-type: none"> The use of Basement that is utilized for activities other than building infrastructure including fixed parking infrastructure calculated in the FAR. The use of basements under city infrastructure and open green space must obtain approval from the mayor.
2.	<p>Sub City Center TOD</p> <p>High intensity of spatial utilization</p> <p>FAR: > 3-4</p> <p>BCR: 70%</p> <p>Housing density: 12-38 units/1000 m²</p> <p>Number of floors: 3-15</p> <p>Minimum street frontage: 80%</p>	<p>3. In residential, commercial and service areas, public service facilities, offices, industries and a mixture of BCR values, the maximum must not exceed 10% of the BCR value that has been determined in each region and/or sub-region and is only used as a supporting function for each areas and or sub-regions such as parking and/or warehouses.</p>

Source: RTRW of Kota Bekasi

Table 16 General Provision of Mass Building in Kota Bekasi

	Residential (Low Density)	Residential (Middle Density)	Residential (High Density)	Commercial and Business	Office	Industry	Agriculture	Open Space	Public Service	Mixed Use
FAR (%)	150	165	210	400	500	150	-	20	600	2000
MF (F)	3	3	3	8	10	3	-	1	12	43
BCR (%)	50	55	60	50	50	50	-	20	50	50

Source: RTRW of Kota Bekasi

Table 17 General Provision of Mass Building in Center of Activity Kota Bekasi

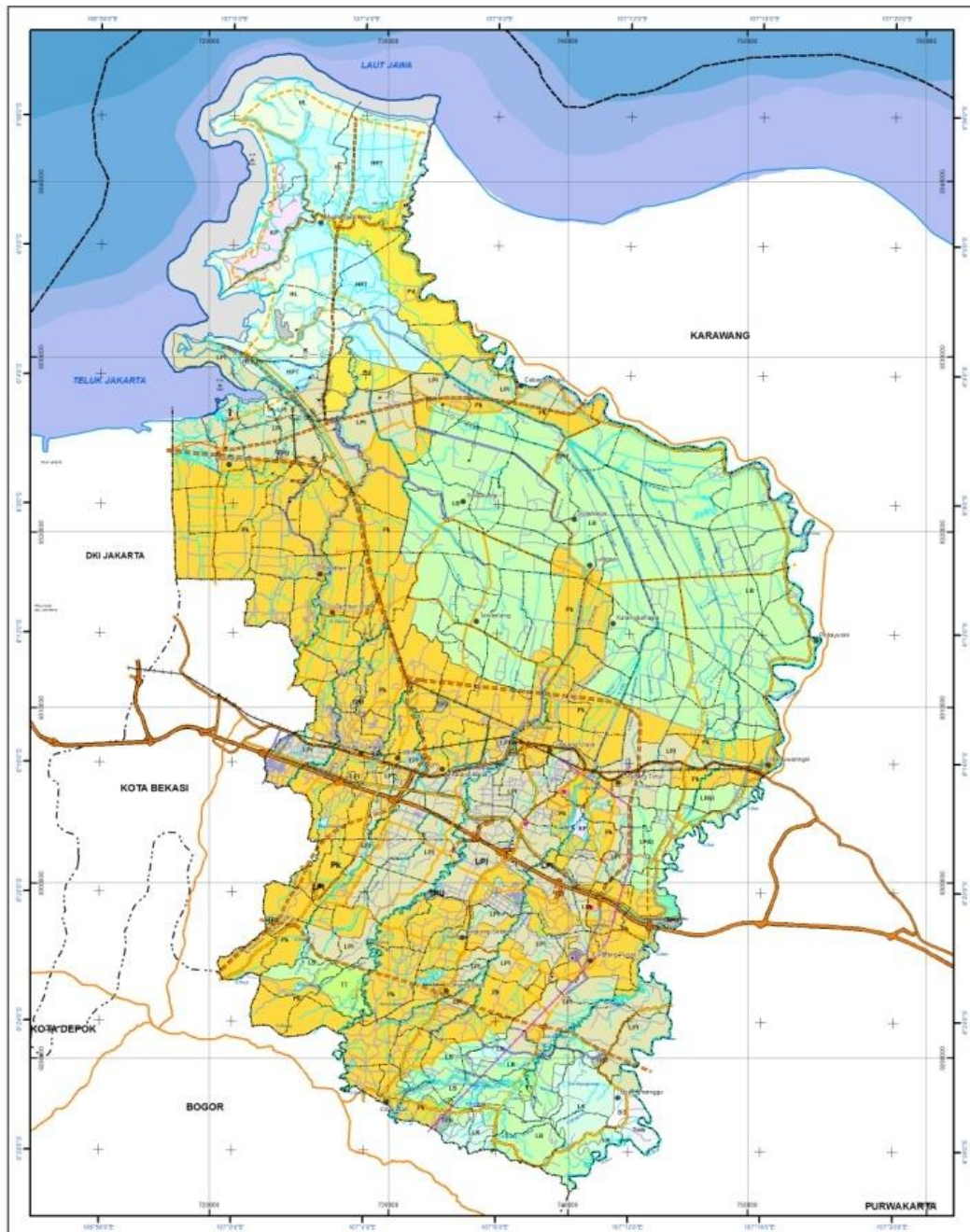
	City Service Center	Sub City Service Center	Neighborhood Center
FAR	30	18	6
MF (F)	50	30	10
BCR (%)	60	60	60
Green Coefficient (%)	20	20	20

Source: RTRW of Kota Bekasi

viii. Spatial Plan of Kabupaten Bekasi Year 2011-2031

Kabupaten Bekasi did not mention or state about TOD concept in the spatial planning document. Nevertheless, there are many policies and programs planned in Kabupaten Bekasi due to its imperative role to national economy. Some central government policies and national strategic projects related to Kabupaten Bekasi, such as:

- Construction of the Cibitung JORR II Toll Road - Cilincing
- Construction of Cimanggis II - Cibitung JORR II Toll Road
- Construction of the Jakarta - Cikampek Elevated Toll Road
- MRT East West of Balaraja – Cikarang



Source: RTRW of Kabupaten Bekasi

Figure 15 Spatial Structure Plan of Kabupaten Bekasi

Regarding to TOD, there is no specific area or location has been designated, but some potential areas which planned to be developed with TOD concept, namely: TOD Cikarang – Jababeka for city TOD and TOD of Cikarang Station, TOD of South

Cikarang, and TOD Tambun for sub city/neighborhood TOD.

1.4 Transportation Plans and Regulations

Review of transportation planning documents are divided into national planning, JABODETABEK Transportation Master Plan, Regional (provincial level), and local plan (city and regency level).

1.4.1 National Transportation Plan

National Transportation Plan (Sistem Transportasi Nasional/SISTRANAS) is a guideline for arrangement and development of transportation purposed to achieve an effective and efficient transport. This document is developed to ensure integration between transport and other sectors also considering the existence of local government. SISTRANAS examined transportation as a whole system from hierarchy, types, provision, and requirement for road transport, railway transport, sea transport, water transport, air transport, and multimode transport in Indonesia. Moreover, it also showed some analysis of transport from the perspective of environment, opportunity, and obstacles in the current condition and future condition. In general, this document did not mention or state about TOD or area development.

1.4.2 JABODETABEK Urban Transportation Master Plan (RITJ)

RITJ had been stipulated by the Presidential Regulation Number 55 Year 2018. JABODETABEK Urban Transportation Master Plan consists of several transportation plans and program envisioned in the integration of transportation network, modes, and nodes. It covers 9 pillars of transportation development in the short, middle, and long-term period from 2018 – 2029. In the context of TOD, one of the pillars is the development of integrated urban transportation with spatial planning which directed some proposed area to be developed with TOD concept.

This policy will be undertaken by four strategies:

- a. Improvement of access to public transport with transit-oriented development/TOD by programs:
 - TOD area development in city TOD typology (regional service scale)

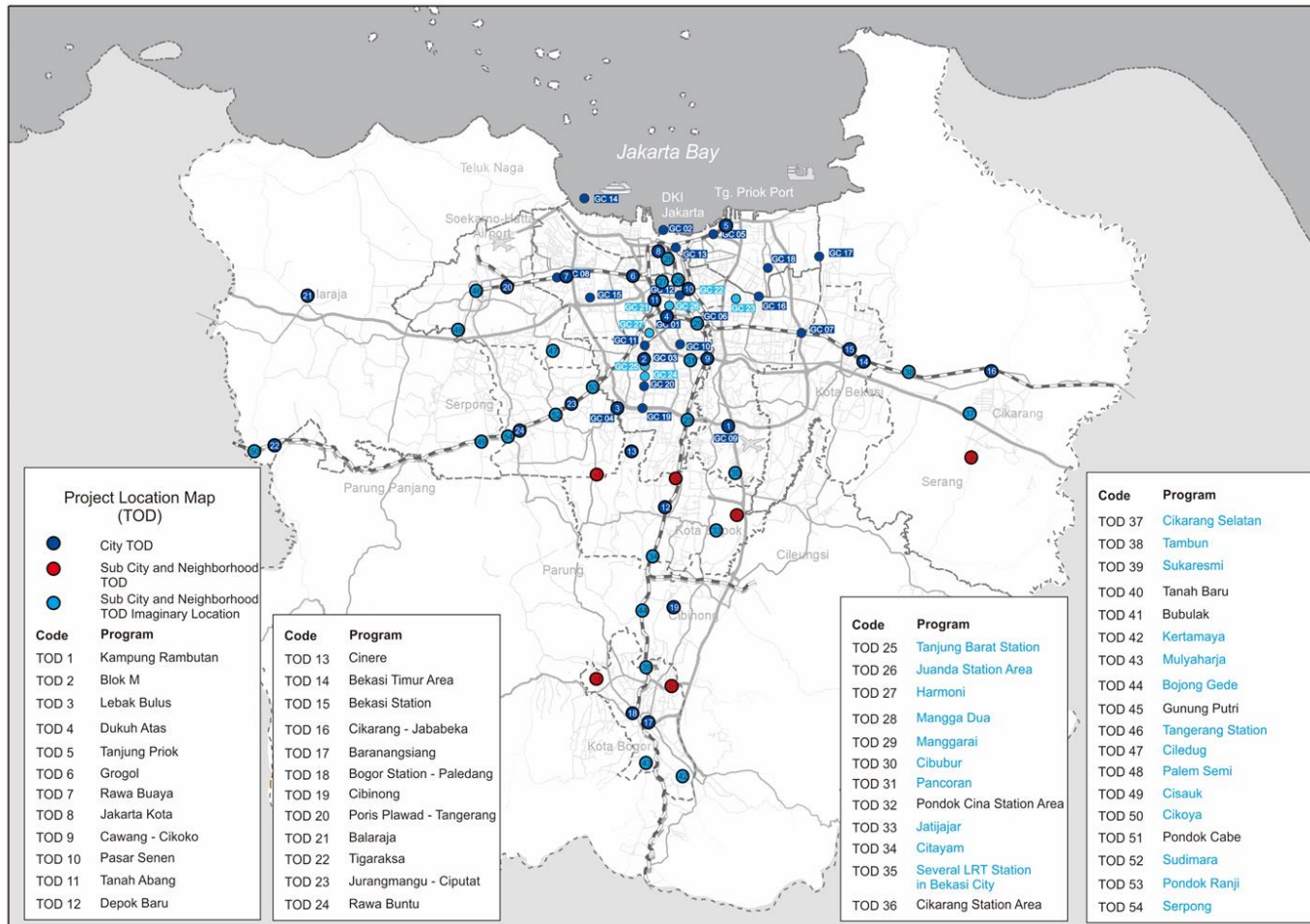
- Recommendation of TOD potential area in sub-city TOD typology and local TOD typology.
- b. Increasing the availability of regulation for transport and spatial integration that is effective and harmony with program development of compact city.
 - c. Enhancement of city arrangement for an efficient and equal mobility with the program of activity center redistribution.
 - d. Improvement of spatial planning coaching to promote spatial planning control, with an incentive for development outside the city center.

Table 18 TOD Typologies and Location in JABODETABEK

City/Regency	City TOD Locations	Sub City & Neighborhood TOD Locations
DKI Jakarta	<ol style="list-style-type: none"> 1. Kampung Rambutan 2. Blok M 3. Lebak Bulus 4. Dukuh Atas 5. Tanjung Priok 6. Grogol 7. Rawa Buaya 8. Jakarta Kota 9. Cawang-Cikoko 10. Pasar Senen 11. Tanah Abang 	<ol style="list-style-type: none"> 25. Tanjung Barat Station 26. Juanda Station 27. Harmoni 28. Mangga Dua 29. Manggarai 30. Cibubur 31. Pancoran
Kota Depok	<ol style="list-style-type: none"> 12. Depok Baru 13. Cinere 	<ol style="list-style-type: none"> 32. Pondok Cina Station Area 33. Jatijajar 34. Citayam
Kota Bekasi	<ol style="list-style-type: none"> 14. East Bekasi Area 15. Bekasi Station 	<ol style="list-style-type: none"> 35. Several LRT Stations in Bekasi City
Kabupaten Bekasi	<ol style="list-style-type: none"> 16. Cikarang-Jababeka 	<ol style="list-style-type: none"> 36. TOD of Cikarang Station 37. TOD of South Cikarang 38. TOD Tambun

City/Regency	City TOD Locations	Sub City & Neighborhood TOD Locations
Kota Bogor	17. Baranangsiang 18. Bogor Station- Paledang	39. Sukaresmi 40. Tanah Baru 41. Bubulak 42. Kertamaya 43. Mulyaharja
Kabupaten Bogor	19. Cibinong	44. Bojonggede 45. Gunung Putri
Kota Tangerang	20. Poris Plawad	46. Tangerang Station 47. Ciledug 48. Palem Semi
Kabupaten Tangerang	21. Balaraja 22. Tigaraksa	49. Cisauk 50. Cikoya
Kota Tangerang Selatan	23. Jurangmangu-Ciputat 24. Rawa Buntu	51. Pondok Cabe 52. Sudimara 53. Pondok Ranji 54. Serpong

Source: RITJ 2018



Source: JUTPI 2

Figure 16 TOD Locations in JABODETABEK Area

1.4.3 Regional Transportation Plan

- i. Transportation Masterplan of West Java Province (Stipulated by Governor Regulation Number 21 Year 2014)

In this document, it is stated that public transportation development is directed to mass transit and freight transport was directed to one top service. The policy which corresponds with TOD is direction for land transport that is environmentally friendly, efficient, and energy-saving. Therefore, it is proposed that land transport will be focused on the revitalization and optimization of existing network and expansion of railway network in certain areas, including metropolitan area.

- ii. Transportation Masterplan of Banten Province

Data is not available.

- iii. Macro Transportation Pattern of DKI Jakarta

This transportation plan is directed to improve service of transportation which is safe, integrated, ordered, smooth, convenient, economic, efficient, effective, and affordable for the public using 6 strategies: optimizing public transport and TDM approach, improving accessibility and mobility in the area, promoting mass transit, enhancement of road network, encouraging public transport use, and reduce the use of private vehicle. Since mass transit becomes the backbone of the transport system, the implementation will include bus priority network, LRT, and MRT. In general, there is no proposal regarding development of TOD area, but the potential is obvious by promoting mass transit development.

- iv. Regional Regulation Number 5 Year 2014 regarding Transportation

This is a regulation which preceded the arrangement of transportation master plan in DKI Jakarta which emphasized that the arrangement of transportation master plan should consider at least spatial plan, national transportation system, long-term development plan, and medium-term development plan. The regulation directed that contents of master plan at least consists of 12 plans, including road-based mass transit network and railway-based transit network. For the master plan, it is targeted that 60% of people's trip are using public transport with average speed of 35 km/hour for land transport.

Regarding TOD, it is stated that terminal can be developed in an integrated manner with center of economic activities, government activity, etc. by referring concept of transit-oriented development. Moreover, it is also mentioned that intermodal transit facility is necessary to create a seamless connectivity, one of which is by provision of cycling lane in TOD area.

Railway-based transit is directed for the network of mass rapid transit, monorail, inner loop line, commuter line, airport link railway, port railway, and other train. It is proposed that there is no at grade track development intersection but for tram. In addition, it is also directed that development and expansion of train station is referred to TOD concept. In the current state, DKI Jakarta is preparing railway transportation master plan which covers railway network inside Jakarta.

1.4.4 Local Transportation Plan

i. Transportation Master Plan of Kota Tangerang

Transportation masterplan of Kota Tangerang is now being arranged with emphasis to intergovernmental cooperation and provision of adequate and convenient public transport. Several actions were planned to cope with the traffic congestion for examples: implementation of information technology, diversification of transport mode (water transport), TDM, and TOD area development. One of which is developing TOD area in Poris Plawad that linked 7 mass transit in area, namely City Transportation in the Province (AKDP) Inter-Provincial City Transportation (AKAP), Trans Jakarta, Trans Tangerang, commuter line, Airport link and the LRT development plan from Serpong. Furthermore, Poris Plawad is one of 4 terminals that was planned by BPTJ for TOD which will be projected as the national-scale City-level transit area for regional and economic development in Indonesia.

ii. Transportation Master Plan of Kota Tangerang Selatan

Considering some issues and factors, transportation master plan of Kota Tangerang Selatan is being arranged. The main issues are related to the deterioration in road's level of service, classification of Kota Tangerang Selatan as metropolitan city, rapid urban development, and the spatial plan.

Therefore, the 20-year planning document set the vision of realizing urban transport network, which is growing, equitable and integrated, towards the development of environmentally sustainable urban transportation. Transportation policies have been set to achieve the vision and mission that comprises the realization of planning integration, inter-modal and intra-modal integration, fulfillment of market's needs, and encouraging private investment.

Some strategies are proposed to reach the goals such as: reducing user costs and increasing economic value, to achieve urban traffic equilibrium, order and smooth traffic, also to streamline urban transport network effectively and efficiently. TOD concept is acknowledged in the master plan as a program:

1. Training program for TOD concept implementation (part of human resource improvement program)
2. Program of integrated bus terminal development which included designation of 6 TOD area, namely: TOD Pondok Cabe, TOD Jurang Mangu, TOD Rawa Buntu, TOD Serpong, TOD Sudimara, and TOD Pondok Ranji.

