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**MANAGING LAND VALUE CAPTURE IN TRANSIT-
ORIENTED DEVELOPMENT (TOD) AREAS
IN HO CHI MINH CITY**

**SUMMARY OF DOCTORAL DISSERTATION
URBAN MANAGEMENT AND BUILDING**

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At ... on

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INTRODUCTION

1. Reason for choosing the topic:

Ho Chi Minh City is a special-class urban area, the economic locomotive of the whole country, in the process of implementing planning orientation, including promoting modernization of infrastructure and public transport with many policies of the Party, National Assembly and Government, notably Resolution 98/2023/QH15 on piloting the urban model of development according to public transport orientation. The policy has allowed the city to proactively plan the area surrounding the metro station, adjust the land use coefficient and apply special financial mechanisms. However, this is a new issue, the pilot implementation poses many challenges in managing the development of TOD areas such as capital, planning, investment incentives, and social security. Therefore, the study "Managing Land Value Capture (LVC) in transit-oriented development (TOD) areas in Ho Chi Minh City" is a very urgent topic, contributing to the practice of managing Land Value Capture areas (LVCA) in TOD, with comprehensive meaning, balancing the interests of participating parties, contributing to the realization of TOD projects and social security policies towards the goal of sustainable urban development.

2. Research purpose:

Proposing a model and solution for sustainable management of LVC in public TOD areas in Ho Chi Minh City, effectively applying the LVCA tool in the context of Vietnam, in line with new policy mechanisms, collecting, managing and distributing Land Value Capture in a sustainable and inclusive manner, emphasizing social security policies.

3. Research objectives and scope:

Research object: Management of LVC in public TOD areas in Ho Chi Minh City.

Scope of research: Includes the administrative boundary of Ho Chi Minh City before the merger (the area to which the policy mechanism has been applied according to Resolution 98/2023/QH15), which has been specified in the QHCHCM1125 project, including the boundaries of 102 new wards and communes (after arrangement from July 1, 2025).

Specific research scope: The urban railway system and the pilot area for development according to the TOD public transport orientation in Ho Chi Minh City are determined according to Decision No. 4836/QĐ-UBND dated October 30, 2024 of the Ho Chi Minh City People's Committee.

Time scope: until 2040, vision to 2065 according to QHCHCM1125 project.

4. Research method

The thesis uses a combination of methods: data collection, documents, secondary documents; maps, map overlays; inheritance; system approach; analysis, synthesis, comparison; experts; forecasting.

5. Research content:

The thesis includes 05 main research content groups:

1. Overview of land value capture management of TOD areas in the world and Vietnam; Current status, tools, Management mechanism & policy, organization of the management apparatus for Land Value Capture areas in TOD in Ho Chi Minh City; Related studies and identification of existing problems.
2. Analyze the scientific basis, Party policies, legal basis, theory, influencing factors as well as lessons learned on land value capture areas management of TOD in Ho Chi Minh City.
3. Identify the viewpoints, objectives, principles and propose a classification of land value capture management from land in TOD areas; content and criteria for the land value capture management framework of TOD areas in Ho Chi Minh City.

4. Proposing a model and solution for managing Land Value Capture in TOD areas in Ho Chi Minh City.

5. Pilot study applying research results in Truong Tho TOD area.

6. New contributions of the thesis:

(1) The dissertation renews and supplements approaches to managing land value capture in a more inclusive, sustainable, and equitable manner.

(2) The dissertation proposes LVCA boundaries and three land value capture management models for TOD areas in Ho Chi Minh City, including: (1) a public LVCA management model; (2) a shared LVCA management model; (3) a socialized LVCA management model.

(3) The dissertation proposes a set of solutions for managing land value capture in TOD areas, including a five-step process, management tools, applications of science and technology, priority groups, and organizational arrangements.

7. Scientific and practical significance of the topic:

Scientific significance: defining concepts, identifying, classifying, and proposing models for managing land value capture from Land Value Capture Area (LVCA) in TOD-oriented development areas in Ho Chi Minh City. The research results propose a multi-sectoral approach to transportation, land use, planning, etc. in an inclusive, sustainable, and equitable direction.

Practical significance: Contribute to the improvement of policy mechanisms and state management on land value capture management in TOD development areas. The research results are useful documents for the People's Committee of Ho Chi Minh City, state management agencies, universities, and research institutes for reference, application, and research.

8. Some concepts and terms used in the thesis

The thesis has presented terms such as: urban; public transport-oriented urban development (TOD); TOD-oriented development; TOD area planning; urban railway project according to TOD model; urban and rural planning; urban management; Land Value Capture; Land Value Capture Area; LVCA model.

