

Applicability of land value capture mechanism for housing development in Bangladesh

Shammi Akter Satu¹

Abstract

Land value capture (LVC) is a policy approach that enables communities to recover and reinvest land value increases that result from public investment and government actions. For the cities in developing countries, governance and institutional challenges exist to implement LVC. Bangladesh is not an exception in this regard. Due to the construction and operation of Purbachal Expressway in Dhaka, the adjacent land value has increased exponentially. The aim of the study is to explore the mechanism and practice of LVC and its applicability in Bangladesh as an innovative solution to housing development. To fulfill the aim the following objectives have been formulated: 1) To investigate the LVC mechanisms related to housing development as practiced in the world; 2) To explore the ongoing land valuation trend and practices in the adjacent areas along the Purbachal expressway, and 3) To propose the legal and planning framework for utilizing LVC mechanism for housing development in Bangladesh. The research is qualitative in nature and data have been collected from primary and secondary sources. This research required sampling of participants from landowners, middle man and real estate developers' representatives from the study area for key informant interview (KII) and focus group discussion (FGD). For that purpose, purposive sampling was utilized. The study summarized the globally recognized development-based and tax-based mechanisms for capturing land value related to housing development. The study revealed that the cost of land, land price and land tax in the Purbachal region has increased substantially. The study finds a huge potential to use LVC as an effective policy approach in Bangladesh's context. The 1953 Town Improvement Act stipulated by the Capital Development Authority (RAJUK) contains references to betterment fees that were never used in practical. The study proposes a legal and planning framework to frame a Land Value Capture Act. This research provides a roadmap for policymakers and urban planners to navigate LVC implementation and ensure sustainable housing development for the future of Bangladesh.

Keywords: Land value capture, Housing, Dhaka, Betterment levy

1. Introduction

Land value capture (LVC) is a policy approach that enables communities to recover and reinvest land value increases that result from public investment and government actions. LVC is rooted in the notion that public action should generate public benefit. As challenges mount from rapid urbanization, deteriorating infrastructure, climate change, and more, this funding source has never been more important to the future of municipalities (OECD, 2022). LVC seeks to ensure the fair distribution of increases in the value of privately-owned land between landowners, the local community and national

¹ Professor, Department of Urban and Regional Planning, Jahangirnagar University, Dhaka-1342, Bangladesh, email: shammi@juniv.edu

government. Land values increase for many reasons—not least from economic and demographic growth - but some of the most significant increases arise from specific public policy decisions, in particular the granting of planning permission and the provision of new infrastructure. Crook et. al. (2018) noted three reasons land values increase: infrastructure investment improving the attributes of locations; increased prosperity leading to additional spending on housing and other goods, resulting in higher land values; and planning consent making it possible to change use to carry out physical development. When used in conjunction with good governance and urban planning principles, LVC can be an integral tool to help governments advance positive fiscal, social, and environmental outcomes. In practice, LVC includes a range of mechanisms and policies, which various jurisdictions implement and practice differently. All of these tools share one common goal, however: returning land value to the public (Lincoln Institute of Land Policy, 2020).

There has been a renewed discussion in recent years about how the state can efficiently and fairly redistribute increases in land value arising from such policy decisions, while ensuring that privately-owned land continues to come forward for the appropriate development (Authority of House of commons, 2019). Land value capture is mainly a financing tool that allows local governments to charge fees and taxes to developers and property owners and raise revenue that can then be reinvested into community and city services. However, it is especially important and underutilized in developing cities. This tool has been more commonly used in developed cities, but developing cities have much to gain if they can implement LVC effectively for housing development (WRI, 2020). For the cities in developing countries, governance and institutional challenges exist to implement LVC. Some of these include out-of-date or insufficient land registries that make it difficult to track and tax property ownership; lack of political will to invest in LVC; weak institutional capacity to oversee LVC projects; and the predominance of informal settlements like slums — where residents generally do not have official property rights. In the context of developing cities, LVC has not been widely implemented nor studied. Bangladesh is not an exception in this regard. Therefore, the government is deprived from the financial resources that can be gained because of the construction of new infrastructures or the improvement of large residential projects. Only one study on the evaluation of the government improvement scheme has been found which was conducted by Aktar (2014) that assessed the land value increment from redistribution perspective. It indicates the dearth of literature on LVC in respect of Bangladesh. The current research aims to fill this gap. Many new infrastructures have been completed in recent years and few more are in the construction phase. Dhaka-Mawa expressway and Purbachal expressway are two recently completed expressways connecting Dhaka and have been in use in full capacity. Due to the construction and operation of these expressways, the land value of the adjacent housing projects for example Ashaloy Housing, Ananda Housing, Shornali Abason, Raj Valley City, Ashiyan City Housing and Pink City has increased exponentially. The study will attempt to explore the increase in land value of the surrounding land along the Purbachal Expressway and suggest legal and planning framework to capture the land value increase.

2. Concepts Related to Land Value Capture

The concepts related to LVC and concerned mechanisms are presented in this section.