TOD development in the abovementioned area will be promoted by inter mode integration facility around the station in form of transfer point integration, park and ride, also kiss and ride. Furthermore, there will be mass transit lines planned in 4 corridors that linked with the feeder line.

iii. Transportation Master Plan of Kabupaten Tangerang

Data is not available.

iv. Transportation Master Plan of Kota Bogor

In the current transportation master plan, there is no information or plan regarding TOD in Kota Bogor. However, it is stated that mass transit will be prioritized to fulfill the people's need and achieve the comparison of 70:30 in mode share. There will be three phases to undertake this action, first is recovering phase, followed by improvement phase, and development phase. Some programs will be directed by arranging the mass transit institution, providing supporting facility, providing mass transit, arranging the regulation, and educating people about mass transit.

v. Transportation Master Plan of Kabupaten Bogor

Transportation development plan in Kabupaten Bogor is directed to achieve 60% mode share of public transport to 40% of private vehicle. Strategies of transport development planned for 20 years which detailed in 4 stages. Each stage was purposed for 5 years, namely:

- a. Stage 1: System revitalization and institution preparation
- b. Stage 2: Development of main structure network
- c. Stage 3: Network structure device and supporting facility
- d. Stage 4: integration system and optimization of transport system performance.

In general, the stages will be conducted into 3 parts: recovery phase, improvement phase, and development phase. In fact, the staging will be conducted into 2 periods, each period lasts for 10 years.

Policy of Period I (2014-2023)

This is a recovery phase and transportation improvement in terms of network and infrastructure which policies consist of network service and infrastructure and transportation facilities. The network service policy focused on the optimization of existing network, restructuration, and improvement on level of service (LoS) above C. Meanwhile, infrastructure and transportation facilities emphasized on the improvement of public transport service and performance, including BRT, LRT, and train.

Policies for Phase 1 also covering the development of transport infrastructure such as bus terminal, freight terminal, road infrastructure, and train station. Overall, there is no specific direction or plan about TOD area development in this period, but there are some indications of railway network development especially for double track, recovery of railway that connects Bogor and other area, also intermodal facilities at the stations.

Policy of Period II (2024-2033)

Period II as a continuation of the previous stage will focus on creating a reliable transport such as MRT in busway and LRT as well as local transport (*angkot*) arrangement by rerouting the fleet and place them as LRT. Moreover, there will be

a change in the utilization of technology as the Intelligent Transport System (ITS) is being developed.

vi. Transportation Master Plan of Kota Depok

In terms of transportation development, Kota Depok has stated 3 basic concepts, namely public transportation system development, traffic demand management (TDM), and enhancement of network capacity. In this case, Transit-Oriented Development (TOD) is a part of Traffic Demand Management strategy alongside park and ride facility and parking control.

At this time, TOD area development has been planned at 2 (two) stations in Kota Depok, namely Pondok Cina and Depok Baru stations. This TOD concept is a collaboration between PT KAI's landowners and Perumnas as the developer. The TOD concept is intended to reduce the burden of travel on road sections in Depok that initially used private vehicles, emphasizing the use of public transportation as the main means of transportation. Pondok Cina and Depok Baru were chosen because those locations have a good intermodal integration, and high travel demand.

vii. Transportation Master Plan of Kota Bekasi

Transportation vision of Kota Bekasi which is to create a safe, reliable, and sustainable transportation system that is environmentally friendly derived into 7 missions, one of which is regarding TOD. Mission of Kota Bekasi is development of integrated intermodal integration which aimed at hub development based on TOD (park and ride, kiss and ride, residence, and commercial). This is in line with other missions, namely mass transit development, and non-motorized transport development. Some programs have been arranged to realize that mission, among others are procurement of transportation node with integrated mode, development of TOD hub in each service area, provision of park and ride facility in each TOD hub, and revitalization of the existing TOD hub.

viii. Transportation Master Plan of Kabupaten Bekasi

Data is not available.

1.5 Review of Land Regulations

1.5.1 Law No. 5 Year 1960 Regarding Basics of Agrarian Law

Basic of Agrarian Law regulates land ownership by the state, provisions regarding customary law and customary rights which law applies in space over the earth, water, and space if it does not conflict with national and state interests.

At the highest level, the water and space, including the natural resources contained in it are controlled by the State, as the organization of the power of all the people. All land rights have a social function, and land ownership and control that exceeds the boundary is not permitted. All joint efforts in the agrarian field are based on mutual interests in the context of national interests, in the form of cooperatives or other forms of cooperation. The state can jointly with other parties carry out efforts or activities in the agrarian field.

The government in the context of Indonesian socialism, makes a general plan regarding the supply, allocation and use of the soil, water and space as well as the natural resources contained therein:

- for state purposes
- for worship purposes and other sacred purposes, in accordance with the basis of the Almighty Godhead
- for the needs of the centers of community life, social, cultural and other welfare
- for the needs of developing agricultural, livestock and fisheries production and in line with that
- for the need to develop industries, transmigration and mining.

This general plan directs the regional government to regulate the supply, allocation and use of the earth, water and space for the area according to the conditions of each region.

Rights to land, water and space and land registration were explained, and in this law, land rights consist of:

- a. Property right
- b. Cultivation right
- c. Building right
- d. Right to use

- e. Rental right
- f. Land right
- g. The right to collect forest products
- h. Other rights not included in the rights mentioned above will be stipulated by law.

Meanwhile, rights above the water and space right is divided into:

- a. Water usage right
- b. Maintenance and fishing right
- c. Space use right

The maximum land area and/or minimum that can be owned by one family or legal entity is also regulated. Land which is the excess of the maximum brick taken by the government with compensation for sharing with the people in need.

This law also regulates land registration to guarantee legal certainty by means of measuring, mapping and accounting of land; registration of land rights and the transfer of these rights, as well as the giving of proof of rights documents that apply as a strong evidentiary tool. People who are not able to pay will be released from these costs.

Several types of rights that are fully explained in this Law are property rights, business use rights, building use rights, use rights, rent right and several other rights.

Property Right

Property is a hereditary, strongest and most fulfilled right that people can have on land. Property rights can be transferred and transferred to other parties. If a person besides his Indonesian citizenship has foreign citizenship, he cannot own land with ownership rights.

This right will be dismissed if:

- a) The land falls to the state
 - 1. Because of revocation of right
 - 2. Voluntary submission by the owner
 - 3. It is abandoned
 - 4. Provision of chapter 21 verse 3 (about the citizenship change) and chapter 26 verse 2 (transfer of property right to other persons, especially to the foreign citizen)
- b) The land is destroyed.

Cultivation Right or *Hak Guna Usaha* (HGU) is the right to cultivate land that is controlled directly by the state within a period of 25 years with a 35-year extension period for agricultural, fishery or livestock. Use rights are granted for land with a minimum of 5 hectares, provided that the extent of 25 hectares or more must use appropriate capital investment and good company techniques in accordance with the times. HGU can be shifted and be transferred to another party. HGU can be owned by Indonesian citizens and legal entities established under the law and domiciled in Indonesia. HGU occurs because of government determination. Cultivation rights can be used as collateral for debt by being burdened with mortgages.

HGU is dismissed because of the following:

- a. The expiration of date
- b. Terminated before the term expires because unfulfilled requirement
- c. Released by the right holder before the expiration date
- d. Revoked for the sake of public interest
- e. Abandoned
- f. The land was demolished
- g. A person or legal entity that has cultivation rights and no longer fulfills the requirements.

Building Right (*Hak Guna Bangunan/HGB*) is the right to establish and own buildings on land that is not his own for a maximum period of 30 years and can be extended for a maximum of 20 years. HGB can switch and be transferred to other parties and is given to Indonesian citizens and legal entities established under the law and domiciled in Indonesia.

HGB occurs on land that is directly controlled by the state because of the government determination, concerning land owned: because of an authentic agreement between the landowner concerned and the party who will obtain the HGB, which intends to cause this right. Similar to cultivation right, building right can be used as collateral for debt by being burdened with mortgages. The conditions which caused HGB to be dismissed are similar with the cultivation right.

Right of Use or *Hak Pakai* is the right to use and/or collect result from the land that is

directly controlled by the state or other people's land which gives authority and obligation determined by the decision of the authority to give it or in an agreement with the land owner, which is not a lease agreement or land processing agreement, everything of origin does not conflict with personal soul and the provisions of this law.

Right of use can be given

- a. For a certain period or as long as the land is used for certain purposes
- b. Free of charge, with payments or gifts of any kind.

Those who can have use rights are:

- a. Indonesian citizens
- b. Foreigners domiciled in Indonesia
- c. Legal entity established under Indonesian law and domiciled in Indonesia
- d. Foreign legal entity that has a representative in Indonesia.

Other rights are: Rental rights for buildings, the right to open land and collect forest products, water use rights, fishing and fishing, space use rights, and land rights for sacred and social purposes. The cultivation right and the building right is only open to the possibility of being granted to legal entities that are partially or wholly foreign capital, if that is required by laws governing the national development planning.

1.5.2 Regulation of Head of National Agency Number 4 Year 1991 Regarding Land Consolidation

Consists of 6 chapters which described general provision, goal and objective, implementation, land contribution for development, financing, and settlement of land right. In this regulation, land consolidation defined as a land policy regarding re-arrangement of control and land use as an effort to provide land for the sake of development, to improve environmental quality and maintenance of resources nature by involving active community participation.

It is mentioned that the participants of land consolidation are the right holder or land manager of the land consolidation object. Land consolidation object is a non-agriculture state land, or owned land in urban or rural area which is legalized by head of national land agency to be consolidated. Land contribution for development (reserved land) is part of

the land consolidation object which is provided for the development of road and other public facilities and for the land compensation. Compensation land is part of reserved land which is handed over to the third party by paying the compensation in form of money to finance the land consolidation in accordance with the list of land consolidation activity plan.

Purpose of land consolidation is to achieve the optimum utilization of land through improvement of efficiency and productivity of land use with the objective of realizing a tenure order and organized land use. Land consolidation is conducted in quest for mastery arrangement and land stewardship area improvement, land provision for road and public facilities by involving land ownership and land cultivator.

Location for land consolidation is stipulated by regent/mayor by referring spatial plan and development plan. This process can be done if at minimum of 85% of all landowners whose land covers at least 85% of all designated consolidation area are approved or agreed. In terms of institution, land consolidation is conducted by BPN (National Land Agency) with delegated task as follows:

- a. The head of the Regency/Municipality Land Office is responsible for the implementation of rearrangement of the control and use of land as object of land consolidation.
- b. The head of the Provincial Office of the National Land Agency, controls implementation of land consolidation.
- c. The head of the National Land Agency conducts guidance on the implementation of land consolidation in the Region.

Land consolidation is carried out by involving other related agencies and the community under the coordination of the governor at the provincial level and regent/mayor at the regency/city level. In the framework of coordination, a land consolidation coordination team was formed, and the land consolidation task force was carried out at the regency/municipality level by the regent/mayor and the land consolidation control team at the provincial level by the governor.

Land contribution for the development was principally conducted through the proactive involvement from the people which land is handed over as a land contribution for

development (reserved land). The amount of contribution is stipulated by a concession/mutual agreement of participants and refer to local spatial plan. Participant whose land is too small can substitute his contribution with money or other form of compensation which approved by all participants.

The right of land contribution will be released to the state in front of local land agency. Reserved land (land replacement costs) which is part of the land donation for development that is intended for financing the implementation of land consolidation, is handed to participants who have too little land parcels or to other parties with compensation payments in the form of money in the amount approved by the participants of the land consolidation.

In order to implement land tenure arrangements in regular forms of land, the participants of the land consolidation relinquish their land rights to subsequently be determined as objects of land consolidation by the Head of National Land Agency at the proposal of the Head of the Land Office Local Regency/Municipality through the Head of Regional Office of the National Land Agency. The land rights of the object of land consolidation were given to the participants of the land consolidation in accordance with the plot arrangement plan approved by the participants of the land consolidation. Provision of land rights is carried out collectively in accordance with applicable laws and regulations.

1.5.3 Law Number 2 Year 2012 Regarding Land Procurement for Public Interest

In this law, land procurement defined as action on providing land by giving a proper and fair compensation to those who are entitled. Those who are entitled means party who master or own the object of land provision (land, space above the ground and under the ground, building, plant, soil-related object). Land procurement for the public interest aims to provide land for the implementation of development in order to improve the welfare and prosperity of the nation, state and society while guaranteeing the legal interests of the entitled party. Basis of land procurement are humanity, justice, expediency, certainty, openness, deal, participation, welfare, sustainability, and harmony.

Land procurement for public interest is carried out by the government through planning by involving all stakeholders. It is commanded to central and local government to ensure

the provision of land for the public interest, as well as the financing. Meanwhile, landowners shall let their land on the execution after compensation has been given. Some references for this procurement are spatial plan, national/regional development plan, strategic plan, and work plan of institution that requires land.

Land for public interest is dedicated to some purposes, namely:

- a. National defense and security;
- b. Public roads, toll roads, tunnels, railway lines, railway stations, and railroad facilities;
- c. Reservoirs, dams, weirs, irrigation, drinking water channels, sewerage and sanitation, and other irrigation structures;
- d. Ports, airports and terminals;
- e. Oil, gas and geothermal infrastructure;
- f. Power plants, transmissions, substations, networks and distribution;
- g. Government telecommunication and informatics network;
- h. Waste disposal and processing sites;
- i. Government/Regional Government hospitals;
- j. Public safety facilities;
- k. Government/Regional Government public burial place;
- l. Social facilities, public facilities, and public green open spaces;
- m. Nature reserves and cultural heritage
- n. Government/Regional/village government offices;
- o. Structuring urban slum settlements and/or land consolidation, as well as housing for low income communities with rental status;
- p. Education/school infrastructure of the Government / Regional Government;
- q. Government/Regional Government sports infrastructure; and
- r. Public market and public parking.

Execution of land procurement for public interest is done by central government and later, the land will be owned by central or local government. This activity is mandatory for central government but can be cooperated with state-owned company, local-owned company, or private enterprise. Some stages of land procurement are covering planning, preparation, execution, and handover.

Planning the land procurement: necessary institution made land procurement plan for the development in accordance with regional spatial plan and stated development priority (mid-term development plan), strategic plan, and workplan of the working agency.

Planning document for land procurement at least shall contain:

- a. the purpose and objectives of the development plan;
- b. conformity with the Spatial Plan also National and Regional Development Plan;
- c. land location;
- d. land area needed;
- e. general description of land status;
- f. estimated time for implementing land acquisition;
- g. estimated period of implementation of development;
- h. estimated land value; and
- i. budgeting plan.

The land procurement planning document is prepared based on a feasibility study carried out in accordance with the provisions of the legislation and shall be determined by the agency that requires land and submitted to the provincial government.

Provinces based on the land acquisition planning document carry out:

- a. notification of development plans;
- b. data collection on development plans; and
- c. public consultation on development plans.

Public consultation on development plans carried out to obtain an agreement on the location of development plans from the rightful parties by involving entitled parties and affected communities which conducted somewhere at the development plan's location or agreed place. Involvement of eligible parties can be done through representatives with power of attorney from and by the eligible party on the location of the development plan. In case there is a rejection regarding the location, the governor will stipulate the development's location, and if the objection is accepted, governor will convey to the institution who needs the land to propose another location.

Preparation of land procurement is conducted based on the planning document consists of socialization of development plan, initial data collection on the location of the

development plan, and public consultation on the development plan.

Socialization on development plan started from initial data collection from both party (entitled party and the object) for 30 days. After that, development plan location must be determined before public consultation on development plan is conducted to get consensus on the location of development plan from the entitled party.

Land provision consists of:

- a. inventory and identification of mastery, ownership, use, and utilization of land
- b. assessment of compensation
- c. deliberation to stipulate the compensation
- d. distribution of compensation
- e. release of agency's land

Transfer of right will be conducted by giving some compensation which value has been set when announcement of location selection took place.

Compensation assessment:

The Land Agency determines the appraiser to conduct assessment on the land procurement object. Assessment on the amount of compensation can be done by plot, covering:

- a. land
- b. upper and underground
- c. building
- d. plant
- e. material that related with land; and/or
- f. other loss which can be assessed.

Compensation can be given in form of:

- a. money
- b. substitute land
- c. resettlement
- d. stock ownership
- e. other form or feature that is agreed by both parties.

Compensation is given to the rightful party based on the results of the assessment specified

in the deliberations. In the event that the rightful party refuses the form and/or amount of compensation based on the results of deliberations, or the decision of the district court/supreme court, the compensation is deposited in the local district court. Deposit compensation is also carried out on:

- a. The party entitled to receive compensation is not known to exist; or
- b. Object of Land Acquisition that will be given compensation:
 - i. is being the object of dispute in court
 - ii. ownership is still being disputed
 - iii. confiscated by an authorized official, or
 - iv. being a guarantee at the bank.

The party entitled to receive compensation or agency who obtained the land in the acquisition of land for public interest can be given tax incentives.

Land acquisition fund consists of fund for:

- a. planning
- b. preparation
- c. implementation
- d. submission of results
- e. administration and management, and
- f. socialization.

In carrying out land acquisition, those who are entitled have the right:

- a. know the plan for implementing land acquisition, and
- b. obtain information regarding land procurement.

In implementing land acquisition for public purposes, the community can participate in terms of:

- a. providing verbal or written input regarding land acquisition; and
- b. providing support in the implementation of land acquisition.

Direct notification can be done through socialization, face-to-face, or notification letters.

Indirect notice, among others, through print or electronic media.

Chapter 2 Review of TOD Related Laws, Regulations, and Projects

2.1 TOD Regulations of ATR/BPN, BPTJ, DKI Jakarta

2.1.1 Regulation of Minister of ATR/BPN

Regulation of the Ministry of Agrarian and Spatial Planning regarding TOD was stipulated due to the necessity for solving the transport and environmental problem. The objective is to provide the same understanding in the development of transit-oriented area for all stakeholders. Moreover, it is a guideline which gives a clear definition, position and concept of TOD area development in Indonesia. Some functions of TOD guideline are 1) to determine the location of TOD area for the formulation of spatial plan; 2) formulating some requirements in spatial utilization and technical specification in zoning arrangement which regulated in the detailed plan and zoning regulation; 3) designing mass building and environment in the building and environmental plan.

Generally, the regulation consists of 4 (four) main substances, i.e.: principal of TOD, selection and determination of TOD area location, TOD area development, and TOD area agency (institution).

In this regulation, TOD is defined as an area development concept inside and around the transit node in order to give added value and emphasize on integration between some mass transit network, and between mass transit network and non-motorized mode, also reduction on the use of motorized mode along with mixed-use development and compact with a medium to high intensity of space utilization. TOD area is stated in the spatial plan as a central area for intramodal and intermodal integration residing on 400 meters up to 800 meters radius from the mass transit node that has the function of space utilization mix and solid with an intensity of space utilization medium to high.