CONTENT

CHAPTER 1. OVERVIEW OF MANAGING LAND VALUE CAPTURE IN TOD AREAS IN HO CHI MINH CITY

1.1. Overview of LVC management in urban areas in the world and in Vietnam

1.1.1. Overview of LVC management in the world

According to OECD-Lincoln, after evaluating the practical LVC models of 60 countries in the world, it has synthesized LVC tools divided into 05 main groups: (1) Infrastructure tax; (2) Developer obligations; (3) Fees for development rights; (4) Land adjustment; (5) Strategic land management

1.1.2. The context of LVC management in urban areas of Vietnam

Before 2024, Vietnam did not have a legal basis to recover the LVC, so Ho Chi Minh City only applied measures to recover - resettle - auction land on both sides of the infrastructure to create capital sources. Since the 2025 Railway Law, 2024 Capital Law, Resolutions 98/2023 and 188/2025 took effect, the mechanism for collecting development fees, exploiting the land value capture of land and fees for improving infrastructure in TOD areas has been standardized, allowing localities to keep 100% of the revenue to reinvest in public transport. However, Ho Chi Minh City is still in the planning stage and has not yet recovered land value according to the new regulations.

1.2. Overview of TOD model in the world and Vietnam

1.2.1. TOD model in the world

TOD is built on eight principles: *walking, non-motorized transport, connectivity, public transport, mixed use, optimal density and transportability, short travel distances and reduced car dependence.*

1.2.2. TOD model in Vietnam

In Vietnam, the model of transport-oriented urban development was officially established in Resolutions 06-NQ/TW (2022), 31-NQ/TW (2022), Conclusion No. 72-KL/TW (2024) and legalized in the Railway Law 2025, the Capital Law 2024, Resolutions 98/2023 and 188/2025. However, to date, there has been no complete TOD area associated with MRT lines in Hanoi and Ho Chi Minh City; research and application have only stopped at the level of pilot planning orientation, and have not proven practical effectiveness.

1.3. Current status of TOD in Ho Chi Minh City

1.3.1. Current status of land and housing in Ho Chi Minh City

Ho Chi Minh City has a very high density of construction land in the inner city area (over 70%, District 10 reaches 100%), mainly low-rise buildings, making it difficult for many locations to meet the density - high-rise requirements of the TOD model. Meanwhile, the housing development structure in the period 2021-2025 is clearly unbalanced: commercial housing dominates, while social housing, worker accommodation and resettlement develop very slowly. This imbalance puts great pressure on social security, population distribution and urban infrastructure. Therefore, developing high-density housing - especially social housing in TOD areas - is considered an important solution to urban restructuring and effectively exploiting the MRT system.

1.3.2. Current status of TOD areas in Ho Chi Minh City

Ho Chi Minh City is currently investing and putting into operation 2 metro lines (31 km), only reaching 18% of the planned network, slow investment progress and depending on ODA capital, not effectively

exploiting TOD land fund and LVC tools. The planning of connections between metro - transport modes - land use is still lacking in synchronization, especially around stations and depots. The city needs to increase population density around the metro to ensure operational efficiency and exploit land value. Currently, the city has identified 46 TOD land plots (7,397 ha), of which 29 plots are directly connected to metro lines, which are important resources for implementing TOD and recovering LVC in the coming period.

1.3.3. Current status of 11 TOD areas in Ho Chi Minh City in the period 2024-2025

District/County area	Location	Area (ha)	Connecting important traffic projects	Group
* TOD area locations to be implemented in phase 2024-2025				
Tan Phu	Block I/82a, Tay Thanh	26.65	Metro Line 2	New construction
Tan Binh	Tan Binh District Exhibition Center and Sports Center	5.1	Metro Line 2 (Metro Line 5)	New construction
Tan Binh + District 10	Area C30*	40.9	Metro Line 2 (Metro Line 5)	New construction
Total	72.65	Metro 2		
Thu Duc	Area around Phuoc Long station (Truong Tho area)	160.63	Metro Line 1	Reconstruction, new construction
Total	160.63	Metro Line 1		
Thu Duc	Coconut Farm Land	152.6	Beltway 3	New construction
Thu Duc	29ha area in Long Binh ward (	29	Beltway 3	New construction

