



URBAN REFORMS THROUGH TRANSFERABLE DEVELOPMENT RIGHT

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Abstract: Urban planning is an essential component for a comprehensive growth of urban areas, the people and the environment. This necessitated more effective neighborhood planning, which included determining the land's carrying capacity and fostering expansion in regions that needed it most. Technically organized as transferable development rights as a flexible tool, it can be adapted to match many alternative land conservation and growth control methods, one of the important urban reforms to boost India's urban planning capabilities. The present research attempts to address the notion of TDR, framework used by the various state governments to include the clause in separate Regulations of development control in provision to be successfully implemented of TDR.

Keywords– Development control regulation (DCR), Land value, floor space index (FSI)/FAR transferable development rights (TDR), urban reforms.

I. INTRODUCTION

Urban reforms are essential in helping urban local bodies (ULBs) systematize and correct procedural flaws in urban governance, and they have a significant impact on how a nation's macroeconomic vision is defined at the city level. Urban reforms contribute to increase ULB's financial stability, transparency, and accountability. They can also give private investors the required stability. Transferable Development Rights (TDRs) are one of the key land-dealing tools used in these reforms to support urban infrastructure development by reducing the costs associated with infrastructure construction. In the 2017 Value Capture Policy Framework, the Ministry of Housing and Urban Affairs (MOHUA) mentioned the policy.

Objectives:

- To comprehend the transferable development right and the land assembly.
- To assess it as a beneficial implementation source and suggest a spatial planning procedure for expanding the use of TDR.

II. METHODOLOGY

The research study's approach includes primary and secondary data obtained from documents, reports, journal articles, reviews, academic books, policies, questionnaires, interviews, and site surveys, in that order. To achieve effective TDR implementation, data gathered through primary and secondary ways have been positively analyzed, compared, and assembled.

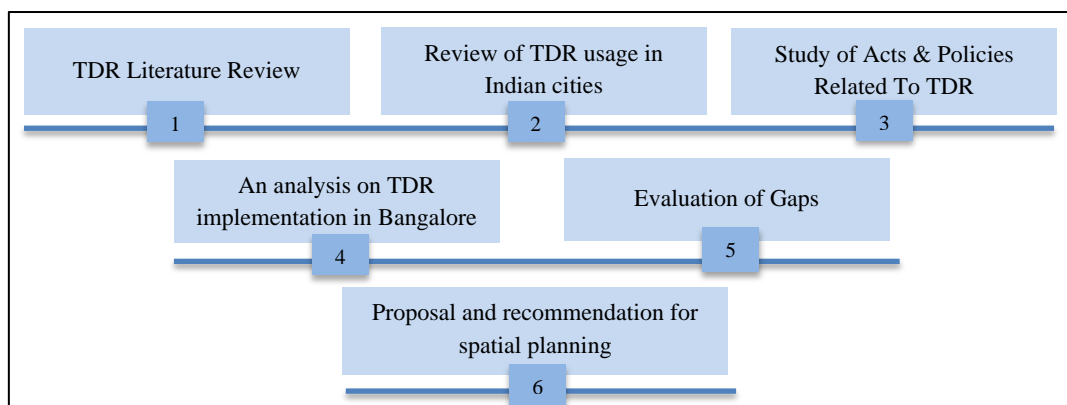


Fig: 1 Methodology
Source: Author

III. LITERATURE REVIEW

□ Land assembly

To achieve the best possible social use of urban land, land assembly and development mechanisms are implemented, ensuring that there is sufficient land available to the public sector and to individuals. In reaction to changes brought on by an expanding city, it also encourages flexibility in land use.

□ Transferable Development Rights (TDR)

The TDR approach to land development allows for the use of a specific parcel of land elsewhere within the city's specified zones while dividing its development potential from it. It lets the owner to give a third party the right to develop a specific piece of property. Using this entitlement, which is in addition to the usual FSI for receiving plots under the current laws and regulations, a landowner is able to increase the built-up area of an already existing building or undeveloped land. The property's zoning, land use, and development control restrictions define the possible level of development for each parcel of land.