The focus for the area developments are:

1. Integrating function and facilities with urban structure

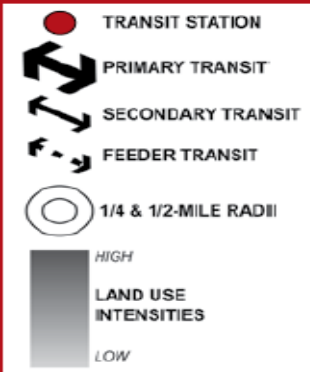
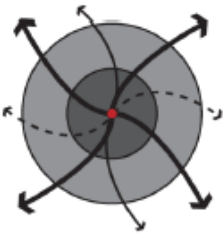
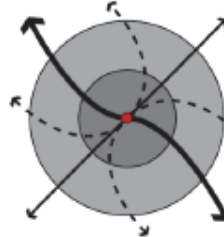
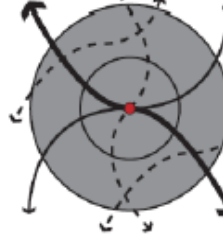
2. Mixed-use development
3. Medium to high-intensity development to create a compact environment
4. Enhance connectivity
5. Area arrangement to reduce trip distance, and
6. Friendly open space for public transit user.

The typology for TOD planning area has divided into three types based on the service scale, development of a service center, and the proposed activities, namely:

- a. Urban TOD
- b. Sub Urban TOD
- c. Neighborhood TOD

Each typology has its requirement regarding the economic function, criteria for mass transit, and diversity of land use which regulates the technical criteria by this law.

Urban TOD is identified by the activity scale which comprises the regional scale and roles as the center of primary economy and regional culture, while suburban TOD is directed for secondary function of economic activities, and neighborhood TOD is proposed for local scale economic development.

	Urban TOD	Sub Urban TOD	Neighborhood TOD
 <p> TRANSIT STATION PRIMARY TRANSIT SECONDARY TRANSIT FEEDER TRANSIT 1/4 & 1/2-MILE RADIII HIGH LAND USE INTENSITIES LOW </p>	 <ul style="list-style-type: none"> • Center of primary economy with a regional-scaled services. • A mixed-use and high intensity area 	 <ul style="list-style-type: none"> • Center of secondary economy with a city-scaled services. • A mixed-use and Mid to high intensity area 	 <ul style="list-style-type: none"> • Center of local economy with a neighborhood-scale services. • A mixed-use function and medium intensity

Source: Minister Regulation of ATR/BPN No. 16 Year 2017

Figure 17 Typologies of TOD Area

Regarding the intensity, there are differences between urban, suburban, and neighborhood TOD with the parameter of floor area ratio, density pattern (mid, middle-high, and high), number of floors, and land coverage (see appendix).

In terms of control and management, some supporting tools for the area development were mentioned, including incentive zone or bonus zone, transfer of development rights, special fiscal zone, land consolidation, and other supporting tools.

1. Incentive or Bonus Zone

In form of additional FAR given to the community or landowner in TOD area. Increase of FAR has to consider:

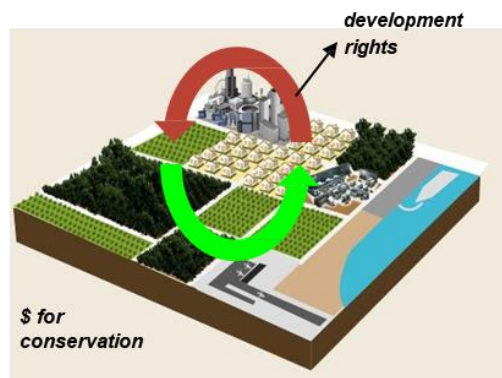
- a. Standard and quality of the facilities
- b. Carrying capacity of the environment
- c. Safety flight zone operation
- d. Skyline arrangement or maximum 50% from FAR which is determined in the planned land.

2. Transfer of Development Rights:

A mean to encourage the voluntary transfer of building rights from a place that is necessary to be protected to the area that is expected to develop.

3. Transfer of development rights can be done in terms of:

- Size of floor from a plot of land to other plot of land (on the same zone).
- From the plot of land which function is protected to the plot of land with other utilization (more economically prospective).
- Floor area of one plot of land to another plot (different zone).



Source: TOD Guideline by ATR/BPN

Figure 18 Illustration of Transfer Development Right

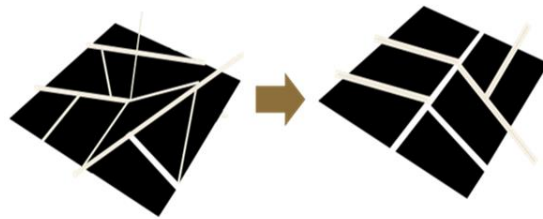
4. Special Fiscal Imposition Zone Conducted by:

- Imposition of tax rates and higher redistribution (for spatial utilization that is not in accordance with the character of the TOD area utilization space)
- Reduction of tax rates and lower redistribution (for spatial utilization that is in accordance with the character of TOD area utilization)

5. Land Consolidation

A policy of structuring tenure and land use to be orderly and regularly by referring to the regional spatial plan. It is conducted by:

- Inventory of land tenure, ownership, use and utilization
- Land provision for public use
- Infrastructure development



Source: TOD Guideline by ATR/BPN

Figure 19 Illustration of Land Consolidation

6. Other supporting devices

The devices could be in form of incentive or disincentive to change the behavior of actors who develop TOD areas. It is also defined as other tools to create sustainable TOD area performance.

Regarding to the institution, TOD Area management can be done by central government, regional government of province/regency/city, partnership between central/regional government, or PPP. In case there is a need for agency to manage TOD Area, central government and/or regional government can establish an institution according to their authority or appoint a state owned enterprise (SOE) and/or regional owned enterprise (ROE) which is the main operator of high capacity mass transport system according to the legislations.

Regional government shall be involved actively in regulating TOD area development from the determination until development of TOD area in accordance to their authority. In addition, central and regional government has a role to create a healthy and conducive business climate to guarantee the success of TOD area development. Particularly, regency/city government has a role to develop supporting tools to realize TOD area in accordance to their authority. Both central and regional government has a role to monitor and control the space utilization for TOD area. Lastly, If TOD Area is developed in a high capacity rail-based mass transportation corridor and cross-boundaries, central government and provincial government have role to guarantee the operation of mass transportation system.

By the stipulation of this ministerial regulation, it is expected that every stakeholder will have the same perspective regarding TOD concept of development. Hence, central government, local government, private developer, or other stakeholders could propose a TOD area development without misunderstanding of the basic idea.

2.1.2 Regulation of the Head of BPTJ

Regulation of Head of BPTJ emphasized the technical aspect in terms of integration between spatial planning and transportation which correspond to five principles of transportation in TOD, namely connectivity, public transport, walk, cycle, and modal shift. Contents of each element regarding transportation are described in detail with several technical terms that order the minimum standard to be fulfilled.

Definition of TOD and TOD area is similar with Minister Regulation of ATR/BPN which stated that TOD is an area development concept in transit nodes so that it can create additional value which focusing on integration between mass public transport network and between mass public transport network with unmotorized transport network, focusing on reduction of motorized vehicle which accompanied by mix use area development with medium to high density and intensity of space utilization. Specifically, TOD area is an area which designated in the spatial plan as an area centered on the inter and intra modes, located in the radius of 400 meter to 800 meter from the mass public transport nodes which has mix use area development function with medium to high density and intensity of space utilization.

Connectivity defined in the regulation consists of integration facility provision and barrier-free access with a seamless, comfortable and safe concept. In general, public transport is a mass transit system which intersects and integrating with the criteria of a fixed schedule, fixed route, operational hours, and has some minimum service standard.

For walking purpose, provision of pedestrian facilities in the form of pedestrian path and pedestrian plaza built above ground or underground shall consider the use of social and ecological functions in the form of cycling activities, social interactions, business activities, exhibition activities in open spaces, and green area, in terms of aspect of safety, comfort, appearance, convenience, social interaction, and connection. Cycle means the provision of facilities which exclusively dedicated for the cyclists in the form of bicycle lane and parking and connected to a transportation mode transfer as station/terminal or bus stop.

Modal shift as for the transitional use of private vehicle to public transport in principal will be conducted by providing and arranging the parking facilities in TOD area. Besides, there are some restrictions for on-street parking and maximum area for parking facilities (off-site parking). Along with the description of each aspect, this regulation also guides and set the technical recommendation contains several matters to be fulfilled which emphasized the five elements mentioned above.

In terms of organization affairs, this regulation has appointed TOD area master developer to be responsible for integration facilities provision. Share of responsibility for the integration facilities provision and the opening of access is formulated into an agreement between related parties, i.e. TOD area master developer/main operator of mass transit system/developer/owner of the building located in the TOD Area.

2.1.3 Governor Decree of DKI Jakarta Number 67 Year 2019

Governor Decree (Pergub) of DKI Jakarta regarding transit-oriented development Number 44 which was stipulated in the year 2017 has been declined and replaced by a new regulation number 67 Year 2019 regarding implementation of transit-oriented development. There were many changes made in this regulation, especially in terms of typology, technical requirements, and development of proposed TOD area.

There are 6 scopes in this newly stipulated regulation, namely:

- a. Establishment criteria, development principles and typology region
- b. Institutional
- c. New transit-oriented zone development mechanism
- d. Development of transit-oriented areas that have been stipulated
- e. Technical provisions for spatial use, and
- f. Incentives, disincentives and management of land value capture.

In this regulation, Transit Oriented Development is defined as an area development around the transit point which oriented to the ease of people's movement and transfer, accessibility improvement and area's connectivity, mixture of activity, utilization of dense land towards city revitalization and mass public transport enhancement. TOD area is an integrated area of mass rapid transit which encourages pedestrians, cyclists, use of mass transit and restriction of motorized transport in the radius of 350 m until 700 m from the center of area with the transit-oriented principles

Some unique features that differ this regulation with the previous version is the emphasis on the provision of affordable flats and business space on the TOD area that allow people with limited purchasing power to access residential in TOD area. One of the merits of this regulation is about detail on the requirements: study elements, TOD elements, and institutional aspect. As a local guideline, there are some details that shall be met in proposing TOD area, namely study of area, socioeconomic, public transport and accessibility, environment, and other necessary technical studies). Besides, some technical requirements for TOD elements were also described such as: pedestrian facility, bicycle facility, connection facility, etc.

Planning principle is to prioritize the integration and compactness based on connectivity with mass transit station and to reduce parking facility standard of the provision to encourage the development of area surrounds the station in the form of inserting development and revitalization or form of arrangement/planning supported by connectivity. Planning and development of mixed-use area referred to urban design guideline to form a high-quality public environment by prioritizing the necessity and convenience for pedestrian and cyclist and to realize open space/plaza which could be

benefitable for the public.

Development of transit-oriented areas must refer to the following principles:

- a. Embodiment of the area which is integrated with mass public transportation and is easily accessed by walking.
- b. Ease of pedestrian mobilization by providing pedestrian facilities that are safe, comfortable and equipped with shelter elements and are friendly for persons with disabilities.
- c. The ease of mobilization of cyclists by providing a safe and comfortable cycling infrastructure network.
- d. Development of accessibility and connectivity of pedestrians, cyclists and means of mass public transportation.
- e. Embodiment of high density building and oriented to distance efficiency and ease of access.
- f. Embodiment of integrated areas of infrastructure, facilities and utilities.
- g. Vertical planning and development of buildings whose use of building functions varies according to the optimization of the availability and capacity of public transportation
- h. Increased proportion of green open space.
- i. Provision of public open space that can be accessed by all communities.
- j. Provision of affordable flats with a proportion of at least 25 percent of the total occupancy in the region
- k. Restrictions on motorized vehicle parking spaces through reducing parking spaces both on-street and off-street to encourage the use of mass public transportation.
- l. Park and ride parking facilities located in transit-oriented areas must be connected directly to the station point and located in a comfortable radius of walking specified in the spatial plan.
- m. Reducing disaster risk and increasing disaster resilience.

There are three classifications of area typology, i.e.:

1. City TOD → focusing on office and trade function passed by mass transit with a regional scale of service
2. Sub City TOD → focusing on office and trade facilities accessed by mass transit with a city scale of service
3. Neighborhood City Center → focusing on residence and its facility around the station and/or terminal.

Table 19 Function and Criteria of 3 TOD Typology

	City TOD	Sub City TOD	Neighborhood TOD
Function	Center of primary activity	Center of secondary activity	Center of tertiary activity or potential
Accessibility	High accessibility especially for pedestrian	High accessibility especially for pedestrian.	High accessibility especially for pedestrian. Residential access with a good access to the city center of sub city center.
Transit System	High capacity	High capacity and/or medium capacity	Medium capacity
Area Intensity	Commercial mixed use, office and residential with high intensity, affordable flat integrated with mass transit.	Commercial mixed use, office and residential with medium to high intensity, affordable flat integrated with mass transit.	Commercial mixed use, office and residential, medium intensity, affordable flat integrated with transport system.
Space Proportion	Housing: 20%-60% Non-housing: 40-80%	Housing: 30%-60% Non-housing: 40-70%.	Housing: 60%-80% Non-housing: 20-40%

Source: Governor Regulation of DKI Jakarta No. 67 Year 2019

Institution are divided into two, namely operator and master developer. Operator has several criteria as follow:

- a. BUMD or BUMN which carried out mass transit operation
- b. Have and deliver study of TOD area to the governor; and
- c. Have and deliver proposal of TOD area development to the governor.

Operators are required to conduct study of the area that consists of social and economic study, study of public transport and traffic assessment, environmental assessment, and other necessary technical study. Substance of each study can be described as follows:

Table 20 Substance of Area Study

Economic Study	Public Transport and Traffic Assessment	Environmental Assessment
<ul style="list-style-type: none"> a. Land ownership b. Existing condition of the building c. Demographic data of existing and population projection d. Economic data of existing and projected population e. Calculation of Area's value enhancement f. Demand for infrastructure, facility, and utility. 	<ul style="list-style-type: none"> a. Road network, traffic, and public transport condition b. Trip generation/attraction and public transport c. Trip distribution and operation pattern of public transport d. Public transport's trip frequency (headways) e. Capacity of public transport f. Mode choice g. Trip assignment h. Simulation of traffic performance in the surrounding area i. Identification of traffic impact and public transport assessment j. Requirement of infrastructure and public transport, and k. Pedestrian path and bicycle lane. 	<ul style="list-style-type: none"> a. Water supply fulfillment b. Electricity fulfillment c. Wastewater management and drainage d. Control of environmental cleanness e. Control of greening f. Control of groundwater level decrease.

Source: Governor Regulation of DKI Jakarta No. 67 Year 2019

Mechanism of TOD area development could be conducted in 2 cases:

- a. Existing area development (stated by the regulation) → conducted by considering the support of mass transit development and based on the urban design guideline

- b. New TOD area development → the proposal could be submitted by the main operator and will be issued by the governor with the revised spatial plan.

There are 10 aspects of concern in the technical directions for utilizing the TOD area, namely pedestrian facilities, bicycle facilities, connectivity facilities, compaction of buildings: space density, mixed-use area, movement, intermodal area or transit plaza, affordable flats, and activities.

Area development is implemented by the main operator or master developer, a state-owned company operator which cooperate with local-owned company that manages and develop TOD area. Master developer is assigned and/or pointed by the Governor and carried out the preparation of an urban design guideline. In addition, it also functioned as community's coordinator, implementer to the urban design guideline, and the evaluator of the realization of urban design guideline.

2.2 Regulations Related to Project Implementation

2.2.1 Land Consolidation

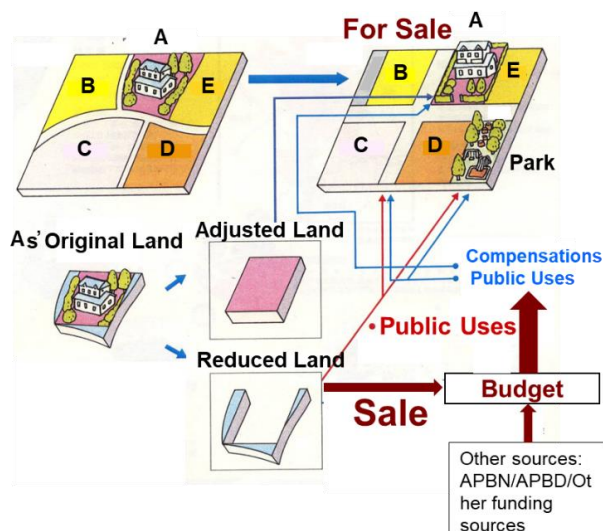
In the realization of spatial planning, broadly the land consolidation policies are regulated in Ministerial Regulation of ATR/BPN No. 12 Year 2019 concerning land consolidation aimed at supporting the implementation of agrarian reform and for the realization of control, ownership, use of land that can improve social welfare and quality of life in a fair and equitable manner, the realization of a living environment good and healthy and to support the availability of land for various needs of development activities in accordance with the regional spatial plan based on the principle of sustainable development. In addition, several regulations related to land consolidation are also mentioned in regulations such as, Law No. 1 of 2011 concerning housing and settlements (Articles 106-117), and Government Regulation No. 14 of 2016 concerning the implementation of housing and residential areas (Articles 122-127).

Land consolidation is defined as a land policy regarding the restructuring of land tenure, land use and land acquisition efforts for development purposes, for the sake of improving environmental quality and conserving natural resources by involving the active

participation of the community.

The land consolidation mechanism is an effort to support government policies in terms of providing land for public use, resolving land and space issues, providing housing for low income people, and the need for vertical space development in urban areas. Land Consolidation is carried out in a participatory and voluntary manner/based on agreement between the participants of the land consolidation. Implementation of land consolidation can become mandatory in terms of structuring post-disaster, conflict, slum areas and national strategic programs (the conflict in question is a conflict whose resolution has an impact on changes in ownership and land boundaries. Strategic programs are programs that have national strategic value determined by the Government).

In the mechanism of land consolidation implementation, the participants of the land consolidation are required to contribute a portion of their land as land for development according to the agreement. The area of land contribution as land for development is calculated based on the land requirements for infrastructure, facilities and utilities as well as the financing needs of the consolidated area development. In addition to funding sourced from community participation through the contribution of land for development, funding for the implementation of land consolidation can come from the state budget (APBN), the regional budget (APBD), and other legal sources of funding.



