Contents

0 Introduction to the Study
A Background
B Approach
C Methodology
D Limitations

1 Urban Gujarat
1.1 Urban Areas in Gujarat – Delineation and Governance
1 The Bombay Provincial Municipal Corporation Act (BPMC), 1949
2 Gujarat Municipalities Act (GMA), 1963
3 Gujarat Panchayats Act (GPA), 1993
4 Gujarat Town Planning and Urban Development Act (GTPUDA), 1976
1.2 Urban Areas in Gujarat – Spatial Delineation
1 Number of Urban Areas by Type
2 Map of Urban Gujarat

2 Land Management in Urban Gujarat
2.1 Land Management in Urban Gujarat
2.2 Land Management Functions
1 Building and Maintaining a Cadastre
2 Managing Land Tenure
3 Registering Land and Property Transactions
4 Valuing Land

3 The Planning Process in Gujarat
3.1 History of Planning Legislation in Gujarat
1 The Bombay Town Planning Act (BTPA), 1915
2 The Bombay Town Planning Act (BTPA), 1954
3 The Gujarat Town and Urban Development Act (GTPUDA), 1976
3.2 The DP – TPS Mechanism for Urban Planning in Gujarat
1 Preparation of City Wide Development Plan
2 Preparation of Town Planning Schemes
3.3 Status of the DPs and TPS in Gujarat
1 Status of the Development Plans
2 Time taken to prepare Development Plans
3 Status of the Town Planning Schemes
4 Time taken to prepare Town Planning Schemes
4 Supply of Land for Development

4.1 Routes for Supply of Land for development in Gujarat

1 The DP – TPS Route
2 The DDO Office Route
3 The Redevelopment Route
4 The Township Route
5 The Unregulated Route
6 The Special Act Route

4.2 Comparative Overview of Methods for Land Supply

4.3 Summary

5 Land Readjustment in Urban Gujarat

5.1 Land Zoned and Transformed for Urban Development

1 Land Zoned for Development
2 Land Transformed through the TPS process
3 Transformation of Land at Various TPS Stages

5.2 Successful Aspects of TPS Mechanism

1 Versatile Tool to Address Several Urban Challenges
   A Providing Infrastructure in Peripheral Areas / Managing Peripheral Growth
   B Building City Wide Infrastructure
   C Providing Land for Housing the Urban Poor
   D Providing infrastructure in ‘Unauthorized Developments’/
     Addressing Informal Contexts
   E Reconstructing and Regenerating a Historic Core
   F Consolidating Land for Developing an Institutional Zone
2 Simultaneous Techno Legal Tool for City Planning, Financing and Implementing
3 Flexible Tool that Enables Allocation of Costs and Benefits in a Rational and Transparent Manner
4 Inexpensive Tool for Achieving a Variety of Tasks
5 Consensus Building Tool – Promoting Participation and Collective Action
6 Tool to Update and Harmonize the Cadastre
7 Tool for Facilitating Slum Upgrading

5.3 Limitations of the TPS mechanism.

1 Long Time Periods allowed for Preparing and Sanctioning TPS
2 Procedure requiring case by case Approvals from the Chief Town Planner (CTP) at various stages in the Preparation of TPSs causes delays
3 Tradition insisting on building the TPS base maps on archaic maps of Revenue Administration and their certification by Revenue Administration is irrelevant and wasteful.
4 Unavailability of Accurate, Updated and Well Collated Cadastral Information Records delays the Preparation of TPS
5 Manner reviews and sanctions by the State Government severely impedes the planning and urban development process
6 The Role of the Town Planning Officers and the protocols they are required to follow are insufficiently transparent and unaccountable. Powers granted to the TPSs to alter Schemes are unlimited
7 In practice, Town Planning Schemes are often:
   a. Mechanically prepared and therefore formulaic
   b. Uncoordinated with one another
   c. Insufficiently detailed
   d. Limited in their scope and approach
   e. Prepared with insufficient stakeholder engagement prior to owners meeting
   f. Arbitrary, particularly with reference to valuation of land and betterment charges
8 At present the Rules to GTPUDA stipulate that only an officer of the TPVD can be appointed as TPO, this considerably delays the finalization of the TPS
9 No provisions for overlaying a new TPS over an older one. This deters the redevelopment / renewal of older areas
10 Planning capacity in Development Authorities, State Government and the Private Sector is inadequate

6 Lessons for National Policy

6.1 Summary

6.2 Improvements to the TPS / Gujarat Model of Land Readjustment

1 Speeding up the process of preparing and implementing TPS and making it more efficient
2 Making the role of the town planning officer sufficiently accountable and transparent
3 Improving the practice of preparing TPS
4 Introducing provisions for preparing a new TPS over an older TPS to enable renewal / redevelopment of older areas
5 Building capacities in public and private sector to prepare TPS
6 Strengthening and reorienting the roles of the planning departments

6.3 Transferring the Land Readjustment Practice to other States and Countries around the World

Annexes

Annex 1: Interviews and Discussions
Annex 2: Statutory TPS Planning Process
Acknowledgments:

Several individuals have generously contributed in various capacities during the study and enriched it. I would like to particularly acknowledge the following professionals and colleagues:

- **Dr. Bimal Patel**, for overall guidance in structuring the study and specific comments while reviewing numerous drafts.
- **Ms. Neela Munshi**, for several discussions on methods of land supply and providing the data on TPS and SEZs for AUDA area.
- **Mr. Bhowmick**, for discussions on methods of land supply and providing data for the SIRs in Gujarat.
- **Mr. Rajesh Raval**, for data on TPS in Gujarat.
- **Mr. R B Joshi**, for discussions on the TPS mechanism.
- **Mr. Rajyaguru**, for discussions on the provisions of the Planning Acts in Gujarat.
- **Mr. Vatsal Patel**, for innumerable clarifications on the provisions of the Act, TPS process and discussions on the draft.
- **Mr. Jagani** at AUD, **Mr. Mahesh Shah** at VUDA and **Mr. Rupani** at RUDA for updated data on TPS from the respective development authorities.
- **Ms. Bindu Nair**, for collating the database of urban areas and town planning schemes in Gujarat.
- **Mr. Atul Patel**, for the drawings and collating the data.
- **Ms. Eashani Patel**, for the drawings and collating the data.

Staff at UN Habitat for reviewing and giving constructive comments that enriched the study.
About the Author:

Shirley Ballaney is an Architect-Urban Planner with over 20 years of rich experience in areas of urban and regional planning, land management, urban legislation and urban policies. She currently practices as an urban planner and is engaged in several statutory urban planning assignments and research projects. She has conceptualized, managed and coordinated various projects related to urban & regional planning in Gujarat, Maharashtra and Andhra Pradesh. She has also published several papers on planning policy and projects.

Currently she is associated with HCP Design Planning and Management Pvt. Ltd (HCPDPM) provides professional services in Architectural Design, Interior Design, Engineering Design, Urban Design, Urban Planning, Construction Management and Project Management. She is also associated with Environmental Planning Collaborative (EPC) - a not for profit planning firm that undertakes research, advocacy and capacity building activities in the area of planning, since its inception. For a short period of 4 years she headed EPC Development Planning and Management (EPCDPM) a planning company set up to provide professional planning service to the governments, which was later merged with HCPDPM. She also is a visiting faculty at School of Planning at Center for Environment Planning and Technology (CEPT), Ahmedabad and Adani Institute of Infrastructure Management (AIIM), Ahmedabad.

In 2005-6 she was awarded the Hubert Humphrey Fellowship by the Department of States, US, to pursue the Special Program in Urban and Regional Studies at MIT, Cambridge, USA. She has received several fellowships from the Netherlands Government, Swedish International Development Agency and United Nations University Japan to pursue courses and travel. In 1992 she was awarded the Michael Ventris Memorial Award for Architecture from the Architectural Association, London.
Abbreviations:

ADA  Area Development Authority
AMC  Ahmedabad Municipal Corporation
AUDA  Ahmedabad Development Authority
BPMCA  Bombay Provincial Municipal Corporation Act
BLRC  Bombay Land Revenue Code
BRTS  Bus Rapid Transit System
BTPA  Bombay Town Planning Act
BT&AL  Bombay Tenancy and Agricultural Lands Act
CTP  Chief Town Planner
CEPT  Center for Environmental Planning and Technology
DA  Development Authority
DDO  District Development Officer
DIC  District Industries Commissioner
DIC  District Industries Commissioner
EPC  Environmental Planning Collaborative
EPCDPM  EPC Development Planning and Management
DP  Development Plan
FSI  Floor Space Index
GIDB  Gujarat Infrastructure Development Board
GIDC  Gujarat Industrial Development Corporation
GIS  Geographic Information Systems
GMA  Gujarat Municipalities Act
GOG  Government of Gujarat
GPA  Gujarat Panchayats Act
GTPUDA  Gujarat Town Planning and Urban Development Act
GUDA  Gandhinagar Urban Development Authority
GUDE  Gujarat Urban Development Company
NA  Non Agricultural
NOC  No Objection Certificate
NGO  Non-Governmental Organization
NT  New Tenure
OSD  Officer on Special Duty
POC  Prescribed Officer Committee
PS  Principal Secretary
RDP  Revised Development Plan
RT  Restricted Tenure
SEZ  Special Economic Zone
SCC  State Screening Committee
SG  State Government
SIR  Special Investment Region
SRFD  Sabarmati Riverfront Development
STP  Senior Town Planner
SUPLM  Streamlining Urban Planning and Land Management in Gujarat
TPO  Town Planning Officer
TPS  Town Planning Scheme
TPVD  Town Planning and Valuation Department
UDA  Urban Development Authority
UD&UHD  Urban Development and Urban Housing Department
ULK   Urban Legal Knowledge
HAPs   Habitat Agenda Partners’
List of Figures:

Figure 1: Categorization of Urban Areas in Gujarat
Figure 2: Delineation of a Municipal Corporation.
Figure 3: Delineation of a Municipal Borough
Figure 4: Delineation of Districts, Talukas and Villages
Figure 5: Delineation of an Urban Development Area
Figure 6: Delineation of a Constituted Development Area
Figure 7: Delineation of a Designated Development Area
Figure 8: Urban Areas in Gujarat
Figure 9: Land Management Functions
Figure 10: Key Amendments to the GTPUDA in 1999.
Figure 11: DP – TPS Planning Process
Figure 12: Development Plan, Ahmedabad, 2002
Figure 13: Proposed Town Planning Schemes, Development Plan, Ahmedabad, 2002
Figure 14: DP – TPS Route for Supply of Land for Development
Figure 15: DDO Route for Supply of Land for Development
Figure 16: Redevelopment Route for Supply of Land for Development
Figure 17: Township Route for Supply of Land for Development
Figure 18: Special Act Route – SEZs for Supply of Land for Development
Figure 19: Special Act Route – SIRs for Supply of Land for Development
Figure 20: Transformation of Land through TPS, Ahmedabad
Figure 21: TPS in Ahmedabad over the years
Figure 22: TPS in Ahmedabad under various Acts
Figure 23: Road Network in the Development Plan 2002, Ahmedabad
Figure 24: TPS along the Ring Road, Ahmedabad
Figure 25: Original Plots, TPS No. 54 Ognaj, Ahmedabad
Figure 26: Final Plots, TPS No. 54 Ognaj, Ahmedabad
Figure 27: Sardar Patel Ring Road, Ahmedabad
Figure 28: Low Income Housing in TPS Prahladnagar, Ahmedabad
Figure 29: Topographical Survey and Boundary, TPS 97 Naroda North
Figure 30: Final Plan, TPS 97 Naroda North
Figure 31: TPS Boundaries, Walled City, Bhuj
Figure 32: TPS 2, Original Plots, Walled City, Bhuj
Figure 33: TPS 2, Final Plots, Walled City, Bhuj
Figure 34: Location of the Institutional Zone, Koba
Figure 35: Government Lands, Koba, Gandhinagar
Figure 36: Institutional Zone, Koba, Gandhinagar
Figure 37: F Form or the Land Valuation and Distribution Table
List of Tables:

Table 1: Number and Type of Urban Areas  
Table 2: Land Management Functions  
Table 3: Status of Development Plans in Gujarat  
Table 4: Time taken to Prepare Development Plans in Gujarat  
Table 5: Timelines Prescribed in the GTPUDA to Prepare Development Plans  
Table 6: Time Lags between the Principal and 1st Revision Development Plans  
Table 7: Status of Town Planning Schemes in Gujarat  
Table 8: Status of Town Planning Schemes in Ahmedabad  
Table 9: Time taken to Finalize Town Planning Schemes in Gujarat  
Table 10: Time taken to Finalize Town Planning Schemes in Ahmedabad  
Table 11: Timelines Prescribed in the GTPUDA to Prepare Town Planning Schemes  
Table 12: Status and Details of Townships in AUDA Limits  
Table 13: Status and Details of SEZs in Gujarat  
Table 14: Status of SIRs in Gujarat  
Table 15: Comparative Overview of Methods for Supply of Land  
Table 16: Estimates of Land Zoned for Urban Development in Gujarat  
Table 17: Estimates of Land under Town Planning Schemes in Gujarat  
Table 18: Estimates of Land under Town Planning Schemes in Ahmedabad  
Table 19: Stages in the Preparation for TPS Graph  
Table 20: Land Appropriated in Ahmedabad through TPS  
Table 21: Land Details for the SP Ring Road, Ahmedabad  
Table 22: Key Statistics of TPS Naroda North, Ahmedabad  
Table 23: Deduction Policy, Bhuj  
Table 24: Institutional Zone Land Details, Koba, Gandhinagar
Introduction to the Study

A Background
The United Nations Human Settlements Programme, UN-HABITAT is the United Nations agency mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all.

UN-Habitat has initiated a process of strengthening its urban legal knowledge (‘ULK’). The agency has recently identified seven new focus areas, one of which is ‘urban legislation, land, and governance’. The agency sees an important opportunity to influence member states’ and Habitat Agenda Partners’ (HAPs’) initiatives on developing new and transforming old urban legislation. UN-Habitat has chosen to focus on a particular set of legal tools used to facilitate large-scale urban expansion, known as land readjustment/land pooling.

India and in particular the state of Gujarat has a lengthy history of implementing land readjustment. Land readjustment in Gujarat has been quite successfully used to achieve a range of objectives – reconstruction and rebuilding the city of Bhuj after it was devastated by a massive earthquake on 26 January 2001; building a 76 km long Ring Road in Ahmedabad 2004; providing infrastructure in new growth areas etc. It is proven thus far quite flexible and versatile and used to address a wide variety of urban challenges. The Gujarat model of land readjustment is enshrined in its urban planning legislation – the Gujarat Town Planning and Urban Development Act (GTPUDA) enacted in 1976. Land readjustment in Gujarat is popularly referred to as the Town Planning Scheme (TPS) mechanism.

The Gujarat model is obviously an important case to understand, not only as a tool that has promoted certain innovative and best practices, but also identify areas of caution wherein a different approach would be required in the event of evolving a more improved land readjustment tool to address new challenges thrown up by rapid urban growth in a more equitable and sustainable manner and improve governance.

UN-HABITAT commissioned the study on “Documenting the Land Readjustment Experience in Gujarat, India”, with a two-fold purpose:

1 Review the broader urban management and governance context and systematically interrogate the TPS process, outcomes and limitations. This could be with regard to:
(a) Legislation: the legal framework and experience of land readjustment in Gujarat.
(b) Land management: impacts on supply of (serviced) land, secure access to land, the creation of public space, the functioning of land markets, etc.
(c) Planning: contribution towards improving local planning practice.
(d) Local government finance: contribution to financing infrastructure services.
(e) Governance: promotion of participation and collective action of stakeholders or affected communities.

The Gujarat experience could provide answers to some key questions (amongst many others):
(i) What are the unique elements of Gujarat’s approach to and way of doing land readjustment? What areas of good practice should be taken into account by other countries considering the use of land readjustment or similar tools?
Does the land readjustment promote assembly of better cadastral information and land administration information? How is this achieved in practice and are there legislative steps that support this process?

(iii) To what extent does the implementation of land readjustment in Gujarat assist the poor and very poor to access secure tenure rights to developable urban land?

(iv) Does land readjustment process displace poorer citizens? If yes then, what measures adopted in Gujarat successfully mitigate this risk?

(v) How does the implementation of land readjustment in Gujarat acknowledge and accommodate irregular construction?

(vi) Does the practice of land readjustment in Gujarat realize the potential of managing development as envisioned in the development plan?

2 Review the Gujarat land readjustment experience from the national perspective with a view to guiding a future process of legislative reform – reflect on issues and concerns to be taken into account when considering legislative options that govern urban land supply and expansion.

B Approach

A set of key questions to structure the study were framed to meet the objectives and address the questions raised in the TOR:

1 Urban Gujarat
   (a) How is urban Gujarat governed?
   (b) How much of Gujarat is urban?

2 Urban Land Management in Gujarat
   (a) How is urban land managed in Gujarat?
   (b) What are the various land management functions?

3 Urban Planning in Gujarat
   (a) Under what laws/legislation is urban planning done in Gujarat?
   (b) What is the prescribed planning process?
   (c) How up-to-date are urban plans in Gujarat?; How long does it take to prepare plans?
   (d) How up-to-date are the town planning schemes in Gujarat and Ahmedabad? How long does it take to prepare town planning schemes?

4 Supply of Land for Development
   (a) What are the various methods for ensuring supply of land for development?
   (b) How do the various methods of land supply compare with respect to each other?

5 Land Readjustment in Urban Gujarat
   (a) How much land has been zoned for urban development in Gujarat?; For how much of this land have town planning schemes been prepared?
   (b) What aspects of Gujarat’s land readjustment process have made it successful?
   (c) What aspects of Gujarat’s land readjustment process have not been very successful?; What improvements can be made to the land development process?

6 Lessons for National Policy
   (a) Can the urban land development process in Gujarat provide useful lessons for other states?

The TPS mechanism is essentially a method for supply of serviced land in urban areas. The study therefore begins with a brief review of the legislative framework for governance and planning for urban areas and a clear spatial definition of ‘urban areas’ for the purpose of governance and planning as it impacts the TPS process in Section 1.
Section 2 presents a summary of functions and issues pertaining to land administration in Gujarat to understand the linkage between the planning and land administration processes and the constraints imposed on the supply of land for development.

