

A Successful Town Planning Scheme for Integrated Urban Development : The Case of Vaduj, Satara District, Maharashtra State, India.

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Abstract :- This research examines the implementation of the Town Planning Scheme in Vaduj, Satara, and evaluates its role in guiding planned urban growth. The study highlights the unique aspect of implementing a TPS in a non-Development Plan area, demonstrating its applicability beyond conventional planning frameworks. Rapid urbanization in small towns creates challenges related to infrastructure, land management, and planned development. Town Planning Schemes (TPS) have emerged as an effective tool for achieving integrated urban development through land pooling and infrastructure provision. The scheme was supported through Central Assistance funding, which enabled the development of roads, public amenities, and infrastructure also no compensation as well as Incremental Contribution is taken into consideration in this Scheme. The findings indicate that the TPS approach improved accessibility, enhanced urban services, and promoted organized development while ensuring equitable benefits to stakeholders. The Vaduj case provides valuable insights for other small and medium-sized towns seeking sustainable and inclusive urban development through innovative planning mechanisms.

Keywords :- Town Planning Scheme, Vaduj, Original Plot, Final Plot, Original Plot Value, Semi-Final Plot Value, Final Plot Value, Incremental Value, Contribution, Compensation.

1. HISTORY OF TOWN PLANNING SCHEME

In India, town planning laws are not new, The Bombay Town Planning Act, 1915, which went into effect on March 6, 1915, was the first town planning law in India, and it was enacted by the former Bombay Presidency in the early 20th century. Later on, more provinces adopted this Act. The Bombay Act of 1915 primarily stipulated,

- i. The creation of town planning schemes (TPS) for areas under local government jurisdiction that are undergoing development.
- ii. The recovery of improvement contributions from benefiting land owners by the planning authority.

It was noted that T.P. projects created in accordance with the 1915 Act led to patchwork planning that had no connection to the surrounding surroundings. The Bombay Town Planning Act of 1954 replaced the 1915 Act, which went into effect on April 1st, 1957, because it was necessary to have a planned development of every square inch of land within the municipal borders. The development plan (DP), which was first proposed in 1954, is the primary planning tool that keeps the TPS in place for DP implementation. The former Bombay state, which included the regions of Saurashtra and Kutch, Gujarat, Vidarbha, and Marathwada, was covered by the Bombay Act of 1954. It was believed that a separate town planning act based on the Bombay Town Planning Act, 1954 was required due to the excessively wide geographical area of Bombay State and the unique characteristics of the Saurashtra and Kutch regions. As a result, the Saurashtra Town Planning Act, 1955 (Saurashtra Act No. XII of 1955) was passed as a distinct town planning law for the entire state of Saurashtra. The MRTP Act of 1966 encourages and controls urban and potentially urbanizing areas. It has development functions and is a comprehensive planning statute. This Act comes under one of the five basic trendsetter models of town and country planning in India and was adopted subsequently by other states like Gujarat, Himachal Pradesh, Tamil Nadu. (*Jiashal, 2012-13*)

2. INTRODUCTION

The study's objective is to "use the Town Planning Scheme to achieve balanced growth development by analysing strategies and modelling for unplanned and haphazard growth of cities and their peripheral areas."

OBJECTIVES :-

- a) To comprehend land development mechanisms and methods used in India, particularly land readjustment and land pooling
- b) To comprehend the various land development plans, laws, and models.
- c) To evaluate the efficacy and efficiency of TPS/TDS in service delivery; recommendations for improved TPS/TDS deployment. (Naveen Gupta, 2024)

For the implementation of development plans for the areas covered under the jurisdiction of the planning authorities such as municipal corporation / municipal councils / Nagar panchayats, or in respect of any land which is likely to be in the course of development or which is already built upon, Town Planning Schemes are prepared with the methods such as micro- level planning and land pooling and reconstitution, under the provisions of section 59 to 112 of the Maharashtra Regional and Town Planning Act, 1966. The basic concept of town planning scheme is providing together all the land under different on the shapes and read distributing it in a properly reconstituted form after deducting the land - required for the Open spaces, social infrastructure, services, housing for the economically weaker section and road network. Town planning schemes are prepared giving micro level planning for smaller areas. Town planning schemes are joint venture between the local authorities and the owners of the plots who voluntarily agree to pull their land and distribute that land among them and share the development costs. (*Directorate of Town Planning and Valuation*)

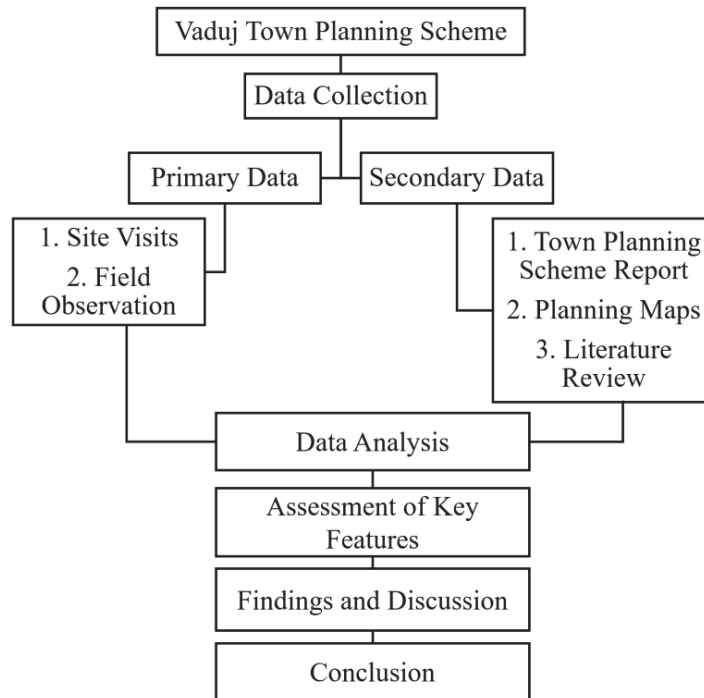
CONTENT OF DRAFT SCHEME :-

A draft scheme should include the following details, as far as necessary:

- (a) Information about each original plot, including its ownership, area, and tenure.
- (b) Details of land reserved, acquired, or allotted under Section 59(b)(i), along with a general indication of its proposed use and the terms and conditions for such use.
- (c) The extent to which the boundaries of original plots will be modified through reconstitution.
- (d) An estimate of the total cost of the scheme, along with the net cost to be borne by the Planning Authority.
- (e) A comprehensive description of all aspects of the scheme related to matters specified in Section 59(b), wherever applicable.
- (f) Plans for laying out or re-laying out land, whether vacant or already developed, including areas identified for comprehensive development.
- (g) Proposals for filling, reclaiming, or improving low-lying, swampy, or unhealthy land, including land levelling.
- (g-1) Allocation of land within the total scheme area as follows:
 - (i) Up to 10% of the total area reserved for housing for economically weaker sections (EWS), lower income groups (LIG), and persons displaced by the scheme.
 - (ii) Up to 40% of the total area (in aggregate) allocated for purposes such as:
 - Roads, Parks, playgrounds, gardens, and open spaces
 - Social infrastructure (e.g., schools, dispensaries, fire stations, and public utilities)
 - Sale by the Planning Authority for residential, commercial, or industrial use, depending on the type of development. (*Maharashtra Regional and Town Planning Act, 1966*)

3. METHODOLOGY

The collected data were analysed to assess the impact of the TPS on infrastructure development, road network improvement, land management, and provision of public amenities. Special attention was given to the unique features of the Vaduj TPS. The findings were then evaluated to understand the effectiveness of the scheme as a tool for sustainable and integrated urban development.



4. VADUJ TOWN PLANNING SCHEME, PHASE NO. 1

4.1 LOCATION MAP



Figure 1 Maharashtra

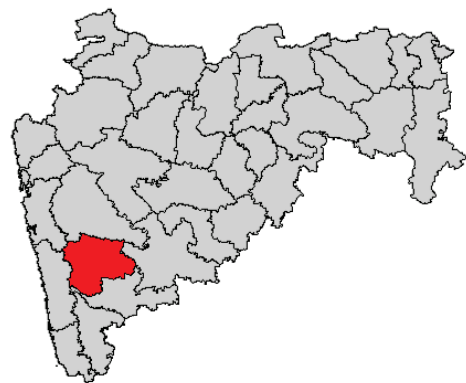


Figure 2 Satara District



Figure 4 Vaduj Village

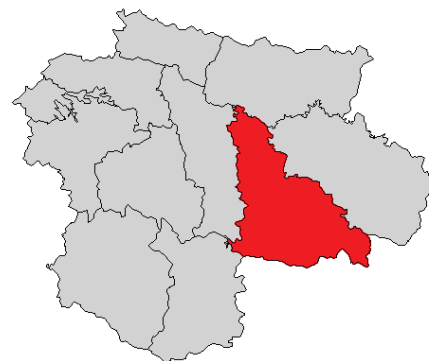


Figure 3 Khatav Tehsil

4.2 SITE SELECTION

- Vaduj is a small town (Nagar panchayat) in satara district with population of 17,636 area of 29 sq.km. Formed in 2016 with development potential due to education, administrative centre of khatav tehsil and market place for surrounding villages.
- Selected site is in vicinity of existing gaothan and in the course of development. It is also near to bus stand and market place.
- Site is surrounded by existing approved layout.
- The Original holdings are like strip shaped and inaccessible hence development was halted.
- 20 to 30 Hect. Area was open lands (green field development).
- There is no sanctioned development plan for Vaduj Nagar panchayat and Nagar panchayat don't have any land for providing amenities for citizens.
- Site has access from major roads.