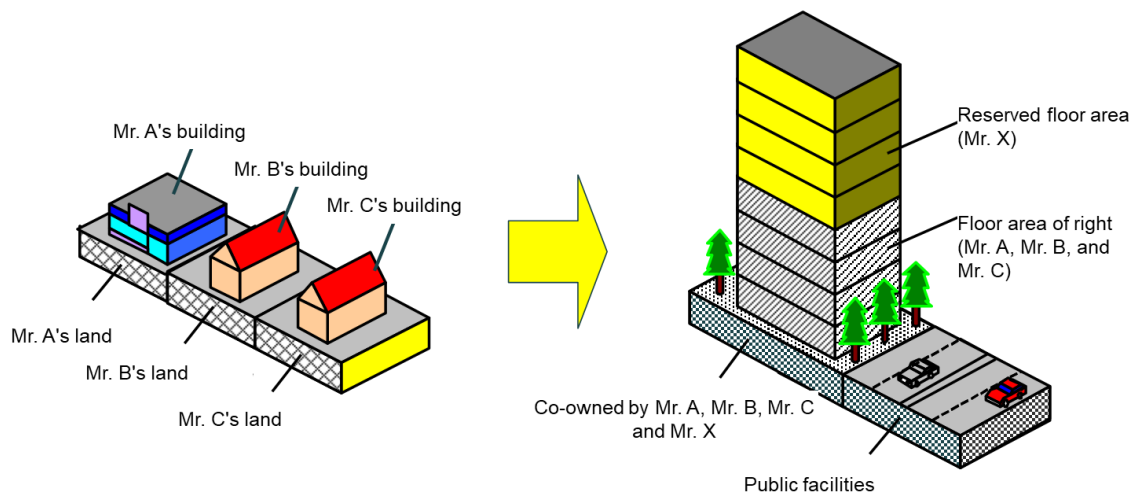
Source: JUTPI 2 Presentation Material

Figure 20 Land Consolidation Implementation

Land consolidation mechanism can also be applied to vertical buildings. Vertical land consolidation can be interpreted as land consolidation held for the development of vertically oriented areas and buildings. A clear difference with horizontal land consolidation, lies in the changing status of property rights. For example, participants of land consolidation whose originally as a property rights convert into ownership rights belong to apartment units. Other difference is in the source of funding between horizontal land consolidation and vertical land consolidation lies in financing through the contribution of land for development to be replaced with commercialized land units or additional units.

Vertical land consolidation design, can be form of:

- a. Owned flats
- b. Renting flats
- c. Stacking village
- d. Transit Oriented Development
- e. Central Business District (Superblock)
- f. Rejuvenation of the Integrated Region (Inclusive Urban Renewal) and/or
- g. A combination of one or more of the designs above.



Source: J. Kano, Japan's Experience of Land Consolidation for Urban Renewal

Figure 21 Vertical Land Consolidation

Compared to the land acquisition method, consolidation method has advantages such as:

1. Through community contribution to the development, the development area could be wider due to lower development costs
2. Possible to integrate with urban facility development
3. Maximum infrastructure development
4. A possible collaboration between private sector and public sector in the development.

However, compared to the land acquisition method it also has disadvantages such as:

1. Need more time to reach consensus with landowners
2. In some cases, people are still reluctant to switch to vertical housing
3. For vertical land consolidation, buildings/floors built as construction costs are still influenced by market price values.

**Minister of Agrarian and Spatial Planning regulation/Head of National Land Agency
No. 12 Year 2019 concerning Land Consolidation**

Minister of Agrarian and Spatial Planning Regulation No. 12 Year 2019 stipulated to change previous regulation land consolidation regulation issued by Head of National Agency No. 4 Year 1991. In this changes several explanations describe clearly to facilitate land consolidation implementation. There are 8 chapters in this regulation, which describe general provision, goals and objective, land consolidation plan, land consolidation implementation, land consolidation result, institutional, supervision, financing and cooperation, problem solving, other provision, and transitional provision.

For the general provision chapter explanation some notions not mentioned in the previous regulation are explained here, such as self-help land consolidation, vertical land consolidation, occupant participant association, commercialized land unit, others. Basically, the explanation points relating to land consolidation are explained more fully in this regulation.

At the point of goals and objective chapter, land consolidation is said to be carried out in a participatory and voluntary manner based on agreement. But the point of asserting the participation of land consolidation becomes mandatory in the case of post-disaster, conflict, slums, and national strategic programs, being the differentiator from the previous regulation. Moreover, in this chapter mentioned function and designation area, land use

dimension, project scale, and scale of necessity land consolidation project. Below is the division of each land consolidation type.

Table 21 Land Consolidation Type

Land Consolidation Type			
Function and Designation Area	Land Use Dimension	Project Scale	Scale of Necessity
Agriculture	Horizontal	Small Scale	Simple
Non-Agriculture	Vertical	Large Scale/Strategic	Comprehensive

Source: Ministerial Regulation of ATR/BPN No. 12 Year 2019

*notes: simple land consolidation is intended for self-help land consolidation (self-help land consolidation is land consolidation proposed by community or stakeholders outside the Ministry of ATR/BPN).

Land consolidation subject and object mentioned in the land consolidation planning chapter, and the criteria as mentioned in Table 22 below:

Table 22 Land Consolidation Criteria

Land Consolidation Criteria	
Subject	Object
a. Indonesia Citizen	Registered Land
	Land rights not yet registered
b. Legal Entity	State land which has been controlled / cultivated
	State owned enterprise / Regional owned enterprise / other legal entity land assets that have been released and / or controlled by the community.

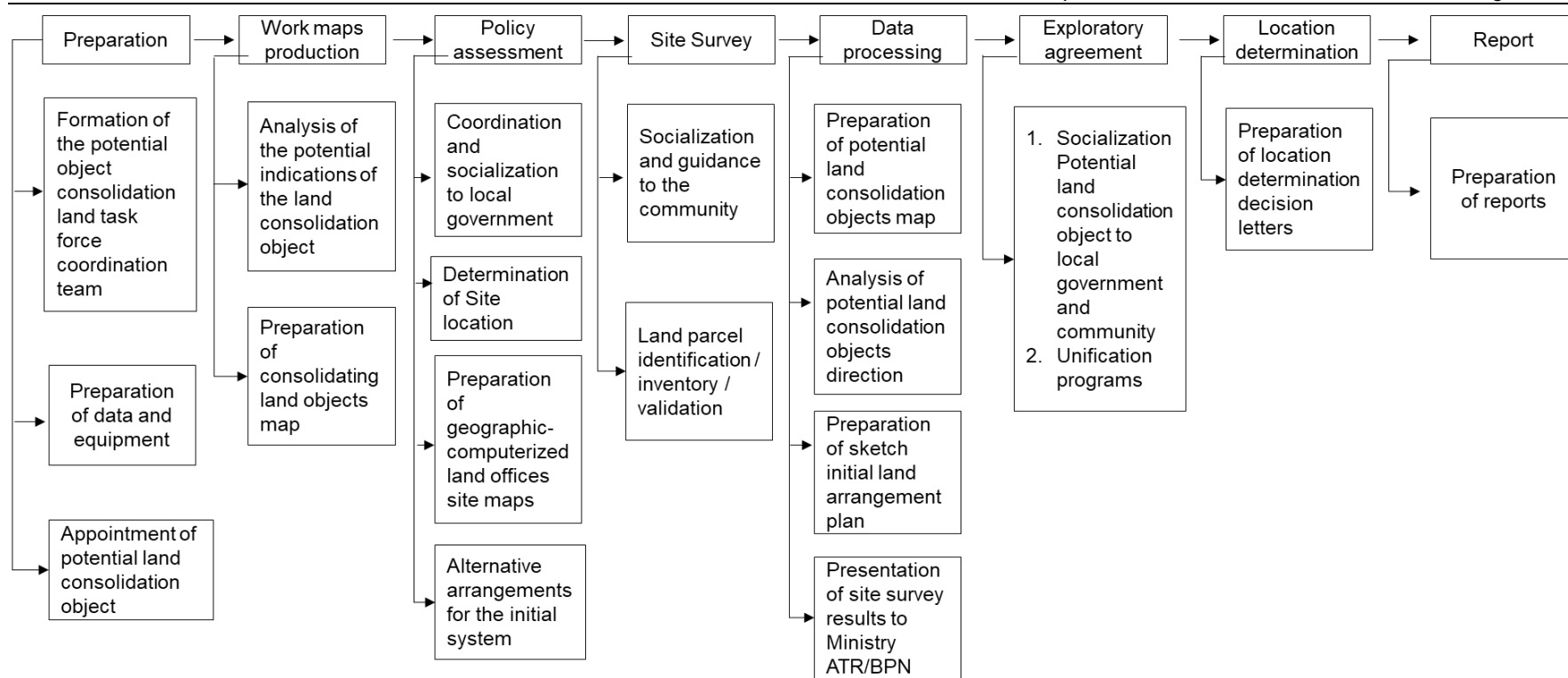
Source: Ministerial Regulation of ATR/BPN No. 12 Year 2019

Besides land consolidation subject and object, in this chapter mentioned about land contribution for development, which can be replace in form of money or other form agreed by land consolidation participator. Other explanation regarding change number of land consolidation land plot which can be possible to accommodate several criteria such as addition to infrastructure, facility and utility, design demands, inheritance or grants to the party in a lineage, solution of some conflict, and provision of low-income community housing. Moreover, explanation of land consolidation planning document which needs to follow regulatory provisions as well spatial planning document, carrying capacity, community suggestion, community empowerment program, necessity of the infrastructure, facility and utility, and regional development policy.

The stages of preparing the land consolidation planning document (carried out by the land consolidation planner/implementing team) include:

- a. Forming a coordination team and a planning/implementing team
- b. Spatial planning (RTRW, zoning regulations, topography, and carrying capacity) sector policies studies (regional infrastructure development, infrastructure development, facilities and utilities development, and others sector development)
- c. Social mapping (inventory and identification of social, economic, and cultural data, as well as socialization to capture community aspirations) and analysis of the area's potential (inventory and identification of land information data, physical environmental data to find out potentials, deficiencies, opportunities and threats at land consolidation sites); land information data (form and size of land parcels, data of rights holders and/or tenants of land and land ownership status; physical and environmental data (topography, land use, availability and condition of infrastructure, facilities and utilities, and carrying capacity, and disaster aspects)
- d. Sketching the initial design (visioning) (overview of macro policy concepts and planning criteria, setting themes, describing the distribution of blocks and estimates of the number of planned plots of land, as well as plans for providing facilities and utilities, and estimating the cost of implementing and constructing land consolidation) and land consolidation agreements (set forth in the official report and signed by each right holder); and
- e. Determination of the location of land consolidation. Determination of the location of small-scale land consolidation is outlined in the decision of the regent/mayor. Determination of the location of large-scale/strategic land consolidation is outlined in the decision of the governor or minister. In the case of self-consolidated land, the head of the land office gives some consideration to the regent/mayor in the issuance of the decision on the determination of land consolidation locations.

* Point b – e implemented by planning/implementation team.



Source: Ministry of ATR/BPN Presentation Slide, 2018

Figure 22 Site Selection: Spatial & Attribute Analysis Method/Planning Document

Land consolidation implementation carried out by the planning/implementation team adjusted by the project scale. Based on the scale of the project, each planning/implementation team determined by head of the land agency office hierarchy (city/regency level named *Kantah*, provincial level named *Kanwil*) which consists of:

Table 23 Project Working Unit of Planning / Implementation Team

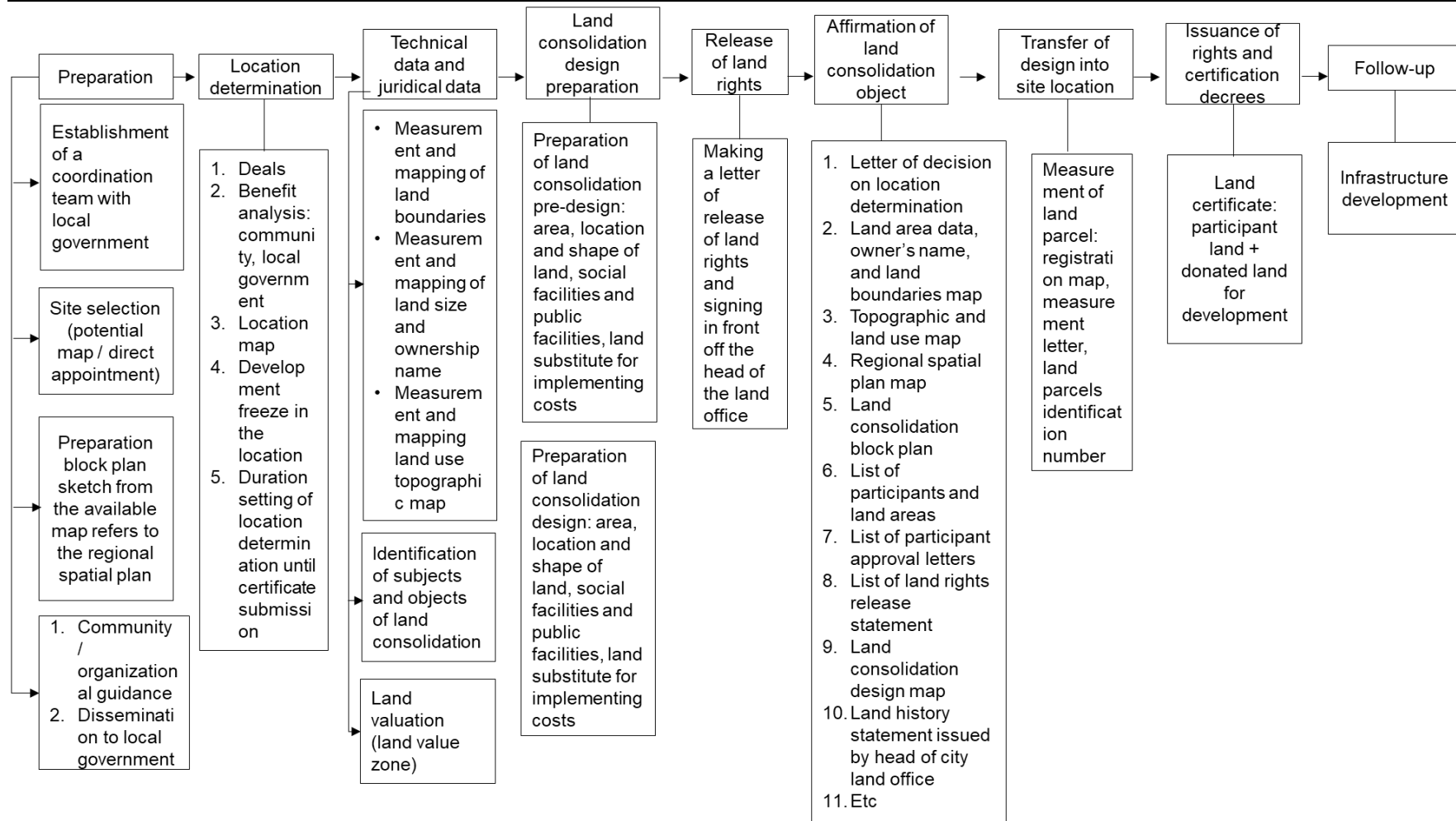
Planning / Implementation Team	
Small Scale (established by Head of <i>Kantah</i>)	Large Scale (established by Head of <i>Kanwil</i>)
Chairman: Head of <i>Kantah</i>	Chairman: Head of <i>Kantah</i>
Secretary: Head section of land arrangement	Secretary: Head division of land arrangement
<p>Members:</p> <ul style="list-style-type: none"> a. Representative of relevant agencies and competent stakeholder corresponding to land arrangement b. Head section of land reform and land consolidation c. Head subdivision of administration or appointed officer d. Head section of land infrastructure or appointed officer e. Head section of land legal or appointed officer f. Head section of land procurement or appointed officer g. Head section of handling problem and land control h. Head sub section of land reform and land consolidation i. Head of district j. Head of sub district k. Representative of land consolidation participant (3 participants) 	<p>Members:</p> <ul style="list-style-type: none"> a. Representative of relevant agencies and competent stakeholder corresponding to land arrangement b. Head section of land arrangement c. Head section of land legal or appointed officer d. Head section of land procurement or appointed officer e. Head section of handling problem and land control f. Head sub section of land reform and land consolidation g. Head of district h. Head of sub district i. Representative of land consolidation participant (3 participants)

Source: Ministerial Regulation of ATR/BPN No. 12 Year 2019

The planning team/implementation team tasked to do an implementation of land

consolidation includes the following activities:

- a. Physical, juridical data collection (generating a list of subjects, land consolidation objects, and detailed maps) and valuation of land consolidation objects (land, buildings, plants, and objects related to land).
- b. Preparation of design (including themes and direction of development, area designation block plans, determination of area, shape and location of parcels, and area and location of development land consisting of land for public infrastructure and joint venture land) and land consolidation action plans (containing phases and schedules, plans for building public infrastructure, detailed building plans, development cost requirements, plans and sources of funding, and development cooperation schemes and the role of each stakeholder), land consolidation participants put initials on the design as proof of approval.
- c. Release of land rights and affirmation of land object of land consolidation.
- d. Application of land consolidation design (staking out), and
- e. Issuance of certificates of land rights and submission of the results of land consolidation.



Source: Ministry of ATR/BPN Presentation Slide 2018

Figure 23 Land Consolidation Implementation Steps

Development land consolidation result implemented by relevant stakeholder listed in the action plan document (point b from land consolidation process), which the stage of activities covering:

- a. Preparation of development implementation
- b. Development of infrastructures, facilities, and utilities
- c. Issuance of property rights certificate and transfer assets for vertical land consolidation
- d. Formation of owners and resident association, and community empowerment
- e. Asset management from land consolidation result.

Differ from the planning team, the coordination team is tasked to coordinating the implementation and handling of land consolidation issues. Coordination team determined by Head of City/Regency/Province. Coordination team also divided based on project scale which consist of several items (as seen in table 24).

Table 24 Project Working Unit of Coordination Team

Coordination Team	
Small Scale (established by Head of Kantah)	Large Scale (established by Head of Kanwil)
Chairman: Mayor/Regent	Chairman: Governor
Daily Chairman: Head of Kantah	Daily Chairman: Head of Kanwil
Secretary: Head section of land arrangement in Kantah office	Secretary: Head section of land arrangement in Kanwil office
Members: <ol style="list-style-type: none"> a. Head division of land arrangement or appointed officer b. Head of Bappeda (Regional planning development agency) or appointed officer c. Regional Secretary or appointed officer d. Head organization of regional public works and spatial planning or appointed officer e. Head organization of regional agriculture or appointed officer 	Members: <ol style="list-style-type: none"> a. Mayor/Regent b. Head of Bappeda (Regional planning development agency) or appointed officer c. Regional Secretary or appointed officer d. Head organization of regional public works and spatial planning or appointed officer e. Head organization of regional agriculture or appointed officer

<ul style="list-style-type: none"> f. Head organization of regional housing and settlement or appointed officer g. Representative of relevant agencies and competent stakeholder corresponding to land arrangement 	<ul style="list-style-type: none"> f. Head organization of regional housing and settlement or appointed officer g. Head of Kantah at land consolidation selected location
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Source: Ministry of ATR/BPN Presentation Slide, 2018

The coordination team in charge for:

- a. Coordinating policies among stakeholder
- b. Give some consideration in determining land consolidation location
- c. Direct and evaluate consolidation design
- d. Coordinating funding sources and form of cooperation
- e. Synchronize and coordinate action plan of land consolidation implementation with the stakeholders
- f. Supervise implementation of land consolidation
- g. Handling problem that arise in land consolidation implementation
- h. Evaluate and set policies for area redevelopment in vertical land consolidation project
- i. Carry out other tasks as needed.