2.1 Land Value and Land Value Capture

RICS Valuation Global Standards Board (2017) define land value as the estimated market price determined through a hypothetical scenario: a willing seller under no pressure to sell meets a willing buyer with no buying pressure. Both parties act reasonably and independently in this arm's-length transaction. The World Bank in 2015 deems land value capture (LVC) as a financing mechanism through which a public authority recovers part of the augmented land value resulting from its own actions or more extensive societal transformations. As defined by the Lincoln Institute of Land Policy in 2011, LVC encompasses a suite of instruments that empower governments to seize a portion of the land value increment accruing to private landowners due to public investments and regulations. The LVC is a complex process consisting of various individuals and institution and it has the potential to be a significant tool for financing urban development in Bangladesh. However, successful implementation requires the involvement and cooperation of various stakeholders.

2.2 Land Value Capture Mechanisms

LVC mechanisms are tools used by governments to capture some of the increase in land value that results from public investments, infrastructure projects, or regulation changes. This captured value can then be used to fund further development, public amenities, or other community benefits. Figure 1 presents development based and tax-based mechanisms for LVC.

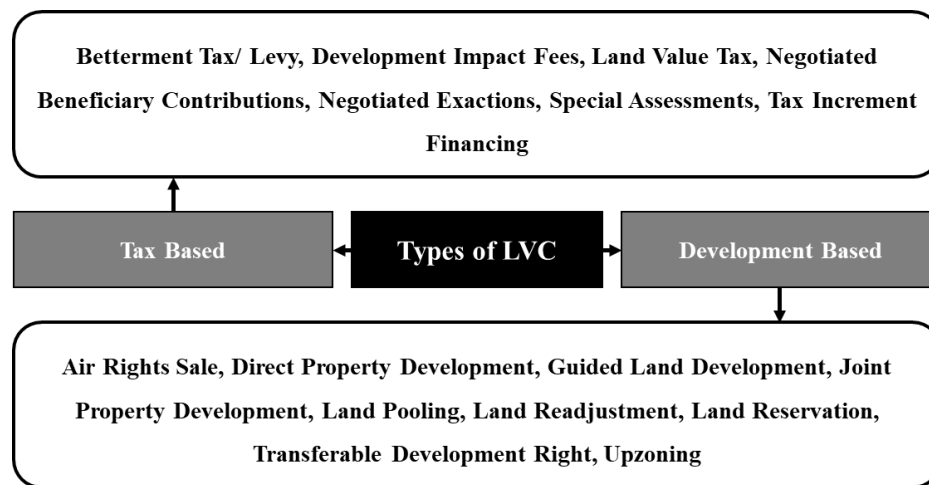


Figure 1: Types of Land Value Capture

Development-based LVC as presented in Table 1 involves capturing a share of the increased land value through direct agreements with developers. These agreements can involve upfront payments, dedicating a portion of the land for public use, or providing

in-kind contributions towards infrastructure or community amenities (Aveline-Dubach & Blandeau, 2019).

Table 1: Development based LVC

Name	Definition
<i>Air Rights Sale</i>	An air right sale involves the transfer of development potential (building rights) above a specific property to another landowner seeking to increase their building capacity. (Smith, 2016)
<i>Direct Property Development</i>	Direct Property Development entails the direct involvement of public agencies in property development on excess land around the project site. A property developer makes investments in it to contribute to the shared infrastructure and services in the area surrounding their development. (Jaggi and Pendharkar, 2018)
<i>Guided Land Development</i>	Guided Land Development (GLD) is a comprehensive approach to land use planning and development that aims to capture the increase in land value generated by public investments and infrastructure projects (World Bank, 2017)
<i>Inclusionary Housing</i>	Inclusionary housing is a policy instrument employed by municipalities through imposing a mandate on developers, requiring them to allocate a predetermined proportion of units within their projects specifically for households with incomes situated below a predefined threshold (Bratt et al., 2017; Freeman, 2017).
<i>Joint Property Development</i>	In Joint Property Development (JPD) the public sector and a private developer collaborate to develop a specific land parcel. The public sector contributes land or development rights, while the private developer provides expertise and financing for the project (World Bank, 2017).
<i>Land Pooling</i>	In land pooling multiple landholdings within a designated area are consolidated and collectively redeveloped by a public authority or a designated agency. The landowners contribute their land, and in return, receive a share of the value generated by the new, higher-density development, typically in the form of developed plots or monetary compensation (World Bank, 2017)
<i>Land Readjustment</i>	Land readjustment is used by public authorities to capture a portion of the increase in land value generated by public investments or infrastructure projects. It involves the pooling, replotting and redistribution of land parcels, thus captures a share of the value increase through various mechanisms, ultimately generating revenue for the public sector to finance the initial project or further development efforts. (World Bank, 2017)
<i>Transferable Development Right</i>	It allows development rights to be separated from land in "sending areas" (where development is restricted) and sold to developers in "receiving areas" (where higher density development is permitted). This captures the increase in land value due to zoning decisions and public investments, enabling reinvestment in public benefits (Shahab, S., Amini, M. H., & Mansouri, N., 2018)
<i>Upzoning</i>	A relaxation of zoning regulations that permits a greater intensity of land use than was previously not allowed. Upzoning can refer to increases in density (number of dwelling units per acre), building height, or changes in permitted land uses. (Freilich, R. H., 2017)

Tax-based LVC as shown in Table 2 is a policy tool that leverages the property tax system to capture a share of the increase in land value resulting from public investments or changes in zoning regulations. This captured value can then be reinvested in further infrastructure development, public amenities, or affordable housing initiatives.