	Nhatico Factory)			
Hoc Mon	Zone 8, Tan Hiep	198.42	Beltway 3	New construction
	Area 6, Xuan Thoi Thuong	389.31	Beltway 3	New construction
	Area 104,954ha Xuan Thoi Son	104,954	Beltway 3	New construction
Total		874,284	Beltway 3	
Total land area		1,107,564		
* TOD area locations to be implemented in the 2026-2028 period				
Hoc Mon	Area 1, Tan Hip Commune	290.2	Beltway 3	New construction
Binh Chanh	area around Tan Kien station location	314	Metro Line 3 extension; Ho Chi Minh City - Can Tho railway	New construction
Total		604.2		

1.4. Current status of management of TOD areas in Ho Chi Minh City

1.4.1. TOD area management according to planning

TOD areas in Ho Chi Minh City are currently managed mainly through provincial and urban planning projects, especially the Ho Chi Minh City Master Plan (2021–2030) and the Ho Chi Minh City Master Plan to 2040–2060. These plans establish the public transport system, metro network and TOD nodes, especially the area inside Ring Road 3.

The Thu Duc City Master Plan (2025) continues to emphasize TOD development associated with creative urban areas - high interaction and regional connectivity. Ho Chi Minh City has also covered nearly 600 1/2,000 scale planning projects, but many old projects have not been updated according to the new TOD orientation, causing inadequacies in management.

The system of 8 urban railway lines (Decision No. 568/ QD -TTg in 2013) , integrated according to the Planning Law, is the basis for locating stations, corridors and TOD scope, creating the foundation for forming a TOD model in the direction of synchronizing land - traffic - urban space.

1.4.2. TOD area management according to architectural management regulations

The HCM City Architecture Management Regulations (56/2021/QD-UBND) inherit the preferential mechanism of FAR for projects with public facilities, metro connection, architectural preservation, environmental friendliness, creating an effective land use control tool.

1.4.3. Organization of TOD area management apparatus in Ho Chi Minh City

(1) The Government unifies state management of land, urban and rural planning, and railway operations. The Ministry of Agriculture and Environment, the Ministry of Construction, and ministries and ministerial-level agencies are responsible for assisting the Government and the Prime Minister in state management by field.

(2) The Prime Minister performs the task of state management of land according to the provisions of the Land Law.

(3) The People's Council and People's Committee at the provincial level shall manage the state on land, urban and rural planning, and railways at the local level, and manage urban development according to the TOD model for railways according to their authority.

The Department of Agriculture and Environment , Department of Construction , Department of Planning and Architecture, and Department of Finance advise and assist the Provincial People's Committee in state management by field in the locality.

(4) The People's Council and People's Committee at the commune level manage the state on land, urban and rural planning at the local level.

(5) Some other agencies in managing TOD urban railway development in Ho Chi Minh City.

1.5. Related research works

Relevant studies are scientific research works, topics, projects, and doctoral theses that study issues of TOD traffic-oriented development and value-added collection from LVC land:

- Theoretical studies and international standards
- International policies and tools
- Domestic and international applied research
- Domestic research, reporting and policy

1.6. Issues to be researched

- 1) Research on value added management model in areas with potential for LVC recovery in TOD development areas.
- 2) Identify and classify value-added management in areas with potential for LVCA in TOD development areas.
- 3) Develop a LVC management framework, propose management criteria and indicators.
- 4) Specific management solutions for LVC management, application of science and technology in management.
- 5) Select a pilot site that demonstrates research results.

CHAPTER 2. SCIENTIFIC BASIS FOR MANAGING LAND VALUE CAPTURE IN TOD AREAS IN HO CHI MINH CITY

2.1. Legal basis for managing LVC in TOD areas in Ho Chi Minh City

2.1.1. The Party's policy on managing LVC in TOD areas

- Resolution No. 06-NQ/TW dated January 24, 2022 of the Politburo.
- Conclusion No. 72-KL/TW dated February 23, 2024 of the Politburo.
- Resolution No. 31-NQ/TW dated December 30, 2022 of the Politburo.

2.1.2. Legal basis for managing LVC in TOD areas

- Land law

- Law on Urban and Rural Planning
- Railway Law 2025 and TOD model in Vietnam
- Capital Law 2024
- Law on Real Estate Business 2023
- Surface rights, property rights on land and airspace rights in the 2015 Civil Code and the 2024 Land Law.

2.1.3. Legal basis for managing land value capture in TOD areas in Ho Chi Minh City

- Pilot TOD area development model
- Piloting the urban development model according to public transport orientation (TOD) in Resolution 188/2025/QH15
- Classification basis, boundary scale and model of TOD areas in Ho Chi Minh City
- Land use coefficient management

2.2. Theoretical basis for managing LVC in TOD areas in Ho Chi Minh City

2.2.1. Theory of TOD traffic-oriented development

According to the Institute for Transport and Development Policy (ITDP): TOD is a high-density, multi-functional urban model that integrates and prioritizes public transport, walking, and cycling.