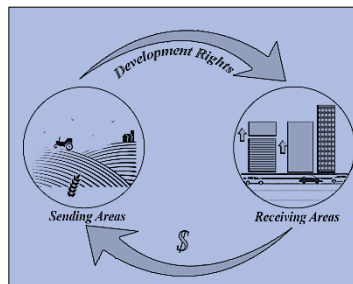


Fig: 2 Transfer of Development Right

Source: Sina Sahab, 2018

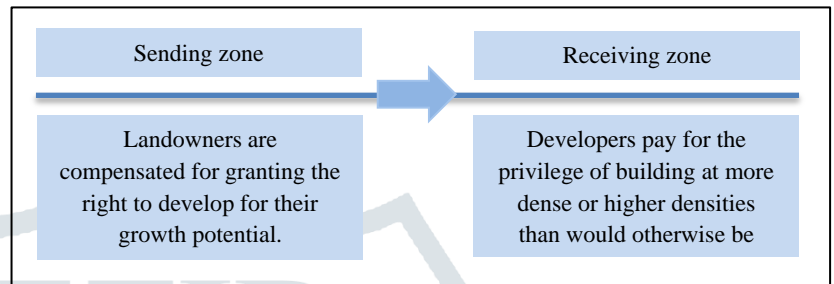


Fig: 3 Sending and Receiving Zone

Source: Author

□ Propose For Use of The TDR Programme

- The purpose of purchasing land is to build roads and create public amenities, such as gardens and playgrounds.
- Plot and land owners are also eligible for the TDR prize if they build or develop planned reservations in accordance with DCR regulations.
- To achieve additional goals for city development, such as slum housing, the preservation of the built environment, or even the creation of public amenities.

□ TDR Sending Zone And Receiving Zone

The location of TDR created is known as the TDR transmitting zone. The TDR is applied in the receiving zone. Both the sending and receiving zones might resemble some areas of Mumbai or differ from Bangalore.

□ Transfer Ratio

The transfer ratio is the proportion between the area that has been used and the development rights. It gives a potential area's estimated size utilized above or below the permitted development rights.

□ TDR Market

The market for TDR is mostly a private market that was created at the initiative of several housing and real estate firms. It operates through private trades and agreements. They must understand that an effective secondary market for TDR would control rising land costs and give them the opportunity to build where there is a demand for it and where it can be absorbed.

□ Certificate for Zones With TDR And Development Rights

- The city is divided into three zones in the plan: zones with heavy development (A-zone), zones with moderate growth (B-zone), and zones with sparse development (C-zone).
- Intensively developed zones must transmit their development rights to other zones, not the other way around.
- The recipient of this award will get a Development Rights Certificate (DRC), which they are free to keep or gift to anybody else.

The necessary TDR terminological references are identified in the literature to provide a clear image of how to carry out a TDR. Recognize your role in creating an environment based on a policy foundation.

IV TDR PRACTICE IN INDIAN CITIES

The conception of TDR has been adopted by a number of Indian towns as a mechanism for land and financial mobilization. Along with Mumbai and Bangalore, Chennai, Hyderabad, Pune, and Ahmedabad also have TDR programmes that are governed by their own Official city master plans and the Acts of Town and Country Planning.

V STUDY OF TDR-RELATED ACTS AND POLICIES

□ **Hyderabad TDR Policy**

The legal framework for TDR in Hyderabad is provided by the Andhra Pradesh Building Rules-2012.

- An amount equal to 200% of the built-up area of the area surrendered for Road / Road Development Plan of master plan that was prepared.
- To develop recreational margins, such as lakes, water bodies, nalas, and vegetation, in a quantity equal to 100% of the built-up land that had been created at the owner's cost.
- The corresponding proportion of 100% of the site's built-up area in the case of heritage buildings and neighborhoods that are preserved through adaptive reuse.

□ **Pune TDR Policy**

The following is a list of the utilization standards for FSI:

- Those receiving plot's FSI must not exceed shall not be authorized to exceed 0.8 in relation to the DR accessible for the reservation plot/road expansion or FSI of road expanding/reservation from the highly mentioned plot or both together.
- The receiving plot's FSI may be 0.2 points higher than the DR supplied as a result of the slum rehabilitation project.
- In addition, FSI on the receiving plot may be surpassed by 0.05 in regards to DR available due to a cluster TDR.