In every 5 years land consolidation coordination team evaluate land consolidation development, it is done to find out project development, physical changes, and sustainability of the area functions.

Financing of the land consolidation implementation is sourced from community participation, APBN, APBD, and other legitimate sources in accordance with laws and regulations, used as activities that include:

- a. planning costs
- b. administration fees
- c. compensation costs
- d. temporary relocation costs and lost income allowances
- e. licensing administration fees
- f. physical building costs and infrastructure, facility and utility
- g. building maintenance costs

- h. building renovation costs; and
- i. other costs

2.2.2 Public Facilities (road, social facility, park, etc.)

i. Public Road

Road is the backbone of the transportation system that was stipulated by Act Number 38 Year 2004 and Government Regulation Number 34 Year 2006 regarding road. The implementation of public roads is carried out by prioritizing the construction of road networks in production centers as well as roads that connect production centers with marketing areas. Implementation of public roads is directed to the construction of a road network in order to strengthen the unity of the national territory to reach remote areas.

Public roads are grouped into *road network systems, road functions, road status, and road classes*. Road network system is divided into primary, secondary, and tertiary network. In each system, the road's function is differed into arterial, collector, local, and environmental function.

Table 25 Technical Criteria of Road Network Function

	Lowest Speed (km/h)	Road Width (m)	Remarks
Primary Arterial	60	11	Traffic volume capacity is above average
Primary Collector	40	9	Traffic volume capacity is above average
Primary Local	20	7.5	Road to village area cannot be interrupted
Primary Environmental	15	6.5	
Secondary Arterial	30	11	Volume capacity above average and do not interrupted with slow traffic
Secondary Collector	20	9	Volume capacity above average and do not interrupted with slow traffic
Secondary Local	10	7.5	
Secondary Environmental	10	6.5	

Source: Government Regulation (PP) Number 34 Year 2006

Public roads are classified according to status, namely:

a. National Road

- primary arterial road
- primary collector roads that connect between provincial capitals
- highway, and
- national strategic roads.

b. Provincial Road:

- primary collector road connecting the provincial capital with the regency or city capital
- primary collector roads that connect between regency or city capitals
- provincial strategic roads; and
- road in the Special Capital Region of Jakarta

c. District Street:

- primary collector roads that do not include national and provincial roads;
- primary local roads that connect the district capital with the sub-district capital, the regency capital
- with the village center, between the sub-district capital, the sub-district capital with the village, and
- between villages;
- secondary roads that do not include provincial roads and secondary roads in the city; and
- district strategic roads.

d. City Road:

- public roads on the secondary road network in the city.

e. Village Road

- primary environmental roads and primary local roads which are not included as district roads within rural areas and are public roads that connect the area and/or between settlements within the village.

The authority to administer roads by the regional government includes the administration of provincial roads, regency/city roads, and village roads. Implementation of national roads is undertaken by the Minister. Meanwhile, part of the Government's authority in national road construction which includes technical planning, construction, and operation and maintenance can be carried out by the provincial government.

Implementation of provincial roads by the regional government is carried out by the governor or appointed official. District/city and village road implementation by the regional government is carried out by the district head/mayor or appointed official. Budgeting in the implementation of road network is an activity of allocating funds needed to realize program objectives. The allocation of funds comes from the road organizer funds in accordance with their authority. In the event that the regional government has not been able to finance the construction of roads which are its overall responsibility, the Government can help in accordance with the laws and regulations.

ii. Public Housing

Regulation related to public housing is legalized by Law No 1 Year 2011 regarding Housing and Settlements and Law No. 20 Year 2011 regarding Flats. The implementation of public housing aims to ensure the realization of affordable, livable, healthy, safe, harmonious, and sustainable environment, also to create integrated settlements to build economic, social, and cultural resilience. In addition, the implementation of public housing will increase efficiency and effectivity of land utilization in urban area.

Determination of public housing provision and types based on target group of residence, developer, development resources including:

- a. General public housing, developed for middle to low income community
- b. Special public housing, developed to fulfill special needs or social needs
- c. State public housing, developed for civil servant
- d. Commercial public housing developed to get profit and intended for middle – high income community.

In the case of unit mastery over public housing, distinguished by type of public

housing, namely:

- a. General public housing can be done by owning or renting
- b. Special public housing can be done by borrowing using or renting
- c. State public housing can be done by borrowing-using, or renting, or renting-purchase
- d. Commercial public housing can be done by owning or renting.

Public housing can be built on land status as follow:

- a. Free hold right
- b. Building right or use right on state land
- c. Building right or use right on the management right

In addition, implementation of public housing can be developed through utilization of state property in the form of land, and utilization of waqf (endowment) land.

Ownership rights to units of individual public housing are separate from the shared rights of shared parts, shared object, and shared land. As a proof of ownership of public housing unit above free hold rights, building rights, using rights above state land, and building rights or using rights above management rights certificates are issued in the form of certificate over public housing unit. Moreover, for ownership above state/regional property in the form of land, or waqf land by renting, certificate issued in the form of unit building ownership certificate.

The public housing development is carried out based on calculation and determination of floor area ratio and building coverage ratio adjusted from the carrying and environmental capacity of the area referring to the regional spatial plan. To facilitate the resident, public housing development must be equipped with infrastructure, facilities, and utilities with minimum standards as regulated in the ministerial regulation.

In order to fill in the gap and housing backlog as well as to fulfill the rights of people to live properly regardless their income, central government issued one-million house program. One million housing is one of president's policies to achieve his mission to provide housing for a low-income community towards the target of one-million housing development as stated in Economic Policy Package number 13. The economic package aimed at the acceleration of low-income housing development by simplifying the regulation, reducing the permission and accelerating the license

process, and lowering the cost for public housing under 5 hectares.

Central Government through the Ministry of public works and public housing affairs (*Kementerian PUPR*) contributes 50% of total budget (taken from the national budget/APBN), in which 20% is allocated for flats, special housing, detached housing and 30% for financing subsidy. The remaining 50% cost will be covered by cooperation from private institutions (including state owned companies) such as Perumnas, PP, etc. and communities. In particular, based on Government Regulation (PP) Number 83 Year 2015, it is stated that Perumnas is a National Housing and Urban Development Corporation which has roles as the main provider of public housing that plays some functions such as planning, sustainable development, management, monitoring, and evaluation.

iii. Green Open Space

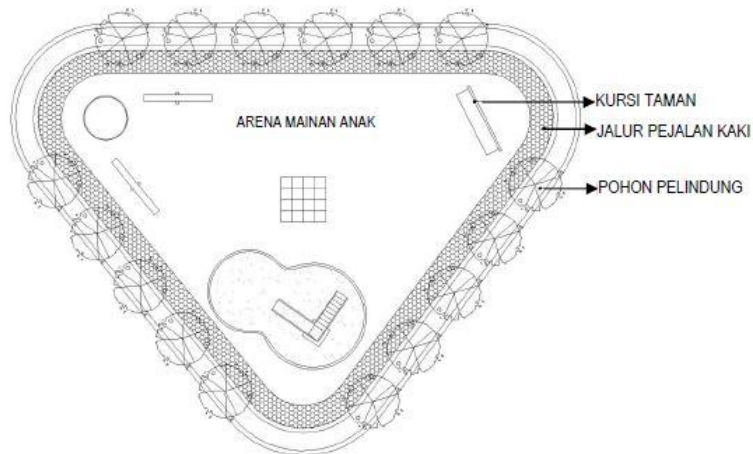
Green open space provisions are regulated in Minister Regulation Number 05/PRT/M/2008 regarding guideline of provision and utilization of green open space in urban area. The provision of green space based on the area in urban areas consists of public green open space and private open green space with proportion is at least 30% which consists of 20% public green open space and 10% of private green open space. If the area of green space both public and private in the city in question already has a total area greater than the applicable laws or regulations, then the proportion must be maintained.

An amount of 30% proportion is the minimum size to guarantee balance of urban ecosystems, both the balance of the hydrological system and the balance microclimates, as well as other ecological systems that can increase availability clean air that is needed by the community, and at the same time can increase value city aesthetics. The target area of 30% of the city area can be achieved in stages through typical urban land allocations as indicated below:

Table 26 Specific Criteria of Green Space Provision

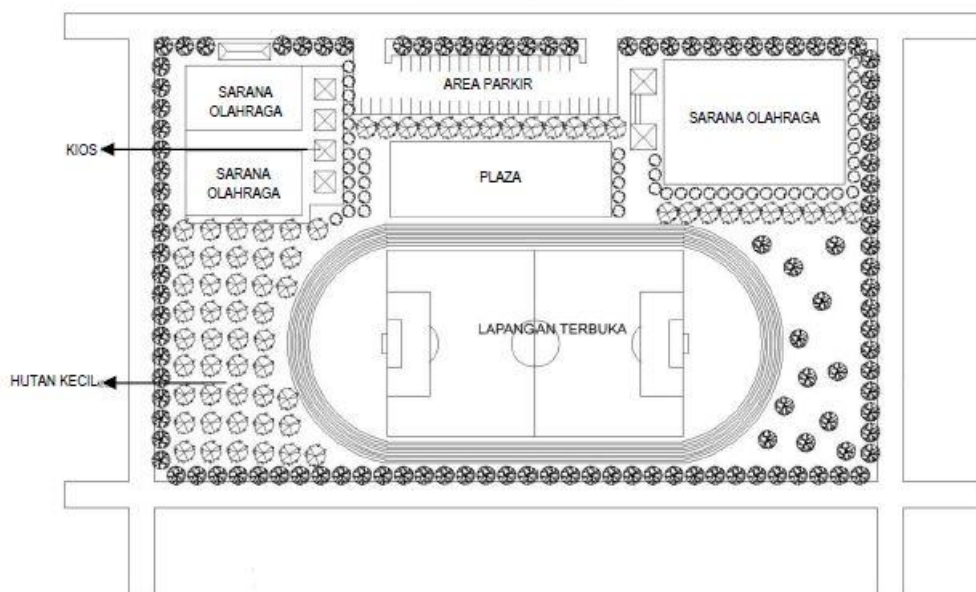
No	Environmental Unit	Type of Green Space	Minimum Size / unit (m ²)	Minimum Size per capita (m ²)	Location
1	250 persons	Neighborhood park (RT)	250	1,0	In the middle of neighborhood unit (RT)
2	2,500 persons	Neighborhood park (RW)	1250	0,5	Grouped with school/center of sub district
3	30,000 persons	Sub District Park	9000	0,3	Grouped with school/center of district
4	120,000 persons	District Plan	24000	0,2	Scattered
		Graveyard	Adjusted	1,2	Center of region/city
5	4,800,000 persons	City Garden	144000	0,3	Inside/fringe area
		Urban Forest	Adjusted	4,0	Adjusted with the needed (necessity)
		For particular functions	Adjusted	12,5	Adjusted with the needed (necessity)

Source: Minister of Public Works Regulation Number 5/2008



Source: Minister of Public Works Regulation No.5/2008

Figure 24 Example of Neighborhood Park



Source: Minister of Public Works Regulation No.5/2008

Figure 25 Example of District Park

a. Backyard Green Open Space

The yard is the land outside the building, which functions for various activities. The area of the yard is adjusted to the building coverage ratio (*koefisien dasar bangunan/KDB*) provisions in urban areas, as stated in the PERDA concerning RTRW in each city. To facilitate the classification of yards, the yard category has been determined as big house yard, medium house yard, and small house yard.

Table 27 Criteria of Backyard Open Space

Big House Yard	Medium House Yard	Small House Yard
<ul style="list-style-type: none"> • Big house category has land plot more than 500 m². • Minimum green open space required is land size (m²) reduced by building area (m²). • The number of protective trees that must be 	<ul style="list-style-type: none"> • Medium house category has land plot of 200 m² - 500 m². • Minimum green open space required is land size (m²) reduced by building area (m²). • The number of protective trees that must be provided 	<ul style="list-style-type: none"> • Small house category has land plot less than 200 m² • Minimum green open space required is land size (m²) reduced by building area (m²); • The number of protective trees that must be provided is at least 1 plus shrubs,

Big House Yard	Medium House Yard	Small House Yard
provided is at least 3 plus shrubs, ground cover and or grass)	is at least 2 plus shrubs, ground cover and or grass)	ground cover and or grass)

Source: Minister of Public Works Regulation No.5/2008

The limited area of the yard with a narrow road, did not rule out the possibility to realize green space through planting using pots or other growing media.

b. Open Space for Office, Shopping, and Business Area

The green space for offices, shops, and businesses is generally in the form of sidewalks and open parking areas. The provision of green space in this region is as follows:

- For BCR 70% -90%, it is necessary to add plants in pots
- Offices, shops and businesses with a BCR above 70%, having a minimum of 2 (two) small or medium-sized trees planted on land or in pots over 60 cm in diameter.
- Requirements for planting trees in offices, shops and businesses with a BCR below 70%, apply as a requirement in the green space of the yard, and are planted in areas outside the specified BCR.

c. Open Space in form of Roof Garden

In conditions of limited open land area, then for green space can utilize non-green open space, such as the roof of a building, house terraces, terraces and multi-story buildings, and other buildings, etc. Land with BCR above 90% such as shopping centres in the city center, or in areas with high density with very limited land, green space can be provided on the roof of a building.

d. Open Space in a Settlement

Open space in a settlement can be specified as neighborhood park (*Taman Rukun Tetangga*), community park (*Taman Rukun Warga*), sub-district park (*RTH kelurahan*), and district park (*RTH kecamatan*). Each park specification can be summarized in the table below:

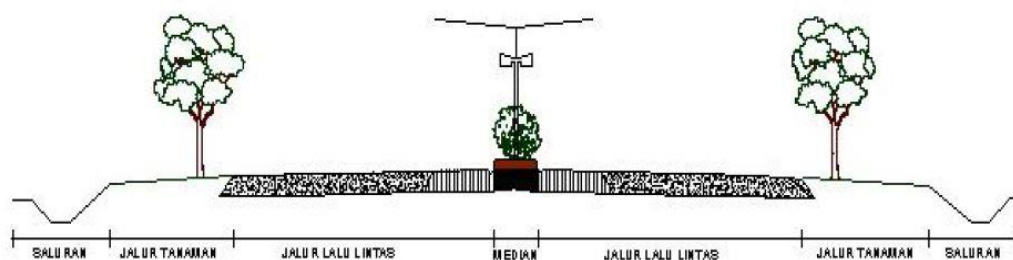
Table 28 The Criteria of Settlement Open Space

Neighbourhood Park	Community Park	Sub District Park	District Park
<ul style="list-style-type: none"> - To serve people in a neighborhood unit - Minimum size is 1 m² per person - Minimum area required is 250 m² - Located within a radius of less than 300 m from the residents. - The total area planted is at least 70% - 80% of the park area. 	<ul style="list-style-type: none"> - To serve people in a community (larger than neighborhood unit) - Minimum size is 0.5 m² per person - Minimum area required is 1,250 m² - Located within a radius of less than 1000 m from the residents. - The total area planted is at least 70% - 80% of the park area. - There are at least 10 trees. 	<ul style="list-style-type: none"> - To serve people in a sub district - Minimum size is 0.3 m² per person - Minimum area required is 9,000 m² - Located within a radius of less than 1000 m from the residents. - The total area planted is at least 80% - 90% of the park area. - There are at least 25 active trees and 50 passive trees. 	<ul style="list-style-type: none"> - To serve people in a sub district - Minimum size is 0.2 m² per person - Minimum area required is 24,000 m² - The total area planted is at least 80% - 90% of the park area. - There are at least 50 active trees and 100 passive trees.

Source: Minister of Public Works Regulation no.5/2008

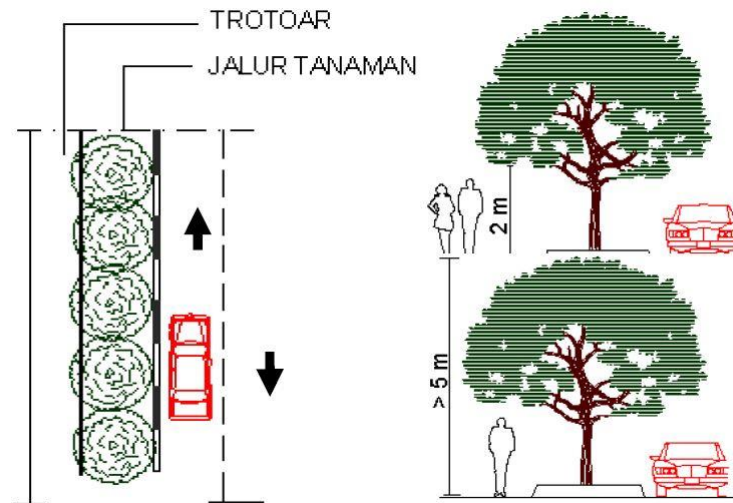
e. City/Urban Open Space

City/Urban Open Space consists of city park open space, urban forest, green belt, roadside, road island/median.



Source: Minister of Public Works Regulation no.5/2008

Figure 26 Example of Green Belt in Right of Way



Source: Minister of Public Works Regulation No.5/2008

Figure 27 Example of Roadside Green Space

f. Open Space of Specified Function

Open space with certain functions is green lines, among others, railway setback, high voltage electricity line, river setback, coast border, lake border, and open space that protects water source/springs.

iv. Non-Green Open Space (*Ruang Terbuka Non-Hijau/RTNH*)

Non-Green open space was regulated in the Minister of Public Works Regulation No. 12/2009 regarding Guidelines for The Provision and Utilization of Non-Green Open Space in Urban Areas/Urban Areas. The main function of the RTNH is the socio-cultural function which can play some roles as:

- a. forum for socio-cultural activities within the city / urban area which is divided and well planned
- b. disclosure of local cultural / cultural expressions
- c. a communication media for city residents
- d. sports and recreation areas; and
- e. space and object of education, research, and training in learning nature.