Table 2: Tax based LVC

Name	Definition
<i>Tax Increment Financing</i>	Tax Increment Financing (TIF) is a financing mechanism for redevelopment projects that captures the increase in property tax revenue generated by a specific development or infrastructure investment (UN-HABITAT, 2017)
<i>Special Assessments</i>	Special assessments are a form of value capture. They involve assessing incremental property taxes on land and buildings deriving direct benefits due to a transportation improvement (Federal Highway Administration, 2023)
<i>Land Value Tax</i>	A land value tax (LVT) denotes a property tax levied on the unimproved value of land, excluding the worth of buildings or other improvements (Mikesell, 1999) (Ostrogorsky, 1990).
<i>Betterment Tax/Levy</i>	A betterment levy, as defined by Galli (2016), constitutes a form of development fee levied by local governing bodies on properties experiencing enhanced value due to public infrastructure projects. Such levies are implemented with the objective of capturing a segment of the resulting property value appreciation, as outlined by Slack and Bird (2013).
<i>Development Impact Fees</i>	A development impact fee (DIF) is a type of fee levied by local governments on new development projects to offset the costs of infrastructure improvements necessitated by the increased demand placed on existing infrastructure due to the development (Rubinfeld & Costanzo, 2017).

The implementation of successful LVC system demands a multifaceted approach encompassing various critical elements. As outlined in Aveline-Dubach & Blandeau (2019) extensive LVC scoping study, strong political leadership is paramount. This leadership ensures that LVC is integrated as a key component of a comprehensive urban development strategy. A meticulously crafted property tax law is crucial, balancing the need for capturing land value increments with ensuring fairness and equity. Decentralized authority for execution allows for efficient implementation and adaptation to local contexts.

3. Methods

This research is mainly qualitative in nature and employed case study method. Key informant interview (KII) and focus group discussions (FGD) were conducted for collecting data regarding the practice and process of increased land value.

3.1 Study Area

The prevailing dynamics of land valuation in housing projects situated along the Purbachal expressway were explored to understand the land value increase. As presented in Figure 2, spanning a considerable length of 12.5 kilometers, the expressway is an integral component of Bangladesh's National Highway System, designated as Highway N301. The price of land of the adjacent housing projects namely Ashaloy

Housing, Ananda Housing, Shornali Abason, Raj Valley City and Ashiyan City Housing in the last two decades were investigated to explore the process of increase of land value.

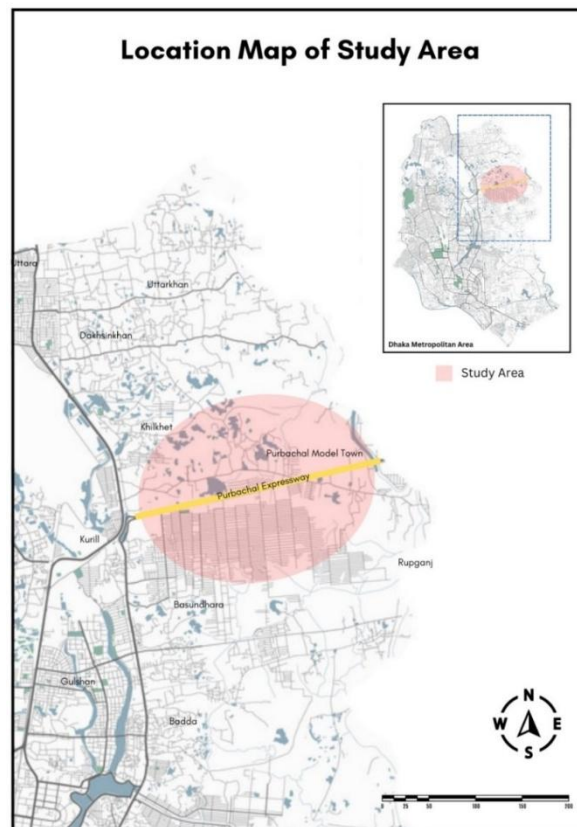


Figure 2: Location map of the study area

Source: Author, 2024

3.2 Data Collection and Analysis Methods

Purposive sampling was utilized to collect data from primary sources. The respondents provided information regarding land price, land tax, trend of price increase and their impact on social life. The study included 12 key informants from landowners, middlemen, officials from sub-registrar office and real estate developers' representatives from the study area. Five FGDs were conducted in the five selected housing projects. The local people both the landowners and non-owners were invited to join the FGD. Each group contained five members. The KII and FGDs were conducted from 15 May to 25 June, 2024. Secondary data were collected from different government authorities, research institutions, commercial organizations and academic sources, journals, books, reports and websites. This study employed document analysis and triangulation methods.