The following combinations, where applicable, may be used in conjunction with the use of TDR on receiving plots:

Table: 1 FSI distributions in Pune

1	2	3	4
Reservation and Road - 0.8 max.	Reservation and Road + TDR- 0.6 max	TDR maximum 0.6	Slum TDR maximum 0.6
. Slum TDR - 0.2	Slum TDR 0.2	Premium FSI 0.2	Reservation and / Road 0.8 max.
Cluster / Heritage TDR - 0.05	Premium FSI 0.2	Slum TDR 0.2	Premium FSI 0.2
-	Cluster / Heritage TDR0.05	Cluster / Heritage TDR 0.05	Cluster / Heritage TDR 0.05
1.05	1.05	1.05	1.05

□ **Chennai TDR guidelines**

Details on Transferable Development Rights (TDR) are included in the Chennai Metropolitan Areas master plan, 2026. TDR is given when A private property is necessary for infrastructural purposes, as demonstrated here.

- Any suggested in a Development Plan or DDP, new road construction or road expansion.
- Any improvement to the transportation systems, such as new bus stops, metro rail, MRTS, etc.
- Any city improvement project that has been observed by a state-level division, federal agency, or local authority, including developments in the areas of power, water supply, wastewater, water drainage, and the provision of healthcare and education.

There may be slums along rivers, road boundaries, or any other piece of property controlled by state agencies or organizations because the slum occupants do not own these locations. Under certain conditions and according to the Regulations, private developers that provide them with alternative housing may be granted Specific Transfer of Development Rights (Special TDR) for 30 square meters of floor area each slum residing resettlement.

The area of the land that has been forfeited multiplied with a Floor Space index of 1.5 multiplications additionally with a variable derived by dividing the relinquished land's valuable by the land's value where the TDR is planned to be used or received.

TDR will also provide an incentive based on 1.5 times the Guide Line Value. The most additional FSI that can be granted under the Transfer of Development Rights in circumstances when the surrendered lands are eligible for 2.00 or more FSI becomes 0.25.

$$FSI = (\text{surrendered area}) \times 1.5 \times (\text{Guideline value of sending site/guideline value of receiving site}) \times 1.5$$

□ **Mumbai TDR policy**

In the 1991 Development Plan, a zone plan for TDR use using density was included. As a result, it was against the law to use DRC in the Island Town. They may be applied to any plot that was either wholly or partially to the north of the location where they started (again, not in the Island town), or to any plot that occurred in the identical ward as the one where they were created (neither ward was in the Island town).

The master Plan of 2034 provides a radically different perspective on the use regarding TDR; as well as densification in the area of transportation hubs has received a lot of attention through Development plan 2034's TOD-oriented development concept.

Table: 2 FSI distributions in Mumbai

FSI range	A	B	C	D	E
Premium B	2.5	2	1.5	0.5	0
TDR	0.5	0.5	0.5	0.5	0
Premium A	2.5	1.5	0.5	0.5	0.5
Base	2.5	2.5	2.5	2	1.5

□ Ahmedabad TDR policy

Gujarat was the first state to implement the idea of TDR through the drawn of the "Comprehensive Development Plan 2021," that was enacted in 2013. This referred to as "Tradable Development Rights". Giving out tradable development rights is intended to promote "heritage conservation "Transferable FSI, a type of TDR, for the purpose of "slum rehabilitation."

Table: 3 Higher FSI for Ahmedabad preservation of heritage

No.	Heritage Building	Floor space index
1	Highest value	0.5
2	High and moderate value	0.3
3	Not listed	-

In order to reconstruct slums, there is also the idea of Transferable FSI: Any extra floor space that is left over after following the rules for slum development can be used as Transferable FSI in another plot where the current FSI is more than 1.2.

The table below shows the maximum additional FSI that may be used:

Table: 4 FSI Permissible in Ahmedabad

No.	Allowable Floor space index	Total maximum allowable Floor space index
1	1.2	1.5
2	1.8	2.7

VI STUDY OF IMPLEMENTATION OF TDR IN BANGALORE

- TDR is allowed by Section 14(B) of the KTCP Act of 1961. Information about the TDR strategy is included in Bangalore's Modified development Plan of 2015. The BBMP and BDA release TDRs for land purchase for public functions:
- Widening of existing roads and construction of additional ones; signal-free lanes; railway underpasses; and railway over bridges. Enhancing heritage structures or zones that the government has designated.
- Providing open areas, playgrounds, and parks.
- Any other objective that may occasionally be announced by the Government of the State Administration.