Section 3 traces the legal framework within which land readjustment was designed and implemented and demonstrates how it has been continuously improved over time and made more effective\(^1\). An in-depth review of the TPS planning process is presented along with the roles of various stakeholders. A review of all the development plans (DPs) and TPSs is done to show how extensively the mechanism has been used in Gujarat as well as to provide pointers towards the efficacy of the mechanism which is dealt subsequently in Section 5.

As mentioned above, the DP – TPS mechanism is one of the methods for the supply of serviced land for development and it is useful to compare it with other methods of land supply for development and assess its merits / demerits vis a vis these. Section 4 presents this comparative analysis and inferences some of which are taken up subsequently in Section 5 – improvements required to the TPS mechanism.

Section 5 brings out the experience of the TPS mechanism in Gujarat by 1) empirical data – analyzing the status of all the TPS prepared in Gujarat and approximately estimating how much of the land zoned in the development plans is transformed though the TPS mechanism; 2) presenting examples and highlighting the successful aspects and finally 3) identifying some of the limitations also drawing upon some the data presented in Section 3 and Section 4.

Section 6 concludes the study with the improvements required to the TPS mechanism in Gujarat as well as recommendations for transferring the land readjustment practice to other states in India and indeed, other cities around the world.

C Methodology

The study is based on qualitative first and secondary source information. In particular, the study information was gathered from available information held by the author as well as a limited collection of data and case studies as required. The following specific tasks were undertaken:

- A desktop review and analysis of the available material (policies, urban planning and land readjustment projects).
- Additional face to face and telephone interviews and consultations with practitioners, policy makers, officials etc were carried out to seek inputs, clarification and opinions\(^2\).
- Limited data on the status of the town planning schemes in Gujarat was obtained to assess the situation with respect to the implementation of particular land readjustment project.
- Interim drafts reviewed by mentors and experts to cross check the information and to strengthen and verify the analysis.

---

\(^1\) This is not to say that the process is perfect but only point out that it has been continuously improved over the years.

\(^2\) A list of the key interviews and discussions is given in Annex 1.
D Limitations of the Study

i) Coverage of the Study
The study is limited to the Gujarat model of land adjustment which is referred to as the TPS mechanism hereafter in the study. This does study does not attempt to compare the TPS mechanism with other forms of land adjustment practiced in other countries on two counts: 1) there is no access to primary data on these without which it would not be meaningful to compare and 2) there is enough documentation in other studies on the topic in case a limited comparison is required. Instead the study focuses on interrogating the TPS practice and process as practiced in Gujarat.

The study is based, however, on a universally accepted understanding of land readjustment. Archer (1992) defines land readjustment as a technique for managing the urban development of urban-fringe lands, whereby a group of separate land parcels are assembled for their unified planning, servicing and subdivision as a single estate, and redistribution of new building plots back to the original landowners. The study broadly accepts this definition and the TPS mechanism is basically this with additional aspects involving valuing of costs and benefits and allocating these in an equitable manner which will become clear when we understand the process in detail.

ii) Review of the Legal Frameworks
This study limits itself to the review of only those legislations (and only to the extent possible), that specifically help to understand and affect the practice of the TPS mechanism in Gujarat. There is no attempt to address wider urban development issues or do a comprehensive overview of all legislation either at the national or federal level.
1 Urban Gujarat

1.1 Urban Areas in Gujarat – Delineation and Governance

The Census of India 2001, defines ‘urban’ areas as,
“(a) All statutory places such as with a municipality, corporation, cantonment board or notified town area committee, etc.
(b) A place satisfying the following three criteria simultaneously:
   i) a minimum population of 5,000;
   ii) at least 75 per cent of male working population engaged in non-agricultural pursuits; and
   iii) a density of population of at least 400 per sq km (1,000 per sq. mile).”

In Gujarat, the term ‘statutory places’ such as a municipal corporation, municipality, notified areas etc are defined by the following legislations:

1. Bombay Provincial Municipal Corporation Act (BPMCA)
2. Gujarat Municipalities Act (GMA)
3. Gujarat Panchayats’ Act (GPA)
4. Gujarat Town Planning and Urban Development Act (GTPUDA)

The basic spatial unit is the ‘revenue village’ for the purpose of administration. All cadastral maps and records all prepared and maintained by revenue villages. A group of villages comes together to create a ‘taluka’ and a ‘district’ for the purpose of state administration. All data is recorded accordingly, viz., population, land records, maps etc. A group of villages comes together to form a ‘municipal corporation’ or a ‘municipality’ for the purpose of municipal functions. A group of villages, municipal corporations and or municipalities come together to create a development authority for the purpose of planning and regulating growth. Though not so simple, an attempt is made to illustrate this spatial relationship in the Figure 1 below:

Figure 1: Categorization of Urban Areas in Gujarat.

---

3 Source: http://censusindia.gov.in/Metadata/Metada.htm#2
4 Panchayat refers to the local government for either a village, taluka or a district. Also see review of the Gujarat Panchayats Act (1993) further in the Section.
This section reviews the major provisions in each of the legislations listed above to get an overview of the governance and planning legislative framework in Gujarat as it impacts the process and practice of the TPS mechanism which will help us better understand its various facets. These legislations not only define and delineate the urban areas but also determine the constitution of governing authorities, their mandate, responsibilities and powers.

While the first three acts focus on municipal management, governance and development, the fourth act focuses on land use planning and multifarious urban development issues.

1 The Bombay Provincial Municipal Corporation Act (BPMC), 1949
The BPMC Act was enacted in 1949 by the British in the erstwhile Bombay Presidency which included the present day states of Maharashtra and Gujarat. With the creation of the separate states of Gujarat and Maharashtra in 1960, it was adopted by both the states and has been subsequently amended by both.

The BPMCA comprises of 31 chapters that cover the aspects of:
- Delineating a ‘city’ with a view to ensure a better government,
- Constituting ‘municipal authorities’ to achieve this,
- Prescribing the duties and powers of the municipal authorities, and
- Regulating development.

On Delineating ‘Cities’
The BPMCA begins with the provisions to notify areas to be ‘cities’ and to delineate their boundaries. Though the Act does not lay down any specific population criteria, an area with a population of 0.35 million and above can be declared as a ‘Municipal Corporation’.

Typically the jurisdiction of an area declared as a ‘municipal corporation’ consists of several ‘revenue villages’ (Figure 2). The expansion of the limits of a municipal corporation is determined by the State Government and is influenced by its growth trends. To give an example, the limits of the municipal corporation of Ahmedabad have been extended at least 3 times since its formation, to cater to the governance needs of the immediate periphery due to development.

---

5 Various aspects of the GTPUDA are split across Section 1 and 3, as this is the most crucial and relevant Act in this paper.
6 Gujarat last amended the BPMCA on 31 August 2006. This review is based on this version.
7 Only the major aspects are briefly reviewed, the last portion of the Act deals with a range of provisions for various permissions, licenses, penalties and judicial procedures which are not reviewed.
8 BPMCA, page 2.
9 Criteria followed by the Urban Development and Urban Housing Department, Government of Gujarat.
On Constituting ‘Municipal Authorities’
The BPMCA then lays down the constitution of the governing structure which is the ‘municipal authorities’ that are charged with the mandate of carrying out the provisions of the Act viz.,
- A Corporation, that consists of councilors that are elected from the area,
- A Standing committee, that consists of selected councilors, and
- A Municipal Commissioner, a bureaucrat from the Indian administrative service who heads the administrative body to execute the various duties laid down in the Act\textsuperscript{10}.

Also prescribed in great depth are the qualifications of the positions/officials; their functions and entitlements; and the procedural aspects to conduct their proceedings.

On Prescribing Duties (Functions) and Powers
The Act specifies the duties/functions of the municipal authorities, which are quite exhaustive and encompass all that is required to ensure safety and health of the citizens. These are categorized as ‘obligatory’ and ‘discretionary’\textsuperscript{11}. To mention a few obligatory functions, these include such activities as the cleaning of streets; providing and maintaining sewerage, water supply, attending to fires, education and health services; providing and maintaining open spaces, slaughter houses; regulating hazardous activities; abating nuisances; removing encroachments; registering births/deaths, undertaking vaccinations, providing staff housing amongst many other functions. Of these the construction and

\textsuperscript{10} In addition one of the councilors is appointed as the mayor, however the mayor’s role is largely ceremonial and the real powers vest with the municipal commissioner who belongs to the state bureaucracy.

\textsuperscript{11} Obligatory functions are those that the Corporation must perform and discretionary are those that the Corporation may perform. A few of the obligatory functions are mentioned to give a sense of these. In the BPMCA the list is generic however there are supporting manuals, guidelines and some standards adopted from time to time to perform these tasks.
maintenance of essential services such as drainage, water supply, streets, fire brigade, sanitation (solid waste management), markets & slaughter houses and transportation is dealt with in considerable depth. Some examples of discretionary functions include providing swimming pools, maintaining dairies, urban forestry, promotion of cultural activities and urban planning including town planning and regulation of land use.

The corporation must make its budget to accomplish its functions. It is empowered by the BPMCA to raise resources – levy taxes\textsuperscript{12}, borrow money, raise money through bonds, debentures and acquire and or dispose assets.

**On Regulating Development**
The Municipal Corporation is enabled to regulate development at two levels – at the scale of developing individual buildings and at the scale of developing an area.

Construction of buildings/development includes granting permissions; ensuring compliance to prescribed by-laws; approving during construction;, granting completion and occupancy certificates; demolishing dangerous structures; removing unauthorized structures and regulating areas with special character.

For the purpose of regulating development at an area level the corporation can prepare ‘improvement schemes’ under special circumstances. The BPMCA specifies that Improvement schemes can be prepared to improve areas in the city which have become unfit for human habitation, have very narrow streets that impact the health of residents, accommodate poor community housing, remedy defective ventilation and create/alter streets. Improvement scheme proposals can include creating new streets, widening streets, relaying of lands, providing infrastructure services – drainage, water supply, street lighting, and creating open spaces\textsuperscript{13}. In order to effect the improvements, the corporation can levy betterment charges and acquire lands. In addition, there are also two special provisions that enable the Corporation to completely clear or redevelop certain areas.

2 Gujarat Municipalities Act (GMA), 1963
The GMA Act was enacted in 1963 by the State of Gujarat to consolidate and amend laws pertaining to municipalities so as to give them wider powers in the management of municipal affairs. It draws from the BPMCA but is much less exhaustive in view of the fact that the magnitude and complexity of the problems of smaller areas would be less intense and some amount of simplification would be required given the limited capacities at that level.

The GMA comprises of 17 chapters that cover the aspects of:
- Delineating a ‘borough’,

\textsuperscript{12} These include property tax, water tax, conservancy tax, vehicle tax, animal tax etc. To briefly explain, India has a well-developed three tiered tax structure, controlled by the three major bodies of the country-National Government, the State Governments and the Urban (municipal corporation, municipalities) and Rural (gram panchayats) Local Bodies. Various types of taxes are distributed across three levels. The National Government levies several types of taxes, charges, fees viz., income tax, service tax, surcharges on fuel, customs and exercise duties etc. Likewise the State Government levies sales tax, stamp duty, luxury tax, entertainment tax, professional tax etc. These taxes form the basis of fiscal transfers from the National Government to the State Government and from the State Government to urban and rural local bodies.

\textsuperscript{13} Improvement schemes were conceived specifically to address derelict areas, overcrowded areas, slums and chawls created in the wake of industrial development in cities. Unlike the TPS mechanism they were not designed to undertake land adjustment but a layout was prepared and if a land parcel got affected by say road widening, then land was acquired from the property and compensation was paid.
• Constituting ‘municipality’ to govern the borough,
• Prescribing the functions / duties and powers of the municipality, and
• Regulating development.

On Delineating ‘Boroughs’
The GMA begins with the provisions to notify local areas to be ‘municipal boroughs’ and delineate extents. The Act does not lay down any specific population criteria but states that all areas with a population of 25000 and more which were notified as ‘nagar panchayats’ as per the GPA, 1961 can be notified as municipal boroughs. In special circumstances, if looking at the growth needs of areas with a much lesser population which are notified as ‘gram panchayats’ under the GPA, 1961 can also be notified as municipal boroughs. Typically the jurisdiction of an area declared as a ‘municipal borough’ can consist of a part of a ‘revenue village’ and/or entire ‘revenue village’ or more revenue villages (Figure 3). Municipal boroughs or popularly referred to as municipalities are further classified into four size classes by population – A, B, C and D.

The GMA also has provision to declare some areas as ‘Notified Areas’ where the State Government feels that services need to be provided.

---

14 Nagar means a town. The body governing the town or nagar is referred to as nagar panchayat.
15 GPA 1961 defined Nagar Panchayats. The GPA 1993, replaced this Act and the Nagar Panchayat classification was done away with. Hence all the local areas defined as Nagar Panchayats were either declared as municipal boroughs or gram panchayats.
16 Class A Municipality – an area with a population of 100000 and above; Class B Municipality – an area with a population of 50000 to 99999; Class C Municipality – an area with a population of 25000 to 49999 and Class D – an area with a population of 15000 to 24999. This classification is not specified in the Act but devised by the Urban Development and Urban Housing Department of Gujarat
The expansion of the limits of a municipality or a notified area is determined by the State Government and is influenced by its growth trends.

**On Constituting ‘Municipality’**
The GMA then lays down the constitution of the governing structure which is the ‘municipality’. Every municipality consists of councilors elected from the area, the number of which is determined by the population. Amongst the councilors, a president and vice president are elected. Also prescribed are the qualifications of the positions/officials; their functions and entitlements; and the procedural aspects to conduct their proceedings.

**On Prescribing Functions (Duties) and Powers**
The GMA specifies a fairly long list of functions that are grouped into various spheres:

- Public works (naming streets, providing relief during calamities).
- Education (establishing and maintaining schools).
- Public health and sanitation (regulating dangerous uses/practices, removing dangerous buildings, reclaiming unhealthy areas, ensuring water supply, vaccinations, solid waste management, establishing and maintaining health facilities, public toilets etc).
- Development (maintaining streets, markets, slaughter houses, drains, sewerage, protecting municipal properties, improving agriculture etc).
- Town planning (undertaking planning as per the town planning laws).
- Administration (street lighting, fire protection, removing encroachments and registering births/deaths).

The GMA empowers the municipality to raise taxes and levy charges and fees. It also receives transfers from the State Government in proportion the taxes and land revenues collected from the municipality area. The municipality is also empowered to fulfill its duties/functions – create new streets, widen streets, regulate buildings, prevent/remove nuisances, regulate markets, dairies etc.

All the urban areas defined under the above two Acts are referred to as ‘local authorities’.

### 3 Gujarat Panchayats Act (GPA), 1993

The GPA was enacted in 1993 to consolidate and amend laws relating to Panchayats in Gujarat. It replaced that earlier GPA, 1961 which did define ‘urban’ areas referred to as ‘nagar panchayats’ as described in the GMA, 1963. The GPA, 1993 did away with this category leaving it to the BPMC, 1949 and GMA 1963 to define ‘urban areas’ from the perspective of their governance. It now only defines the basic units for administration. Hence is not reviewed in the same manner as the other three Acts but just mentioned to complete the understanding of the overall view of the administrative, governance and planning framework in Gujarat.

The GPA begins with the provisions for establishment of ‘panchayats’ for the governance of the basic administrative units defined in the Bombay Land Revenue Code, 1879 which are the ‘village’, ‘taluka’ and ‘district’. These are hierarchical – the basic unit is the village that comprises of individual land parcels, group of village make a taluka and a group of village makes a district (Figure 4). There are three types of panchayats established:

- Village Panchayat for each village

---

17 Here too these are listed separately as ‘obligatory’ and ‘discretionary’ for all the spheres or groups.
18 These include property tax, drainage tax, sanitary cess (charge), street lighting tax, vehicle tax, animal tax, tolls, etc.
- Taluka Panchayat for each taluka
- District Panchayat for each district

Figure 4: Delineation of Districts, Talukas and Villages

4 Gujarat Town Planning and Urban Development Act (1976), GTPUDA
While the BPMCA, GMA and GPA address the issues of governance and to an extent, regulating development, they are not mandated to have major inputs into the planned development of the urban areas as a whole or comprehensively.

The GTPUDA was enacted in 1976 by the State of Gujarat to carry out the functions of planning and regulating development in areas that were seeing growth. There were previous town planning acts in place already (Refer Section 3) however, the 1976 Act was comprehensive and proactive as it envisaged the planning of a much larger area around a local area likely to experience development.
The GTPUDA comprises of 8 chapters that cover the aspects of:\19:
- Delineating a ‘development area’ for the purpose of securing planned development:
- Constituting a ‘development authority’ to achieve this:
- Ensuring planned development
- Levying development charges

On Delineating Areas, Governing Authorities, Functions and Powers

Any local area (municipal corporation, municipality, notified area, gram panchayat) and its periphery that is witnessing development and there is a need perceived to manage its growth and undertake planning, can be declared as ‘development area’. The GTPUDA provides for delineating two types development areas – an ‘urban development area’ and simple ‘development area’. This distinction depends on the size of the local area and complexity of the development issues to be addressed. The institutional structure created to undertake planning and regulate development in the development area is the ‘development authority’.

An urban development area is usually delineated around a municipal corporation and can include one or more municipalities and the entire group of revenue villages in between and around them (Figure 5). Thus the urban development area is an overlay or sits atop the local areas as delineated in the above three Acts. Though the GTPUDA does not prescribe any population criteria, usually the population of the entire area is more than 5 lakhs. An ‘urban development authority (UDA)’ is constituted to undertake planning and regulate development in the urban development area. The urban development authority is headed by a chairman appointed by the State Government and consists of representatives of the local areas within, officials nominated by the state, heads of the district panchayats within, a representative of the chief town planner and the municipal commissioner.

The GTPUDA then specifies functions of the urban development authority – to prepare the development plan and town planning schemes, to regulate development and to execute infrastructure projects. It also empowers the urban development authority to fulfill its functions – levy fees to approve developments; levy charges / fees in lieu of services provided’ to acquire and dispose property and enter into contracts and agreements to execute the same.