4.0 LVC as Practiced in Different Countries of the World

This section delved into globally recognized mechanisms for capturing land value related to housing development. These mechanisms encompassed both development-based methodologies and tax-based methodologies, each with its own unique characteristics and implications. The mechanisms include mechanisms from Colombia, Germany, India, United States and Brazil.

4.1 Contribución de Valorización, Colombia

The Contribución de Valorización, also known as betterment levies or valorization contributions, is a land value capture (LVC) instrument utilized in Colombia to fund infrastructure projects that provide benefits to specific properties. It serves as a prevalent mechanism adopted by municipalities throughout the country, particularly in urban areas such as Bogotá and Medellín. Municipal authorities are responsible for identifying infrastructure advancements that will directly ameliorate the value of neighboring properties. These enhancements may include roadway upgrades, the construction of parks, or improvements to public transportation resulting in neighborhood improvements. Properties within the vicinity of the planned infrastructure project are identified, and the potential increase in their value due to the project is estimated. Based on the estimated property value augmentation, a betterment levy is calculated for each property affected. This levy represents the equitable share of the infrastructure costs borne by the property owner. Property owners are held accountable for the payment of the betterment levy, often in installments over a predetermined duration. The betterment levies collected are utilized to finance the identified infrastructure projects, guaranteeing that those who reap the benefits of the improvements contribute to their funding. Betterment levies channel direct financial resources towards specific infrastructure endeavors that directly benefit adjacent properties, thus establishing a clear and direct relationship between the concept of value capture and subsequent investment initiatives (Landlines, 2011).

4.2 Land Readjustment - Rieselfeld District, Freiburg, Germany

During the 1990s, the municipality of Freiburg endeavored to conceive and implement a novel urban district adhering to the principles of sustainability, designated as Rieselfeld, situated on the periphery of the city. The undertaking entailed the transformation of previously utilized agricultural land into a multifaceted development encompassing residential neighborhoods, commercial establishments, and public amenities (Albrechts, 2004). In Freiburg, land readjustment was implemented as a core strategy. Landowners located within the designated development area pooled their respective landholdings, thereby generating a single land bank which was managed by a public agency. The city, in collaboration with various stakeholders, developed a comprehensive plan for the district, which outlined permissible land uses, necessary infrastructure, and public spaces. In accordance with the aforementioned plan, the pooled land was subsequently replotted into smaller parcels with specified uses. Infrastructure, encompassing elements such as roads, utilities, and parks, was also incorporated into the new layout. Landowners were allocated new plots, often of a smaller size in comparison to their original holdings, however, these new plots possessed a higher value as a direct result of the implemented development and infrastructure enhancements. This framework

effectively captured a significant portion of the land value increment for the greater public good.

4.3 Land Pooling - Delhi, India

Land pooling is a land assembly mechanism utilized for housing development in Delhi, India, involving the consolidation of fragmented land parcels by private landowners to form larger, contiguous plots. This approach aims to streamline the land acquisition process, reduce land speculation, and facilitate planned urban development. Under this scheme, landowners voluntarily pool their land, which is then developed by government agencies or private developers. In return, landowners receive a proportionate share of the developed land, along with infrastructure amenities and public services. Land pooling enables efficient land use, promotes sustainable urban growth, and addresses the challenges of rapid urbanization. Research indicates that land pooling has the potential to enhance housing affordability, encourage inclusive development, and mitigate urban sprawl in Delhi (Soni et al., 2020; Patel & Patel, 2016).

4.4 Tax Increment Financing - Chicago, USA

Tax Increment Financing (TIF) is a LVC mechanism utilized for housing development in Chicago, USA, involving the allocation of future increases in property tax revenue within designated TIF districts to finance infrastructure improvements and community development projects. TIF districts are established in areas targeted for revitalization or economic development, aiming to stimulate private investment and spur housing development. Through TIF, the enhanced land values resulting from development are captured to fund public infrastructure, such as roads, parks, and utilities, thereby enhancing the attractiveness of the area for residential development. Research indicates that TIF has been extensively employed in Chicago to promote housing development and neighborhood revitalization, although its effectiveness and equity implications have been subject to debate (Foscarinis & Shadur, 2001; Brunori, 2017).

4.5 Development Impact Fees - Montgomery County, Maryland, USA

Montgomery County, Maryland, located in the Washington D.C. metropolitan area, is a well-known example of a successful implementation of impact fees for LVC in housing projects. In the 1970s, Montgomery County faced rapid development with limited resources to keep pace with the infrastructure demands (Burchell & Mukhopadhyay, 2000). To address this challenge, the county implemented a comprehensive impact fee program. Developers of new housing projects were required to pay impact fees based on the size and type of their projects. These fees contributed towards the cost of infrastructure expansion, including schools, roads, parks, and other public facilities necessitated by the new development.