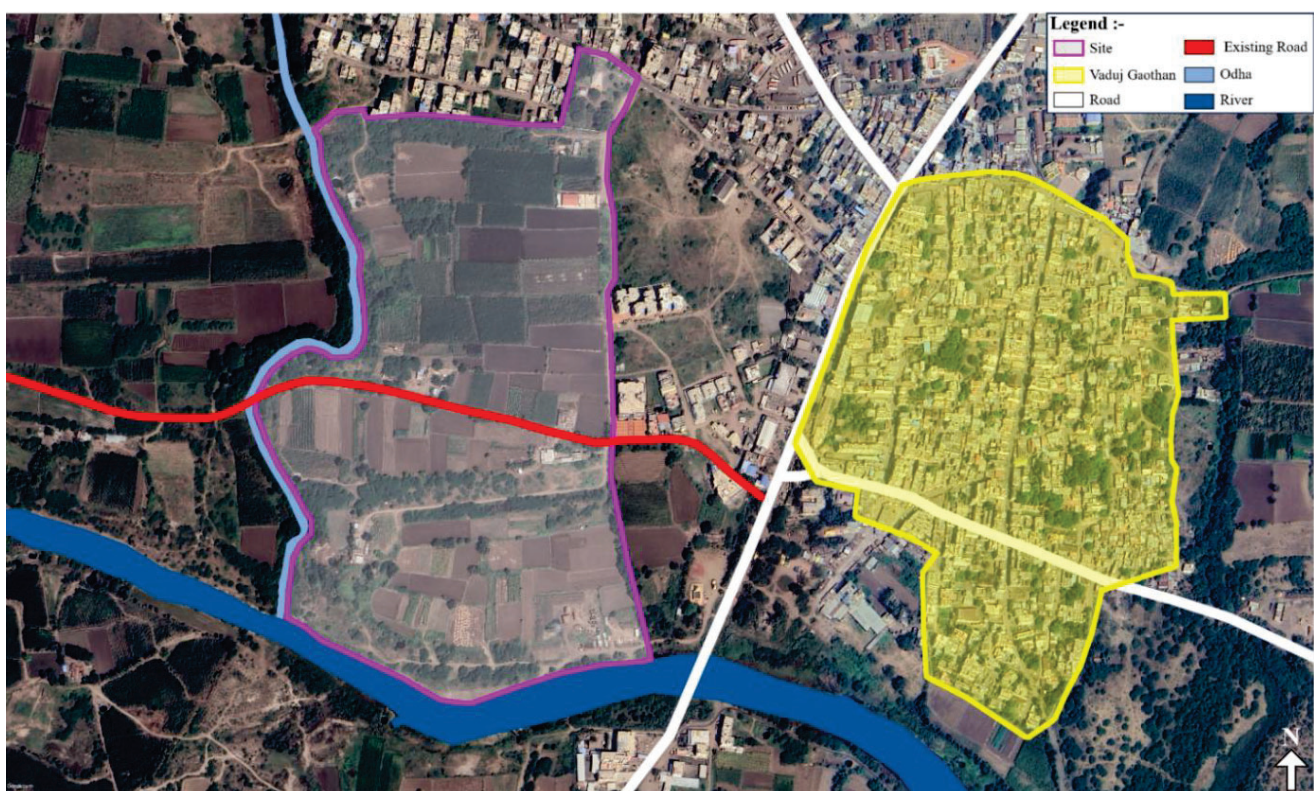


Figure 5 Location plan of Vaduj TPS

4.3 PHYSICAL FEATURES :-

I. AREA AND LOCATION

The site area is about **20.82 Ha. (51.45 Acre)**. located in Vaduj village, as vaduj is a major town in Satara district of Maharashtra, India. It is the headquarters of Khatav Taluka the Total area of the Vaduj Nagar panchayat limit is about 28 sq.km. this town is connected by State highways (SH): Karad-Pandharpur SH_124 and Baramati sangli SH-146 and major District Road (M.D.R) 100.

II. TOPOGRAPHY

Vaduj town is situated at an altitude of about 611m. above the main sea level. The geographical location of the khatav tehsil area consisted with marginal boundary of Deccan upland, a part of Western Ghat. According to analysis, about 45% area confined by the plain area, 34% by foot hills and below 20% area covered by hilly ranges and our area under Town Planning Scheme is consist of plain area and the area mainly consist of black cotton soil.

III. CLIMATOLOGY

Climate of Khatav Tehsil is characterized by hot summer and general dryness throughout the year except during South-West monsoon season. The year can be divided into following four seasons.

- 1) Winter Season (from December to February)
- 2) Summer Season (from March to May)
- 3) South-West Monsoon Season (from June to September)
- 4) Post Monsoon Season (from October to November)

IV. RAINFALL

The average annual rainfall in Khatav Tehsil during the years from 2002 to 2016 was 415.00 mm, the maximum being 842.70 mm during the year 2004 and minimum being 181.40 mm during the year 2003.

4.4 NEED FOR PLANNED DEVELOPMENT WITHIN THE CITY

The necessity of town planning can very well be appreciated by mentioning the worst situations which a town has to face in the absence of town planning. They are as follows:

1. Defective road system resulting in the formation of narrow streets and lanes
2. Development of slums and squatter settlements
3. Haphazard location of industries
4. Heavy traffic congestion during the working hours of the day
5. Inadequate open spaces for parks and playgrounds resulting in unhealthy living conditions
6. Lack of essential amenities like electricity, water supply and drainage
7. Noisy atmosphere disturbing the peace of city dwellers.
8. Uncontrolled development of the town
9. Unhealthy living conditions, etc.