Other than that, there are several additional functions of non-green open space such as ecology, economic, architectural, and emergency (disaster mitigation). Provision

of non-green open space in a city/urban scale (city wide) is done by considering the spatial structure and pattern. The structure and pattern of a city is formed by the existence of a central hierarchy and the scale of services of a functional activity that is connected by a hierarchy of the road network and the main infrastructure (linkage) that forms an urban fabric, which in turn forms spaces of functional activity. RTNH is provided based on the proportion of its needs as indicated by the total population and area at each level.



Source: Minister of Public Works Regulation no.12/2009

Figure 28 Example of Parking Area



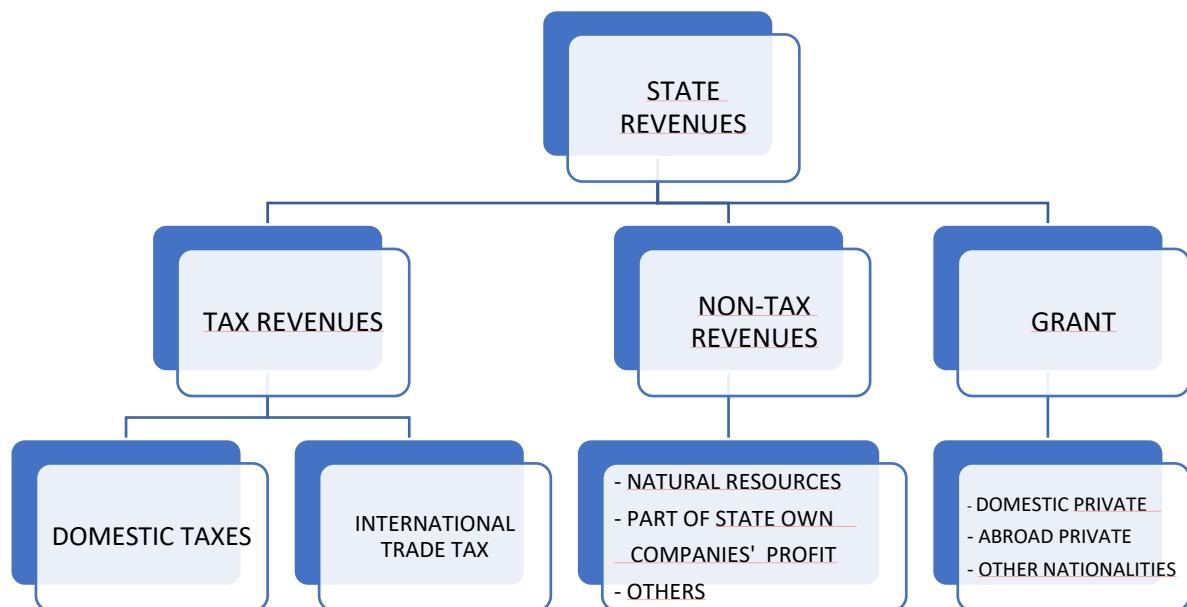
Source: Minister of Public Works Regulation No.12/2009

Figure 29 Example of Recreational Area

2.2.3 Finance (subsidy, tax, etc.)

National and local finances have been regulated in Act Number 17 Year 2003 regarding

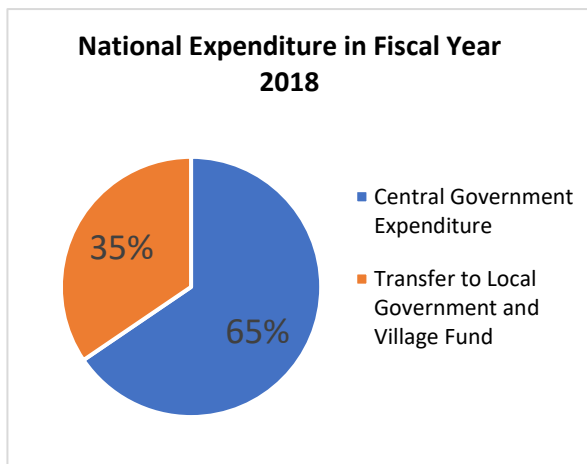
State Finances and the Act Number 33 Year 2004 regarding Financial Balance between the Central Government and Regional Government. State Finances are all rights and obligations of the state that can be valued in money or goods that can be owned by the state in relation to the implementation of rights and obligations. State Finance covers the entire set of activities related to the management of objects as mentioned above starting from policy formulation and decision making to accountability. State Financial Management is realized in the National Budget (APBN). The National Budget is the annual financial plan of the government of Indonesia which is approved by the House of Representatives.



Source: Law No. 17 Year 2003

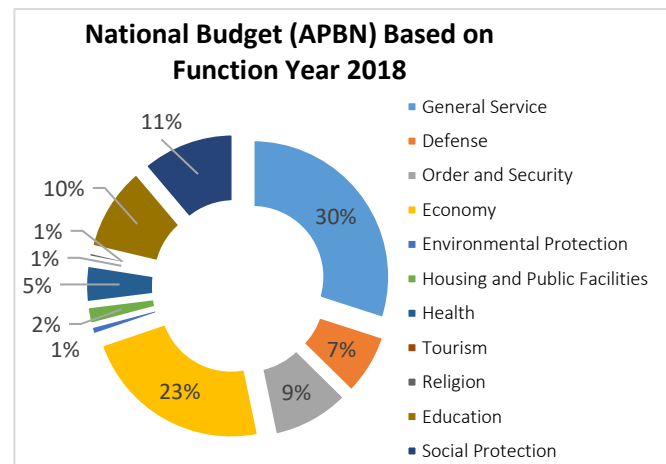
Figure 30 Sources of State Revenue

APBN consists of an income budget, an expenditure budget, and financing which are issued annually by law. Sources of financing in the state budget can come from tax revenue, non-tax revenue, and grant income. Meanwhile, allocation for the expenditure went to the central government, transfer fund to local government, and village fund. Most allocation goes to central government expenditure which distributed to each ministry and institution. In terms of sector, most of the budget goes to general service and economy (including infrastructure).



Source: Ministry of Finance, 2018

Figure 31 National Expenditure in Fiscal Year 2018

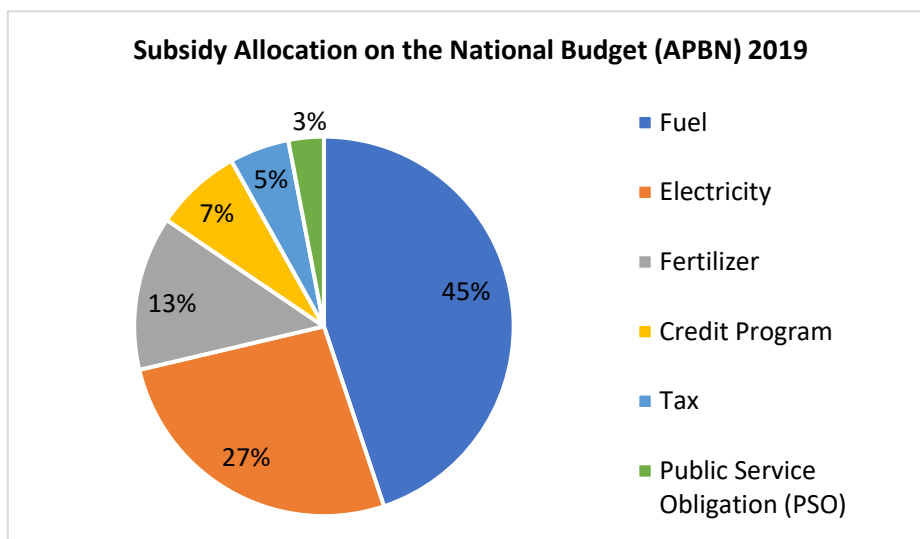


Source: Ministry of Finance, 2018

Figure 32 National Budget (APBN) Based on Function Year 2018

In terms of subsidy, national government was giving IDR 224.31 trillion from the annual budget year 2019 to 6 posts to be allocated for subsidy programs, namely fuel, electricity, fertilizer, credit program, tax, and PSO. At this case, there is only 7% subsidy allocation on the credit programs.

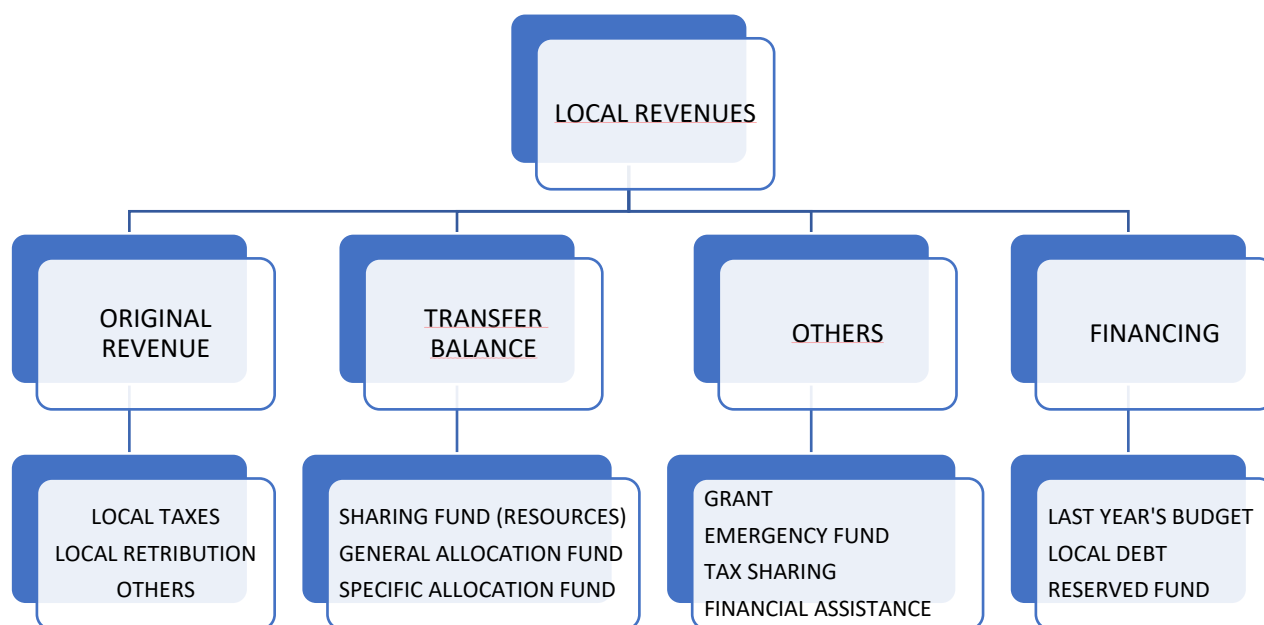
Government in particular, provides subsidies to developers of subsidizing housing on infrastructure, facilities, and utilizes in the form access road, integrated wastewater management, clean water system with cost value of IDR 6.2 million/housing unit.



Source: Ministry of Finance, 2018

Figure 33 Subsidy Allocation on the National Budget (APBN) 2019

On the other hand, local government revenue consists of original local revenue, transfer fund, local's debt, and other revenues. Origin Local Revenue (*Pendapatan Asli Daerah/ PAD*) is sourced from local tax, local retribution, local enterprise, and others. Transfer fund is sourced from Central Government that consists of sharing fund (*Dana Bagi Hasil/DBH*), general allocation fund (*Dana Alokasi Umum/DAU*), and specific allocation fund (*Dana Alokasi Khusus/DAK*). Lastly, local revenue comes from other sources that is eligible.



Source: UU No. 33 Year 2004

Figure 34 Sources of Local Revenue

Below is an example of local budget in city area.

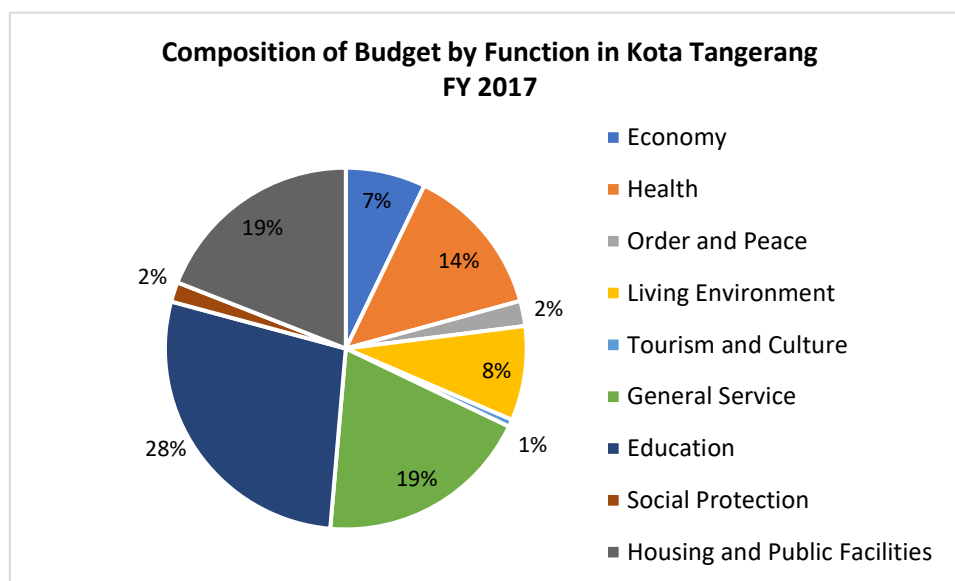
Table 29 Budget of Kota Tangerang in Fiscal Year 2017

No	Revenue Components	Amount (Rp.)	Percentage (%)
1	Local Original Revenue (PAD)	1,501,195,525,716	42.65%
2	Transfer Revenue	1,460,810,556,076	41.51%
3	Other Original Local Government Revenue	557,476,592,464	15.84%
	Total Revenue	3,519,482,674,256	100.00%

Source: Ministry of Finance, 2017

Budget structure in Kota Tangerang shows that there is a dependency of local budget to the transfer fund called General Allocation Fund (DAU) and Specific Allocation Fund (DAK). More than 40% of the revenue comes from this transfer fund. On the other hand, domestic revenue that sourced from tax, retribution, and others also give a meaningful contribution with 43% local origin revenue and 16% other revenue.

In terms of functions, local budget of Kota Tangerang can be depicted by chart below.



Source: Ministry of Finance, 2017

Figure 35 Composition of Budget by Function in Kota Tangerang Fiscal Year 2017

The chart shows that most of the allocation goes to education function, followed by general service and housing and public facilities, including infrastructure. In Kota Tangerang case, there is 19% allocation goes to housing and public facilities which means that construction and development programs regarding housing and infrastructure is being allocated less than 20% of total budget.

Table 30 Financial Instruments for Each Activity

No	Activity	Source of Fund
1	Land procurement	APBN, APBD, and company's internal budget (special assignment from the government)
2	Land consolidation	Community participation, APBN, APBD, and other legitimate sources in accordance with laws and regulations
3	Road	APBN or APBD depends from the authority: a. National road sourced from APBN b. Provincial road sourced from Provincial APBD c. Local road sourced from city/region's APBD
4	Public house	grants, loan, both from domestic and foreign sources of funds

Source: JUTPI 2

- Tax

Land and building tax are subject to the highest rate of 0.3% or 0.5% from the taxable sales value/NJKP (the value is 20% for houses price under 1 billion rupiah and 40% for houses above 1 billion rupiah) times tax object sales value/NJOP as a tax base.

- Housing

- a. Seller

The amount of income tax from the land/property transfer right is 2.5%, except simple houses or simple public house/simple flat, for the simple houses/simple public houses charged with 1% value, and free of charge to government, state/regional owned business entity that received special assignment from the government/regional head.

In addition, other taxes need to be paid are land and building taxes / PBB.

*Simple house is a house whose building area does not exceed 36 m² and land area does not exceed 60 m², simple public house are flats with housing unit price maximum of 168 million rupiah.

- b. Buyer

- Land and building title transfer duty with a rate 5% minus non-taxable tax object acquisition value/NPOPTKP (values vary depending on the location and determined by local government).
- Title transfer tax with a value of 2% or in accordance with local government regulation
- Deed of sale and purchase with a value of 1%
- Value added tax with a value of 10% from the land price

*Simple house & simple public house is free of charge from value-added tax and get land and building title transfer duty incentive.

2.2.4 Incentive and Disincentive

Incentive and disincentive are two of some instruments of control of the spatial utilization as mentioned in the Spatial Planning Act number 26 Year 2007 Article 35 that control of spatial use is carried out through zoning arrangement, licensing, incentive and disincentive

regulations, and imposition of sanctions. In order to realize a utilization of spatial planning utilization that is in line with the spatial plan, then incentives and/or disincentives can be given by:

- a. Central government to regional government
- b. Regional government to other regional government and
- c. Government to the community.

Incentive defines as an arrangement, tools or efforts to provide compensation or give a booster for the activities that are in line with the spatial plan. Incentive can be implied in the form of:

- a. Tax relief, granting compensation, cross subsidies, compensation, rent of space, and shares
- b. Development and procurement of infrastructure
- c. Convenience of permission procedures and/or
- d. Giving awards to the public, private sector and/or regional government.

Disincentive defined as arrangement or devices to prevent, limit growth, or reduce activities that are not in line with spatial plans. Disincentive is enacted to the activities which take place in areas where developments are limited. This instrument can be given in the form of:

- a. Imposition of high tax which is adjusted to the amount of costs needed to overcome the impacts caused by using the space; and/or
- b. Limitation of infrastructure provisions,
- c. Imposition of compensation, and penalties.

Considerations on the imposing of incentives and disincentives are:

- a. Both incentives and disincentives are tool to change behavior of the spatial users
- b. Laws and regulations related to object and type of incentives and disincentives (example: regarding fiscal, tax, and retribution)
- c. Regional authority in executing task in spatial planning
- d. Correlation with other sectors so that coordination is necessary.
- e. Region's capability in terms of human resource, finance in fulfilling/implementing incentives and disincentives.

There are three instruments of incentive and disincentive to support TOD area development, namely:

1. Incentive zone or bonus zone

This is a coordination mechanism between city government and private developer in area development that is related to public interest.

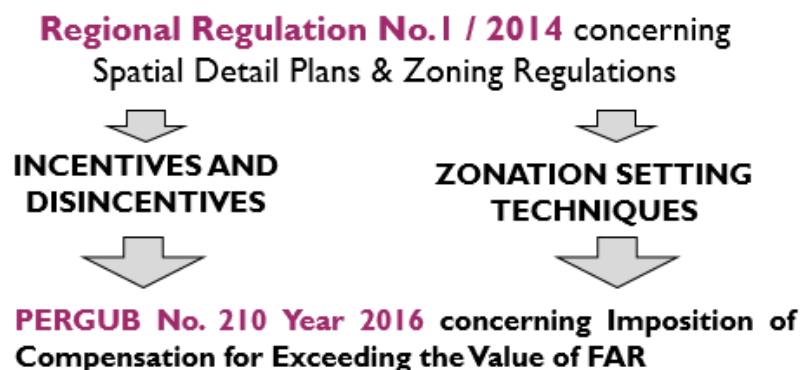
2. Transfer development right

A controlling instrument which promotes transfer of opportunity/development right (as a mandatory or voluntary) from a place/area that is preserved (sending area) to the area where developments are expected (receiving areas).