According to Crossrail (UK), sustainable TOD is associated with quality public spaces, affordable housing and social inclusion (GEDSI), ensuring that all population groups have equitable access and benefits.

2.2.2. Theory on LVC land value recovery

In the United States, Land Value Recovery is based on the principle of “public action must bring public benefits”, allowing the State to recover the land value increase due to infrastructure investment or planning adjustment. According to OECD (2022), tools include taxes, impact fees, TDR, incentive zoning... Of which, urban railways create the highest

LVU, while BRT has a lower impact, depending on the quality of infrastructure and regional characteristics.

2.2.3. WorldBank's theory of infrastructure upgrading value cycle

In 2017, according to the World Bank in the study on recovering LVC in infrastructure investment, it published theories on land value such as: Sustainable value circle from infrastructure upgrade; Concept of hypothetical separation of land value according to LVC.

2.2.4. Theory on fairness in implementing the collection of LVC in TOD-oriented development areas

LVC recovers the increased land value created by public investment, aiming for horizontal and vertical equity. Ho Chi Minh City pilots TOD under Resolution 98/2023, based on Article 219 of the 2024 Land Law, allowing land contribution and adjustment, ensuring social equity in land value recovery.

2.3. Factors affecting the management of LVC in TOD areas in Ho Chi Minh City

2.3.1. Resources collected from land in Ho Chi Minh City

In the context that Ho Chi Minh City is facing pressure from population growth, infrastructure overload and the need to invest in public transport projects such as metro and beltway, mobilizing financial resources from land becomes a key strategy.

2.3.2. Method of determining land price and calculating land use fee

The method of determining land prices and regulations on calculating land use fees and land rents have been adjusted and are expected to continue to be adjusted, affecting land values as well as the management of LVC. There are no effective financial tools to convert "differential land rent" into development resources, public infrastructure and social security policies.

2.3.3. Real estate market

The fluctuating situation of the real estate market also affects the management of land value capture in TOD areas.

2.4. Domestic and international lessons learned on land value capture management TOD

2.4.1. International experience in managing the recovery of LVC

- Some successful TOD traffic-oriented development projects in the world
- Developing livable and affordable cities
- Value-added management tools in cities around the world.
- LBC Land Improvement Charge in Singapore

2.4.2. Assessment of the applicability of some tools on land value recovery management in Vietnam

- UN Habitat assesses the applicability of some LVC tools in the context of policy mechanisms in Vietnam.
- OECD assesses the applicability of some LVC tools in the context of policy mechanisms in Vietnam .

CHAPTER 3: MODELS AND SOLUTIONS FOR MANAGING LAND VALUE CAPTURE IN TOD AREAS IN HO CHI MINH CITY

3.1. Viewpoints, goals, principles

3.1.1. Viewpoint

- (1) In accordance with the policies of the Party and State, promoting the role of the private economy
- (2) Integrating management of traffic and land use policies and mechanisms
- (3) Managing land value capture towards sustainability and equity
- (4) Flexible application of models and solutions for managing LVC in TOD areas

3.1.2. Objectives

- (1) Identify and classify TOD areas.
- (2) Determine the scope of management boundaries of LVC in TOD areas.
- (3) Building a framework for managing LVC in TOD areas
- (4) Optimizing and making resource reallocation transparent

3.1.3. Principles

- (1) In line with the development orientation of Ho Chi Minh City
- (2) Transparency - fairness - efficiency
- (3) Flexible according to the characteristics of each TOD area
- (4) Integration with infrastructure systems
- (5) Applying priority and fairness mechanisms in managing LVC in TOD areas
- (6) Determine the boundaries of the affected areas of TOD areas

3.2. Classification and management of TOD areas in Ho Chi Minh City

3.2.1. Urban structural zoning

Urban structural zoning aims to identify the potential for LVCA recovery in TOD, including three main zones:

- + **Zone I – Core urban area:** Administrative – economic – service center, with the highest land value, focusing on TOD areas with priority for renovation, reconstruction, and infrastructure reinvestment. There is a high potential for additional value to be gained from land in TOD development areas .
- + **Zone II – Connecting zone:** Surrounding the core area, including the Eastern, Southern, Western and Northern urban sub-zones; synchronous development according to planning, connecting public transport infrastructure, with great potential to increase land value.

- + **Zone III – Development Control Zone:** Agricultural areas, low-lying or remote land, limited development, low land value potential, need for land use control and ecological conservation.