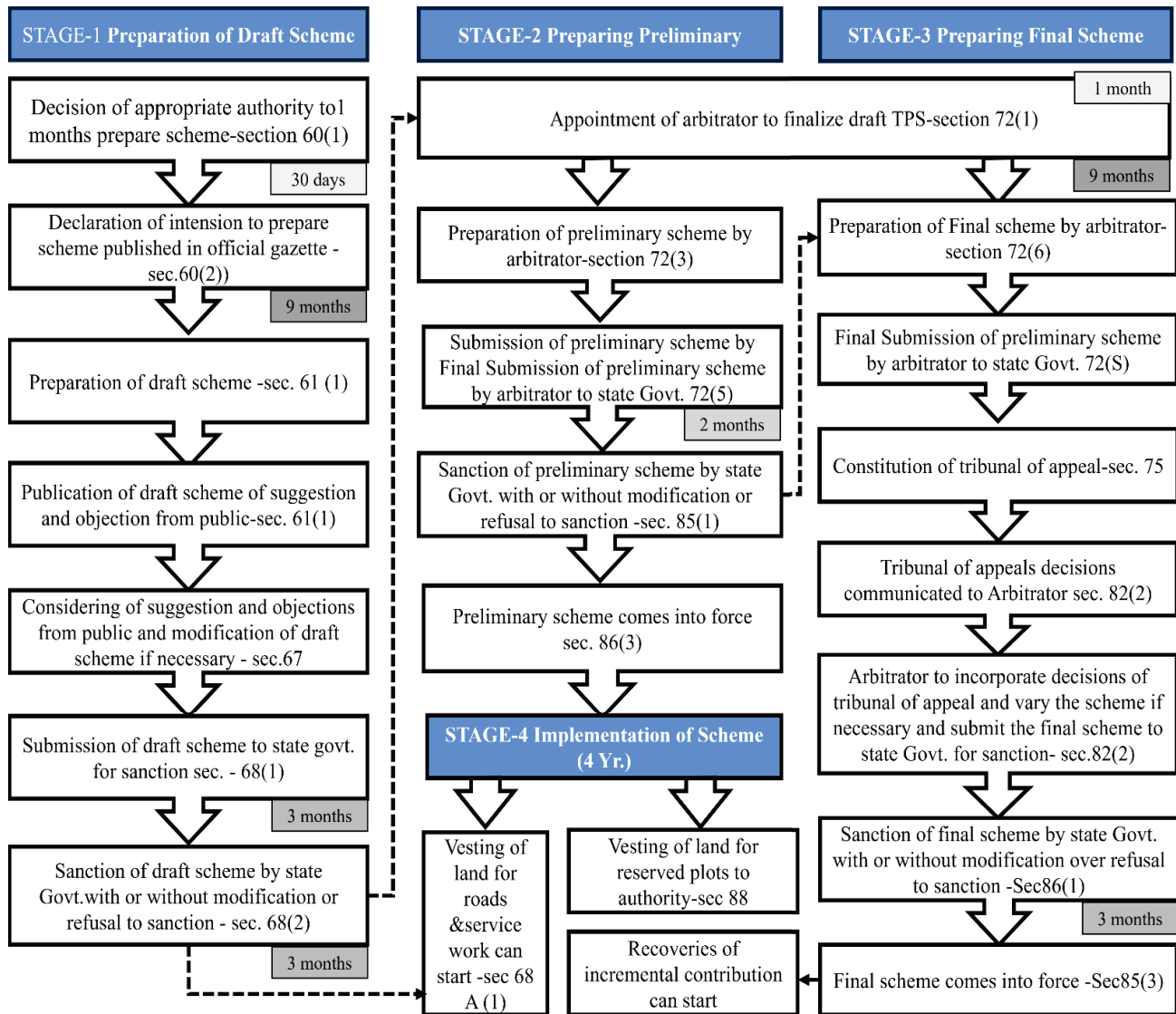
4.5 NECESSITY OF TOWN PLANNING SCHEME

Land is a scarce resource, and management of land resources in a sustainable manner is one of the major areas of concern for urban planner, social scientists and administrative professionals. Cities in India are facing challenges of rapid urbanization, unplanned growth and its related issues. Peri-urban growth needs to be planned manner and emphasized more on local area planning. Micro level urban planning can be done in form of Town Planning Scheme (TPS), which is prepared for a smaller area of the city, keeping in view the needs of such smaller area and rural pattern of landholding to be reorganized in pattern more suitable for modern urban use with the cost of infrastructure provision to be recovered through the development process is fulfilled through the development process.

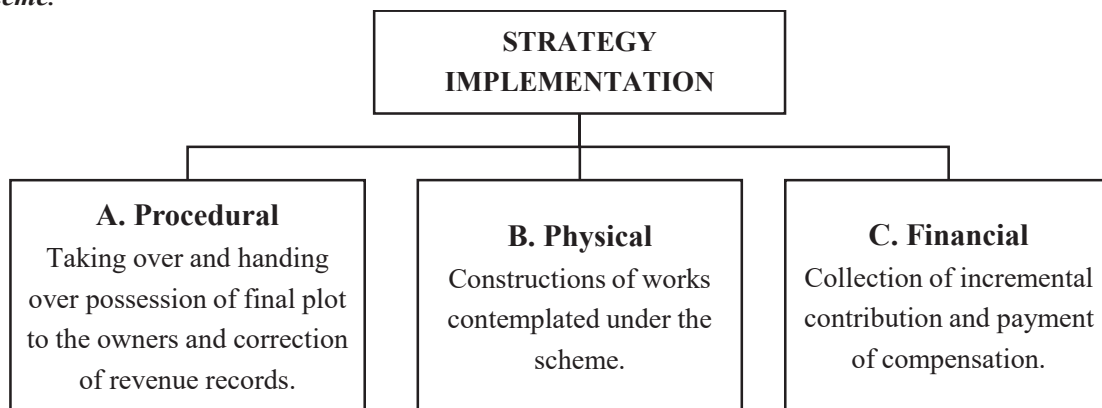
Vaduj, the administrative headquarters of Khatav Taluka in Satara district, occupies a strategic position in the regional settlement hierarchy and functions as the principal service centre for the surrounding rural settlements. The town caters to the daily needs of a large population residing in nearby villages by providing administrative, educational, healthcare, commercial, and financial services. Major government offices located in Vaduj attract residents from across the taluka for administrative and civic purposes. The town also serves as an important educational hub, accommodating primary and secondary schools, junior colleges, and higher educational institutions that cater to students from the surrounding villages. Healthcare facilities, including the Primary Health Centre (PHC).