4.6 Certificate for Additional Potential Construction - Sao Paulo, Brazil

São Paulo, Brazil, has pioneered a unique tool for capturing the increased value of land due to development. Current São Paulo City's instrument of capturing the incremental value of public investments and zoning certificates is called the Certificate for Additional Potential Construction (CEPACs) (Smolka, 2021). CEPACs use a market-based approach. These certificates essentially represent the development rights granted by the city through upzoning - allowing for denser construction on a specific plot. São Paulo utilized

CEPACs (certificates of additional construction potential) to fund infrastructure projects, including public housing. Developers could purchase CEPACs on the stock market, generating government revenue. The Água Espraiada Urban Operation project raised \$806 million from CEPACs between 2004 and 2012. It is an example of land value capture where municipalities earn part of the rising values resulting from their actions (for instance, changes in zoning or infrastructure projects).

5. Land Value Trend and Practices in the Study Area along Purbachal Expressway

During the 1990s, a majority of the land in the area comprised crop fields. Land transactions were infrequent and typically conducted only when deemed absolutely necessary. In the early 2000s, the development of government-initiated project named Purbachal New Town and East West Property Development group initiated Bashundhara residential area prompted the real estate companies to enter the area and purchase land. Upon the arrival of real estate companies, they possessed the financial resources to outbid local individuals for land parcels. Initially, the transaction process was not straightforward and the local people failed to grasp the significance of these transactions. The information received from FGDs illustrated that certain local individuals acted as intermediaries for the large corporations. These intermediaries would acquire land at low prices from impoverished locals and subsequently resell the land to the large companies at a substantial profit. Instances of fraud also occurred, with some intermediaries selling the same piece of land to multiple real estate companies. Additionally, some individuals sold land using false documentation without informing the rightful owners. Information from key informants and FGDs emphasized that currently, all parties involved are aware of these fraudulent practices, and changes in ownership are handled meticulously with appropriate verifications. Till this day, the landowners can not directly deal with real estate companies. The companies prefer middlemen who are familiar with the land management process and can ensure smooth sales and registration, leaving the landowners with less leverage.

At the volume of land sold was substantial due to the lack of a fully formalized registration process and the ease of land transfer. It is noteworthy that real estate companies have adopted a strategy of not registering land parcels in their own names but instead acquiring power of attorney from the owners. Upon selling the land parcel, they register the land in the name of the plot buyers. However, companies are required to register the land designated for common facilities in their own names. Currently, even small housing companies struggle to maintain competitiveness and are compelled to sell their land assets to larger entities.

5.1 Impact on Local Life

The Purbachal expressway has had a mixed impact on the surrounding area. On the positive side, it's made it much easier for people to travel to Dhaka for work or services, thanks to the improved transportation network. However, this increased connectivity has also had downsides. Easier access to the outside world has unfortunately meant easier access to drugs for young people, leading to a rise in crime. The housing projects popping up along the Expressway are a double-edged sword for the local villagers. From the FGDs, it was revealed that while these projects were bringing new medical facilities, community centers, and schools, the locals themselves were afraid that they would not

be benefitted. They were concerned that these developments might not equip them with the skills needed for future jobs in the area, and they worried that they would eventually be pushed out entirely leading to gentrification. Land acquisition for these projects has also been a contentious issue. It was revealed both from the key informants and FGDs that housing companies are accused of using political influence to grab land at low prices, forcing some villagers to sell at a loss and move away. While some villagers had managed to profit by selling their land, others were displaced entirely.

5.2 Land Price and Land Tax

The cost of land in the region has undergone significant transformations over the years. The prices of land as mentioned in this section are acquired from the primary sources rather than the sub-registrar office since there lies huge discrepancies between them. As presented in Figure 3, the collected data revealed that prior to the intrusion of real estate development, land was traded at relatively modest prices, typically falling between 2 to 3 lakh Taka per bigha. However, as the area began to attract the attention of real estate developers, the value of land experienced a noteworthy increase. Around 2015, subsequent to the initiation of land filling activities, the price of land underwent a meteoric rise, reaching approximately 30 lakh Taka per bigha. This substantial appreciation in value was driven by the growing demand for land for residential and commercial purposes. In recent times, the real estate market in the region has witnessed a further escalation in land prices. Currently, developers are offering land at a staggering price of around 150 lakh Taka per bigha. This astronomical increase reflects the heightened interest from investors, developers, and homebuyers alike, as the region continues to attract attention for its strategic location, promising infrastructure, and potential for future growth.