3.2.2. Classification by position

- The core zone is an area with great potential for gaining land value capture from LVCA, is an area where TODs are not large in scale, land has great value, and priority is given to developing high-rise mixed-use functions.
- The connecting area is an area with the potential to gain land value capture from LVCA, and is an area with TODs of sufficient scale to develop according to the TOD point model.

3.2.3. Classification of TOD areas with potential to recover LVC

Group 1: Land fund directly managed by the State, around metro stations, can be deployed immediately.

Group 2: Land being leased or temporarily used, needing a purpose conversion process.

Group 3: Old industrial zones, factories, and temporary land interspersed.

Group 4: Existing residential areas needing renovation, low density.

Group 5: Agricultural land or riverside land can form new urban areas.

3.3. Management boundaries of land value capture of TOD areas in Ho Chi Minh City.

3.3.1. TOD area boundary

- **TOD core area** - radius of about 400 m around the station, is the commercial - service center, traffic transit, has the highest density and is the main source of land value creation to apply the land value recovery mechanism.
- **TOD transition zone** – within 500–800 m, is a buffer belt between the core and the surrounding area, developing medium – high density, mainly

housing, community services, where land value is reallocated and reinvested in social infrastructure and social housing.

- **TOD influence area** – within a radius of 800 m–2 km, including mid- and low-rise residential areas connected to the station by bus, bicycle or P&R yard, helping to spread land value, reduce the load on the core area and expand sustainable urban space.

3.3.2. Boundary of land acquisition area for construction project implementation

In TOD areas, land is only acquired for public purposes or station connection infrastructure. It is necessary to distinguish between land acquisition and LVC. For areas that are not entirely for public use, a development rights transfer agreement can be applied. TDR or planning incentives, within the transition zone 400-800m or the influence zone >800m-1200m.

3.3.3. Boundary of LVC management of TOD area

This boundary is determined by:

- + Space: includes three zones – core TOD (highest land price increase, collected through auction, development fee), transition zone (benefit sharing, social housing obligations), and influence zone (applying property tax, infrastructure fee).
- + Infrastructure impact: based on actual land price increase (uplift) through geographic information system (GIS) data and transactions.
- + Legal planning: consistent with detailed planning project/TOD subdivision.

3.4. Model for managing land value captures from land in TOD areas in Ho Chi Minh City

The thesis proposes 03 models of LVC recovery area management LVCA in TOD area reflecting different levels of state management intervention, including :

(1) A public LVCA management model (public LVCA): The State collects all LVC through taxes, fees, and auctions, and uses it to reinvest in infrastructure, social housing, and urban beautification.

Advantages: fairness, strengthening the role of the State.

Limitations: requires large resources, less attractive to private sector.

(2) A shared LVCA management model (shared LVCA): The State collects a part of the value, the rest is divided among investors and the community; operates based on negotiation and consensus.

Advantages: balance of interests, reduce budget burden.

Limitations: complex pricing, need for transparency and clear legal framework.

(3) A socialized LVCA management model (socialized LVCA): giving the right to exploit all land value captures from land to the private sector, the State only conducts post-checks using planning and data. The model is suitable for new TOD areas, vacant land funds and the need to mobilize private capital, with very limited distribution of benefits outside the project.

Advantages: strong mobilization of private capital, rapid development.

Limitations: easy to lose balance of interests, need close supervision.

3.5. Management Framework LVCA for TOD areas in Ho Chi Minh City

3.5.1. Five pillars in the LVC management framework LVCA of TOD areas in Ho Chi Minh City

(1) Legal and policy mechanisms (2) Planning (3) Social - environmental (4) Economic - financial (5) Community participation and monitoring mechanisms.

3.5.2. Management Framework LVCA for TOD areas in Ho Chi Minh City

The thesis proposes a management framework with 05 pillars and 20 criteria, applied to evaluate:

Summary table of 05 pillars and 20 criteria for managing LVC in TOD traffic-oriented development areas

Pillar	Criteria	Evaluation basis	Weight (points)	Suggested scale
1. Legal – Policy mechanism (20)	1.1. Legal compliance	Located in the detailed/zoned planning, with management regulations according to the planning (Law 47/2024/QH15)	6	Yes: 6; Missing: 3–4
	1.2. Specific mechanism of NQ98	TOD, BOT, social housing...	5	Yes: 5; No: 0–2
	1.3. Legal tools on land	Land use rights auction, recovery, Land pooling, LBC...	5	Available: 5; One serving: 2–3
	1.4. Synchronization with other laws	Associated with the Law on Investment, PPP, Land, Housing.	4	Yes: 4; No: 0–2
2. Planning (20)	2.1. Connecting key infrastructure	Metro, belt, urban main axis.	6	Yes: 6; No: 0–2
	2.2. Ability to increase land use index	Density, land use coefficient (FAR) (QCVN 01:2021)	6	Feasibility : 6; Limit: 3–4