Vaduj also functions as the principal commercial centre of Khatav Taluka, with its weekly market, retail establishments, banking facilities, agricultural input suppliers, and business activities serving the surrounding agrarian economy. The town acts as a collection and distribution centre for agricultural produce and provides essential goods and services to the rural hinterland. Its connectivity through the regional road network further strengthens its role as a transport and service hub, facilitating the movement of people, goods, and services.

4.6 STAGES OF PREPARATION OF TOWN PLANNING SCHEME



Note :- In the Vaduj Town Planning Scheme, no Tribunal of Appeal was constituted because the financial structure of the scheme did not involve payment of compensation to landowners or the levy of betterment charges. Consequently, no financial disputes requiring adjudication arose, eliminating the need for Tribunal proceedings. This resulted in significant savings in time and administrative effort, thereby facilitating faster implementation of the scheme.



4.7 LEGAL STAGE WISE PREPARATION DETAILS OF SELECTED TOWN PLANNING SCHEME

Table 1 Stage Wise Preparation Details of Selected Town Planning Scheme

Sr. No.	Description of Stages in Preparation of TPS	Stage Wise Preparation Date Details
1	Area of Town Planning Scheme	20.82 Ha.
2	Date of Declaration of Intention	11 th September 2023
3	Publication of intention in newspapers and Gazette	21 st September 2023
4	Measurement of land records	31 st October 2023
5	Publication of Draft Scheme	09 th February 2024
6	Submission of Draft Scheme	26 th July 2024
7	Sanction of Draft Scheme	29 th August 2024
8	Appointment of Arbitrator	25 th September 2024
9	Suggestion and objection hearing taken by Arbitrator	18 th December 2024
10	Preliminary scheme submission to Government for Sanction	06 th January 2025
11	Revision of Scheme	NA
12	Taking possession of Roads and Amenity	06 th January 2025
13	Tender of development works flashed	23 rd January 2025
14	Sanction of preliminary scheme	28 th January 2025
15	Sanction of final scheme	28 th May 2025
16	Final Scheme in to Effect	01 st June 2025

Source :- Report of Town Planning Scheme Vaduj phase No.1, Assistant Director of Town Planning, Satara

4.8 PROPOSED TOWN PLANNING SCHEME

The proposed Town Planning Scheme is situated to the South-West side of the city. The site under Town Planning Scheme falls under the jurisdiction of the Vaduj Nagar panchayat. Topography of the area under this scheme is Plain Terrain. This area is adjacent to Gaothan; hence it possesses very good development potential. Vaduj Nagar panchayat has decided to implement the proposals of the scheme which are development of connecting roads proposed in the scheme, garden, playground. The survey and measurement work for the entire scheme area has been carried out. The site is situated in the Non-Development Plan area. Due to which as per the Regional Plan site selection criteria is used, which is,

Table 2 Site selection Criteria for allowable Residential Development

Population as per census 2011	Distance from village Boundary
Population up to 5,000	500 m.
Population from 5,001 above	1,500 m.

Source :- Satara Regional Plan Report, 2016-2036

I.ORIGINAL PLOT

Original plot is a portion of land held during declaration of intention to prepare town planning scheme with city survey number or survey number allotted to it according to 7/12 document.

II.SEMI-FINAL PLOT

Semi-final plot is a reconstitution of an original plot by alteration of the boundaries of the original plot to form a final plot

III.FINAL PLOT

Final plot is a reconstituted plot allotted to each land owner after completion of town planning scheme.

4.9 DRAFT TOWN PLANNING SCHEME POLICY

I. PROPOSED ROAD NETWORK

- Road network proposed in Draft Town Planning Scheme shall be public right of way, which shall vest with the planning authority.
- The width of the roads recommended are in concurrence with the prevailing planning standards.

II. RESERVATIONS

- Development Plan for Vaduj Nagar panchayat is not prepared but some essential amenities are included in the scheme.

III. DEDUCTION

- Deduction of land up to an extent of 40% is considered, If the land parcel is developed then deduction from the original plots is less than 40% of the area depending on extent of existing development on site to reduce impact demolitions of existing structure.
- In Vaduj TPS case the deduction of land made up to 35%.

IV. RECONSTITUTION

- Only the land holder/ occupiers inside that town planning scheme area will be eligible to get the final plot within the town planning scheme area.

4.10 PROPOSALS OF VADUJ TOWN PLANNING SCHEME

A town planning scheme may make provision for any of the following matters.

- Acquisition of land under roads,
- The laying out or relaying out of land and filling up or reclamation of land.
- Layout of new streets or roads, constructions, diversions, extension, alteration, improvement and closing up of street, lighting and roads and discontinuance of communication.
- Construction, alteration and removal of buildings, bridges and other structure.
- The allotment of reservation of land for roads, open spaces, gardens, recreation grounds, schools, markets, green belts and public purpose of all kinds.
- The preservation of object of historical or national interest or national beauty and of building actually used for religious purposes.

The planning proposal emphasizes the conservation of existing wells within the Town Planning Scheme as valuable water resources and elements of the site's natural heritage. These wells are retained and integrated into the open space network to support groundwater recharge, preserve the traditional water system, and enhance the environmental character of the development.

To complement water conservation measures, the landscape strategy proposes the plantation of native and drought-resistant tree species that are well adapted to the semi-arid climate of Vaduj. Recommended species include Neem (*Azadirachta indica*), Banyan (*Ficus benghalensis*), Peepal (*Ficus religiosa*), Karanj (*Pongamia pinnata*), Tamarind (*Tamarindus indica*), Jamun (*Syzygium cumini*), Amla (*Phyllanthus emblica*), Palash (*Butea monosperma*), and Babul (*Vachellia nilotica*). These species require minimal irrigation after establishment, improve biodiversity, provide shade, reduce the urban heat island effect, enhance groundwater recharge, and contribute to long-term ecological sustainability.