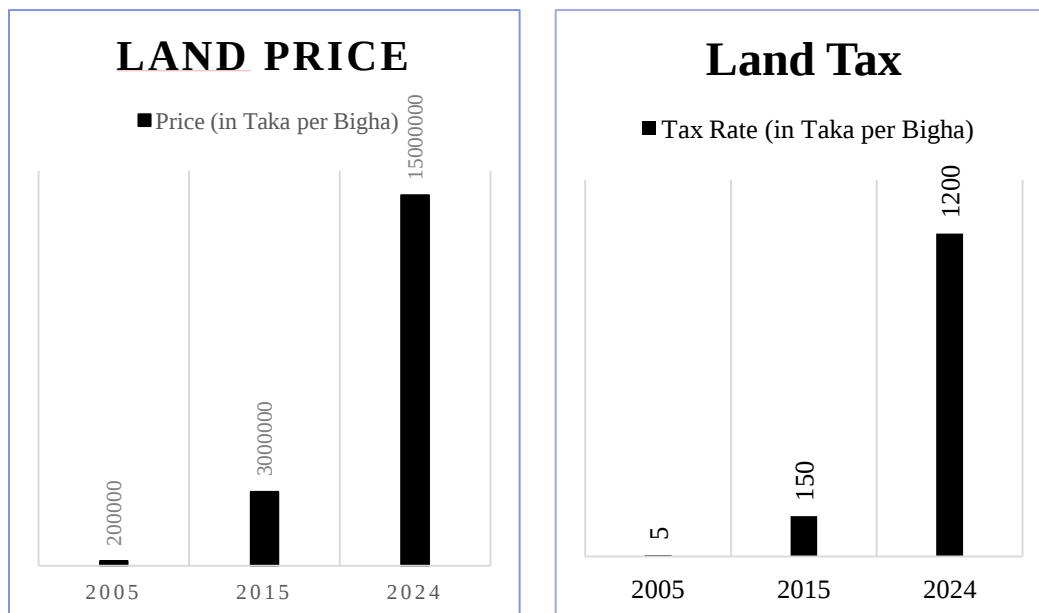


Figure 3: The increase of land value and land tax in the case study area

Source: Author, 2024

Historically, the collection of land taxes was characterized by a notable lack of formality. Participants in the study indicated that during the late 1990s and early 2000s, the land tax rate stood at five Taka per bigha and the tax collectors would ignore the taxes during the land registration process. However, around 2010, this rate experienced a significant increase to 150 Taka per bigha. Presently, the government collects taxes at a rate ranging from 1,000 to 1,200 Taka per bigha. It is noteworthy that the rise in the tax rate has been accompanied by more stringent collection efforts. This development can be primarily attributed to the fact that real estate companies refrain from purchasing land that lacks a valid land tax certificate.

6. Legal and Planning Framework for Utilizing LVC Mechanisms for Housing Development in Bangladesh

This section examines the current policies pertaining to LVC in Bangladesh and suggests a legal and planning framework for implementing LVC mechanisms for housing development projects in Bangladesh.

6.1 Existing Policies Relevant to Land Value Capture in Bangladesh

In Bangladesh, LVC has yet to attain significant prominence. Consequently, there is no formal legislative provision that facilitate direct land value capture. Nonetheless, allusions to land value capture mechanisms can be found, particularly in the 1953 Town Improvement Act. The Capital Development Authority (RAJUK) also termed as Kartipakkha is responsible for the planning, regulation and control of development of Dhaka. The 1953 Town Improvement Act contains references to betterment fees. According to Section 94 of the 1953 Town Improvement Act, "in the event that the worth of a piece of land is augmented by any enhancement undertaking or rehousing plan within the specified region, the Kartipakkha holds the authority to proclaim a betterment fee to be remitted by the proprietor of such land. The quantum of said fee shall be equal to half of the enhanced value resulting from the scheme in question and shall be calculated based upon the value of the land prior to and subsequent to the completion of the scheme. As the scheme progresses, the Kartipakkha shall, first and foremost, declare a completion date for the purpose of fee calculation. Thereafter, individuals potentially liable for such fees shall be duly notified. Subsequently, the Kartipakkha shall assess the fee after providing an opportunity for affected individuals to be heard. Additionally, a period of 30 days from the date of assessment shall be allotted for the submission of appeals, if any."

6.2 Legal Framework for Utilizing LVC mechanisms

There is a huge potential to use LVC as an effective policy approach in Bangladesh's context that enable the authorities to recover and reinvest land value increases resulting from public investment and government actions. In the following segment, a policy framework has been suggested for land value capture in Bangladesh.

- **Definitions**

- The LVC Act should provide clear and unambiguous definitions for key phrases including "capture rate," "development uplift," and "increased land value." In order to promote a common understanding among the pertinent stakeholders, these definitions should be crafted in a way that is consistent with Bangladesh's context.

- **Responsible Authorities**

- The LVC Act should explicitly specify the ministries and departments responsible for determining and implementing LVC mechanisms in different scenarios.
- If a new administrative department is required to oversee the LVC process, the Act should outline the process of forming the department, including the composition of the governing body, recruitment procedures, and the appointment of key personnel.
- The Act should also clarify the roles and responsibilities of specific individuals and departments involved in the LVC process.

- **Criteria for Using LVC**

- The LVC Act should establish minimum criteria that must be met before value capture mechanisms can be applied. These criteria could include factors such as the scale of the public investment or development project, the anticipated increase in land value, and the potential impact on the surrounding community.
- The capture rate should be calibrated to incentivize private landowners to contribute to urban development while ensuring that the benefits are shared equitably.

- **Determination of Capture Value**

- The Act should provide guidance on how the capture value will be determined. This could involve a combination of methods, such as land value assessments, market analysis, and consideration of socio-economic indicators of the area.
- The Act should also specify the process for disputing capture value determinations and the mechanisms for resolving disputes in a fair and timely manner.

- **Dispute Resolution Mechanism**

- The act should create a well-defined process for resolving disputes regarding land valuation and benefit sharing.
- The act should clearly identify the legal procedures for resolving issues, as well as the decision-making authority and appeals process.