A development area is usually delineated around a municipality or a notified area and adjoining areas (entire revenue villages or part of revenue villages) where growth needs to be regulated. The development area is an overlay or sits atop a local area and revenue villages. Though the GTPUDA does not prescribe any population criteria, usually the population of the entire area is more around 1 to 1.5 lakhs. An ‘area development authority (ADA)’ is constituted to undertake planning and regulate development in the development area (Figure 6). The area development authority is headed by a chairman appointed by the State Government and consists of representatives of the local areas within, officials nominated by the state, heads of the district panchayats within, a representative of the chief town planner and the municipal commissioner.

There is also a provision to ‘designate’ a local authority (municipality / notified area / gram panchayat) as a development authority and such a local authority is called a ‘designated

---

\19 Only the major aspects are briefly reviewed, the last portion of the Act deals with a mixed set of provisions that set out the powers and functions of the development authorities and preparation and implementation of development plans and town planning schemes.
area development authority’ (Figure 7). This is done when a particular local authority is developing rapidly or is home to special activity or in case of special circumstances which warrant the need for planning. The development area can be the entire area under the jurisdiction of the local authority or a part of the area. The local authority itself performs the functions of an area development authority and for this purpose is it sets up a ‘planning committee’. The planning committee consists of members of the local authority, representative of the chief town planner, an official appointed by the State Government and a Chief Officer.

A government company can also be designated as an area development authority of a development area.

The GTPUDA then specifies functions of the area development authority – to prepare the development plan and town planning schemes, to regulate development and to execute infrastructure projects. It also empowers the urban development authority to fulfill its functions – levy fees to approve developments; levy charges / fees in lieu of services provided; to acquire and dispose property; and enter into contracts, agreement to execute the same.

Figure 5: Delineation of an Urban Development Area
On Ensuring Planned Development
The Act specifies in depth, the two stage process to prepare the development plan for the development area and the town planning schemes for portions of the development area (popularly referred to as the DP-TPS mechanism). Both the contents and procedural aspects to prepare and approve the development plan and town planning schemes are prescribed. The development authority must prepare a comprehensive development plan for the area within its jurisdiction within a period of three years of its formation. Section 3 describes and reviews the DP TPS process in detail.
On Levy, Assessments and Recovery of Development Charges
The last portion of the GTPUDA deals with the provision of levying, assessment and recovery of development charges\textsuperscript{20}. Provisions for appeal and revision are also included.

### 1.2 Urban Areas in Gujarat – Spatial Delineation

#### 1 Number of Urban Areas by Type

There are in all 206 ‘urban areas’ in Gujarat spread across 9980.45 sq km and accommodate a population of about 18.6 million (Census 2001). As compared to the total area of the state which is 1,96,024 sq km, about 5% of the area is ‘urban’. The DP – TPS mechanism under review in the study is applicable on this spatial extent classified as ‘urban’.

The table below gives the total number of urban areas in by types as described in the preceding section Gujarat.

**Table 1: Number and Type of Urban Areas\textsuperscript{21}**

<table>
<thead>
<tr>
<th>No.</th>
<th>Type of urban area</th>
<th>Number</th>
<th>Area (sq km)</th>
<th>Population (2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Constituted Urban Development Authorities</td>
<td>6</td>
<td>4689.53</td>
<td>96,74,920</td>
</tr>
<tr>
<td>2</td>
<td>Constituted Area Development Authorities</td>
<td>11</td>
<td>1880.56</td>
<td>19,14,609</td>
</tr>
<tr>
<td>3</td>
<td>Designated Area Development Authorities</td>
<td>114</td>
<td>2312.77</td>
<td>57,71,394</td>
</tr>
<tr>
<td>4</td>
<td>Municipalities other than part of UDAs &amp; ADAs</td>
<td>47</td>
<td>1064.84</td>
<td>11,31,372</td>
</tr>
<tr>
<td>5</td>
<td>Notified Area</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Industrial Notified Areas</td>
<td>27</td>
<td>32.75</td>
<td>90,754</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>206</strong></td>
<td><strong>9980.45</strong></td>
<td><strong>1,85,83,049</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Gujarat Total</strong></td>
<td></td>
<td><strong>196024.00</strong></td>
<td><strong>5,06,71,017</strong></td>
</tr>
<tr>
<td></td>
<td><strong>% Urban</strong></td>
<td></td>
<td><strong>5%</strong></td>
<td><strong>36.7%</strong></td>
</tr>
</tbody>
</table>

Source: Computed on the basis of data obtained from Urban Development and Urban Housing Department (UD & UHD), Government of Gujarat

---

\textsuperscript{20} The GTPUDA makes the provision for levy of development charges on land and building within the development area and specifies the maximum amounts for these and protocols for levying these. It does not specify what these should constitute of. Basically they are interpreted as a form of conversion charges (as interpreted by Mr. Bhowmick ex STP AUDA) – the authority gives permission to an owner to develop to convert his / her property from agricultural use to urban uses as per the provisions of the development plan. They do not include infrastructure costs.

\textsuperscript{21} There are 206 ‘urban areas’ in total including all the DAs, Municipalities, Notified Area and Industrial Notified Areas. There are 8 municipal corporations which are in Constituted UDAs; there are 161 municipalities in all, of which 101 are part of Designated ADAs and 11 are part of Constituted ADAs and there are 13 Gram Panchayats / Census Towns are designated as ADAs.

\textsuperscript{22} The total population is based on the 2001 census as the 2011 census numbers are yet to be published. The total urban population comes to 1,85,83,049 and the total urban as per Census is 1,89,30,250. The difference is about 3.5 lakhs which is due to manner of defining and calculating ‘urban population’ – Census has a slightly different criteria, villages that are a part of the UDAs and ADAs are counted as rural and there is another category of census towns which is not recognized by the UD&UHD which counted as urban.
2 Map of Urban Gujarat
All the 206 urban areas are marked on a Map of Gujarat which indicates the spatial extent of ‘Urban Gujarat’

Figure 8: Urban Areas in Gujarat
(Source: Streamlining Urban Planning and Land Management in Gujarat, EPC; Updated using recent information from Urban Development and Urban Housing Department)
2 Land Management in Urban Gujarat

2.1 Land Management in Urban Gujarat

The GTPUDA, Development Plans and Development Control Regulations along with land related regulations based on the BPMCA and the GMA (pertaining for example to property tax and land use) form one regime for managing land in urban areas. This regime of regulations is focused on urban land use issues and on urban planning and therefore it may be referred to as ‘planning regulations’. It is administered by the Urban Development and Urban Housing Department (UD&UHD) of the Gujarat State Government. An older regulatory regime that continues to hold sway on land management in urban areas is the regime defined by the archaic Bombay Land Revenue Code (BLRC), 1859 supported by the Gujarat Land Revenue Rules (1977) and several ancillary legislations amongst others such as the 1) Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947; 2) Bombay Tenancy and Agricultural Lands Act (BT & AL Act) 1948 (State Act); 3) Various Inam Abolition Acts; 4) Gujarat Agricultural Land Ceiling Act, 1961 (State Act); 5) Allotment of Government Wastelands in 1960; 6) Government lands to persons without land for agriculture and for public purpose to individuals, charitable institutions; and 7) Registration Act, 1908 and Bombay Stamp Act, 1958. This regime of regulation is administered by the Revenue Department (RD) of the Gujarat Government and may be referred to as ‘revenue regulations’. Though this regime primarily focuses on cadastral issues, land tenure and land taxation, its scope is not limited to these issues. For example, its regulations have a significant influence on the ‘tradability’ and use of land. Before land can become fully tradable or can be put to non-agricultural urban uses, owners have to obtain appropriate permissions from the revenue administration and pay conversion premiums\(^{25}\), taxes and duties prescribed by revenue regulations. This makes policies of the revenue administration powerful arbiters of land supply and land prices in the urban land market.

Two regimes then – the regime of revenue regulations and the regime of planning regulations – simultaneously define and impinge on land management and the functioning of land markets in urban Gujarat.

---

23 This Section draws on two earlier works by the author along with others, “Streamlining Urban Planning and Land Management (SUPLM) Practices in Gujarat – Assessments and Policy Reform Agenda, 2008 for Gujarat Urban Development Company (GUDC) and subsequent paper based on this study “Reforming Urban Land Management in Gujarat” published in India Infrastructure Report (IIR), 2009.

24 Inam means gift. Lands were gifted away to by the rulers and these were conditional – to be used only for the purpose gifted for and under various inam categories which were listed in the records. With the abolition of such inams the lands legally revert to the State.

25 The term premium refer to the conversion charge that that land owner who owns a land parcel which has a restricted tenure pays to the State Government to convert it into non restricted land parcel. The conversion premium in urban areas is as high as 80% of the land value.
2.2 Land Management Functions
The following table lists key land management functions and indicates where the revenue and the urban development administrations have a role and the diagram below represent the overlaps graphically.

Table 2: Land Management Functions

<table>
<thead>
<tr>
<th>Land Management Functions</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and maintaining land cadastre</td>
<td>Revenue</td>
</tr>
<tr>
<td>Changing land tenure</td>
<td>Revenue</td>
</tr>
<tr>
<td>Reclassifying land for non-agricultural use</td>
<td>Revenue</td>
</tr>
<tr>
<td>Registering and taxing land and property transactions</td>
<td>Revenue</td>
</tr>
<tr>
<td>Valuing land for land management and urban planning</td>
<td>Revenue and Urban</td>
</tr>
<tr>
<td>Mapping for land management and urban planning</td>
<td>Revenue and Urban</td>
</tr>
<tr>
<td>Preparing development plans</td>
<td>Urban</td>
</tr>
<tr>
<td>Preparing town planning schemes</td>
<td>Urban</td>
</tr>
<tr>
<td>Regulating development</td>
<td>Urban</td>
</tr>
</tbody>
</table>

Figure 9: Land Management Functions
(Source: Streamlining Urban Planning and Land Management in Gujarat, EPC)

This Section focuses on the land management functions administered by the Revenue Department. The functions pertaining to urban planning and regulating development are discussed in the next Section.

Specifically we review:
1 Building and maintaining a cadastre
2 Managing land tenure
3 Registering land and Property transactions
4 Valuing land
1 Building and Maintaining a Cadastre

A ‘Cadastre’ as referred to here is a basic land information system consisting of two parts: one, a series of maps showing the geometric and location attributes of land parcels and two, a set of text records that describe the ownership attributes of land parcels.

A cadastre may be seen as a skeletal framework on which an elaborate land and property information system can be built. A comprehensive land and property information system built on the robust platform of a cadastre can enable, support and enhance innumerable governance, planning, civil and commercial functions.

Building and maintaining a cadastre is a ‘state function’. In Gujarat, the function of building and maintaining a cadastre is governed by provisions of the Bombay Land Revenue Code, 1879. Details are prescribed in the Revenue Accounts Manual and the City Survey Manual. Speaking in general, the BLRC requires the following details to be recorded in the cadastre: geometry and location attributes of land parcels (coordinates and maps); property addresses; name of occupant; name of other right holders; details of easements and encumbrances; the nature and duration of tenure; and details of transactions (or mutations in the record). The BLRC, the Revenue Accounts Manual and the City Survey Manual also prescribe extensive processes and protocols to update the cadastre.

The issues with the cadastral system as it presently functions are elaborated in an earlier study by EPC, 2008 and a paper by Patel, B., Ballaney S and others, 2009. A few of these are briefly mentioned:

- Lack of unified cadastres in an urban area created multiple cadastre situations that are not very clear to public at large, thereby making it appear complex. This reduces the security of tenure, increases the risk of land transactions, increases power of lower bureaucracy and possibilities of corruption.
- Cadastres today are hopelessly out dated, partially computerized and in a bad shape.
- There are multiple text and map records for each land parcel and they are not linked.
- There is no consistency in preparing records as they are manually prepared and different officials may end up recording details in different manner.

The first task while preparing a TPS is building up a base map and ownership records based on cadastral records. In view of the above mentioned issues, this process becomes extremely time consuming, tedious and can never be relied on completely. Ownership and rights get gradually cleared up gradually as the TPS process goes forward. This delays the TPS process and is further discussed in Section 5.

2 Managing Land Tenure

The premise of the Bombay Land Revenue Code, 1879, is that the absolute owner of all the land is the State. A person enjoying rights to use a parcel of land is referred to as the ‘occupant’. Popularly however, the occupant is known as the ‘owner’ of the parcel of land.

---

26 Occupant is person holding right to use the land and/or holding primary responsibility to pay land taxes; ‘occupant’ is popularly referred to as the ‘owner’
27 Separate cadastre systems are devised for ‘urban’ and ‘rural’ areas. The definition of urban and rural as defined Revenue Administration is not coterminous with that of the Urban Administration. The urban areas are referred to ‘city survey’ and the rural areas are referred to a ‘revenue survey’ areas. Refer Patel B, Ballaney S, etc, 2009.
28 Streamlining Urban Planning and Land Management Study (SUPLM) by EPC for the Gujarat Urban Development Company and the paper, Reforming Urban Land Management in Gujarat published in the India Infrastructure Report (IIR).
Owners’/occupants’ rights in parcels of land are not unlimited; they are always restricted in some manner or the other. The way in which rights in land are held, or, the mode of holding rights in land is called “tenure”.

**Defining Tenure**

There are three ways in which ‘owner/s’ or ‘occupant/s’ rights in land can be restricted that impose three types of restrictions parcels of land:

1. Restrictions on power of an owner to dispose of interest in a parcel of land; restrictions on sale / transfer of land
2. Restrictions on subdivision or amalgamation of a parcel of land
3. Restrictions on use of a parcel of land

The rights to use land are basically of two types:

1. **Freehold rights**, without any interests of the government. Parcels of land enjoying freehold rights are referred to as ‘alienated’ (when referred to in the BLRC) or ‘old tenure’ meaning ‘unrestricted tenure type’ parcels of land. Such of parcels of land may be:
   a. transferred (sold) without prior approval of government
   b. subdivided (within limits) or amalgamated without prior approval of government
   c. used for agriculture (the default use for all parcels of land); or ‘non-agricultural’ purposes if a ‘Non-agricultural use permission’ has been obtained from government

2. ** Restricted rights**, where the government has an interest in the land. Parcels of land with restricted rights are known as ‘un-alienated’ (when referred to in the BLRC) lands. Within this type there are two types of tenures.

   The **first type** of tenure is referred to as ‘nari-sharat ane avibhajy sattaprakar’ (meaning ‘new and indivisible tenures’). Lands were attributed this type of tenure when lands came under various ‘Inam-abolition’ (meaning land grant abolition) Acts or when they came under the Gujarat Agricultural Land Ceiling Act. Lands allotted by government for various public uses or when distributed to landless persons are also attributed this tenure.

   The **second type** of tenure is pratibandhit satttaparakar (meaning ‘restricted tenure type’). This second type of tenure was attributed to all lands granted to tenants (as part of the land reforms program of the State) under the Bombay Tenancy and Agricultural Lands (BT&AL) Act 1948.

Parcels of land attributed such restricted rights:

a. Cannot be transferred/sold without prior approval of government,

b. Cannot be subdivided or amalgamated without prior approval of government, and

c. Can only be used for permitted use.

**Removing Restrictions on Land**

Any parcel of land must enjoy ‘freehold’ tenure status to be transferred; subdivided /amalgamated and to be used for non-agricultural uses. Only a freehold land parcel can be then reclassified for non-agricultural use. Two types of conversion processes therefore are defined:

1. Converting Tenure from new / restricted tenure to old / unrestricted tenure.
2. Converting old tenure land from agricultural to non-agricultural use.

---

29 ‘Alienated’ from the State and granted to individuals
Revenue regulations allow for the change or conversion of tenures from new or restricted tenure to freehold tenure when such a change is applied for by the owner/occupant of the land. Conversion of tenure to freehold allows the owner to sell the land and allow its subdivision or amalgamation. On account of this, changing tenure is an important land management function. Protocols and policy for converting tenure from ‘new or restricted tenure’ to ‘old tenure’ is complex, has evolved over time and is periodically revised through Government Orders. It can take from a year to two years and more to complete the process.

To get a sense of how much land is affected by tenure restrictions, a sample study of land parcels affected by restricted tenures was carried out for a 10 sq km of area between Ahmedabad and Gandhinagar. The sample study showed that about 20% of the land is locked under tenure issues. In the event of a large scale development being considered, if there are a few land parcels in between with restricted tenures, the entire development can be stalled till the tenures are cleared which can take several years.

Permission to use agricultural land for non-agricultural uses can also be applied for by the owner/occupant of the land. Non-agricultural (NA) use is only permitted for freehold land and therefore when NA permission is granted, it becomes: freely tradable; can be subdivided and amalgamated and can be put to an array of uses. It is regarded as a very important check point as this frees the land from most, if not all, regulatory restrictions. Because of this a vigorous and comprehensive process granting ‘NA’ permission is put in place – the land parcel is scrutinized by a variety of other departments to ensure compliance to their policies. For example: the Airports Authority checks for impacts on the flight paths, the Roads and Buildings Department checks if it has any proposals that may affect the land parcel, the Railways checks if it has any proposals, so on so forth. There are about 14 such ‘No Objection Certificates (NOCs)’ required.

Conversion of agricultural land to ‘non-agricultural land’ (or ‘NA land’ as it is popularly called) is necessary for almost all urban uses of land and the (legal) expansion of cities crucially depends of the grant of NA permissions. The process is land parcel specific – each land parcel must be converted. In case of large scale public or private developments spread over several land parcels, NA conversion is to be carried out for each and every parcel. The process can take anything from 6 months to a year or more.

The issues with managing land tenure as it presently functions are elaborated in an earlier study by EPC, 2008 and a paper by Patel, B., Ballaney S and others, 2009. A few of these are briefly mentioned:
• Together, the revenue and urban planning regulations impose a formidable matrix of restrictions in urban areas.
• Restrictive tenures and restrictions on NA use constrain supply of land for urban growth.
• The protocols for converting restricted to freehold tenure and agricultural to NA freehold is too complex and lengthy.
• Premium for converting restricted tenures to freehold tenures is very high resulting in under reporting of prices and use of cash money in transactions.