3. Special fiscal zone (disincentive)

Implemented in one or some blocks (usually in commercial or high-income housing). In this zone, regulations that oriented to increase local revenue (PAD) are stipulated by imposing tax tariff or retribution that is much higher than the blocks outside of TOD area.

In case of DKI Jakarta, zoning regulations are the basis for giving incentives and disincentives, granting licenses, and imposing sanctions. Based on the spatial plan (RTRW) of DKI Jakarta, priority for giving incentives is directed at the provision and addition of RTH, flood prevention, efforts to overcome the traffic congestion problem, city rejuvenation through community-based land consolidation and efforts to preserve cultural heritage buildings.

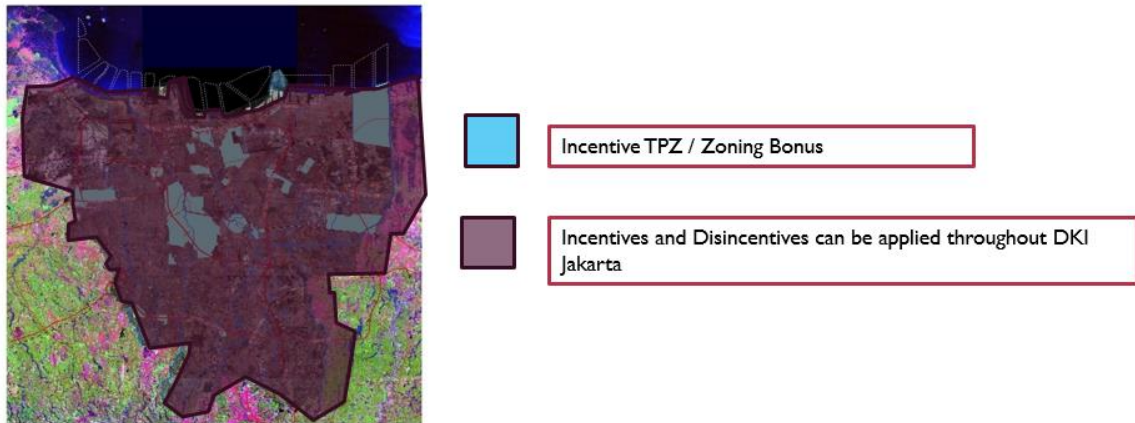


Source: Oswar Mungkasa, 2018

Figure 36 Direction on the Determination of Incentives and Disincentives in DKI Jakarta

To implement incentives and disincentive, it is necessary to apply compensation for floor

area ratio which defined as a public facility that is provided by communities, both individuals, business entities and institutions to the regional government for spatial use that exceeds the floor area ratio.



Source: Oswar Mungkasa, 2017

Figure 37 Area of Incentives and Disincentive Implementation in DKI Jakarta

FAR compensation is directed to the location as follows:

- a. primary activity center, secondary activity center, and strategic area of economic interest
- b. compact and integrated area with the development of the TOD concept
- c. area that has a function as a park and ride parking facility, and
- d. location of mass public transportation meetings.

Compensation for exceeding FAR rule is determined in the form of providing public facilities, among others (Governor Decree No. 210/2016):

- a. providing land and/or developing public green open space
- b. providing land and/or building public apartments
- c. providing land and/or build reservoirs or lake
- d. providing infrastructure
- e. provide sidewalk and improve the quality of pedestrian facilities that are integrated with public transport, and
- f. providing bicycle lanes that are integrated with public transportation.

The forms of infrastructure provision as a compensation for exceeding FAR are:

- | | |
|--|--|
| a. Transportation infrastructure | l. Urban facility infrastructure |
| b. Road infrastructure | m. Educational facilities infrastructure |
| c. Water resources infrastructure,
irrigation and flood control | n. Infrastructure and facility for sports
and art |
| d. Water supply infrastructure | o. Area infrastructure |
| e. Off-site wastewater management
infrastructure system | p. Tourism infrastructure |
| f. On-site wastewater management
infrastructure systems | q. Health infrastructure |
| g. Waste management infrastructure
system | r. Penitentiary infrastructure |
| h. Telecommunications and informatics
infrastructure | s. Public housing infrastructure |
| i. Electricity infrastructure | t. Gardening infrastructure |
| j. Oil and gas infrastructure and
renewable energy | u. Government infrastructure |
| k. Energy conservation infrastructure | v. Environmental infrastructure, and |
| | w. Economic infrastructure. |

The purpose of the realization of FAR bonus in the form of social facility and public facility infrastructure is as follows:

- a) As a manifestation of the community involvement in spatial planning (in accordance with PP. 68 Year 2010) in the implementation of city development;
- b) Forms of cooperation between private and government in city development;
- c) Accelerating the infrastructure development process in DKI Jakarta in order to overcome city problems:
 - Fiscal will imply a longer and more complex procedure while waiting for the budget (APBD) completion until the auction process.
 - Non-Fiscal can be done directly by the Consultant without waiting for the Regional Budget and the auction process.
- d) Regional Regulation (*Peraturan Daerah/Perda*) 3 of 2012 as a substitute of *Perda* No. 1 Year 2006 concerning regional retribution, that an increase in FAR is no longer a regional income for DKI Jakarta in the form of regional retribution.

- e) In regional finance and tax regulations, regional governments can only receive fiscal revenues from taxes and regional levies.
- f) Formula to calculate the amount of compensation obtained is based on the equation:

$$K = I \times \frac{L}{FAR_{BASIC}} \times NJOP$$

Information:

K = Value of Compensation (IDR)

I = Index

L = Amount of exceeded floor area (m²)

Basic FAR = Building Floor Coefficient Value in accordance with the stipulated City Plan

NJOP = Object Selling Value Tax of built land (IDR)

Semanggi Interchange is a given example for the implementation of FAR compensation. It was a private enterprise that is subjected to this FAR compensation rule. The private developer (PT. Mitra Panca Persada) is planned to increase FAR from 7 to 13 or adding the building area into 4.8 Ha amounted for IDR 580 billion. In return, the enterprise constructed an interchange around the Semanggi bridge purposed for the public in order to reduce the traffic from and towards Semanggi Area.



Source: Presentation Material by Oswar Mungkasa, 2017

Figure 38 Semanggi Interchange Illustration

Providing exceedances of FAR in other rail-based mass public transportation of TOD area, which does not have an index value, then the index value is determined by the Governor after obtaining consideration at the *Badan Koordinasi Penataan Ruang Daerah* (Regional Spatial Planning Coordinating Body/BKPRD) coordination meeting and/or forum of the governors' meeting by taking into account the functions and characteristics of the surrounding area.

Requests for space utilization proposed for the construction of rental apartments either carried out by the central government, regional government, state-owned enterprise (BUMN), and regional-owned enterprises (BUMD) are given exceedances of the FAR without compensation. Construction of government offices on lands owned by the central government and/or regional government that are not cooperated with BUMN, BUMD, private sector and/or individuals not subject to compensation for exceeding FAR.

Other form of incentives application is the provision of Children Friendly Public Open Space (*Ruang Publik Terbuka Ramah Anak/RPTRA*), a public park equipped with playground and sport facility dedicated to children. In providing this facility, land procurement is the biggest constraint considering the limited land for public space. Therefore, Regional Government of DKI Jakarta is open to cooperate with private sector or community to provide the land and develop the park through coordination of asset utilization. Hence, private developer which provide the land will be given an incentive in terms of tax relief. In addition, private also will be given a privilege to advertise their products in 20-30% of the land plot.



Source: www.akurat.co

Figure 39 Children Friendly Park (RPTRA) Cililitan

Exceeding FAR in the Education Infrastructure Sub-Zone (S.I) which location is in the Technical Zoning Regulation (TPZ) bonus with code a, not subject to compensation with the requirement (provision) of school must accept 60% of students from low income communities and must first obtain a recommendation from the Education Agency of DKI Jakarta. Exceeding FAR in the Health Infrastructure Sub-Zone (S.2) located at the location of the Zoning Arrangement Zone Bonus with code a, not subject to compensation provided that the hospital must provide a minimum of 60% class III room units of the total room capacity in accordance with the participant tariff of (health guarantee BPJS for Health or Regional Health Insurance (Jamkesda) and must first obtain recommendations from the DKI Jakarta Provincial Health Office.

Holders of Exemption Principle Agreement FAR that does not carry out compensation obligations will be subject to administrative sanctions, in the form of:

- The first warning letter → given to the holders of the FAR exceeding principle agreement that does not implement the form of compensation in accordance with the limits and scope stated in the agreement on obligation
- Second warning letter → If within 7 (seven) working days since the first warning letter is received, the form of compensation has not been fulfilled.
- Freezing of permits → If within 3 (three) working days since the second warning

letter is received, the form of compensation has not been fulfilled.

- Revocation of licenses → If within 1 (one) working day from the freezing of licenses (including: Approval of the Exemption Principle of KLB, IMB, SLF, and other operational permits), the form of compensation has not been fulfilled.

Revocation of permits can be reviewed with the determination of the calculation of compensation value based on the current NJOP after the approval of the governor in the BKPRD leadership meeting and/or forum of the governor's meeting.

2.2.5 Public Consultation

Public consultation in terms of public hearing, information dissemination, socialization, campaign, etc. are generally and briefly explained in some regulations. The role of the community in development is carried out at the planning step, development step, utilization step, and controlling step, as regulated in each laws or regulation related to development implementation. The role of community can be done by individuals, groups including customary law communities, corporations, and non-governmental organization. Role of community is necessary to guarantee rights and obligations of the community, it is done to realize the development implementation transparency, effective, accountable, improve quality of planning, and realize development in accordance with what has been determined.

In the planning step, community can provide input regarding:

- a. Preparation of plans
- b. Determining development direction
- c. Identifying potential and problems in the development area
- d. Concept formulation
- e. Plan setting.

*Input can be in the form of information, proposal, suggestions, opinions, considerations, and responses.

2.2.6 Public Private Partnership

Government collaboration with business entities (PPP) is one of the schemes that can be chosen in the provision of public infrastructure in Indonesia. The management capabilities

and efficiency offered by business entities are expected to assist the Government in improving public services through an infrastructure provision. PPP is defined as a collaboration between the government and business entities in the provision of infrastructure for the public interest by referring to specifications that have been previously determined by the minister/head of the institution/regional head/state-owned enterprise/regional owned enterprise, which partly or wholly uses the resources of the business entity by taking into account the distribution of risk between the parties.

A quick understanding of PPP:

- a. PPP project initiated by the Government namely solicited project, PPP project initiated by business entity namely unsolicited project
- b. PPP is not a transfer of government obligations in providing services to the community, however PPP is a financing scheme to design, build, and operate infrastructure projects to the private sector.
- c. PPP is not a source of government revenue that will burden the community in providing public services
- d. PPP is not a government debt to the private sector, and private investment is not a free contribution to the government in the provision of public services.

The government purposes in using PPP scheme in the provision of public service development are:

- a. Fulfilling the needs for sustainable infrastructure provision through the mobilization of private funds
- b. Encouraging the principle of using pay by facility users, or in certain cases considering capability users to pay
- c. Provision of quality, effective, efficient, targeted and timely infrastructure
- d. Creating an investment climate that encourages the participation of business entities in the provision of infrastructure
- e. Provide certainty of return on investment of business entities through periodic payments by the government to business entities.

The regulation concerning PPP are regulated in several laws, which are mentioned on the table below:

Table 31 PPP Scheme in The Provision of Infrastructure

General	Implementation Procedure	Infrastructure Guarantor	Feasibility Support	PPP Scheme Transaction Preparation and Implementation Facilities	Service Availability Payment
Presidential Regulation No. 38/2015 concerning cooperation between government and business entity in the provision of infrastructure	Minister of National Development Planning Regulation/Head of National Development Planning Agency of the Republic of Indonesia No.4/2015 concerning the procedure for implementation cooperation between government and business entity in the provision of infrastructure	Presidential Regulation No. 78/2010 concerning infrastructure underwriting in cooperation between government and business entity carried out through infrastructure guarantee business entity	Minister of Finance regulation No. 223/PMK.011/2012 concerning provision of support for part of construction cost in cooperation project between government and business entity in the provision of infrastructure	Minister of Finance regulation no 73/pmk.08/20018 regarding amendments to Minister of Finance regulation No. 265/PMK.08/2015 concerning facilities in the framework of preparation and implementation cooperation project transaction between government and business entity in the provision of infrastructure	Minister of Finance regulation No.190/PMK.08/2015 concerning service availability payment in the framework of cooperation project between government and business entity in the provision of infrastructure
	Regulation of Goods and Services Procurement Policy Institute No.19/2015 concerning implementation procedure of business entity	Minister of Finance Regulation No.260/PMK.011/2010 concerning guidelines for implementing infrastructure guarantee in	Minister of Finance regulation No.170/PMK.08/2015 regarding amendments to ministry of finance regulation no. 143/PMK.011/20	Minister of Home Affair regulation No.96/2016 concerning service availability payment in the framework of cooperation	

General	Implementation Procedure	Infrastructure Guarantor	Feasibility Support	PPP Scheme Transaction Preparation and Implementation Facilities	Service Availability Payment
	procurement in collaboration between government and business entity in the provision of infrastructure	cooperation project between government and business entity	13 concerning guidelines for provision of feasibility support for part of construction cost in cooperation project between government and business entity in the provision of infrastructure		project between local government and business entity in the provision of infrastructure
	Regulation of Goods and Services Procurement Policy Institute No.29/2018 concerning implementation procedure of business entity procurement in the infrastructure provision through collaboration between government and business entity initiated by				

General	Implementation Procedure	Infrastructure Guarantor	Feasibility Support	PPP Scheme Transaction Preparation and Implementation Facilities	Service Availability Payment
	minister/head of institution/head of regency				

Source: JUTPI 2

Presidential Regulation No. 38/2015 concerning Cooperation Between Government and Business Entity in the Provision of Infrastructure

The availability of adequate and sustainable infrastructure is an urgent need, to support the implementation of national development to improve national economy, public welfare, and improve Indonesia’s competitiveness in global competition, the Government encourage business entities to cooperate in providing infrastructure based on sound business principles. Therefore, cooperation between Government and business entities in the provision of infrastructure regulated in the law to protect the interest of consumers, the community, and business entities in a fair manner.

Cooperation project scheme between Government and business entities hereinafter referred as PPP, done based on principles:

- a. Partnership, namely cooperation between Government and business entities carried out based on statutory provisions and requirement, considering the needs of both parties.
- b. Utilization, namely infrastructure provision that carried out by the Government and business entities to provide social and economic benefits for the community.
- c. Compete, namely procurement of business entity cooperation partnership carried out through the stage of fair, open, and transparency election, as well as taking into account the principles of fair business competition.
- d. Risk control and management, namely cooperation in infrastructure provision carried out with risk assessment, management strategic development, and mitigation of risk.
- e. Effective, namely cooperation in provision can accelerate infrastructure development

while improving management service quality and maintenance.

- f. Efficient, namely cooperation in infrastructure provision to meet the funding needs in a sustainable manner in the provision of infrastructure through private funds supports.

The type of infrastructure that can be cooperate by PPP scheme are social and economic infrastructure, including:

- | | |
|--|-----------------------------|
| a. Transportation | k. Energy conservation |
| b. Road | l. Urban facility |
| c. Water resources and irrigation | m. Education facility |
| d. Drinking water | n. Sport facility |
| e. Centralized wastewater treatment system | o. Regional |
| f. Local wastewater treatment system | p. Tourism |
| g. Solid waste management system | q. Health |
| h. Telecommunication and informatics | r. Correctional institution |
| i. Electric | s. Public housing |
| j. Oil, gas, and renewable energy | |

* Notes: 2 (two) or more types of infrastructure can be combined in 1 (one) PPP scheme

In implementing a PPP project, a person in charge of the collaboration PPP project is needed. In this case, the person in charge of the collaboration PPP project hereinafter referred as PJPK is Minister or Head of Institution or Regional Head or State-owned enterprise or Regional owned enterprise. To increase the feasibility of PPP project and provide greater benefit to the community, the PPP project can include the provision of commercial facilities. In the case of PPP 2 or more types of infrastructure, the Minister or Head of Institution or Regional Head or State owned enterprise or Regional owned enterprise who is appointed as the PJPK can cooperate in accordance with the infrastructure sector in the PPP project by signing a memorandum of understanding. PJPK can finance a portion of the infrastructure provision, the infrastructure provisions carried out by business entity whose election through auctions or direct appointment (stipulated in Regulation of Goods and Services Procurement Policy Institute No. 19/2015).

The return on investment of a business entities which includes capital costs, operational costs, and profits of business entities is determined by the PJPK. Return on business

entity investment on infrastructure provision are sourced from:

- a. Payment by the infrastructure users in the form of tariffs
- b. Service availability payment
- c. Other form which does not conflict with laws and regulations

*notes: service availability payment performed with take into account of capital cost, operational cost, and business entities profit through national budget and or regional budget mechanism (stipulated in Minister of Finance Regulation No. 190/PMK.08/2015).

In the event that the PPP project is initiated by business entity, the initiating the business entity could get several compensations from the government, such as:

- a. Adding score/point in the tendering process
- b. Granting to right to make an offer by the initiating business entity to the best bidder, in accordance with the result of assessment in the tendering process
- c. Given right to purchase Intellectual property

For the sake of the smooth PPP project implementation, the Government through approval ministry of finance provides feasibility support in the form of financial support in cash for certain proportion of all project construction cost and or tax incentive (stipulated in Minister of Finance Regulation No.223/PMK.011/2012). Moreover, the government also provides guarantees in the form of infrastructure guarantees, what is meant by infrastructure guarantee is the financial obligation of PJKP to pay financial compensation to business entities for the occurrence of infrastructure risks as agreed in the cooperation agreement (stipulated in Presidential Decree No.78/2010).

Minister/Head of Institution/Regional Head plans infrastructure that will be cooperated with business entities, through activities:

- a. Identification and determination PPP project
- b. PPP project budgeting
- c. Categorization of PPP project

Identification and determination PPP project activities take into account of National / Regional development plans, spatial planning, correlation of infrastructure and spatial sectors, benefit and social cost analysis, and value of money analysis. PPP project budgeting includes planning cost, *preparation, **transaction, and PPP management.