- TDR is awarded an official document known as a Development Rights Certificate (DRC), which may be applied to the same or a different plot, or a floor space credit. 1.5 times as much area is acquired as is paid.

The city is divided into three TDR zones based on the intensity of development: A-zones are most extensively developed, B-zones are the second highest developed, and C-zones are the least developed.

- Zone A (Ring -I): Locations that are surrounded by the Inner Ring Road.
- Zone B (Ring -II): Regions between the Outer and Core Ring Roads.
- Zone C (Ring -II): Regions inside the LPA and extending past the Outer Ring Road

Table: 5 FSI distributions in Bangalore

Generation zone of DRC	Utilization Zone of DRC		
	Zone A (Ring -I)	zone B (Ring- II)	zone C (Ring- III)
Zone A (Ring - I)	0.5	1.50	2.00
Zone B (Ring -II)	0.666	1.00	1.333
Zone C (Ring -III)	0.50	0.666	1.00

Value in zone: Compensated area x Utilization Factor x Guidance value of the zone.

□ Implementation Mechanism

- The Road Infrastructure Department of the BBMP notifies of expansion of the roadway programmes & projects to be conducted using the TDR tool as a yearly programme .The Road Development division issues notices of properties that will be purchased for a certain project that has been identified and will be carried out..
- The process is then transmitted from here to the relevant Zonal Offices. The following is the TDR process.
 - i. The engineers undertake a survey of the land to be purchased in order to create a thorough survey plan for each specific property. An understanding of the size and scope of the area to be obtained from each property is provided by the thorough survey plan.
 - ii. The owners of the properties are simultaneously contacted to obtain their authorization for TDR. The landowners are required to provide a letter of approval written to the Commissioner BBMP as evidence of their understanding.
 - iii. The property records are then gathered from the property owners. The following documents are gathered in accordance with a government notification: a site plan compliant with RMP 2015, a sale document, an authorization certificate, a khata extracts an encumbrance document, an ownership document, a property card, and a tax-paid statement.
 - iv. An ARO officer examines the data supplied by the landowner, and based on a successful confirmation, the officer generates a report.
 - v. As the final step in the land transfer process, the landowner signs a relinquishment deed stating that the land has been transferred to the "Commissioner BBMP".
 - vi. The zonal office generates the DRC certificates, which are then released after head office verification.

Each matter is delivered to the main office for thorough review. when the process is finished at the Zonal offices. Below is a list of tasks that are being carried out at the head office.

- vii. The BBMP's Land Acquisition Department does a last check of the property paperwork. The area and size data of the properties are simultaneously confirmed with the proposed ROW of the road at the Road Infra department.
- viii. Following the conclusion of these two processes, the specific Commissioner and the Commissioner of the BBMP approve the DRC. The zone officials then deliver the DRC to the landowner.

VII RESEARCH ANALYSIS

The study has been successful in highlighting the numerous opportunities and problems associated with TDR as a result of varied TDR regulations in various cities. The study produced significant information about the TDR theories specialization via integrated land use and Formulation of policies. The TDR market mechanism has been found to have holes and problems, and both buyers and sellers are currently unaware of these concerns. Transparency can be improved by the government. The institutional procedure can be changed to accelerate up the TDR process, which is now taking a long time. It has frequently been observed that landowners are unaware of the facts and specifics of TDR. For the TDR to be implemented successfully, public knowledge is essential.

VIII CONCLUSIONS

Transferable Development Rights (TDR) are one tool that may be used to create urban infrastructure while taking use of the value and potential for development of urban land, which is a crucial component of urban reforms needed for infrastructure development .As a result of the research study's understanding of TDR mechanisms, various city policy frameworks established the TDR in accordance with the city's unique context and development control regulations. Regularizing the structure in accordance with the bylaws' mandated incentives for TDR using land value and FAR is crucial. Increasing for Geospatial databases can be used to digitize and specialize the entire DRC and the supporting documentation, leading to special planning processes through the development of planning schemes like prudent use in encouraging TOD schemes and improvement of the governance of the TDR instrument. This offers a different viewpoint on land acquisition and a flexible tool for successful implementation, along with a fair and transparent policy regulation and TDR system that helps to reduce the costs associated with building infrastructure.

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