30 These are – Land acquisition, Special Agencies – Narmada Project, Roads and Building, Gujarat Electricity Board, District Industries Commissioner, Gujarat Pollution Control Board, Airport Authority, District Health Officer, Revenue Department, Collector, UDAs/ADAs, Public Works Department and Income Tax Department.
The objectives of stringent and elaborate procedures for converting agricultural land for NA uses are irrelevant in urban areas.

Indiscriminate and widespread NA use permissions outside urban areas dampens the demand for land in urban areas and promotes growth that is harmful, unplanned and unregulated. The significance of both the restrictions – tenure and NA permissions is that even though the land may get zoned for development in the development plan of an urban area and a TPS is prepared over it, it is not available for development or does not enter the urban land markets till these restrictions are removed. More crucially, these restrictions have to be lifted parcel by parcel given the provisions of revenue regulations and they inevitably delay the land development process. This aspect is also dealt in Section 4: Supply of Land for Development.

3  Registering Land and Property Transactions

There are three aspects to a property transaction: 1) conveyancing, 2) registration of deeds and, 3) an updating/mutating of the record of rights.

1. Conveyancing
   Documents agreeing to the transfer of freehold ownership are passed between the seller and purchaser, usually with the guidance of a lawyer – a conveyancer. At this stage the state is not directly involved. However, adequate functioning of the state’s legal and judicial system is crucial for such transfers to take place efficiently; the contracts are enforceable and there is no risk involved in transactions.

2. Registration of Deeds
   The conveyance documents are registered with the Inspector General of Registration and Superintendent of Stamps (IGR and SS) and the stamp duty and registration fee is paid. Maintaining a deeds registry enables the functioning of land markets – past transactions can be inspected to ensure confidence in the title and compulsory registration enables the taxing of all transactions.

3. Updating/Mutating the Land Cadastre
   Once a transaction occurs, the IGR and SS office is required to periodically notify the DILR office and the City Survey Office of all registered transfers. Using this notification, the DILR and CSS are required to update/mutate the Land Cadastre. In practice, the onus of ‘following up the DILR and CSS falls on the buyers as these departments are burdened by huge backlogs. The process has been computerized and made efficient, but the updating of the cadastre is considerably delayed.

The issues with registering transactions as it presently functions are elaborated in an earlier study by EPC, 2008 and a paper by Patel, B., Ballaney S and others, 2009. A few of these are briefly mentioned:

31 NA permissions are issued by the District Administration / State Government just outside the urban areas or the rural areas surrounding the urban areas. This results in low cost developments (low cost because the developers do not have to pay the planning authority for infrastructure development charges) and un-serviced areas. This also means sprawled out development and vacant lands within urban area limits. The DDO Route for supply of land for development in Section 4 dwells on this aspect in more detail.

32 Stamp duty is the tax paid to the Government at the time of sale of the property.
• Rate of stamp duty is perceived to be ‘too high’ that encourages evasion and under reporting of land prices and use of cash money in transactions.
• The drive to increase stamp duty by insisting that each unit of built property being transacted be tied directly to a share in the ownership of land is having the perverse and unintended outcome of fragmenting urban land ownership and evasion of stamp duty.

4 Valuing Land

The State Government maintains a fiscal cadastre for land and property called the ‘Jantri’ in Gujarati. The responsibility of maintaining the Jantri lies with the IGR and SS. Several improvements to the Jantri have already been made on many fronts: (i) computerization; (ii) transition from parcel-based to geographic cluster-based valuation; (iii) improvement of publications that are now easy to read; (iv) increase in transparency through explicitly documented calculations; (v) fresh updates for many areas; (vi) use of private sector expertise.

The Jantri has now been in force / use for quite a few years and is relied upon for calculating: (i) stamp duty / registration fees; (ii) tenure conversion charges (premiums); (iii) compensation under the Acquisition or GTPUDA; (iv) rent and sale prices of government properties. However it does not accurately reflect market prices of land which are much higher.

The issues with valuing land as it is currently practiced are elaborated in an earlier study by EPC, 2008 and a paper by Patel, B., Ballaney S and others, 2009. A few of these are briefly mentioned:
• Recent sales data, the base data used for valuation, is highly unreliable as the transactions involve a significant cash component that is a part of the land price is paid in cash which is unrecorded. Only a part of the transaction is recorded and the stamp duty is paid.
• Despite best attempts to improve valuation, the Jantri and other valuation procedures are highly unreliable indicators of the market value of land and property because of the gap between the data and real prices and lack of systematic and empirical research.
3 The Planning Process in Gujarat

3.1 History of the Planning Legislation in Gujarat

The current regulatory framework for enabling urban planning in Gujarat is the Gujarat Town Planning and Urban Development Act (GTPUDA) enacted in 1976 by the Indian Parliament. This legislation has a long history, its origins lie in the early 20th or 19th century town planning legislation enacted by the British in Britain when India was a colony of Britain. During this period, the movements and events in Britain were reflected in India albeit with a time lag and some degree of adaptation. Modern planning legislation also found its way into India via the British. Development of planning legislation in India too follows a similar trajectory, arising out similar concerns – health and sanitation – with additional intentions of the colonial government trying to clean up and to control the Indian settlements.

A brief review of the history of the planning legislation in Gujarat interesting in the particular context of land readjustment is that the legislation was continually amended as it encountered problems in practice and was replaced by a newer and improved legislation whenever the situation demanded it.

Gujarat was a part of the erstwhile Bombay Presidency under the British Rule. Bombay was the most prominent city and center of administration. Growth and development of Bombay elicited similar responses as in Britain. After the plague of 1896, a quarter of the population deserted Bombay and the city almost faced commercial extinction. In order to improve hygienic conditions the Bombay Municipal Corporation was compelled to provide proper drainage, clean water and planned reclamation. Towards this Mumbai City Improvement Trust was established in 1898. The Improvement Trust began preparing improvement schemes for parts of Bombay. The improvements schemes were not so successful and in view of the problems of the city its efforts were not enough. The population grew rapidly – it went up from 776,000 in 1901 to about 1,000,000 and as it grew in numbers, its civic problems magnified. The British administrators sought a more comprehensive approach to the problem and the first Bombay Town Planning Act was introduced in 1915.

1 The Bombay Town Planning Act (BTPA), 1915

The Bombay Town Planning Act, 1915 was enacted by the British Government. According to Arthur Edward Mirams, the then Consulting Surveyor to the Bombay Presidency, the 1915 act was “a sincere attempt to embody in one measure all that was best from every other Town Planning Act extant”\(^{34}\). The Town Planning Scheme process outlined in the Act combined elements of the English Housing and Town Planning Act of 1909, which dealt with land use zoning and land reservations, and the German Lex Adickes, which dealt with land readjustment\(^{35}\).

The objective of the Act is made clear in the beginning – it is an Act to provide for the making and execution of town planning schemes. To quote “Whereas it is expedient that the development of certain areas should be regulated with the general object of securing proper sanitary conditions, amenity and convenience to the persons living in such areas and

\(^{33}\) Bombay Improvement Trust for the first of its kind established in India at that time.

\(^{34}\) Mirams, 1919, page 44.

\(^{35}\) Mirams, 1924, page 196.
in neighboring areas”\textsuperscript{36}. The mechanism specified by the legislation for achieving these ends of sanitation, amenity, and convenience is the \textit{town planning scheme}. The Act proceeds to describe in detail the contents and process for executing the same.

The BTPA is not a long Act (18 pages), it has 52 sections organized in 5 Chapters that cover the aspects of:

- Proposals in a town planning scheme (Chapter 1 Preliminary (Sections 1 to 5))
- Process and protocols to prepare a town planning scheme (Chapter 2 Declaration of Intention to make a Scheme, and Preparation of Draft Scheme (Sections 8 to 15))
- Finance of the town planning scheme (Chapter 3 Finance (Sections 16 to 28))
- Finalization of the town planning scheme (Chapter 4 Arbitrator and Tribunal (Sections 29 to 44))

The final chapter comprises of miscellaneous provisions (Sections 45 to 52).

On Nature of Proposals in Town Planning Scheme\textsuperscript{37}
Section 3 enlists that a town planning scheme could make provisions for:
(a) the construction, diversion, alteration and stopping up of streets, roads and communications;
(b) the construction, alteration and removal of buildings, bridges and other structures;
(c) the plotting out of land as building sites whether such land is intended to be used for building purposes in the immediate future or not;
(d) the allotment or reservation of land for roads, open spaces, gardens, recreation grounds, schools, markets and public purposes of all kinds;
(e) drainage inclusive of sewerage and of surface drainage and sewage disposal;
(f) lighting;
(g) water supply;
(h) the preservation of objects of historical interest or natural beauty and of buildings actually used for religious purposes or regarded by the public with special religious veneration;
(i) the imposition of conditions and restrictions in regard to the open space to be maintained about buildings, the number, height and character of buildings allowed in specified areas and the purposes to which buildings or specified areas may or may not be appropriated;
(j) the suspension, so far as may be necessary for the proper carrying out of the scheme, of any rule having the force of law, bye-law, act or other provision which is in force in the area included in the scheme;
(k) such other matter not inconsistent with the objects of this act as may be prescribed.

The provisions are far reaching; they gave the planning / statutory authorities tremendous scope to improve and or re-plan areas comprehensively.

On the Process to Prepare a Town Planning Scheme
The BTPA first specifies the lands over which a town planning scheme can be prepared (Section 8). A town planning scheme could be prepared for land which was in the course of development or likely to be used for building purposes. The BTPA further states that lands

\textsuperscript{36} Bombay Town Planning Act 1915, page 1.
\textsuperscript{37} The scope of the TPS is envisioned for comprehensive development of an urban area. These are retained in the both, the BTPA 1954 and the GTPUDA 1976, albeit slightly modified and a few more aspects are included.
which were already built upon or lands not likely to be used for building but are situated with respect to lands likely to be used for building purposes, can also be included in any town planning scheme. The BTPA permitted the demolition of, alteration of any building necessary to implementing the proposals of the scheme which could be either old/dilapidated developments or recent developments.

Sections 9 to 15 describe the statutory process in depth of preparing a town planning scheme – actions by the authority, timelines, and contents of the draft scheme. Of these Sections 11 and Section 12 are significant. Section 11 gives the contents of the draft scheme and Section 12 refers to the reconstitution of plots – altering the boundaries of the original land plots.

On the Finance of a Town Planning Scheme.
Sections 16 to 28 deal with the financial aspects of the town planning scheme. The costs to be included are enlisted such as providing for infrastructure, legal expenses incurred by the local authority and compensation to be paid to the land owners for the land appropriated as a part of the scheme. The manner of computing the increase or increment in the land values of the final plots is prescribed. Further the BTPA clearly states that the costs of the scheme shall be met in whole or part by a contribution to be levied by the local authority in proportion to the increment in the land value. The contribution is stipulated to be half of the increment in land value.

On Finalization of the Town Planning Scheme
Sections 29 to 24 deal with finalization of the scheme after it has been sanctioned by the provincial government. An arbitrator is appointed to finalize and implement the scheme. The act prescribes his tasks and the procedures that are to be followed by him. On appointment, the arbitrator issues notices to the land owners, gives them hearings and finalizes the scheme. The BTPA gives complete powers to the arbitrator in all matters except in case of the financials, which may be contested by the land owners and the act provides for setting up an arbitration tribunal.

The Bombay Town Planning Act of 1915 laid out the basic foundation for the working of the town planning scheme in the Bombay Presidency, including the current state of Gujarat. Several town planning schemes were prepared in the Bombay Presidency under this Act. Ahmedabad’s first 14 town planning schemes in the area that currently makes up the core of the city on both sides of the Sabarmati River, were prepared under this Act. A E Miriam's contribution to the successful preparation of several town planning schemes is key – he alone was the arbitrator on about 60 town planning schemes in India.

There are questions as to the efficacy of the TPS mechanism as outlined in the BTPA 1915. In practice it took too long to finalize and implement the schemes under this legislation.

---

38 The town planning schemes could be prepared both for green field development and reorganization of existing development.
39 Contribution is taken as a combination of land and nominal costs for developing the infrastructure.
40 At this time that is 1915, the level of the government above the local authority was the provincial government at the level of the province. Post-independence this was replaced by the state government.
41 An arbitrator is a quasi-judicial officer appointed to finalize the town planning scheme. The arbitrator arbitrates between the local authority and the land owners to conclude both the physical and financial proposals.
42 A review of the time taken to complete the first set of TPS prepared under BTPA 1915 supports this inference. It is not possible to point out the specific reasons but the time lines prescribed in the act are much
The process was time consuming and until the TPS was not finalized and approved by the State Government, it could not be implemented.

The other serious problem was that the TPS were prepared on a case by case basis, in response to the problems of the area without really looking at the entire urban area as whole.

But on the whole enactment of the BTPA 1915 was certainly a positive step than the mechanism of preparing improvement schemes proposed by the improvement trust acts and later the BPMC Act which depended entirely on the acquisition of land for their implementation.

2 The Bombay Town Planning Act (BTPA), 1954
In 1947 India became independent but up until about 1960 both Maharashtra and Gujarat constituted a single state. The 1915 Act continued to be amended however it was perceived to be inadequate to address the increasingly complex problems posed by growth by cities and municipalities by undertaking town planning schemes as these were narrowly focused on the problems of a particular area and did not offer a city wide framework to address the challenges of urbanization.

In 1947 the Town and Country Planning Act was enacted in Britain and this Act made an entirely new beginning by repealing all previous town planning legislation. It introduced for the first time the concept of a preparation of a city wide ‘development plan’.

In 1954 the State of Bombay enacted the Bombay Town Planning Act of 1954, which superseded the 1915 Act. The overall objective of the 1954 Act remained consistent with that of the 1915 Act as it is stated in the beginning - “an Act to consolidate and amend the law for the making and execution of town planning schemes…Whereas in order that the town planning schemes are made in a proper manner and their execution is made effective, it is necessary to provide that a local authority shall prepare a development plan for the entire area within its jurisdiction”\(^\text{44}\). The principal innovation or departure from the 1915 Act is the preparation of development plan that takes a more comprehensive, city wide perspective on planning than the exclusive focus on a portion of an area by the town planning scheme. The concept of a two-step planning process is introduced in this act – 1) preparation of a city wide development plan and 2) town planning schemes for smaller areas. This also ensured some regulation of development in the non TPS areas. Another major change is in the refinement of the process of preparing a town planning scheme to make it more effective – splitting the draft scheme into sections or smaller areas and treating each section or smaller area as a separate TPS for approval. This ensured that the land for roads, infrastructure works, open spaces and public purpose could vest with the local authority way ahead for some areas instead of waiting for the entire TPS process to be completed\(^\text{45}\).

\(^{43}\) This review is based on the Bombay Town Planning Act, 1954 as modified up to 15 February 1972.

\(^{44}\) BTPA, 1954, Preamble, page 1.

\(^{45}\) It is possible that in case of a large TPS it may get stuck because of a problem in a particular portion or simply the fact that a large scheme would involve considerable procedural work. An example of this the TPS 3 Ellisbridge in Ahmedabad, it had an area of 8 sq km but was split into 5 sections and each was treated as a separate TPS for approvals.
The BTPA 1954 is more nuanced (introduction of the development plan and further developed process of preparing the town planning scheme) than BTPA 1915 Act, has 39 pages, 91 sections organized in 9 Chapters that cover the aspects of:

- Objectives and extent (Chapter 1 Preliminary (Sections 1, 2)),
- Process and protocols to prepare a development plan (Chapter 2 Development Plan (Sections 3 to 17)),
- Contents of a town planning scheme (Chapter 3 Making of a Town Planning Scheme (Sections 18 to 20)),
- Process and protocols to prepare a town planning scheme (Chapter 4 Declaration of intention to make a scheme and making of a draft scheme (Sections 21 to 30)),
- Finalization of the town planning scheme (Chapter 5 Town Planning Officer and Board of Appeal (Sections 31 to 43)),
- Splitting the town planning scheme (Chapter 6 Splitting up of schemes into sections and preliminary schemes (Sections 44 to 61)),
- Finance of the town planning scheme (Chapter 8 Finance (Sections 64 to 78)).

There are some miscellaneous provisions and a provision to prepare joint town planning schemes across local authorities.

**On Preparing Development Plans**

The various sections of Chapter 3 describe the process that the local authority has to follow to prepare the development plan; the proposals of the development plan; timelines and manner of approval; its implementation and the process of effecting a variation.

**On Nature of Proposals in Town Planning Scheme**

Chapter 3 enlists that a town planning scheme could make provisions for:

(a) the laying out or re-laying out of land, either vacant or already built upon;
(b) the filling up or reclamation of low lying, swamp or unhealthy areas or leveling up of land;
(c) the layout of new streets or roads; construction, diversion, extension; alteration, improvement and stopping up of streets, roads and communications;
(d) the construction, alteration and removal of buildings, bridges and other structures;
(e) the allotment or reservation of land for roads, open spaces, gardens, recreation grounds, schools, markets, green belts and dairies, transport facilities and public purposes of all kinds;
(f) drainage inclusive of sewerage, surface or sub soil drainage and sewage disposal;
(g) lighting;
(h) water supply;
(i) the preservation of objects of historical interest or natural interest or natural beauty and of buildings actually used for religious purposes;
(j) the imposition of conditions and restrictions in regard to the open space to be maintained about buildings, the percentage building area for a plot, the number, height and character of buildings allowed in specified areas, the purposes to which buildings or specified areas may or may not be appropriated, the subdivision of plots, the discontinuance of objectionable users of land in any area in reasonable periods, parking space and loading and unloading space for any building and the sizes of projections and advertisement signs;

---

46 The list is very similar to the BTPA 1915 in intent, with a few modifications and additions to make more encompassing.
(k) the suspension, so far as may be necessary for the proper carrying out of the scheme, of any rule, by law, by-law, regulation, notification or order made or issued under any Act of State Legislature or any of the Acts which the State Legislature act is competent to amend;

(l) such other matter not inconsistent with the objects of this Act as may be prescribed.

On the Process to Prepare a Town Planning Scheme
The various sections of Chapter 4 describe the making and nature of the proposals of the draft town planning scheme (which is more or less consistent with the 1915 Act); process that the local authority has to follow to prepare the draft scheme; proposals of the draft scheme; timelines and manner of approval of the draft scheme.