Pillar	Criteria	Evaluation basis	Weight (points)	Suggested scale
	2.3. TOD/Transit hub integration	In Decision 4836, TOD is a priority.	4	Yes: 4; No: 0–1
	2.4. Public land fund	Parks, green spaces, social amenities	4	Yes: 4; No: 0–1
3. Economics - Finance (20)	3.1. Land price increase rate (Uplift)	Comparison before/after infrastructure	8	≥30%: 8; 20–30%: 5–6; 10–20%: 2–4
	3.2. Real estate market liquidity	Number of transactions/12 months	5	High: 5; Average: 3; Low: 1
	3.3. Private capital mobilization/PP P	BOT, BT, LBC, Land pooling	4	Yes: 4; No: 0–2
	3.4. Capital allocation efficiency	There is a reinvestment mechanism of ≥60% on-site	3	Yes: 3; No: 0–1
4. Society - Environment (20)	4.1. Increasing population and services	Population, employment, TOD forecast	5	Increase >10%/5 years: 5; Average: 3; Low: 1
	4.2. Resettlement - Social Housing	There are proposed plans, suitable for housing development programs;	5	Yes: 5; No: 0–2

Pillar	Criteria	Evaluation basis	Weight (points)	Suggested scale
	4.3. EIA	Approved EIA report	4	Achieved: 4; Not achieved: 0–2
	4.4. Fair redistribution of resources	For renovation of old areas, social housing, parks	6	Yes $\geq 60\%$ and clear rate: 6; Yes but unclear: 3–4; No: 0–2
5. Community participation (20)	5.1. Public consultation	There is an organization to collect opinions from people/businesses .	5	Yes: 5; No: 0–2
	5.2. Transparency, data	Publicize LVCA via WebGIS/Portal	5	Yes: 5; No: 0–2
	5.3. Community Supervisory Board	Fatherland Front, associations, and residents participate	5	Yes: 5; No: 0–2
	5.4. Feedback and adjustment mechanism	Has flexible feedback and editing channels	5	Yes: 5; No: 0–2

3.6. Solution for managing LVC in TOD areas in Ho Chi Minh City

3.6.1. Process of managing LVC in TOD area

Step 1: Identify and announce LVCA management boundaries: Ward level: conduct field surveys, collect community opinions. City level: synthesize data, announce LVCA list on GIS platform. LVCA list includes boundary map, preliminary value added report.

Step 2: Appraisal & evaluation of the application of the LVCA management model: Apply the set of 5 pillars - 20 criteria to score and classify LVCA types 1-2-3; Ward People's Council reviews, City People's Council approves and publicizes the results.

Step 3: LVCA into Planning & Policy: Put LVCA into planning, adjust land use coefficient, density, financial obligations, link with TOD corridors, metro, belts, traffic hubs.

Step 4: Deploy financial tools - land: Turn land value capture into revenue through auctions, leases, land value improvement fees, land adjustments; there is decentralization between the city and wards according to scale.

Step 5: Revenue allocation, monitoring and adjustment: $\geq 60-70\%$ of revenue is reinvested on-site (infrastructure, social housing, parks, renovation), the rest goes to the Urban Infrastructure Development Fund; multi-level monitoring and annual public disclosure of WebGIS data.

3.6.2. TOD area value added management tool

- (1) Land Value Improvement Fee
- (2) Transfer of development rights
- (3) Land plot adjustment
- (4) Preferential Land Use Coefficient Bonus
- (5) Public interest agreement

3.6.3. Application of database control technology

- Application of city information model (CIM) in database control management

Ho Chi Minh City is aiming to apply the CIM instead of the traditional GIS to manage LVCA more transparently and accurately. CIM integrates 3D/4D data on land, planning, land prices, finance, population and risks, allowing simulation of land value fluctuations, analysis of development scenarios, management of infrastructure - land lifecycle and support policy decision making, while enhancing community monitoring through open digital maps.

- Center for real estate development and transaction management

Ho Chi Minh City has tested land price management software (Department of Natural Resources and Environment, 2023), creating a foundation for LVCA management. The thesis proposes to convert the Land Fund Development Center into the Real Estate Transaction Development and Management Center, expanding the data management function, controlling transactions, making land values transparent according to the TOD model and digital government, aiming to integrate into the national real estate management agency in the future.