The plantation proposal also draws inspiration from the traditional concept of Nakshatra Van (27 Constellation Garden), where each of the 27 Nakshatras is associated with a specific native tree of ecological, medicinal, and cultural significance. Establishing a Nakshatra Van within designated public open spaces can create a unique landscape feature that promotes environmental awareness, conserves indigenous tree species, and preserves India's cultural heritage while providing educational and recreational value to the community.

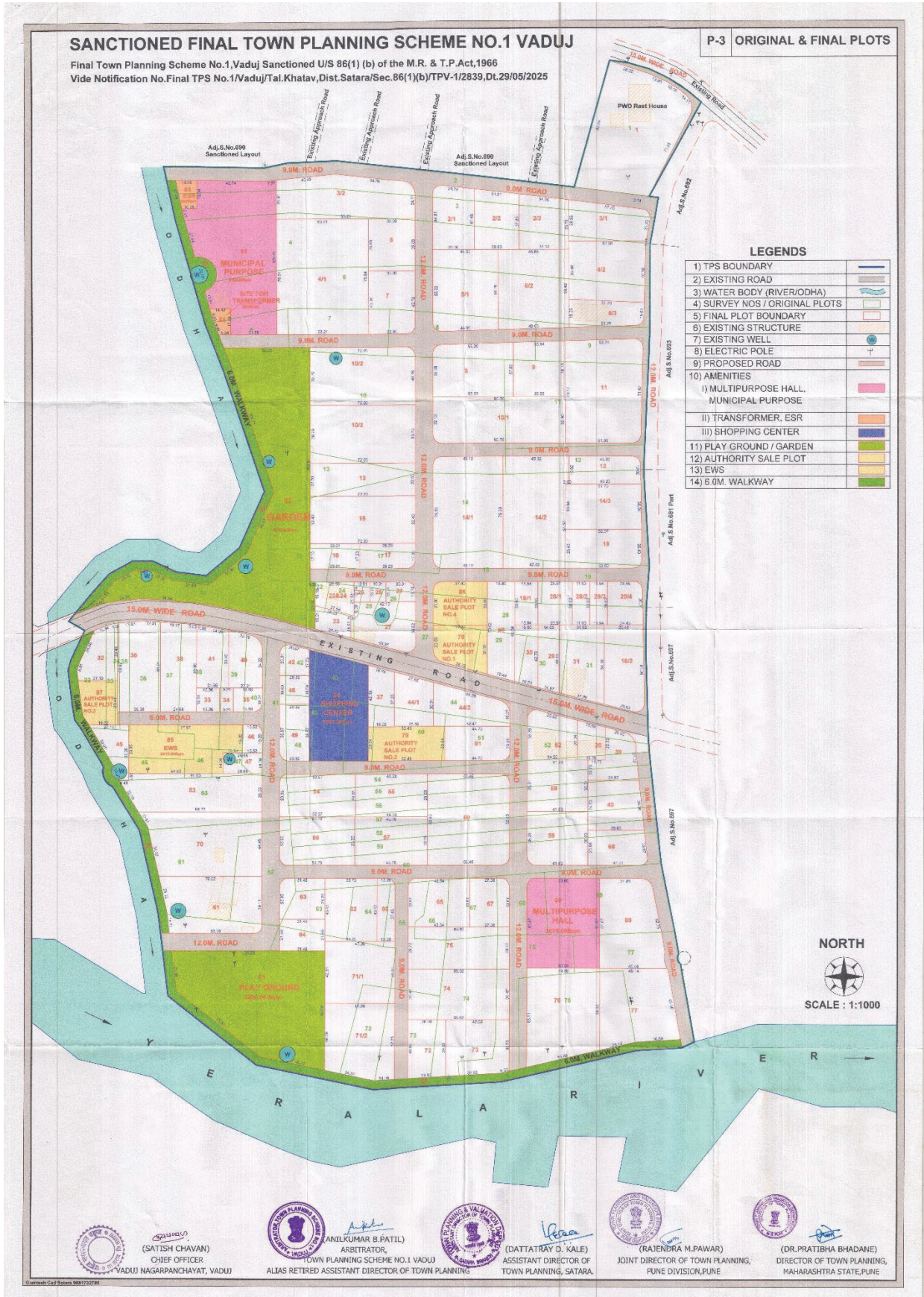


Figure 7 Original and Final Plots
 Source :- Report of Town Planning Scheme Vaduj phase No.1, Assistant Director of Town Planning, Satara