On Finalization of the Town Planning Scheme
The various sections of Chapter 5 deal with finalization of the scheme after it has been approved by the State Government. A ‘town planning officer’ is appointed to finalize and implement the scheme. The act prescribes his tasks and the procedures that are to be followed by him. On appointment, the town planning officer issues notices to the land owners, gives them hearings and finalizes the scheme. The BTPA gives complete powers to the town planning officer in all matters except in case of the financials, which may be contested by the land owners and the BTPA provides for setting up a board of appeal.

On Splitting the Town Planning Scheme
The various sections of Chapter 6 describe the provisions to ‘split’ a town planning scheme at the behest of the local authority into ‘sections’ and the process to take it forward. Each section is then treated as a separate draft scheme and referred to as a ‘preliminary’ scheme. A section is created especially for areas within a draft scheme that contain proposals for public purpose – roads, open spaces, drainage, sewerage, water supply etc. The town planning officer then finalizes each preliminary scheme albeit without the financial aspects and makes a proposal to the State Government to vest such lands with the local authority. The State Government if convinced of the urgency of the public purpose directs the town planning officer to take possession of such lands which fall in public domain while reconstituting the plots. The town planning officer meanwhile continues to finalize the draft scheme as a whole and submits it to the State Government for approval who then may sanction it.

On the Finance of a Town Planning Scheme
The various sections of Chapter 7 deal with the financial aspects of the town planning scheme. The costs to be included are enlisted such as providing for infrastructure, legal expenses incurred by the local authority and compensation to be paid to the land owners for the land appropriated as a part of the scheme. The manner of computing the increase or increment in the land values of the final plots is prescribed. Further the BTPA clearly states

47 BTPA 1915 assigns the role of finalizing the TPS to arbitrator as described above. In BTPA 1954 the term arbitrator was replaced by town planning officer. The functions, roles and responsibilities remain the same.
48 BTPA 1915 provided for setting up an arbitration tribunal to resolve cases where the land owners were not agreeable to the decision taken by the arbitrator as described above. In BTPA 1954 the term arbitration tribunal was replaced by board of appeal and it is set up to resolve the cases where the land owners were not agreeable to the decision taken by the town planning officer.
49 While preparing the preliminary scheme the town planning officer is not expected to finalize the financials of the town planning scheme.
50 This is retained almost in an intact manner as the BTPA 1915 with some more elaboration on methodological aspects.
that the costs of the scheme shall be met in whole or part by a contribution to be levied by
the local authority in proportion to the increment in the land value. The contribution is
stipulated to be half of the increment in land value.

The Bombay Town Planning Act of 1954 had attempted to address the short comings of the
1915 Act. To begin with, the 1954 Act mandated the preparation of a development plan for
the entire urban area and then preparation of TPS within the urban area. Thus the concept of
a two-step planning process was introduced in this Act. As regards speeding up the process
of TPS, the concept of ‘sections’ was introduced, meaning a TPS could be divided into
sections if a particular portion of the TPS needed to be completed or taken up faster. This
could be a portion with some public purpose infrastructure.

The 1954 Act has its own shortcomings – it was limited to the jurisdiction of the urban area,
which at this point, was the boundary of a local authority which could be either a municipal
corporation or a municipality. By the mid-seventies, the urban areas were growing rapidly
and it was fringe areas or the peripheries which started growing faster. As regards to the
TPS the manner of breaking the TPS into sections did not solve the problem as effectively
of speeding implementation as the time lines prescribed were still on a higher side.

3 The Gujarat Town and Urban Development Act (GTPUDA), 1976
In 1960, both Maharashtra and Gujarat became independent states. Maharashtra replaced
the BTPA, 1954 act by the Maharashtra Regional and Town Planning Act (MRTPA) in
1966 and Gujarat replaced the same with the Gujarat Town and Urban Development Act in
197651.

While the BTPA 1954 mandated the local authorities to produce development plans every
ten years, to plan the State’s cities in a more comprehensive manner and to address
development taking place outside of town planning schemes, the approach was perceived to
be inadequate to address the growth pace of the cities in Gujarat – by the 1970’s the
periphery of the cities started witnessing development and pointed towards the problems of
unplanned peripheries.

The GTPUDA makes a significant departure from the BTPA 1954; it adopts the approach of
creating a body distinct from the local authority to specifically control the development in
broader areas surrounding the local areas. This reasoning underlying the 1976 Act is
articulated in its preamble – “The Bombay Town Planning Act, 1954... controls town
planning activities only within the areas falling within the jurisdiction of local authorities.
Planning within the peripheral limits of cities and towns has created certain problems. It is
felt that if planning activities are undertaken... with reference to development of areas
which are not necessarily restricted to the jurisdiction of local authorities, it will be possible
to create better environmental conditions”52.

There previous section has reviewed the GTPUDA, with a focus on delineating
‘development areas’ and constituting the development authorities. Here the overall structure
is presented briefly and a more in depth review of the DP TPS mechanism or the planning
process in done in section 3.2.

51 The Act was enacted by the Parliament and last amended on 31 May 2000. This is the version used for this
review.
52 GTPUDA, 1976, preamble, page 1 of the original act. This has been removed from the subsequently
amended versions.
The GPTUDA has 67 pages, 124 sections organized in 8 Chapters that cover the aspects of:

- Objectives and extent (Chapter 1 Preliminary (Sections 1, 2)),
- Development areas, authorities and process and protocols to prepared development plans (Chapter 2 Development Area and Constitution of Area Development Authorities and Chapter 3 Declaration of Urban Development Authorities and Constitution of Urban Development Authorities (Sections 3 to 25)),
- Process and protocols for development permission (Chapter 3 Control of Development and Use of land included in Development Plans (Sections 26 to 39)),
- Process and protocols to prepare a town planning scheme (Chapter 5 Town Planning Schemes (Sections 40 to 76)),
- Financing of plans (Chapter 6 Finance (Sections 77 to 98)), and
- Development charges (Chapter 7 Levy, Assessment and Recovery of Development Charges (Sections 99 to 103).

The final chapter comprises of miscellaneous provisions (Sections 104 to 124).

The GTPUDA 1976 Act made significant departures from both the earlier town planning acts. The Act introduced the delineation ‘development area’ which was an overlay over the jurisdiction of the local areas and much larger – encompassing the periphery which needed to be planned. It also mandated the creation of ‘development authorities’ which are distinct from the local authorities and made them responsible for the function of planning. The development authorities are by and large controlled by the State Government. The two step planning process was continued however the development authority was responsible for preparing the DP and the TPS.

The 1976 also made significant changes as far TPS was concerned. The TPS process was broken into 3 clear stages – preparation of the Draft Scheme, Preliminary Scheme and Final Scheme. Upon sanction of the draft scheme, a town planning officer is appointed who takes the TPS forward in a phased manner by breaking it into a preliminary scheme and final scheme. Upon sanction of the preliminary scheme the physical proposals could be implemented, the process of implementation did not have to wait until the financial aspects were resolved and the scheme was finalized.

In is however important to note that the 1976 Act has been continuously amended and two sets of amendments made in 1999 (see Figure 10 below) are key that really revitalized and galvanized the TPS process in Gujarat which had become dysfunctional owing to a variety of reasons. The amendments ensured that the authority could now appropriate land for a variety of different public purposes and more importantly create plots for sale to finance the infrastructure investments as the development charges were inadequate.

53 The town planning officer is usually appointed for the State’s Town Planning Department and there is a provision for different levels of staff. Theoretically the town planning officer has a team but in practice he is constrained as at the moment the department is short staffed and there is limited amount of recruitment. In the larger development authorities staff are hired on a contractual basis to support the town planning officer.

54 The development charges are kept low (this is elaborated in Section 5 and 6) and are realized over a long period of time, thus have not actually help finance the infrastructure.
1999 Amendments

Creation of a land bank and appropriation upto 50% of the total TPS area (along with clause (j)):
Section 40 (3) (jj)

(a) The allotment of land from the total area covered under the scheme, to the extent of:
   (i) Fifteen percent for roads.
   (ii) Five percent for parks, playgrounds, garden and open space.
   (iii) Five percent for social infrastructure such as schools, dispensary, fire brigade, public utility place as earmarked in the draft town planning scheme.
   (iv) Fifteen percent for sale by appropriate authority for residential, commercial or industrial use depending upon the nature of development.

Provide that the percentage of the allotment of land specified in paragraphs (i) to (iii) may be altered depending upon the nature of development and for the reasons to be recorded in writing:

(b) The proceeds from the sale of land referred to in para (iv) of sub-clause (a) shall be used for the purpose of providing infrastructural facilities in the area covered under the scheme.

(c) The land allotted for the purposes referred to in paragraphs (ii) and (iii) of sub-clause (a) shall not be changed by variation of schemes for purpose other than public purpose.

Vesting of land with the appropriate authority:
Section 48 – A (1)

Where a draft scheme has been sanctioned by the State Government under sub section (2) of section 48 (hereinafter in this section, referred to as ‘the sanctioned draft scheme’), all lands required by the appropriate authority for the purposes specified in clauses (c), (f), (g) or (h) of sub section (3) of section 40 shall vest absolutely in the appropriate authority free from all encumbrances.

Figure 10: Key Amendments to the GTPUDA in 1999.
(Source: GTPUDA, 1976)
3.2 The DP – TPS Mechanism for Urban Planning in Gujarat
The GTPUDA defines a two step planning process (referred to as the DP-TPS process or mechanism) as the flow chart below illustrates:

Figure 11: DP – TPS Planning Process
1 Preparation of City Wide Development Plan

As a first step a city wide comprehensive development plan is prepared by the development authority. The development authority must prepare a development plan within 3 years of its constitution. The GTPUDA describes the contents and process in detail which are briefly summarized:

- The development plan indicates manner in which the land can be used (zoning) and the manner in which the development can be regulated (Sections 11 and 12).
- Specifically the proposals can range from:
  - Use of the land for residential, industrial, commercial, agricultural and recreational purposes.
  - Reservation of land for public purposes.
  - Designation of areas for zoological gardens, green belts, natural reserves and sanctuaries.
  - Transport and Communication.
  - Services like water supply, drainage, sewage disposal and other public utility amenities.
  - Reservation of land for community facilities and services.
  - Designation of sites for service industries, industrial estates and any other industrial development on an extensive scale.
  - Preservation, conservation and development of areas of natural scenery and landscape.
  - Preservation of features, structures or places of historical, natural, architectural or scientific interest and of educational value.
  - Proposals for flood control and prevention of river pollution.
  - Reservation of land for the purpose of Union, any State, local authority or any other authority.
  - Filling up or reclamation of low lying, swampy or unhealthy areas or levelling up of land.
  - Development Control Regulations.
  - Preventing or removing pollution of water or air caused by the discharge of waste or other means as a result of the use of land.
  - Public or other purpose approved by the development authority or as directed by the State Government.

- Once the development plan is ready, the development authority ‘publishes’ it (Section 13) and solicits public’s ‘objections and suggestions’ for a period of two months. The planners need to explain how these have been dealt with in the plan. The development authority modifies the plan and again ‘publishes’ it (Section 15) and solicits public’s ‘objections and suggestions’ for a period of two months.
- After the second round of publication the development authority makes changes (if required) and sends the development plan to the State Government for approval.
- The State Government then, either approves the plan or suggests changes or refuses to approve the plan.

---

55 Sections 9 to 17 deal with the contents of and the process to prepare the development plan.
56 The GTPUDA does provide for ‘reserving’ land for public purpose which can be acquired by the authority. In practice now however the authorities attempt to get these through the TPS process. In Ahmedabad, the AUDA gave up this practice of making reservations in its development plan, 2002.
57 The GTPUDA does allow for framing development control regulations for a TPS and these have to be drafted at the time of planning and become a part of the draft scheme. In practice, however, the authorities end up retaining the development control regulations that are already drafted for the urban area as a part of its development plan.
Once the State Government approves the development it is notified in the official gazette and comes into force and is valid for a period of 10 years after completion of which it must be revised.

Figure 12: Development Plan, Ahmedabad, 2002
(Source: Adapted from Draft Development Plan, Ahmedabad 2002, EPC)
2 Preparation of Town Planning Schemes

Once the development plan is prepared, as a second step detailed plans are drawn up for smaller areas of the development plan – these are called the town planning schemes. The town planning scheme enables the reconstitution of the land plots to realize the objectives of the development plan. Some of the possible objectives can be:

1. Provide infrastructure in the new areas opened up for development at the periphery of urban areas.

2. Provide services to partially developed areas – these could be areas which may have developed using the unregulated route within urban areas or the areas developed using the District Development Officer (DDO) route that are brought later in the jurisdiction of adjacent urban areas.

3. Create a major city level infrastructure proposed in the DP – an example of this is the Ring Road in Ahmedabad

The Act describes the contents, process (Refer Annex 2 TPS Process Chart) and roles of each level of government and stakeholders in detail which are briefly summarized:

- The proposals in a town planning scheme can range from:
  
  (a) the laying out or re-laying out of land, either vacant or already built upon;
  
  (b) the filling up or reclamation of low lying, swamp or unhealthy areas or leveling up of land;
  
  (c) the layout of new streets or roads; construction, diversion, extension; alteration, improvement and stopping up of streets, roads and communications;
  
  (d) the construction, alteration and removal of buildings, bridges and other structures;
  
  (e) the allotment or reservation of land for roads, open spaces, gardens, recreation grounds, schools, markets, green belts and dairies, transport facilities and public purposes of all kinds;
  
  (f) drainage inclusive of sewerage, surface or sub soil drainage and sewage disposal;
  
  (g) lighting;
  
  (h) water supply;
  
  (i) the preservation of objects of historical interest or natural interest or natural beauty and of buildings actually used for religious purposes;
  
  (j) the reservation of land to the extent of ten percent; or such percentage as near thereto as possible of the total area covered under the scheme, for the purpose of providing housing accommodation to the members of socially and economically backward classes of people.
  
  (jj) (a) The allotment of land from the total area covered under the scheme, to the extent of:
     
     (i) Fifteen percent for roads.
    
     (ii) Five percent for parks, playgrounds, garden and open space.

---

58 Both the unregulated route and the DDO route are identified as methods for supply of land which are discussed in the next section – Section 4.

59 Case D discussed in Section 5.2.

60 Section 41 to 67 of the GTPUDA, 1976.

61 Proposals from (a) to (i) are exactly the same as in the BTPA 1954. Clause (j) was inserted in 1986 and clause was inserted in 1999. In the earlier BTPA 1915 and 1954 there were no prescriptions on allocations of areas for public uses and hence there was a wide variation across TPS and some had very less allocations, hence these clauses were inserted.

62 There is no basis for the percentages prescribed in the GTPUDA. Some numbers appear to be derived from preparing earlier TPS and development layouts such as typically 12 to 15% is required for roads, about 10 to 15% together ends up for providing open spaces and amenities. This is based on discussions with officials of the TPVD. The GTPUDA also says ‘up to’, these are not the minimums, the authority does have a leeway is determining the actual percentages.
(iii) Five percent for social infrastructure such as schools, dispensary, fire brigade, public utility place as earmarked in the draft town planning scheme.

(iv) Fifteen percent for sale by appropriate authority for residential, commercial or industrial use depending upon the nature of development.

*Provide that the percentage of the allotment of land specified in paragraphs (i) to (iii) may be altered depending upon the nature of development and for the reasons to be recorded in writing;*

(b) The proceeds from the sale of land referred to in para (iv) of sub-clause (a) shall be used for the purpose of providing infrastructural facilities in the area covered under the scheme.

(c) The land allotted for the purposes referred to in paragraphs (ii) and (iii) of sub-clause (a) shall not be changed by variation of schemes for purpose other than public purpose.

(k) the imposition of conditions and restrictions in regard to the open space to be maintained about buildings, the percentage building area for a plot, the number, height and character of buildings allowed in specified areas, the purposes to which buildings or specified areas may or may not be appropriated, the subdivision of plots, the discontinuance of objectionable users of land in any area in reasonable periods, parking space and loading and unloading space for any building and the sizes of projections and advertisement signs;

(l) the suspension, so far as may be necessary for the proper carrying out of the scheme, of any rule, by law, by-law, regulation, notification or order made or issued under any Act of State Legislature or any of the Acts which the State Legislature act is competent to amend;

Provided that any suspension under this clause shall cease to operate in the event of the State Government refusing to sanction the preliminary scheme, or on the coming into force of the final scheme;

(m) such other matters not inconsistent with the objects of this Act as may be prescribed.

- The TPS exercise can be initiated by agencies that are mandated by the GTPUDA to undertake planning:
  1. Urban development authority
  2. Area development authority
  3. Local authority (in case the powers of planning are delegated by a development authority to a local authority within its jurisdiction)
  4. State Government (it can direct a development authority or a local authority)

- The board of the authority makes a resolution to prepare a TPS and send a proposal with a drawing of the area showing the survey numbers and DP proposals to the Chief Town Planner (CTP) / State Government for approval.

- The CTP reviews the proposal may grant approval with or without modifications. This is call the ‘CTP Consultation’.

- Once the CTP consultation is obtained the development authority declares its intention to prepare a town planning scheme. This is done in the form of a public notice printed in the newspapers of wide circulation.

- The development authority then commences the task of preparing the draft TPS and this includes – undertaking a physical / topographical survey of the area, collating all the land records, valuing land, designing the road network, locating plots for amenities,
reconstituting land parcels, designing infrastructure, estimating the costs of implementing the schemes and preparing redistribution statements.

- Once draft town planning scheme is ready the development authority puts the TPS proposals in the public domain. An owners meeting is undertaken, announced in the form of a public notice printed in the newspapers of wide circulation. Individual notices are sent to all the landowners informing them of the data, time and place. In the owners meeting, the development authority explains the proposals. It then solicits ‘objections / suggestions’ for a period of two months from the land owners and interested stakeholders in the area/city.

- The development authority needs to address all the objections and suggestions received with supporting rationale and modify the draft scheme if required.

- The development authority then ‘publishes’ the draft scheme and again solicits ‘objections and suggestions’ for a period of another month.

- After the publication, the development authority makes changes if required and then sends the draft scheme to the State Government for approval.