3.6.4. Prioritize the development of affordable commercial housing in TOD areas

Ho Chi Minh City needs to link the development of the MRT system with land use planning and housing policy, forming TOD areas of diverse types (commercial housing, affordable housing, social housing), in order to restructure the urban area, distribute population reasonably and ensure social equity.

3.6.5. Organizing the management apparatus for land value capture in TOD areas

- Legal framework and organizational structure

The Law on Organization of Local Government in 2025 stipulates that the apparatus will have only two levels. Accordingly, Ho Chi Minh City organizes the management of LVCA:

+ City level (HCMC People's Committee): establish a Center for Land Fund Development and Real Estate Transaction Management under the People's Committee, responsible for determining LVCA boundaries, designing financial and land mechanisms, coordinating TOD projects, managing GIS/WebGIS data and reporting to the People's Council.

+ Ward/Commune level: Ward /Commune People's Committee implements resettlement projects, land adjustment and publicizes LVCA information; Ward People's Council supervises planning, infrastructure and land policy at the grassroots level.

- Coordination mechanism at commune level

(1) Coordination between the Ward People's Committee and the City People's Committee

(2) Accountability of the Ward People's Committee to the Ward People's Council

(3) Coordination between the Ward People's Committee and the residential community and socio-economic organizations

(4) Coordination between wards/communes in the same LVCA route/cluster

- Implementation responsibilities of the People's Committee and People's Council at the commune level and the community

The People's Committees of wards and communes are responsible for updating land records, implementing compensation, resettlement and publicizing LVCA financial obligations, reporting results to the City People's Committee. The People's Councils of wards and communes supervise planning, projects and the use of land revenue, ensuring fairness and transparency in the distribution of benefits between the State, enterprises and people.

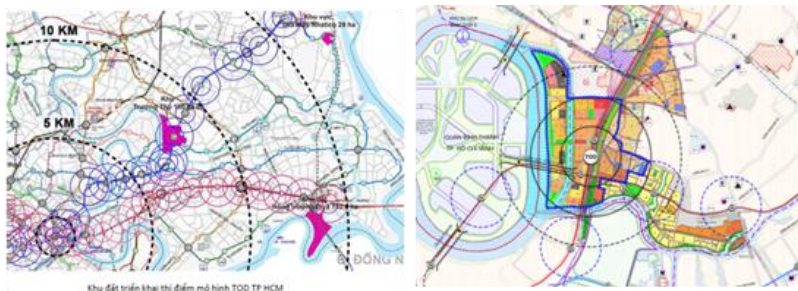
- Roles, responsibilities and rights of the community

The community plays a central role in LVCA management, both as a beneficiary and as a participant and supervisor. People provide practical data, contribute planning ideas, and monitor financial transparency through the ward People's Council, the Fatherland Front and residential groups.

At the City level, it is necessary to establish a Community Consultation Board in the LVCA Center; at the ward level, the People's Committee organizes dialogue and publicizes information, and the People's Council supervises implementation. People have the right to information, participation and supervision, and are responsible for fulfilling financial obligations and cooperating in land readjustment.

3.7. Pilot application of management of Land Value Capture (LVC) in the Truong Tho TOD area

3.7.1. Pilot selection of Truong Tho TOD area



Truong Tho TOD area (about 160.62ha in size) is located on MRT line 1 and within a 10km radius from Ben Thanh station, has a favorable location and is mostly public land. The area is managed by many entities (State-owned enterprises, military enterprises, FDI, listed companies, etc.) so it needs a mechanism for deep State participation to ensure compensation - site clearance, coordinate planning, meet social -

environmental criteria and mobilize community consensus, creating conditions for effective implementation of the TOD model.

3.7.2. Choosing to apply land valuation method

Pursuant to Clause 5, Article 158 of the 2024 Land Law, four land valuation methods include: comparison, income, surplus and land price adjustment coefficient.

Through reviewing data in the research area, the comparison method cannot be applied due to the lack of at least 3 similar transactions; the income method is not feasible because the project has not been exploited and there is no revenue and expenditure data; the adjustment coefficient method is not suitable because it does not fall under the case of land recovery compensation.

Therefore, **the residual method** is chosen to determine the value of land use rights because it is possible to estimate **the total revenue** and **total development costs** according to the assumed planning.

Determination formula:

$$\text{Land price of the plot of land, land area to be appraised} = \frac{\text{Land use right value of the land plot or land area to be appraised}}{\text{Area of land plot, land area to be appraised}}$$

3.7.3. Pilot results of LVCA management in the Truong Tho TOD area

The pilot at Truong Tho TOD area clearly identifies the Land Value Capture (LVC) and selects the shared LVCA model, while combining a part of public LVCA and socialized LVCA depending on the type of land use. The LVCA boundary is determined according to the proposed model including the TOD core zone (54.4 ha), TOD zone (119 ha) and influence zone (>800 m) divided into three zones. The collection of land value capture is applied according to each zone: Zone 1 applies development fee and special assessment fee; Zones 2-3 collect additional land value

capture when paying land use fee or when putting the project into business.