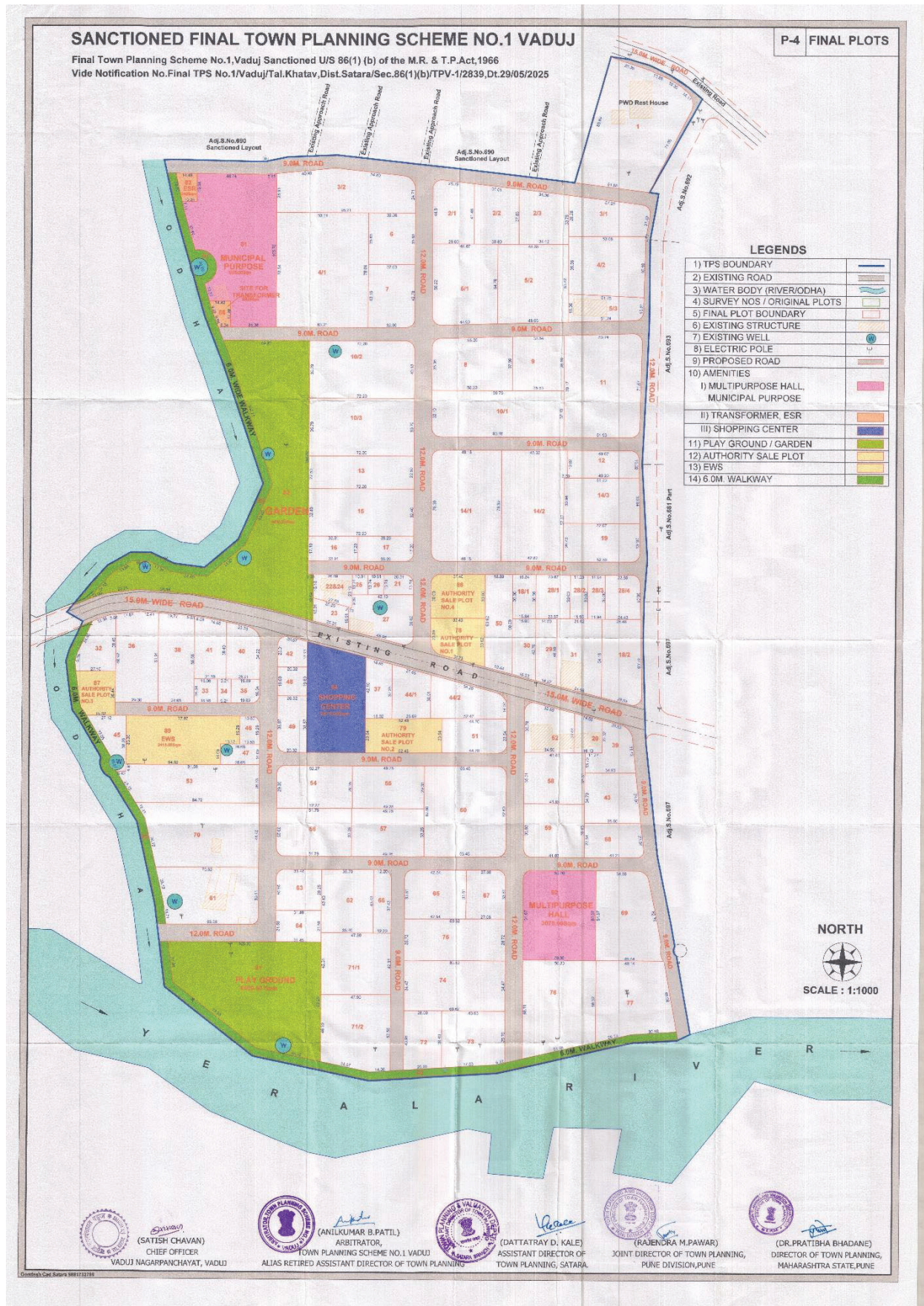


Figure 8 Final Plots

Source :- Report of Town Planning Scheme Vaduj phase No.1, Assistant Director of Town Planning, Satara

4.11 AREA ANALYSIS

Table 3 Area analysis for vaduj TPS

Sr. no	Particular	Area (Ha.)	Percent (%)
1	Final plots are to private land owners	13.25	63.641
2	Area under EWS/LIG/ Dispossessed Persons	0.24	1.1527
3	Area under Public amenities and utilities	3.43	16.475
4	Area under saleable plots	0.52	2.4976
5	Area under proposed TP scheme roads	2.9	13.929
6	Govt. Land (Rest House)	0.48	2.3055
Total		20.82	100