- The State Government then, either approves the draft schemes or gives a conditional approval with a few changes which the authority then incorporates.

- After the approval of the draft scheme, a town planning officer is appointed who takes the process forward. He divides the deals with the town planning scheme in two parts – preliminary scheme and final scheme.

- As part of the preliminary scheme the TPO finalizes the physical proposals. In this process the TPO gives the first individual hearing to the land owners, finalizes the proposals and then consults CTP who may give suggestions. After this, the TPO consults with the development authority on the lands appropriated for the development authority. Based on the suggestions / opinion of both the TPO finalizes the preliminary TPS and gives a second individual hearing to the land owners. On the basis of this, the plots are demarcated on the site and the process of handing over the possession of the final plots is carried out. The TPO consults the CTP again at this stage and goes ahead with the publication of the preliminary scheme. After this, the TPO submits the preliminary scheme to the State Government for approval. The State Government consults the CTP before sanctioning the preliminary scheme. Upon sanction the State Government notifies the preliminary scheme and at this point all the public purpose plots vest with the development authority.

- The TPO now begins to work of the final scheme wherein he finalizes the financial aspects pertaining to the scheme with the land owners. He gives one more round of individual hearing to the land owners and reworks out the financials (F form). The TPO finalizes the financials and seek consultation from the CTP and publishes the final scheme. In case a land owner still has disagreements with the financials then he / she can go the Board of Appeal that is constituted specifically for this purpose. Upon resolution of all cases, the TPO then submits the final scheme to the State Government for sanction.

63 In case the land owner is not satisfied with the decision of the Board of Appeal, he / she can take recourse to the law courts.
Figure 13: Proposed Town Planning Schemes, Development Plan, Ahmedabad, 2002
(Source: Adapted from Draft Development Plan, Ahmedabad 2002, EPC)
3.3 Status of Development Plans and Town Planning Schemes in Gujarat

Data on all status of development plans and town planning schemes prepared for the urban development areas and development areas was compiled from the Urban Development and Urban Housing Department (UD & UHD) and various development authorities. In this section, we are looking at the data and the inferences from the tables are drawn in Section 5 and 6.

1 Status of the Development Plans

Table 3: Status of Development Plans in Gujarat

<table>
<thead>
<tr>
<th>Status of Development Plans in Gujarat*</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of DPs in force</td>
<td>20</td>
<td>15.27</td>
</tr>
<tr>
<td>No. of DPs lapsed*</td>
<td>35</td>
<td>26.72</td>
</tr>
<tr>
<td>Submitted to SG for sanction as on March 2010 / Pending Approval</td>
<td>32</td>
<td>24.43</td>
</tr>
<tr>
<td>No. of DPs / RDPs under preparation (principal / varied/revisions)</td>
<td>43</td>
<td>32.82</td>
</tr>
<tr>
<td>No. of DPs rejected by the SG</td>
<td>1</td>
<td>0.76</td>
</tr>
<tr>
<td>No. of UDA / ADAs</td>
<td>131</td>
<td>100</td>
</tr>
</tbody>
</table>

* The status of development plans is based on plans prepared under the GTPUDA, 1976.
** Lapsed DP means that it has finished 10 years and needs to be revised.
(Source: Computed on the basis of data obtained from Urban Development and Urban Housing Department (UD & UHD), Government of Gujarat)

- In all there are 131 urban / area development authorities’ (UDAs/ADAs) which are required to produce a development plan. As seen the process of preparing DPs has begun for all the development areas.
- Of these, as on date only 20 development plans are in force or 15% of the cities / urban areas in Gujarat have a valid development plan to guide and regulate the development.
- About 25% are pending with the State Government for approval.
- About 43% are under preparation and most of these are for the ADAs where the responsibility of preparing the DPs lies with the Town Planning and Valuation Department (TPVD) which a State Government Department.

2 Time taken to Prepare Development Plans

Table 4: Time taken to Prepare Development Plans in Gujarat

<table>
<thead>
<tr>
<th>Time from the date of declaration as ADA / UDA to sanction of principal DP</th>
<th>No. of DPs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 1 year</td>
<td>14</td>
<td>10.69</td>
</tr>
<tr>
<td>1 – 3 years</td>
<td>6</td>
<td>4.58</td>
</tr>
<tr>
<td>3.1 - 6 years</td>
<td>12</td>
<td>9.16</td>
</tr>
<tr>
<td>6.1 - 10 years</td>
<td>25</td>
<td>19.08</td>
</tr>
<tr>
<td>10.1 - 15 years</td>
<td>23</td>
<td>17.56</td>
</tr>
<tr>
<td>&gt; 15 years</td>
<td>5</td>
<td>3.82</td>
</tr>
</tbody>
</table>

64 The database on development plans comprised of – area, population, date of constitution of the development authority, date of sanction of the first/second/third development plan and the status of the development plan – whether it is in force, lapsed, under preparation or pending with the State Government for approval. The database on the town planning schemes comprised of the various dates of the statutory processes such as consultation, declaration of intention, owners meeting, publication, submission of draft TPS to the State, sanction of draft TPS by State Government, appointment of TPO, preliminary award, preliminary sanction, preliminary in force, final award, final sanction and final in force.
* Here the DPs are there or under preparation the date of the constitution of the authority is missing which does not enable to calculation of the time taken to prepare the DP.

- Only about 15% of the total DPs have been prepared within the stipulation time of 3 years.
- About 37% have taken between 6 to 15 years.

The timelines to prepare a development plan as prescribed in the GTPUDA are also given for comparison:

**Table 5: Timelines Prescribed in the GTPUDA to Prepare Development Plans**

<table>
<thead>
<tr>
<th>No.</th>
<th>Stage</th>
<th>Current Time Frame / Conditions</th>
</tr>
</thead>
</table>
| 1   | Preparation of Principal DP To its submission to SG under Section 9 | 3 years. This time can be extended by the SG from time to time as it sees fit.  
This period is specified in the Act (Section 9) |
| 2   | From Submission of Draft DP to SG under Section 9 To Submission of Draft DP to SG under Section 16 | 6 months. This time can be extended by the SG by another 12 months  
This period is specified in the Act (Section 16) |
| 3   | Sanction of DP by SG under section 17           | The SG can sanction the DP within 12 months without modifications and within 24 months with modifications.  
This period is specified in Rule 7 |

(Source: Streamlining Urban Planning and Land Management in Gujarat, EPC.)

**Table 6: Time Lags between the Principal and Ist Revised Development Plans**

<table>
<thead>
<tr>
<th>Time between the lapse of the Principal DP to the sanction of the Ist RDP</th>
<th>No. of DPs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 1 year</td>
<td>9</td>
<td>8.26</td>
</tr>
<tr>
<td>2-5 years</td>
<td>29</td>
<td>26.60</td>
</tr>
<tr>
<td>5.1-10 years</td>
<td>48</td>
<td>44.04</td>
</tr>
<tr>
<td>10.1-15 years</td>
<td>17</td>
<td>15.60</td>
</tr>
<tr>
<td>15-20 years</td>
<td>4</td>
<td>3.67</td>
</tr>
<tr>
<td>&gt;20 years</td>
<td>2</td>
<td>1.83</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>100</td>
</tr>
</tbody>
</table>

(Source: Computed on the basis of data obtained from Urban Development and Urban Housing Department (UD & UHD), Government of Gujarat)

- Out of the total 131 DPs, 109 DPs came up for revision.
- More than 60% of the DPs have taken more than 5 years for a revision (unregulated development)

Some of the reasons for the above situation are easy to discern:

1. **Time periods allowed for preparing, sanctioning and revising development plans are too long**

   The GTPUDA defines procedures that development authorities have to follow for preparing development plans and the state government has to follow for sanctioning plans. Maximum time periods allowed for various steps in the procedures are also
prescribed. The Act also defines the period after which a plan has to be revised. There are three problems with these prescriptions:

1) Time limits prescribed for the planning and sanctioning process are too long. If one adds up all the time available between commencement and sanctioning of a plan it is six and a half years.
2) The state government has been provided with wide powers to extend time limits for planning and sanctioning plans. Over the past few decades these powers have been liberally used. As a consequence of both of the foregoing, for many urban areas, the duration between commencement and final sanction of the principal plan has extended beyond the period after which a revised plan has been mandated by the Act! The two tables above illustrate the foregoing.
3) The period after which a revision of the development plan has been mandated in the GTPUDA – ten years – is too long. This observation does not require much justification. It should be clear that in the present context of rapid urbanization and technological change it is imperative that a comprehensive assessment of the city be made more often than once every ten years and that full use be made of modern technology to enable this.

2. The manner in which the state government reviews and sanctions development plans (and variations to development plans) increases government’s work load, impedes planning and discourages the development of local capacities.

State government reviews, both procedural and substantial aspects of a plan. Its manner of reviewing development plans has evolved over time to be a fairly detailed scrutiny of draft plan proposals prepared by development authorities, suggestion of specific changes and following up to ensure compliance. Typically, a plan prepared by a development authority is first reviewed when the draft development plan has been submitted to the state government under provisions of Section 16 of the Act. The state government can of course accept the plan as is or reject it outright and demand a new draft plan. More often however, modifications (based on technical and/or political considerations) are suggested. If the development authority does not agree with the modifications, the state government reserves the right to modify the plan by itself, to solicit the mandatory public objections and suggestions and to thereafter sanction the plan in the manner that it sees fit.

The manner, in which it is undertaken, then, makes reviewing and sanctioning plans a lot of work. The work load has also steadily increased with the number of development authorities increasing. Today 131 development authorities are required to periodically revise their plans and all revised plans have to be sanctioned by the state government. As discussed in more detail below, capacity of state government to undertake this work has not kept pace. The increased load, the lack of technical and institutional capacity and the manner in which plans are reviewed and sanctioned have all made the state government review and sanctioning process formidable impedance to the urban planning process.

3. Planning capacity in Development Authorities, State Government and the Private Sector is inadequate.

At present only constituted UDAs have separate planning divisions which are responsible for preparing their own development plans and town planning schemes, for
the rest of the constituted ADAs and designated ADAs, the TPVD (branch offices) provides the technical support to prepare development plans and town planning schemes. In TPVD, quite a few sanctioned posts are vacant, these are not filled in view of the measures to reduce establishment costs. This results in multiple allocation of tasks and no clear allocation of responsibility—officers are involved in everything ranging from valuation, dealing with legal queries, preparing DPs/TPSs, serving as TPOs, election duties etc and holding of additional charges which severely constraints the capacity of the staff to keep pace with the task of preparing DPs and TPS in time. Within the UDAs the higher level staff is deputed from the TPVD, however middle and lower level position are usually appointed by the Authority and supported considerably by staff hired on temporary/contractual basis from the private sector.

Gujarat is at the forefront in using private-sector capacities to augment government capacity to undertake statutory planning. Unfortunately however, on account of such initiative being of very recent origin, private sector capacities have not significantly developed.

4. The lack of a land acquisition mechanism within GTPUDA impedes the implementation of proposals which require compulsory purchase of land.

The GTPUDA stipulates use of the Acquisition Act or the use of the TPS mechanism for compulsory acquisition of land. The use of the Acquisition act requires the Development Authority to rely on the Revenue Department for effecting an acquisition. The TPS mechanism, while it is very effective for simultaneously appropriating and reconstituting land, is a cumbersome for focused appropriations of land. The lack of a land acquisition mechanism within GTPUDA impedes the implementation of Development Plan Proposals that require focused appropriations.

On account of the foregoing, most of the urban areas have expanded while the plans are still under preparation or approval. The consequences are un-regulated construction, inadequate and incomplete networks, late or ad hoc provision of services etc. The DP process as such does not affect the TPS process as the GTPUDA empowers the development authority to prepare a TPS in the absence of a DP.

3 Status of the Town Planning Schemes

<table>
<thead>
<tr>
<th>No.</th>
<th>Status of TPSs in Gujarat</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Decision to Prepare TPS (consultation)</td>
<td>1</td>
<td>0.15</td>
</tr>
<tr>
<td>2</td>
<td>Preparation of Draft TPS (Declaration of intention, Owners’ meeting, Publication, Draft Submission to SG)</td>
<td>143</td>
<td>21.50</td>
</tr>
<tr>
<td>3</td>
<td>Sanction of Draft TPS</td>
<td>17</td>
<td>2.56</td>
</tr>
<tr>
<td>4</td>
<td>Appointment/Entry of TPO</td>
<td>191</td>
<td>28.72</td>
</tr>
<tr>
<td>5</td>
<td>Preparation of Preliminary TPS</td>
<td>31</td>
<td>4.66</td>
</tr>
<tr>
<td>6</td>
<td>Sanction of Preliminary TPS</td>
<td>25</td>
<td>3.76</td>
</tr>
<tr>
<td>7</td>
<td>Preparation of Final TPS</td>
<td>43</td>
<td>6.47</td>
</tr>
<tr>
<td>8</td>
<td>Sanction of Final TPS</td>
<td>207</td>
<td>31.13</td>
</tr>
<tr>
<td>9</td>
<td>No information / Data not available</td>
<td>7</td>
<td>1.05</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>665</td>
<td>100</td>
</tr>
</tbody>
</table>
The various stages identified in the table represent the statutory milestones in the preparation and implementation of the TPS.

- Out of the total 665 TPS commenced since the enactment of the 1915 Act, only 207 or about 31% have been completed.
- Majority of them are under preparation and at a stage where a TPO has been appointed or has taken over the TPS.

**Table 8: Status of Town Planning Schemes in Ahmedabad**

<table>
<thead>
<tr>
<th>No.</th>
<th>Status of TPSs in Ahmedabad</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Decision to Prepare TPS (consultation)</td>
<td>1</td>
<td>0.39</td>
</tr>
<tr>
<td>2</td>
<td>Preparation of Draft TPS (Declaration of intention, Owners meeting, Publication, Draft Submission to SG)</td>
<td>64</td>
<td>25.20</td>
</tr>
<tr>
<td>3</td>
<td>Sanction of Draft TPS</td>
<td>13</td>
<td>5.12</td>
</tr>
<tr>
<td>4</td>
<td>Appointment/Entry of TPO</td>
<td>80</td>
<td>31.50</td>
</tr>
<tr>
<td>5</td>
<td>Preparation of Preliminary TPS</td>
<td>13</td>
<td>5.12</td>
</tr>
<tr>
<td>6</td>
<td>Sanction of Preliminary TPS</td>
<td>8</td>
<td>3.15</td>
</tr>
<tr>
<td>7</td>
<td>Preparation of Final TPS</td>
<td>7</td>
<td>2.76</td>
</tr>
<tr>
<td>8</td>
<td>Sanction of Final TPS</td>
<td>66</td>
<td>25.98</td>
</tr>
<tr>
<td>9</td>
<td>No information / Data not available</td>
<td>2</td>
<td>0.79</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>254</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: No information / Data not available category includes schemes for which no information on dates was available, but they have been prepared
(Source: Computed on the basis of data obtained from Urban Development and Urban Housing Department (UD & UHD), Government of Gujarat)

- Off the total 665 TPS prepared in Gujarat 254 (38%) are prepared for Ahmedabad.
- Out of the total 254 TPS commenced since the enactment of the 1915 Act, only 66 or about 26% have been finalized.
- Several of them are under preparation and at a stage where a TPO has been appointed or has taken over the draft TPS.

The data clearly indicates that the mechanism has been more extensively used in Ahmedabad and not so much in Gujarat. Ahmedabad accounts of 35 % of urban population and approximately 20% of the ‘urban’ area.

**4 Time taken to prepare Town Planning Schemes**

From the pool of TPS that were completed or finalized an analysis of the time taken to finalize these is done – which is from the date of declaration of intention to sanction of the final TPS by the State Government.

**Table 9: Time taken to Finalize Town Planning Schemes in Gujarat**

<table>
<thead>
<tr>
<th>Final T P Scheme prepared in</th>
<th>No. of T P Schemes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 year 1 month</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>4 years 2 months – 10 years</td>
<td>29</td>
<td>14.22</td>
</tr>
</tbody>
</table>
- 86% of the TPS have taken more than 10 years to finalize.

Table 10: Time taken to Finalize Town Planning Schemes in Ahmedabad

<table>
<thead>
<tr>
<th>Final T P Scheme prepared in</th>
<th>No. of T P Schemes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 year 1 month</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 years 2 months – 10 years</td>
<td>2</td>
<td>3.17</td>
</tr>
<tr>
<td>10 years 1 month – 15 years</td>
<td>14</td>
<td>22.22</td>
</tr>
<tr>
<td>15 years 1 month – 20 years</td>
<td>11</td>
<td>17.46</td>
</tr>
<tr>
<td>&gt; 20 years 1 month</td>
<td>7</td>
<td>11.11</td>
</tr>
<tr>
<td>Data not available</td>
<td>29</td>
<td>46.03</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Data not available category includes schemes for which the start date of the scheme is not available (Source: Computed on the basis of data obtained from Urban Development and Urban Housing Department (UD & UHD), Government of Gujarat)

- 97% of the TPS have taken more than 10 years to finalize.