- **Good Governance**

- The LVC Act should emphasize transparency and accountability in all aspects of the LVC process. This includes ensuring public access to information, conducting regular audits, and establishing a grievance redressal mechanism for affected landowners.
- It should focus on the rule of law and ensure that the act and its laws treat all parties involved equally.
- The act should focus on making the system efficient as efficiency is a major concern in activities related to land management in the country.

- **Community Engagement**

- The Act should require meaningful community engagement throughout the LVC process. This could involve public consultations, community impact assessments, and the establishment of community advisory committees.
- There should be measures taken to notify people about the inauguration of the act as well as its importance and benefits to the society as a whole.

- **Review and Amendment**

- The LVC Act should include provisions for periodic review and amendment to ensure that it remains effective and relevant in a changing environment.
- There should be a team of experts dedicated to update the policies and mechanisms to suit the evolving socio-economic conditions.

- **Capacity Building**

- The Act should include measures to build the capacity of relevant government agencies, professionals, and stakeholders in LVC principles and best practices.
- There should be trainings and workshops for individuals who are directly or indirectly involved in land management professions in the country.

- **Economic and Social Considerations**

- The LVC Act should consider the potential economic and social impacts of value capture mechanisms, including the impact on landownership, housing affordability, and community development.

6.3 Policy Suggestions for using LVC instruments for housing

In this segment suggestions have been provided for successful LVC implementation in Bangladesh. The suggestions are based on the findings from the case studies as well from the international success stories of LVC implementation. The potential LVC instruments are described as below.

- ***Betterment levies***

Betterment levies could be used to finance essential infrastructure associated with new housing projects, such as roads, drainage, schools, and parks. This can address the infrastructure strain often associated with rapid development. By levying charges on properties benefiting from the infrastructure improvements, betterment levies promote a fairer distribution of the financial burden for development. Developers and landowners who see their property values rise contribute towards the infrastructure that facilitates this increase.

- ***Impact Fees***

In the context of housing development, particularly in Bangladesh, where infrastructure improvements are necessary, impact fees serve as a valuable tool for LVC. Impact fees levied on developers can be used to finance the essential infrastructure improvements necessitated by new housing developments, such as expenditures on roads, water supply systems, sewage treatment plants, and other necessities. By capturing a portion of the increased land value generated by these improvements, impact fees ensure equitable contributions from developers toward the infrastructure burden they impose on the community. Impact fees facilitate a more equitable distribution of infrastructure development costs between developers and the broader community.

- ***Land Readjustment***

Land readjustment represents a potent mechanism for capturing land value within the context of housing development in Bangladesh. This approach offers numerous advantages, including infrastructure development, efficient land utilization, and

equitable distribution of land value. Land readjustment entails the reorganization of land parcels to facilitate more efficient infrastructure development. Through the consolidation of fragmented parcels and the reallocation of land for public amenities such as roads and utilities, land readjustment unlocks the potential for comprehensive infrastructure upgrades in areas designated for housing development. Furthermore, land readjustment allows for the value created by infrastructure improvements and increased land efficiency to be captured and shared among stakeholders. As land parcels are consolidated and rezoned for higher-density development, their value typically increases. This appreciation in land value can be harnessed through mechanisms such as land pooling arrangements or development rights transfers, whereby developers contribute a portion of the increased land value towards funding infrastructure or affordable housing initiatives.

Conclusion

This study investigated the applicability of LVC mechanisms in the context of housing development in Bangladesh. The findings reveal the substantial potential of LVC to capture the value uplift generated by public investments, particularly in the context of the rapidly developing Purbachal expressway corridor. The research examined various LVC mechanisms implemented successfully worldwide to capture value from housing developments. These mechanisms, such as impact fees, betterment levies and land readjustment offer valuable models for adaptation within the Bangladeshi context. Furthermore, the research identifies a significant increase in land prices within the Purbachal area attributed to the construction of the expressway. However, the absence of a formal LVC framework impedes the capture of this value increment for public benefit. To ensure effective value capture, the research proposes a comprehensive legal and planning framework for utilizing LVC within Bangladesh. This framework encompasses key elements such as legislative foundation, administrative capacity building, and transparent implementation procedures. The successful implementation of LVC in Bangladesh can significantly contribute to sustainable housing development. Capturing the value uplift generated by public investments in infrastructure project such as the Purbachal Expressway can provide resources for building and maintaining essential infrastructure, ensure a well-equipped and sustainable living environment, subsidize affordable housing initiatives or developing mixed-income housing projects, fostering social equity within new developments, and incentivizing developers to consider infrastructure needs and public amenities from the outset, leading to more sustainable and balanced development outcomes. This research provides a roadmap for policymakers and urban planners to navigate LVC implementation and ensure sustainable housing development for the future of Bangladesh.

References

- Aktar, M. and Carlose, M. (2014). Evaluation of Government Improvement Schemes in Dhaka city: An assessment from redistribution perspective of land value increment, Unpublished MSc. Thesis at IHS, Erasmus University, Rotterdam, the Netherlands. <https://thesis.eur.nl/pub/31001/-1-38373>. Pdf.
- Albrechts, L. (2004). Land readjustment in Germany. *Journal of the American Planning Association*, 74(4), 444-459.