*PPP preparation includes activities of pre-feasibility study, government support and guarantee plans, stipulation on procedure for returning investment of implementer business entity, and land procurement for the project. The preparation of PPP project is carried out by the minister/head of institution/regional head that can be assisted with business entity/institution/international organization.

**PPP transaction includes market sounding, determination project location, activities of implementer business entity procurement, signing PPP project agreement, fulfilling financing for infrastructure provision which is the responsibility of PJKP.

Stages of preparation and transaction activities were facilitated by the minister of finance in accordance with the infrastructure provision application letter submitted by PJKP. The form of facilities provided is in the form of money sourced from the national budget for project preparation (feasibility study and other supporting documents) and transaction assistance (stipulated in Minister of Finance Regulation No.73/PMK.08/2018).

2.3 Designated TOD Areas/Projects in JABODETABEK

Some institutions from public, private companies, and state-owned companies are encouraging development of transit-oriented area around JABODETABEK due to rapid construction and future plan of railway network. Some of the projects proposed on the land owned by the agencies or cooperate with the landowners. In some projects, the railway company is involving construction enterprise to develop the area. Here is some list of planned TOD projects in JABODETABEK according to the typology.

Table 32 TOD Typologies and Status

City/ Regency	City TOD Locations	Typology	Developer/Initiator	Status
DKI Jakarta	1. Kampung Rambutan	City TOD	Technical Unit (UPT) Bus Terminal	Not decided
	2. Blok M	City TOD	PT. MRT Jakarta	Planning and study by MRT Jakarta
	3. Lebak Bulus	City TOD	PT. MRT Jakarta	Planning and study by MRT Jakarta
	4. Dukuh Atas	City TOD	PT. MRT Jakarta	Planning and study by MRT Jakarta
	5. Tanjung Priok	City TOD	N/A	Not decided
	6. Grogol	City TOD	N/A	Not decided
	7. Rawa Buaya	City TOD	Technical Unit (UPT) Bus Terminal	Not decided
	8. Jakarta Kota	City TOD	PT. KAI	Proposing cooperation with other state-owned company or regional owned company
	9. Cawang-Cikoko	City TOD	State Owned Enterprise (PT. <i>Adhi Karya</i>)	Planning and study
	10. Pasar Senen	City TOD	State and Regional Owned Enterprise (PT. KAI and <i>PD. Pasar Jaya</i>)	Proposing cooperation with other state-owned company or regional owned company
	11. Tanah Abang	City TOD	State Owned Enterprise (PT. PP)	Proposing cooperation with other state-owned company or regional owned company
Kota Depok	12. Depok Baru	City TOD	Private Enterprise (PT. <i>Trivo Orion Property</i>)	The enterprise has got the license to develop area around the station
	13. Cinere	City TOD	N/A	Not decided
Kota Bekasi	14. East Bekasi Area	City TOD	State Owned Enterprise (PT. <i>Adhi Karya</i> through the subsidiary of <i>PT. Adhi Commuter Properti</i>)	Located in Jatimulya Area, Bekasi Regency Study area is being conducted
	15. Bekasi Station	City TOD	PT KAI and PT. Waskita Karya	Planning stage: there will be 5 towers of apartment, on which 20% will

City/ Regency	City TOD Locations	Typology	Developer/Initiator	Status
				be dedicated to the low-income community
Kabupaten Bekasi	16. Cikarang-Jababeka	City TOD	Private (PT. <i>Jababeka</i>)	On the initial phase and still look for partnership and cooperation with other companies.
Kota Bogor	17. Baranangsiang	City TOD	Private Enterprise (PT. <i>PGI</i>)	Planning and study by the initiator
	18. Bogor Station-Paledang	City TOD	State Owned Enterprise (PT. <i>KAI</i> and PT. <i>Waskita Karya</i>)	The project is now suspended due to license issue
Kabupaten Bogor	19. Cibinong	City TOD	TOD Bojonggede	Not decided, still being reviewed in the spatial plan
Kota Tangerang	20. Poris Plawad	City TOD	Government and Private BPTJ and PT. <i>Mina Transindo Totabuan</i>	Planning and study by the initiator
Kabupaten Tangerang	21. Balaraja	City TOD	N/A	Not decided
	22. Tigaraksa	City TOD	Suvana Sutera (Alam Sutera Group)	Planning phase and has been considered in a mid-term development plan
Kota Tangerang Selatan	23. Jurangmangu-Ciputat	City TOD	PT. <i>Jaya Real Property</i>	Planning, study of the masterplan by the local government.
	24. Rawa Buntu	City TOD	State Owned Enterprise (PT. <i>KAI</i> and <i>Perum Perumnas</i>)	Construction of the apartment unit
DKI Jakarta	25. Tanjung Barat Station	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. <i>KAI</i> and <i>Perum Perumnas</i>)	Construction of the apartment unit
	26. Juanda Station	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. <i>KAI</i> and PT. <i>Pembangunan Perumahan</i>)	Proposing cooperation with other state-owned company or regional owned company
	27. Harmoni	Sub city/ Neighborhood TOD	N/A	Not decided
	28. Mangga Dua	Sub city/ Neighborhood TOD	N/A	Not decided
	29. Manggarai	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. <i>KAI</i>)	Proposing cooperation with

City/ Regency	City TOD Locations	Typology	Developer/Initiator	Status
				other state-owned company or regional owned company
	30. Cibubur	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. Adhi Karya)	Not decided
	31. Pancoran	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. Adhi Karya)	Not decided
Kota Depok	32. Pondok Cina Station	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. KAI and <i>Perum Perumnas</i>)	On the construction phase of the apartment and has got the permit of building (IMB) by the local gov. of Kota Depok
	33. Jatijajar	Sub city/ Neighborhood TOD	Private (PT. Modern Surya Jaya)	Not decided
	34. Citayam	Sub city/ Neighborhood TOD	N/A	Not decided
Kota Bekasi	35. Several LRT Stations in Bekasi City	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. <i>Adhi Karya</i> through the subsidiary of PT. <i>Adhi Commuter Properti</i>)	Apartment construction and area development
Kabupaten Bekasi	36. TOD of Cikarang Station	Sub city/ Neighborhood TOD	N/A	Not decided
	37. TOD of South Cikarang	Sub city/ Neighborhood TOD	N/A	Not decided
	38. TOD Tambun	Sub city/ Neighborhood TOD	N/A	Not decided
Kota Bogor	39. Sukaresmi	Sub city/ Neighborhood TOD	N/A	Not decided
	40. Tanah Baru	Sub city/ Neighborhood TOD	N/A	Not decided
	41. Bubulak	Sub city/ Neighborhood TOD	N/A	Not decided
	42. Kertamaya	Sub city/ Neighborhood TOD	N/A	Not decided
	43. Mulyaharja	Sub city/ Neighborhood TOD	N/A	Not decided
Kabupaten Bogor	44. Bojonggede	Sub city/ Neighborhood TOD	State Owned Enterprise (PT. Adhi Karya)	Planning and study

City/ Regency	City TOD Locations	Typology	Developer/Initiator	Status
	45. Gunung Putri	Sub city/ Neighborhood TOD	Private (PT. Graha Tunas Selaras (Agung Podomoro Group))	Planning and study
Kota Tangerang	46. Tangerang Station	Sub city/ Neighborhood TOD	N/A	Not decided
	47. Ciledug	Sub city/ Neighborhood TOD	N/A	Not decided
	48. Palem Semi	Sub city/ Neighborhood TOD	N/A	Not decided
Kabupaten Tangerang	49. Cisauk	Sub city/ Neighborhood TOD	PT. Sinar Mas Land (Developer of BSD City)	Railway station has been renovated with an intermode transfer facility and will be developed by providing residential and commercial area around the station.
	50. Cikoya	Sub city/ Neighborhood TOD	N/A	Stated in the spatial plan (RTRW) document
Kota Tangerang Selatan	51. Pondok Cabe	Sub city/ Neighborhood TOD	BPTJ	
	52. Sudimara	Sub city/ Neighborhood TOD	State Owned Enterprise PP Urban (Subsidiary of PP)	Planning
	53. Pondok Ranji	Sub city/ Neighborhood TOD	N/A	Not decided
	54. Serpong	Sub city/ Neighborhood TOD	N/A	Not decided

Source: compiled from various sources, 2019

In detail, below is the institutions and companies who have the plans as well as the railway system development project in relation to TOD area development.

1. BPTJ

BPTJ proposed four locations to be developed as TOD which principally situated on the bus terminals, namely Poris Plawad (Kota Tangerang), Pondok Cabe (Tangerang Selatan), Baranangsiang (Kota Bogor), and Jatijajar (Kota Depok). Each location has some issues and challenges in terms of regulation, organization, and financing. Status and progress of those plans can be described as follow:

- Poris Plawad

Based on the information, it can be concluded that project initiators are going to develop transit node in form of building that connects node to node (station and terminal area), not the surrounding area. It is expected that Poris Plawad will become an integrated terminal which can be a trigger for the area development. At the moment, this plan is facing some challenges in terms of regulation (height restriction) and technical design adjusted to the criteria.

- Pondok Cabe

There is no further action to follow up the plan, despite there are many parties interested in this project, for example, bus company (PPD).

- Baranangsiang

This well-known bus terminal in Kota Bogor has started the initiation in 2012 and completed document of detailed engineering design (DED). There is an issue regarding to the requirements that need to be fulfilled to issue technical recommendation.

- Jatijajar

A bus terminal in Kota Depok is in the completion process and there is a friction with existing spatial plan which has not accommodated room for TOD. In the current condition, the area is functioned as terminal and mid-density housing.

Furthermore, based on the information from BPTJ, it is stated that TOD can be proposed by individual and technical recommendation will be adjusted with regulation of the head of BPTJ. Some other notes which need to be inferred is that there is no direction to arrange master plan in the BPTJ's regulation and without technical recommendation, development can be still executed.

2. Indonesian Railway Company (PT. *Kereta Api Indonesia*/PT. KAI)

At the early stage, PT. KAI proposed some locations according to the criteria of Minister of ATR/BPN regulation, namely Jakarta Kota-Kampung Bandan, Manggarai, Pasar Senen, Juanda, Tanah Abang. In this case, PT KAI proposed to cooperate with other SOEs and Local Government through their regional and local company (*Perusahaan Umum Daerah/Perumda*). Major challenges and issues in conducting this project are land acquisition, regulation, and coordination. Despite the land is owned by PT. KAI, a large size of land has been occupied by the residents without permission. Secondly, TOD regulations and related plans are less

synergistic among Ministry of ATR/BPN, Regional Government, and BPTJ. Each institution has their own criteria, requirement, and designated area to be prioritized for TOD. Lastly, it is found that there is unsynchronized coordination and unclear task division between local government and state-owned company regarding land acquisition, which supposed to be done by the local government. For example: land acquisition for roads, making underpasses and flyovers across rail lines.

Some projects that currently running such as Tanjung Barat Station, Pondok Cina, and Rawabuntu Station were initially proposed to be developed with TOD concept, but somehow it did not meet the criteria in the ATR/BPN regulation. Therefore, it goes with the concept of mixed-use integrated stations by collaboration with PERUMNAS or other construction SOE. Since the scope is smaller and under the authority area of PT. KAI, challenges are fewer which is related to recording state assets.

3. PERUMNAS (*Perusahaan Umum Pembangunan Perumahan Nasional/National Housing Cooperation*)

PT. Perumnas is now planning some TOD project in Pondok Cina Station (Depok City), Tanjung Barat Station (South Jakarta), and Rawabuntu Station (Serpong, South Tangerang) called MAHATA. All three stations will be developed through cooperation between Perumnas and PT KAI (Indonesian Railway Company) in terms of land provision. The land status is HPL (*hak pengelolaan/management right*) of PT. KAI and building right (HGB) of PT. Perumnas for the period of 30 years and to be extended for 20 more years (30 + 20). The concept of flat in TOD area of Tanjung Barat, South Jakarta is commercial and subsidy, where 80% of the units is proposed for commercial and 20% is proposed for subsidy.

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Case Study: TOD Tanjung Barat



Source: CMEA (on JICA Training Seminar), 2019

Figure 40 Case Study of TOD Tanjung Barat

4. LRT JABODEBEK

LRT JABODEBEK is a national priority project that has been a focus for the last 5 years. For the construction process, the central government through Ministry of Transportation has appointed PT. *Adhi Karya*, a state-owned company in construction as a contractor. LRT JABODEBEK that is spanned from Bekasi to Cawang also from Cibubur to Cawang has triggered the area potential to be developed alongside the railway line. Some of the proposed area that will be developed as an LRT-based are: Cibubur (DKI Jakarta), East Bekasi (Bekasi Regency), and some LRT stations in Bekasi City. Some projects are now being constructed in line with the completion of LRT JABODEBEK.

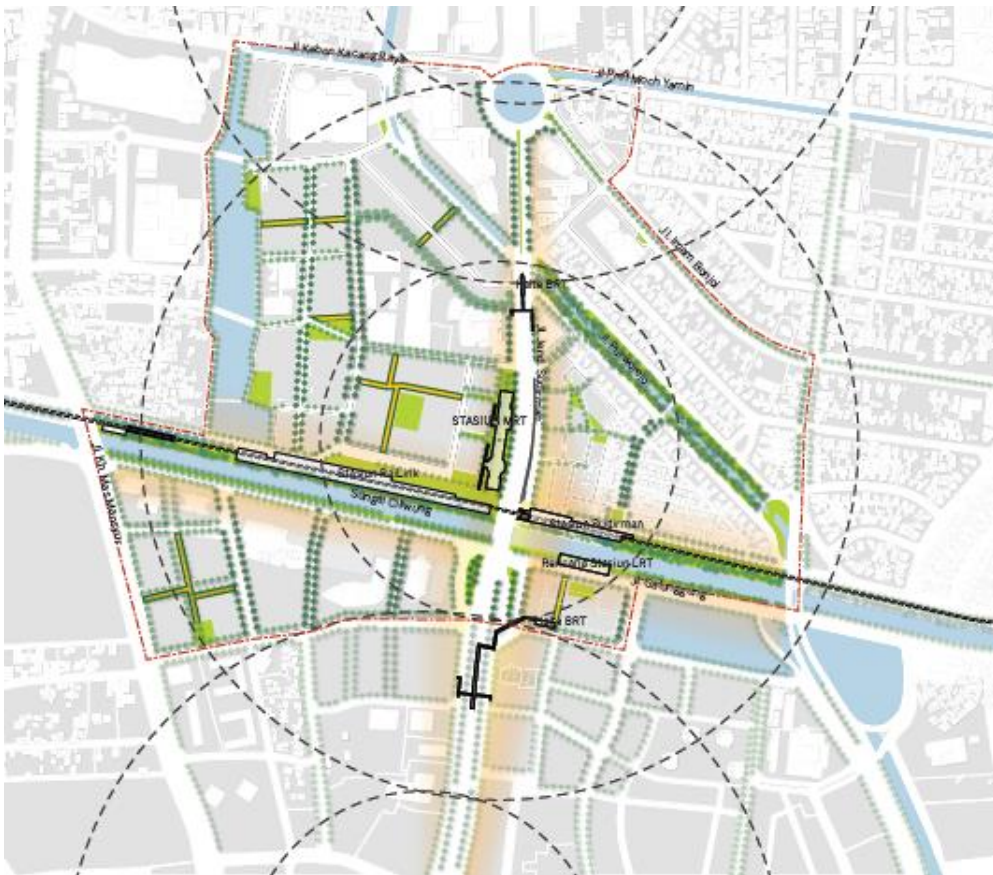
5. LRT Jakarta

Jakarta Properti (Jakpro) is the main operator that manage the process from planning, construction, and evaluation of DKI Jakarta's LRT. The first line of DKI Jakarta's LRT spanned from Kelapa Gading (North Jakarta) to Velodrome in Rawamangun (East Jakarta). Subsequently, there will be another line from Kelapa Gading to Jakarta International Stadium (JIS) which construction is expected to be started in 2020. To support the operational of LRT, Jakpro also promote a TOD concept in LRT Depo in Kelapa Gading and Pulomas which now is still in the planning stage. In the future, TOD area development plan will be detailed by Urban

Design Guideline (*Pedoman Rancang Kota/PRK*). Out of 8 submitted locations by Jakpro (Jakarta International Stadion (JIS), Kemayoran, Pegangsaan Dua, Mall Kelapa Gading, Pulomas, Velodrome, and Manggarai), 4 locations have been completed with urban design guideline/PRK which now are being reviewed by the government of DKI Jakarta. These locations are determined by locating empty land owned by local government and low-risk scheme to increase its viability for realization.

6. MRT Jakarta

In the construction of the Jakarta phase 1 MRT in the south-north corridor, MRT Jakarta develops 5 areas to be developed TOD, namely Dukuh Atas, Blok M (including Sisingamangaraja Station), Cipete (including Cipete Station, Haji Nawis Station, and Blok A), Fatmawati, and Lebak Bulus. Each of this TOD will have different concept depend on the condition and characteristic (physical feature, land use, and traffic). DKI Jakarta Local Government has given a mandate to PT MRT Jakarta to become the main operator of TOD area management at eight stations, namely Lebak Bulus Station, Blok M Station, Senayan Station, Istora Station, Bendungan Hilir Station, Setiabudi Station, Dukuh Atas Station and Station of Bundaran Hotel Indonesia. At this moment, consultant for the phase-1 masterplan is just started the draft arrangement of MRTJ's master plan.



Source: MRT Jakarta, 2018

Figure 41 Masterplan Area of Dukuh Atas



Source: MRT Jakarta, 2018

Figure 42 Illustration of Development Area

Lebak Bulus Station is the first station in the south-north corridor which is expected to become a magnet for commuters from buffer zones such as South Tangerang which have many activities in Jakarta. These commuters use private vehicles and public transportation every day from crowded residential areas so that — like other densely populated areas — they will contribute to congestion.

While the presence of the concept of integrated transportation in Dukuh Atas Station will regulate the flow of passengers using five different transportation modes in the region, namely Jakarta MRT, Transjakarta Bus Rapid Transit (BRT), airport trains (railink), Commuter line trains and trains Light Rapid Transit (LRT) which is being developed by the government. This human movement will be supported by the pedestrianization system of the region, both in the form of new and upgraded pedestrian infrastructure from the existing and open spaces that will be formed.

The Cipete area (which includes Cipete Station, Haji Nawi, and Blok A) will encourage a trade area that is currently growing with the concept of shopping street as well as increasing accessibility in every part of the area so that the distribution of activities does not only occur on the main road. Increased accessibility is prioritized for pedestrians and non-motorized vehicles either through existing roads or using privately owned lands through the method of public use private own. The development of this integrated transit area is expected to make the Jakarta MRT or other public transportation modes the people's choice in daily mobility.