The timelines to prepare a development plan as prescribed in the Act are also given for comparison:
Table 11: Timelines Prescribed in the GTPUDA to Prepare Town Planning Schemes

<table>
<thead>
<tr>
<th>No.</th>
<th>Stages</th>
<th>Time Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Declaration of Intention under Section 41 (1) to Publication of Draft TPS under Section 42 (1)</td>
<td>9 months&lt;br&gt;This time can be extended by another 3 months&lt;br&gt;This period is specified in the Act (Section 42 (1))</td>
</tr>
<tr>
<td>2</td>
<td>Publication of Draft TPS under Section 42 (1) to Suggestion / Objection from the public under Section 47</td>
<td>1 month&lt;br&gt;This period is specified in the Act (Section 47)</td>
</tr>
<tr>
<td>3</td>
<td>Publication of Draft TPS under Section 42 (1) to Submission of draft TPS to SG under Section 48 (1)</td>
<td>3 months&lt;br&gt;(this includes the 1 month above)&lt;br&gt;This period is specified in the Act (Section 48 (1))</td>
</tr>
<tr>
<td>4</td>
<td>Submission of draft TPS to SG under Section 48 (1) to Sanction of Draft TPS by SG under Section 48 (2)</td>
<td>3 months&lt;br&gt;This period is specified in the Act (Section 48 (2))&lt;br&gt;In practice SG may take longer</td>
</tr>
<tr>
<td>5</td>
<td>Sanction of Draft TPS by SG under section 48 (2) to Appointment of TPO under section 50</td>
<td>1 month&lt;br&gt;This period is specified in the Act (Section 50 (1))&lt;br&gt;In practice SG may take longer</td>
</tr>
<tr>
<td>6</td>
<td>Appointment of TPO under section 50 to Preparing the Preliminary &amp; Final Scheme under Section 51 and submitting the Final Scheme under Section 52 (2) to the SG</td>
<td>12 months&lt;br&gt;This time can be extended by 9 months and then again by another 6 months. This adds up to a total of 27 months.&lt;br&gt;This period is specified in the Act (Section 51)</td>
</tr>
<tr>
<td>7</td>
<td>Submission of Preliminary Scheme to SG for sanction under section 52 (2) to Sanction of Preliminary Scheme by SG under section 65 (1) (a)</td>
<td>2 months&lt;br&gt;This time is included in the above 27 months.&lt;br&gt;This period is specified in the Act (Section 65 (1) (a))&lt;br&gt;In practice SG may take longer</td>
</tr>
<tr>
<td>8</td>
<td>Submission of Final Scheme to SG for sanction under section 52 (2) To Sanction of Final Scheme by SG under section 65 (1) (b)</td>
<td>3 months&lt;br&gt;This time is in addition to the above 27 months.&lt;br&gt;This period is specified in the Act (Section 65 (1) (b))&lt;br&gt;In practice SG may take longer</td>
</tr>
<tr>
<td></td>
<td>Total maximum time</td>
<td>49 MONTHS&lt;br&gt;4 years and 1 month</td>
</tr>
</tbody>
</table>

(Source: Streamlining Urban Planning and Land Management in Gujarat, EPC.)

The reasons for the above situation are dealt in Section 5 and 6.)
4 Supply of Land for Development

4.1 Routes for Supply of Land for Development in Gujarat

The DP-TPS mechanism prescribed in the GPTUDA 1976 is the predominant method for supply of serviced land for development in Gujarat; however it is not the only one. There are various methods or routes for supply of land for development and ensuring provision of infrastructure, space for public amenities and open space. The predominant routes practiced in Gujarat are listed below:

1. The DP – TPS Route
2. The District Development Officer (DDO) Route
3. The Redevelopment Route
4. The Township Route
5. The Special Act Route
6. The Unregulated Route

In this section each of the routes is reviewed briefly: beginning with an overview; followed by a process chart that shows the various steps involved the transformation of agricultural land holdings to developed property for use; a description of the various steps and ends with summary of outcomes. In the process chart, the agencies involved in or responsible for each step are indicated on the right side.

At the end of the section a comparative overview of all methods is done across parameters of 1) systematic and planned release of land; 2) predictable amount of land released; 3) complexity of the process and minimum time for release of land; 4) costs of development to the owner / developer; 5) responsiveness to the land market.

---

65 The sequence of steps in the process of transformation of land is given in the manner as they should ideally take place. In practice, however some of the steps mentioned may not necessarily follow the same sequence – in between steps can get shuffled depending on the situation.
1 The DP – TPS Route
The DP – TPS route is the traditional route practiced in Gujarat. As the process is already described in detail in Section 3.2, it is not summarized here as the rest of the methods are.

The flow chart below illustrates the various steps in the transformation of land from an agricultural holding to developed property using this route:

![Flow Chart: DP – TPS Route for Supply of Land for Development](image)

The various steps explaining the chart are listed below:

1. **Zoning of land in the development plan**
   The entire land under the limits of the development authority for which the development plan is prepared is ‘zoned’ for development under various uses.

2. **Sanction of the development plan**
   The development authority submits the plan to the State Government for sanction and only after the sanction of the development plan that the land gets opened up for development.

3. **Building of the city level infrastructure**
   With the sanction of the development plan, the authority commences the building of city level infrastructure\(^\text{66}\) – water supply, sewerage, drainage and roads indicated in the development plan.

\(^{66}\) City level infrastructure is the main lines usually laid along major roads determined in the DP. These are usually financed through internal resources of the authority, loans, grants under special projects, issue of bonds etc. Eventually some capital costs are recovered through development charges (net demand) from the TPS.
Detailed area planning – preparation of town planning schemes
The development plan also determines the sequence of the next level of planning which is the preparation of town planning schemes. The authority begins the task of preparing these.

Sanction of town planning scheme
Upon preparing the town planning schemes, the development authority submits these to the State Government for sanction.

Building of neighbourhood level infrastructure
As soon as the draft town planning scheme is sanctioned, the development authority commences the construction of area or neighbourhood level infrastructure\(^{67}\) – roads, water supply, sewerage and drainage.

Preliminary layout / building approval for NA permission
Once the draft town planning scheme is sanctioned by the State Government, the land owners can commence the development on their final plots\(^{68}\). The land owner prepares a preliminary layout / building plan basically indicating the use that he proposes for the development and gets a preliminary approval from the development authority. This is necessary in order to obtain the NA permission (refer step 9).

Plot by plot upgrading of tenure (optional)
In case a plot has any tenure restrictions (of the sort described in Section 2.2) then these have to be lifted. In other words the land has to be converted to free hold tenure status to allow for any non-agricultural development.

Plot by plot grant of NA permission\(^{69}\)
Status of all land by default is ‘agricultural’ and it cannot be put to any other use than agriculture. All urban uses are essentially non-agricultural and in order to allow for non-agricultural uses it must be converted for ‘non-agricultural use’. Hence there is a process defined that allows the conversion of freehold agricultural land and is referred to as NA permission. The NA permission process involves several steps which are more clearly explained in DDO Route. While requesting for this, the land owner must submit the preliminary layout / building approval from the authority (refer step 7).

Purchase of land for development
Developers / individuals purchase land for undertaking development. This step can also happen before tenure conversion and conversion for non-agricultural use.

Plot by plot registering of land transaction and levy of stamp duty
After purchase, the land plot needs to be registered in the new owner’s name along with payment of necessary stamp duty (a form of transaction tax).

Plot by plot updating of cadastre
After the registration process the cadastral records are updated to reflect the new owner’s name. Cadastral records are required to be updated even when there is a change in tenure and or when NA permission is sought on the land parcel.

---

\(^{67}\) Neighbourhood infrastructure too in the beginning is usually financed through internal resources of the authority, loans, grants under special projects, issue of bonds etc. Eventually some capital costs are recovered through development charges (net demand) from the TPS.

\(^{68}\) Plot owners can commence development in the development area at any given point in time as long as the plot falls in one of the developable zones in, however the authority issues he permissions with conditions – requested the owner to leave out 40% of the area which may be appropriated at a later stage when a TPS is prepared in the location.

\(^{69}\) The revenue regulations prescribe that both the lifting of tenure restrictions and NA permission processes have to be obtained parcel by parcel. The land owner can choose to retain them as separate plots or amalgamate them which is another long process again managed by the revenue department. In practice the land owner prefers to commence development right away.
13 Detailed layouts and building designs
The land owner prepares detailed layouts and building designs and submits it to the development authority for approval.

14 Building permission
The development authority issues a building permission, after which the owner commences construction.

15 Construction monitoring
The construction process is periodically monitored by the authority.

16 Building use permission
After the construction is over, the owner / developer seeks building use permission from the authority.

17 Property registration and levy of stamp duty[^70]
Developed property is sold, it is registered in the name of the new owner and the stamp duty is paid.

18 Use of property
New owners begin the use of property.

The DP-TPS is the oldest and the formal route to ensure supply of land for development. It ensures systematic and planned provision of land. The DP – TPS route has zoned a fairly large amount for development (about 10000 sq km, refer Section 5.1) however the systematic conversion of agricultural land holding suitable for urban development which is the preparation of TPS is quite limited (about 1000 sq km, also refer Section 5.1). This route takes a long time for the release of land for development as some of the steps can take years, which poses a serious limitation and gives impetus to the DDO route and Unregulated route.

2 The DDO Office Route
In the DDO route the NA permissions and development permissions are granted by the DDO who is the administrative office at the level of the district. The jurisdiction of the DDO to issue these is outside the limits of a development / urban area. Typically when a developer / owner undertakes development within the limits of a development area he / she has to bear the costs attached with the development which is mainly the infrastructure charges levied by the authority and costs attached to various regulatory approvals and confirmation to development and construction standards prescribed in the general development control regulations attached to the development plan as well. As a consequence of this, there is strong propensity to undertake development just outside the limits of the development authority areas as some of the costs associated with the development would reduce. Apart from residential and commercial developments, industrial developments which are not usually permitted within city limits[^71] also tend to locate close to the city limits to access the city services.

The developers buy land just outside the limits of the development area, prepare layouts and then apply for development permission to the nearest Branch Office of the Town Planning and Valuation Department (TPVD) and ‘NA’ permission to the District Development

[^70]: Registration charges and stamp duty is to be paid every time a property is sold or transacted.
[^71]: For the purpose of promoting and locating industrial development the State has established the Gujarat Industrial Development Corporation (GIDC). GIDC develops industrial estates within the State for industries to locate. However to give boost to the industrial development, industries can also locate in other rural areas provided they obtain NA permission. The BLRC was amended to grant NA permission for industrial activity in Gujarat in 1997.
Officer (DDO) of the District at the Jilla Panchayat. Once both the approvals are obtained, they can commence development.

The flow chart below illustrates the various steps in the transformation of land from an agricultural holding to developed property using this route:

![Flow chart illustrating the DDO Route for Supply of Land for Development](image)

**Figure 15: DDO Route for Supply of Land for Development**

The various steps explaining the chart are listed below:

1. **Developer / owner purchases land**
   Developers / individual owners purchase land for undertaking development outside the authority area limits or the ‘rural’ areas.

2. **Plot by plot registering of land transaction and levy of stamp duty**
   After purchase, the land plot needs to be registered in the new owner’s name along with payment of necessary stamp duty.

3. **Plot by plot upgrading of tenure (optional)**
   In case a plot has any tenure restrictions (of the kind described in Section 2.2) then these have to be lifted, in other words the land has to be converted to free hold tenure status to allow for any non-agricultural development.

4. **Owner / Developer prepares layout and NA application**
   Status of all land by default is ‘agricultural’ and it cannot be put to any other use than agriculture. All urban uses are essentially non-agricultural and in order to allow for non-agricultural uses it must be converted for ‘non-agricultural use’. Hence there is a process defined that allows the conversion of freehold agricultural land and
is referred to as NA permission. The owner / developer prepares the layout and or building design plans and the NA application.

5 **Owner gets the layout / building plans approved by the Branch TPVD Office**
The owner / developer submits the layouts and or building plans to the nearest or relevant Zonal Branch Office\(^2\) of the TPVD that provides the technical support for technical scrutiny to the DDO’s Office. The Branch Office reviews and approves\(^3\) the layout / building plans based on the development control regulations of the nearby development authority (there are no separate regulations framed for this situation).

6 **Owner / Developer submits layout and NA application to DDO**
The NA application and the approved layout are submitted to the District Development Officer, Jilla (District) Panchyat Office. The DDO’s Office runs a check on the land ownership, whether there is a ‘government’ interest in the land (meaning tenure issues) etc.

7 **Other NOCs**
The DDO’s Office / Jilla Panchayat forwards the layouts / building plans to other departments (refer Section 2.2) to review compliance with their regulations and requirements and issue relevant NOCs.

8 **Plot by plot grant of NA permission**
As soon as the DDO’s Office receives the NOCs, it intimates the owner / developer to pay the conversion charges. Upon payment of such charges the DDO Office issues the NA permission.

9 **Plot by plot updating of cadastre**
After the registration process (step 2), tenure change (step 3) the cadastral records are updated to reflect the new owner’s name. Cadastral records are required to be updated again after the NA permission.

10 **Development and construction**
After receiving the NA permission the owner / developer commences construction. The process is very loose from this point onwards – there are no stringent requirements for obtaining building permissions, monitoring of construction or an issue of building use permit.

11 **Property registration and levy of stamp duty**
Developed property is sold, it is registered in the name of the new owner and the stamp duty is paid.

12 **Use of property**
New owners begin the use of property.

The DDO route has always coexisted along the DP – TPS route as it provides a much cheaper alternative for development (upfront costs are much lower). It is also a relatively easy route for development as it has very rudimentary review processes for development approvals. It does not ensure a systematic and planned provision of land like the DP TPS mechanism. Development occurs as large clusters / pockets of development just outside the development authority limits. The development is parcel by parcel and chaotic without any provision of services at the area level. Each parcel owner is responsible for water supply, sewerage etc. Such developments depend on the nearest urban area for amenities but do not

---

\(^2\) There are three Branch Offices in Gujarat – North Gujarat, South Gujarat and Saurashtra

\(^3\) The TPVD gives an ‘opinion’ to the effect that the development confirms with the regulations and can be given a go ahead. The process is not so stringent as compared to when a development authority issues such an opinion.
contribute towards the costs of providing and maintaining these. In that sense in the long term it becomes a more expensive and an unsustainable option.

The DDO route has opened up a large amount of development however it is impossible to estimate this as no systematic date is collated at aggregate levels.

There are several examples of such developments which have occurred and caused problems for the development authorities and local authorities later for both providing services and undertaking some kind of planning. The most highlighted instance in recent times is that of the village of Bopal located on the western periphery of Ahmedabad. Bopal was not a part of the AU DA limits till about 2008 but was just outside and enjoyed very good access to the main city. As a consequence it provided a very viable and cheap alternative for developers to provide residential developments. The area developed extremely fast with quite dense high-rise developments without any planning or provision of infrastructure. The Bopal Gram Panchayat was hardly in a position to monitor the development. The result was chaotic and messy development and upon the directive of Gujarat High Court Bopal was brought into the limits of AU DA and now AU DA faces enormous challenges in planning (it is in the process of preparing a TPS) and providing basic services. Another example of the similar developments is the Changodar industrial developments close to Ahmedabad.

Viramdevsinh Chudasama, the talati of Bopal Gram Panchayat, said: “Bopal was all about constructing high-rise buildings, lavish row houses, and VIP bungalows on cheap land with no roads, water and even electricity available. The village was, of course, not ready with the infrastructure to support that kind of development. The developers constructed the buildings blindly and washed their hands off. They did not even bother to build roads near their own buildings.” (Indian Express, 18 February 2009).

It is very difficult for AU DA to prepare and implement the TPS in an area that is already developed.
3 The Redevelopment Route

This method is a part of the DP TPS route, final plots as determined by the TPS process come up for renewal or redevelopment in the older and more central areas of the city along with growth in the peripheral areas as a regular process of a city’s growth and development. The redevelopment process gets triggered by various circumstances. In most cases these land parcels (in the older areas) were developed under much lower regime of development rights which are defined by the way of floor space index (FSI) or floor area ratio and the current permitted FSI is much higher resulting in underutilization of the development rights. Often the uses become obsolete / derelict; the value of the land has gone up significantly over the value of structures and uses therein etc. In most cases the developers end up assembling a group of such land parcels or in some cases large land parcels, the older developments are torn down and new plans are drawn up.

The flow chart below illustrates the various steps involved in the transformation existing developed land parcels within an urban area using this route:

![Redevelopment Route Flow Chart]

*Figure 16: Redevelopment Route for Supply of Land for Development*

The various steps explaining the chart are listed below:

For example in the 1987 development plan of Ahmedabad the permitted FSI in most areas was 1 and this was raised to 1.8 with an additional purchasable FSI of 0.45 the revised development plan in 2002.
1 Developer purchases / assembles land for redevelopment
The developer identifies parcels with potential for redevelopment and purchases the land.

2 Registering of land transactions and levy of stamp duty
After purchase, the land plot needs to be registered in the new owner’s name along with payment of necessary stamp duty.

3 Amalgamation of plots (optional – either here or later, step 6)
In case of contiguous land parcels the developer at this stage may go in for amalgamation procedure under the BLRC which is a process managed by the revenue department and is time consuming. Instead of this, the developer can undertake the process of amalgamation of land parcels at a later stage through the GTPUDA (step 6) by putting in a proposal for amalgamation to the development authority.

4 Plot by plot grant of NA permission (optional)
If the proposed use of the new development is different from the original use for which NA permission was procured earlier, a new NA permission has to be procured for the proposed use.

5 Plot by plot updating of cadastre
After the registration process the cadastral records are updated to reflect the new owner’s name. Cadastral records are required to be updated even when an NA permission is sought on the land parcel.

6 Amalgamation of plots (optional – either here or earlier, step 3)
In case the developer does not choose to amalgamate the contiguous land parcels via the revenue department, he can undertake the process using the provisions of parcel assembly in the GTPUDA, 1976. He applies for amalgamation permission, pays up the process charges and gets the amalgamation done. There are a few conditions though – for plots to be amalgamated they must fall in the same use zone as prescribed in the DP and the width to depth ratio of the amalgamated plots must not exceed 1:3. The process is necessary to utilize the gross FSI over the entire set of plots to ensure better development otherwise each plot will be treated separately for provisions such as margins, common open spaces etc.

7 Detailed layouts and building designs
The land owner prepares the detailed layouts and designs and submits them to the development authority for approval.

8 Building permission
The authority issues a building permission after which the owner commences construction.

9 Construction monitoring
The construction process is periodically monitored by the authority.

10 Building use permission
After the construction is over, the owner / developer seeks building use permission from the authority.

11 Property registration and levy of stamp duty
Developed property is sold, it is registered in the name of the new owner and the stamp duty is paid.

12 Use of property
New owners begin the use of property.
The Redevelopment route has also coexisted along with the DP-TPS route, although, it has picked up pace recently with the increasing land values in the already developed areas. Redevelopment of existing developed areas is critical in order to increase the supply of built space and contain the sprawl or horizontal expansion of the urban areas which in the long term increases costs of development and is unsustainable. Up until now, it has not been systematically addressed by the development authorities and has been largely driven by the market forces.