- Aveline-Dubach, N., & Blandeau, A. (2019). Stakeholder power relations in Land Value Capture: comparing public (China) and private (U.S.) dominant regimes. *Land Use Policy*, 89, 104223. <https://www.sciencedirect.com/science/article/pii/S0264837718317940>.
- Bratt, R., Droste, N., & Wachsmuth, D. (2017). Inclusionary housing in the United States: A meta-analysis of policy effects. *Journal of the American Planning Association*, 87(2), 186-201.
- Brunori, D. (2017). Is TIF a Pillar of Urban Revitalization or the Black Hole of the Municipal Budget? An Assessment of Tax Increment Financing in Chicago. *International Journal of Urban and Regional Research*, 41(2), 224-243.
- Burchell, R. W., & Mukhopadhyay, S. (2000). *Planned communities and the impacts of sprawl*. APA Planners Press.
- Crook, T., Henneberry, J. and Whitehead, C. (2008). Written evidence for Second memorandum of evidence to House of Commons Select committee on Housing, Communities & Local Government on Land Value Capture, Tenth Report of Session 2017-19, House of Commons Paper HC 766, London, UK Parliament.
- Federal Highway Administration. (2019, September 12). Value Capture: Negotiated Exactions <https://highways.dot.gov/>.
- Foscarinis, M., & Shadur, M. A. (2001). Redevelopment and the myth of mixed-income communities: A policy brief on public housing transformation and neighborhood revitalization in Chicago. Sage Publications.
- Freeman, A. (2017). *Affordable housing and the future of cities*. Routledge.
- Freilich, R. H., & Steiner, M. A. (2017). *Real estate fundamentals* (2nd ed.). McGraw-Hill Education.
- Galli, V. (2016). *Value capture: Financing public infrastructure by capturing the increment*. Edward Elgar Publishing.
- House of Commons Library. (2019). Community infrastructure levy (CIL). <https://www.legislation.gov.uk/ukpga/2008/29/contents>.
- Jaggi, B., & Pendharkar, M. C. (2018). *Financing infrastructure development: Innovative practices and global experiences*. Springer.
- Landlines (2011). Betterment Levy in Colombia Relevance, Procedures, and Social Acceptability, Lincoln Institute of Land Policy, Accessed on May, 2024, URL: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.lincolninst.edu/app/uploads/2024/04/1899_1213_LLA110404.pdf
- Lincoln Institute of Land Policy (2011). Getting started with land value capture: A guide for practitioners. <https://www.lincolninst.edu/publications/articles/value-capture>
- Lincoln Institute of Land Policy (2020) *Land Value Return Tools to Finance*.
- Mikesell, R. F. (1999). *Principles of taxation and public finance*. W. W. Norton & Company.
- OECD. (2022). Global compendium of land value capture; Accessed on July 18, 2023; https://www.oecd-ilibrary.org/urban-rural-and-regional-development/global-compendium-of-land-value-capture-policies_4f9559ee-en.
- Ostrogorsky, A. (1990). *Land value taxation: The theory of equitable taxation*. Greenwood Publishing Group.
- Patel, D. N., & Patel, S. (2016). Land pooling as a tool for urbanization in India: A study of Gujarat. *International Journal of Applied Research*, 2(1), 310-314.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage publications.
- RICS Valuation Global Standards Board. (2017). *Red Book: Global valuation standards* (8th ed.). Royal Institution of Chartered Surveyors.

- Rubinfeld, D. C., & Costanzo, C. M. (2017). The economic evaluation of real estate.
- Shahab, S., Amini, M. H., & Mansouri, N. (2018). Common value: transferring development rights to make room for water. National Institutes of Health (PubMed Central: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7487077/>).
- Slack, E., & Bird, R. M. (2013). The role of local government finance in spatial development. Routledge.
- Smith, S. (2016). Land value capture for urban regeneration.
- Smolka, M. (2012). Value Capture and the Role of Land in the Equality of Opportunities: The Case of São Paulo, Brazil.
- Soni, A., Bhattacharya, R., & Alagh, Y. (2020). Land pooling in India: A case study of Delhi. Land Use Policy, 97, 104801.
- Town Improvement Act, 1953 (East Bengal Act XIII of 1953).
- UN-Habitat. (2017). Land Value Capture: A Global Perspective. <https://www.aidsdatahub.org/sites/default/files/resource/un-habitat-global-activities-report-2017.pdf>
- World Bank (2015). Land value capture for urban development. <https://documents1.worldbank.org/curated/en/723411468139800644/pdf/461290PUB0Box3101>.
- World Bank. (2017). Land Value Capture: Options for Municipal Finance. <https://documents1.worldbank.org/curated/en/723411468139800644/pdf/461290PUB>.
- WRI (2020) Developing Cities Need Cash. Land Value Capture Can Help, Accessed on July 18, 2023; URL: <https://www.wri.org/insights/developing-cities-need-cash-land-value-capture-can-help>.