3.8. Discussion of research results

3.8.1. Innovation in management methods for TOD areas with LVCA potential

TOD management needs to shift from controlling planning indicators to managing according to land values, linking planning - finance - public investment. Tools such as development fees, impact fees, land readjustment and value sharing mechanisms need to be applied in parallel with public-private partnerships and community participation.

3.8.2. Fairness of the policy of capturing LVC

Increased land value from public investment and planning adjustments should be recovered for the community. International instruments (development fees, special assessments, linkage fees , incentive zones , development rights transfers , etc.) demonstrate that LVCA is a fair and sustainable solution. This confirms the suitability of the proposed LVCA model for TOD areas.

3.8.3. Community role in LVCA management

The community is a key factor in determining the feasibility of LVCA. Early consultation helps to ensure transparency, reduce conflict and enhance consensus. In a two-tier decentralization context, local governments need to have the capacity to identify affected subjects and organize monitoring. The role of the community is particularly important in public LVCA and shared LVCA models, helping to ensure equitable and sustainable distribution of benefits.

CONCLUDE

The thesis has studied the general contents, identified and evaluated practical issues, systematized the scientific basis, especially the legal basis in the management of LVC in TOD areas in Ho Chi Minh City.

The thesis used an inclusive approach, using modern research methods, suitable for the research content and results, in which it used inherited research methods, systematic approach to exploit new, modern content in international research and placed in the context of policy institutions and socio-economic conditions in Vietnam.

The thesis proposed the basis for determining the management boundary of land value capture from LVCA in TOD areas, on that basis, 03 LVCA management models (public LVCA; shared LVCA; socialized LVC) were determined suitable for Vietnam's conditions.

The thesis has proposed a framework of LVCA criteria based on considering 05 pillars and 20 criteria; Organizational structure, community participation, application of science and technology; LVCA management process; affirming the role of housing development associated with TOD areas, encouraging priority development of social housing, commercial housing with suitable prices. Selecting a pilot TOD area to apply at TOD Truong Tho

PROPOSAL

1. For the National Assembly and the Government

Amending and supplementing the Land Law, the Law on Urban and Rural Planning, the Housing Law... to add regulations on calculating land use fees when the state invests in public transport systems leading to increased land value...; managing land value capture from LVCA ; TOD planning , scope, boundaries of TOD planning, LVCA mechanism ; using money collected from exploiting LVC in TOD areas to develop social housing ...

Allowing the piloting of the LVCA model in Ho Chi Minh City, based on Resolution 98/2023/QH15 and Resolution 188/2025/QH15.

2. For the Ministry of Construction, Ministry of Agriculture and Environment

Ministry of Construction: requires research to identify areas with the potential to recover land value capture from LVCA in planning TOD areas when amending and supplementing QCVN 01:2021/BXD.

Ministry of Finance, Ministry of Agriculture and Environment: guide the implementation of management of land value capture from LVCA, apply preferential land policies and mechanisms on taxes and fees in LVCA areas.

3. For Ho Chi Minh City

Supplementing functions and tasks for the Land Fund Development Center; building a transparent land database; implementing land adjustment and re-adjustment mechanisms...

4. For further research

Expand the LVCA model research to the scope of Ho Chi Minh City after the merger, other provinces/cities with rapid urbanization (Hanoi, Da Nang, Hai Phong...).

LIST OF SCIENTIFIC ARTICLES
PUBLICATIONS OF THE AUTHOR RELATED TO THE THESIS

- 1) Tong Thi Hanh (2020), Perfecting the legal framework on urban space development rights in the context of implementing regulations on surface rights. Journal of Urban Planning, No 41/2020, ISSN 1859-3658.
- 2) Tong Thi Hanh, Nguyen Hoang Minh (2022), Urbanization and urban expansion in Vietnam, Construction Journal, No 11/2022, ISSN 2734-9888.
- 3) Tong Thi Hanh, Nguyen Hoang Minh (2024), Land use management in land policy and planning to improve the quality of life of urban residents, Construction Journal, No 11/2024, ISSN 2734-9888.
- 4) Tong Thi Hanh (2025), Land Value Capture Area Management Model of Transit Oriented Development Areas in Ho Chi Minh City, Construction Journal, No 10/2025, ISSN 2734-9888.