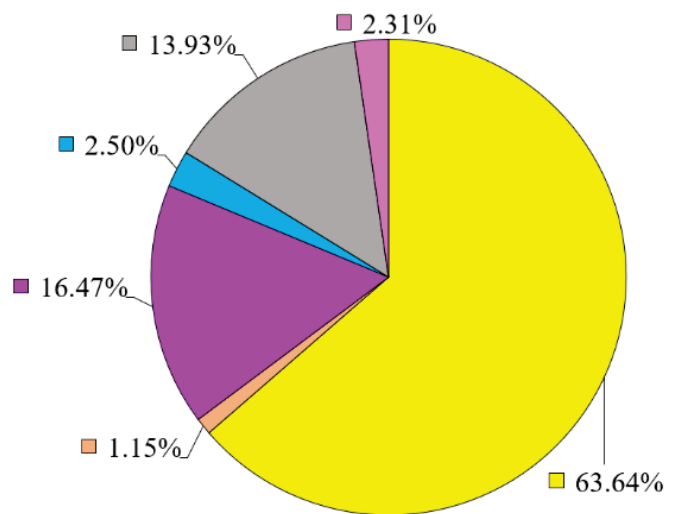


Figure 9 Pie chart showing area analysis for vaduj TPS

4.12 SALIENT FEATURES OF THE SCHEME

Table 4 Salient features of the scheme

Sr. No.	Particulars	Units	No.
1	Total area of the Scheme	Ha.	20.82
2	Total number of Original Plots	No. s	77
3	Total number of Final Plots	No. s	91
4	Total area of Original Plots	Ha.	20.32
5	Total area of Final Plots (excluding the area under plots allotted to council)	Ha.	13.7334
6	Deductions from Original Plots while reconstituting	Ha.	6.5866
7	Total number of Final Plots allotted to council	No. s	14
8	Total area of Final Plots allotted to council	Ha.	4.1891
9	Total area of Final Plots allotted to council for Open Spaces, Garden, pedestrian pathway	Ha.	2.0798
10	Total area of Final Plots allotted for Public Amenities and Utilities	Ha.	1.3475
11	Total area of Final Plots allotted to council for sale	Ha.	0.5218
12	Total area of Final Plots allotted to council for E.W.S.	Ha.	0.24
13	Average value of Original Plots per Sq.m.	Rs/Sq.m	3350/-
14	Average value of Final Plots per Sq.m. in developed condition	Rs/Sq.m	6700/-
15	Total amount of compensation payable (Column 11 of Form-1)	Rs	242824/-
16	Total cost of the Scheme (Form-2)	Rs	50468224/-
17	Total Incremental contribution by Plot owners (Column 13 of Form-1)	Rs	115012471/-
18	Net cost of the Scheme to the Authority	Rs	64544247/-
19	Total area of roads provided in the Scheme	Ha.	2.8975

Source :- Report of Town Planning Scheme Vaduj phase No.1, Assistant Director of Town Planning, Satara

Note :- The Funding of the scheme was done through Central Assistance Funding. As per Resolution no.03 made by Vaduj Nagar Panchayat no compensation as well as Incremental Contribution is taken into consideration in this Scheme.

4.13 VALUATION OF SCHEME

I. ORIGINAL PLOT VALUE

It is the market value of Original Plot on the date of the notification of intention to prepare a TPS, by the Planning Authority.

II. SEMI-FINAL PLOT VALUE

Semi -Final value of Final plot is value achieve after reconstitution of plot i.e. is change in shape without considering the other improvement (garden, open space, amenities, etc.).

III. FINAL PLOT VALUE

It is the value of the Final Plot estimated on the date of notification of intention to make a TPS on the assumption that all the improvements contemplated in scheme have been carried out.

IV. INCREMENTAL VALUE

It is the increased rate in land value considering the development activities taken place according to section 98 of MR & TP Act.

$$\text{Incremental value} = \text{Final Plot Value} - \text{Semi-Final Plot Value}$$

V. INCREMENTAL CONTRIBUTION

It is the 50% of Incremental Value of the land. It can be more than 50% if the total cost of scheme is more than 50% of the scheme and it can be less than 50% if the total cost of scheme is less than 50% of the scheme.

VI. COMPENSATION

The owner who is injuriously affected during making of Town Planning Scheme he can make claim to arbitrator within 60days of the receipt of the notice from the Arbitrator.

$$\text{Compensation} = \text{Original Plot Value} - \text{Semi-Final Plot Value}$$

Table 5 Multiplication factors for Semi-Final and Final Plot value

Sr. No	Survey No.	Description of Plot	ASR rate for the year 2023-2024	Rate of Original Plot value in Rs/sq.m	Multiplying factor of indicative semi-final rate of Final Plot value	Semi-Final rate of Final Plot value in Rs/sq.m	Multiplying factor of indicative rate of Final Plot value	Final rate of Final Plot value in Rs/sq.m
1.	All	Plot is in close vicinity of existing Gaothan	As per ASR for the year 2023-24, it is found that the ASR rate for the land considered comes under section 1.11 – Irrigated Agriculture Land. The ASR rate for this category is Rs 8,11,000 per Ha. Which does not represent the true market value of the land. Therefore, Section No. 1.3.2 – Developable land for residential and similar uses within the village settlement (Gaothan) area, excluding agriculture lands, is considered applicable. Accordingly, the land rate of Rs 3350/- per sq.m is considered for valuation.	3350/-	As per reconstitution of plots (1.5 multiplying factor)	5025/-	As per reconstitution of plots and with reference to improvement contemplated in the scheme (1.34 multiplying factor)	6700/-

Source :- Report of Town Planning Scheme Vaduj phase No.1, Assistant Director of Town Planning, Satara.

4.14 TOWN PLANNING SCHEME IMPLEMENTATION 2025-26



Figure 10 Gable wall construction



Figure 11 Drainage System Construction



Figure 12 Compound Wall Construction



Figure 13 Construction of Water Bound Macadam Road



Figure 14 Ongoing Building Construction

5. CONCLUSION

The case of Vaduj, Satara demonstrates that Town Planning Schemes (TPS) are an effective planning tool for achieving integrated urban development, particularly in areas where a statutory Development Plan (DP) has not been sanctioned. Unlike the conventional DP process, where implementation of reserved lands is often delayed due to lengthy land acquisition procedures, financial constraints, and resistance from landowners, TPS ensures a fair and participatory land pooling and reconstitution process that secures land for public purposes with greater stakeholder acceptance. The study shows that land required for roads, public amenities, open spaces, and other reservations becomes available immediately after the sanction of the Final TPS, enabling timely infrastructure development. The utilization of Central Assistance funding in Vaduj further reduced the financial burden on the planning authority and eliminated the need for compensation from landowners. The phased implementation of TPS also provides flexibility to accommodate future urban growth and infrastructure requirements. By facilitating planned development and creating well-serviced urban areas, TPS has the potential to transform Vaduj into a counter-magnet growth centre, promoting balanced regional development. Overall, the Vaduj experience demonstrates that TPS is a sustainable, equitable, and financially viable planning mechanism that can overcome many implementation challenges associated with conventional Development Plans, offering a replicable model for small and emerging towns across Maharashtra and India.

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