The process is messy and time consuming from the developer’s perspective. Usually the parcel sizes in the already developed areas are small and hence the developer has to amalgamate quite a few to get larger footprint development which is more efficient in construction. Amalgamation is also necessary to avail and utilize the FSI in an efficient manner. It becomes profitable only if there is a significant difference between the existing built-up and permissible built-up. Higher densities of development also mean that the infrastructure of the area will be impacted and this becomes a challenge of the local government. At present there are no provisions for the developer contributing towards these and neither does the local government address these issues.

It is impossible to get an estimate of how much land has undergone redevelopment as there is no systematic collation of development permissions issued with details of permissible built up.

This route opens up some amount of land development or built up area and results in a limited amount of built up – the net addition in the built up area is difference between the older development at a lower FSI and the new development at a higher FSI. It is also impossible to rely on such a mechanism unless there is conscious effort made in the policies of the development plan and higher FSI’s are permitted in certain zones or areas to encourage the process of redevelopment and densification. Thus far this is approach of raising the FSI to encourage the redevelopment has been tried out by Mumbai (with a fair degree of success) for areas under slums.

4 The Township Route

Today, with the increased pace of development and higher aspiration levels it has become clear that alternatives to DP-TPS route, DDO route and Redevelopment route are urgently required. There is also a greater willingness to experiment with market mechanisms and to partner with the private sector. On account of this, a number of state governments are announcing ‘Township Policies’. Here, private developers are encouraged to privately assemble agricultural land in the countryside, wherever they think it is viable to develop serviced urban land or land and buildings (‘townships’). Government support is provided in a number of ways. Some states help with land acquisition. Others only promise regulatory support; re-zoning of the land in statutory development plans and quick ‘singe-window’ approvals. Most assist by providing connectivity to existing infrastructure. Developers are expected to privately raise finances and invest in building infrastructure.

---

77 Mumbai has announced slum redevelopment schemes wherein a developer can take up parcels under slums for redevelopment. The developer is allowed to build more or given higher development rights provided he accommodates all the slum residents in new housing units free of cost on the same land parcel. He sells the balance construction to higher income groups which basically finance the entire redevelopment.

78 There is no common statutory definition of a township across states. The Gujarat Township Policy 2009 defines a ‘residential township’ as a land parcel owned by a township developer which 1) has a minimum size of 40 ha in the 7 large urban development authorities and 20 ha in smaller urban areas and 2) 60% of the land after deducting land for public purpose is put under residential use.
and/or buildings. Though, a number of township policies have been announced, considerable confusion continues to prevail and it seems to be too early to say how this mode of land conversion will play out in the long run. Gujarat announced a township policy titled “Regulation for Residential Townships 2009.

The flow chart below illustrates the various steps in the transformation of land from an agricultural holding to developed property:

![Flow Chart: Township Route for Supply of Land for Development](image)

**Figure 17: Township Route for Supply of Land for Development**

The various steps explaining the chart are listed below:

1. **Developer purchases / assembles land**
   The developer identifies an area with a potential for undertaking a township. The developer either buys land parcels outright or engages in formal agreements with the land owners for developing the township.

2. **Registering of land transactions and levy of stamp duty**
   After purchase, the land plot needs to be registered in the new owner’s name along with payment of necessary stamp duty.

3. **Preliminary application to the development authority**
   The developer makes a preliminary application to the development authority to express his interest to undertake the development of a township. The application at this stage comprises of details of land parcels with ownership. The authority does an internal preliminary check with aspects pertaining to the proposals of the

---

79 The policy defines the types and sizes of townships.
development plan. It gives the developer a go ahead to proceed with the preparation of a detailed application and secure the NA permissions.

Plot by plot upgrading of tenure (optional) and

Plot by plot grant of NA permission

After the preliminary go ahead by the authority, the developer begins the task of clearing issues of tenure if applicable and securing the NA permission on all land parcels.

Plot by plot updating of cadastre

After the registration process the cadastral records are updated to reflect the new owner’s name. Cadastral records are required to be updated even when there is a change in tenure and or NA permission is sought on the land parcel.

Plot by plot updating of cadastre

After clarifying ownerships, tenure conversions and NA permissions, the developer submits a formal application to the ‘Prescribed Officer Committee (POC)’ that is prescribed in the Gujarat Township Policy, 2009. This submission consists of the land ownership details and a preliminary master plan to show how the prescribed development norms in the township policy have been complied with, financial structuring of the project and phasing. The Committee reviews the land ownership details, checks for any government lands included, any water bodies, with respect to the DP and compliance with the township policy. The developer is asked to make a presentation to the POC and respond/comply with queries.

Review of the township proposal by the State Screening Committee

The POC recommends the township proposal to the State Screening Committee.

Notification of the township in gazette

Once the SCC approves the notification of the township appears in the Government gazette.

Preparation of detailed master plan by developer

The developer now prepares a detailed master plan and submits it to the authority for approval.

Approval of authority of the detailed master plan

The development authority reviews the detailed master plan with respect to the prescribed norms in the Township Policy 2009 and approves the master plan.

Other approvals

Once the development authority approvers the detailed master plan the developer has to seek other key approvals – environment clearance and forest department clearance before he can commence construction of site infrastructure and site development works approved in the master plan. Some of these such as the public roads and public purpose lands and green spaces have to be handed over to the development authority.

Detailed design of buildings

The developer now prepares detailed building plans and submits it to the authority for approval. These follow the same processes as in the case of a building in a DP area. There are other approvals involved – fire clearances etc.

---

80 The Prescribed Officer Committee consists of the Municipal Commissioner, Chief Executive Authority and Senior Town Planner for the State in case of a UDA. In case of AUDAs there are two other members – STP of the AUDAs and Deputy Municipal Commissioner (urban) of AMC.

81 State Screening Committee comprises of the Principal Secretary (PS) UDD, PS Finance; PS Revenue and OSD.
14 **Building permission**  
The authority issues a building permission after which the developer commences construction.

15 **Construction monitoring**  
The construction process is periodically monitored by the authority.

16 **Building use permission**  
After the construction is over, the owner / developer seeks building use permission from the authority.

17 **Property registration and levy of stamp duty**  
Developed property is sold, it is registered in the name of the new owner and the stamp duty is paid.

18 **Use of property**  
New owners begin the use of property.

The government or public agencies did attempt to manage urban growth by developing new cities (such as Delhi, Gandhinagar, Chandigadh) in past by acquiring large areas but the experiment did not meet with much success, apart from a few cities and industrial townships. The Township Route was proposed as faster alternative to the delivery of serviced land in 2009 by encouraging the private sector to assemble and acquire land for accommodating new growth. However the manner in which the policy was framed and the process was outlined has turned out be more cumbersome and time consuming – the onus of assembling significantly high chunks of land (the policy stipulates minimum land requirements), getting all the clearances from the revenue department and stringent review processes by both the development authority and the State Government. Further the policy has insisted on higher building and planning standards which has raised the costs of development. The only exemption or advantage the policy offered was from zoning – a developer can propose a township in any zone. While there was an initial interest in setting up of townships, very few of them materialized. The table below gives the details of the townships in AUDA limits. Outside of AUDA there is only one township approved in entire Gujarat, which is in Surat and is about 55 ha in area.

**Table 12: Status and Details of Townships in AUDA Limits**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name &amp; Location</th>
<th>Land Area (ha)</th>
<th>BUA proposed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Applewoods, Villages: Sarkhej-Sanathal</td>
<td>51.18</td>
<td>NA</td>
<td>Approved by SG and AUDA Construction ongoing</td>
</tr>
<tr>
<td>2</td>
<td>Sahara, Villages: Shela</td>
<td>42.17</td>
<td></td>
<td>Approved by SG and AUDA TPS being finalized</td>
</tr>
<tr>
<td>3</td>
<td>Godrej, Villages: Jagatpur, Chenpur, Tragad</td>
<td>109.84</td>
<td></td>
<td>Approved by SG and AUDA Construction ongoing</td>
</tr>
<tr>
<td>4</td>
<td>Shantigram, Khoraj, Khodiay, Jaspur, Dantali</td>
<td>249.67</td>
<td></td>
<td>Approved by SG and AUDA Construction ongoing</td>
</tr>
<tr>
<td>5</td>
<td>Arvind 1, Villages: Motibhayan, Khatraj, Vadsar</td>
<td>55.04</td>
<td></td>
<td>Approved by SG and AUDA Construction ongoing</td>
</tr>
<tr>
<td>6</td>
<td>Safal, Villages: Kaneti, Telav</td>
<td>81.54</td>
<td></td>
<td>Approved by SG and AUDA Developer has not submitted the detailed master plan for approval.</td>
</tr>
<tr>
<td></td>
<td>Developer</td>
<td>Villages</td>
<td>Land (acres)</td>
<td>Approval Status</td>
</tr>
<tr>
<td>---</td>
<td>-----------</td>
<td>----------</td>
<td>--------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>7</td>
<td>Ganesh Housing: Smile City 1</td>
<td>Godhavi</td>
<td>183</td>
<td>Approved by SG and AUDA. Developer has not submitted the detailed master plan for approval.</td>
</tr>
<tr>
<td>8</td>
<td>Ganesh Housing: Smile City 2</td>
<td>Godhavi</td>
<td>42.96</td>
<td>Approved by SG and AUDA. Developer has not submitted the master plan for approval.</td>
</tr>
<tr>
<td>9</td>
<td>Arvind 2</td>
<td>Jethlaj, Karoli</td>
<td>96.18</td>
<td>Land ownership not clear. Not approved by AUDA.</td>
</tr>
<tr>
<td>10</td>
<td>Ozone World</td>
<td>Vadsar, Santej</td>
<td>114.75</td>
<td>Land ownership not clear. Not approved by AUDA.</td>
</tr>
<tr>
<td>11</td>
<td>Venus 1, 2, 3</td>
<td>Ognaj, Lapkaman, Ranakpur, Santej</td>
<td>100.05</td>
<td>Land ownership not clear. Not approved by AUDA.</td>
</tr>
<tr>
<td>12</td>
<td>Savvy Unispace</td>
<td>Sanand, Kaneti</td>
<td>43.36</td>
<td>Land ownership not clear. Not approved by AUDA.</td>
</tr>
<tr>
<td>13</td>
<td>Shrinivas Organizers</td>
<td>Santej, Ranakpur</td>
<td>60.15</td>
<td>Land ownership not clear. Not approved by AUDA.</td>
</tr>
<tr>
<td>14</td>
<td>Arvind 3</td>
<td>Nasmed, Adhana</td>
<td>58.73</td>
<td>Awaiting NOCs. Not approved by AUDA.</td>
</tr>
</tbody>
</table>

|   | TOTAL | 1288.62 |

(Source: Ahmedabad Urban Development Authority)

- In all about 13 sq km (18.5 in Gujarat) of land is expected to enter the land market via this route. However of this only about 5 sq km is in process of being realized.
- Most of the developers have slowed down on the proposals.
- In the overall scenario the amount of land anticipated via this route is of no consequence.

5 **The Special Act Route**

Gujarat has been a front runner in terms of industrial development in the country. To boost industrial development the State decided to reinforce its industrial policy from cluster and industrial estates based development to promoting ‘Special Economic Zones (SEZs)’ and ‘Special Industrial Regions (SIRs)’.

**Special Economic Zones (SEZs)**

The Government of India enacted ‘The Special Economic Zones Act’ in June 2005. The Act enables and promotes the creation of areas dedicated to production of goods and services entirely for exports. Several exemptions in terms of taxes and duties on production of goods and services are provided and a clear route for providing approvals and clearances is laid out to speed up the setting up of these. SEZ’s are typically created on demand from the private sector and occasionally promoted by the State Government. The lands for SEZs are either acquired by public agencies or purchased by private enterprises. Clearly being a product of an Act enacted by the Central Government, quite a few approvals are given by the Central Government. At the State level two departments play a seminal role – the industries and the revenue department in terms of granting various clearances.

---

82 Prior to this Gujarat Government had already enacted the SEZ Act in 2004 and 3 SEZs were set up under this.
The flow chart below illustrates the various steps in the transformation of land from an agricultural holding to developed property:

**Figure 18: Special Act Route – SEZs for Supply of Land for Development**

1. **State Government submits a proposal**
   The State Government can initiate the setting up of an SEZ. It prepares and submits a proposal to the Board of Approval set up under the provisions of the SEZ Act 2005 at the Central Government level.

   **OR**

2. **Private developer submits a proposal**
   A private developer initiates the setting up of an SEZ. He prepares and submits a proposal to the State Government (Industries Department).

3. **State Government approval**
   The State Government runs a preliminary check on the proposal submitted by the developer and forwards the proposal to the Board of Approval.

4. **Board of Approval**
   The Board of Approval is a Central Government body comprising of high ranking officials, evaluates the SEZ proposal and approves, suggests modifications or disapproves it.

5. **Letter of Approval**
   As and when the Board of approval clears the proposal, it issues a letter of approval to the State Government or developer.
5 Developer purchases / assembles land
At the first proposal the developer tentatively indicates the land area and location to meet with the size requirements and the program brief. Upon receiving the letter of approval the developer now confirms land ownerships either by outright purchase or by agreements.

6 Plot by plot upgrading of tenure (optional)
In case a plot has any tenure restrictions (of the kind described in Section 2.2) then these have to be lifted, in other words the land has to be converted to free hold tenure status to allow for any non-agricultural development.

7 Plot by plot grant of NA permission
Status of all land by default is ‘agricultural’ and it cannot be put to any other use than agriculture. All urban uses are essentially non-agricultural and in order to allow for non-agricultural uses it must be converted for “non-agricultural use”. Hence there is a process defined that allows the conversion of freehold agricultural land and is referred to as NA permission. The developer submits the layouts (attached with the preliminary proposal to the Board of Approval) and the NA application.

8 Plot by plot registering of land transaction and levy of stamp duty
After purchase, the land plot needs to be registered in the new owner’s name along with payment of necessary stamp duty.

9 Plot by plot updating of cadastre
After the registration process the cadastral records are updated to reflect the new owner’s name. Cadastral records are required to be updated even when there is a change in tenure and or when NA permission is sought on the land parcel.

10 SEZ notification
The developer submits the detailed plans for the SEZ and land ownership confirmation to the Central Government who then notifies the SEZ.

11 Developer prepares plans and applies for construction permits
The developer prepares detailed plans and applies for construction permits to the Department of Industries at the State Government level.

12 Committee of DIC and STP of DA
A committee comprising of the representatives of the District Industries Commissioner (DIC) and the Senior Town Planner (STP) of the nearest development authority reviews these and gives approval.

13 Construction of site and buildings
The developer now commences construction of buildings and infrastructure. Portions of SEZ buildings / facilities may be sold.

14 Property registration and levy of stamp duty
Portions of SEZ buildings / facilities may be sold. Such developed property after sale / purchase needs to be registered in the new owner’s name along with the payment of necessary stamp duty.

15 Use of property
New owners begin the use of property.

The status of the various SEZ proposals in Gujarat is given in the table below:
Table 13: Status and Details of SEZs in Gujarat

<table>
<thead>
<tr>
<th>No.</th>
<th>SEZ Status</th>
<th>Land (sq km)</th>
<th>Total No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Functional (before the 2005 Central Act)</td>
<td>5.07</td>
<td>03</td>
</tr>
<tr>
<td>2</td>
<td>Notified and operational/functional*</td>
<td>98.09</td>
<td>07</td>
</tr>
<tr>
<td>3</td>
<td>Notified</td>
<td>61.14</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Formal approval</td>
<td>77.34</td>
<td>24</td>
</tr>
<tr>
<td>5</td>
<td>In principle approval</td>
<td>52.31</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>TOTAL</td>
<td>293.95</td>
<td>60</td>
</tr>
</tbody>
</table>

* LOA issued by Government of India
(Source: Ahmedabad Urban Development Authority)

- To date, about 10 SEZs are functional in Gujarat extending over about 104 sq km of land area.

Special Investment Regions (SIRs)
The State Government enacted ‘The Gujarat Special Investment Region Act’ in 2009 to provide for establishment, regulation and management of large size investment regions and industrial areas. The planning process and enabling mechanisms are entirely modeled in the GTPUDA, 1976 and the only difference being that a separate (or parallel) institutional structure is created to speed up the process instead of overburdening the institutional framework created in the GTPUDA. A regional development authority is created instead of a development authority; a regional development area is delineated instead of development area and all the approvals are granted by an ‘apex body’ at the state level instead of the Urban Development and Urban Housing Department. This apex body is the Gujarat Industrial Development Board (GIDB). The same two step planning process is prescribed; first a regional development plan is prepared for the regional development area and then town planning schemes are prepared. The SIR Act refers to the respective sections of the GTPUDA to prepare and implement these.

The essential difference between a development area under GTPUDA and a regional development area under the SIR Act is that the area under the SIR Act is predominantly zoned for industrial use (about 50%) and rest of the uses are support and or ancillary uses to the industrial use. SIRs are usually located away from large cities / urban areas and whenever they encompass any developed areas such as village settlements, municipal borough and municipal corporations, all surrounding areas become a part of the SIR except for these local areas and their development is regulated as per the provisions of the regional development plan. In case there is development authority, it ceases to exist.

The flow chart below illustrates the various steps in the transformation of land from an agricultural holding to developed property:
There various steps are same as the DP-TPS route and are not explained again.

The status of the various SIR proposals in Gujarat is given in the table below:

**Table 14: Status of SIRs in Gujarat**

<table>
<thead>
<tr>
<th>No.</th>
<th>SIR</th>
<th>Land (sq km)</th>
<th>Status</th>
</tr>
</thead>
</table>
| 1   | Petroleum Chemical & Petrochemical Investment Region, Bharuch District | 453          | SIR notified  
SIRDA notified  
DDP prepared and submitted for sanction  
TPS under preparation  
Already functional as was set up on existing industries with a view to expand the industrial activity |
| 2   | Dholera                                                             | 879.33       | SIR notified  
RDA notified  
DDP prepared and submitted for sanction  
TPS under preparation |
| 3   | Santalpur, Patan District                                          | 186          | SIR notified  
RDA notification pending |
4 Halol Savli, Vadodara District 123 SIR notified RDA notified DDP under preparation
5 Aliyabet 163 SIR notified RDA notification pending
6 Changodar, Ahmedabad District 319 SIR notification pending with SG
7 Pipavav 147 SIR notification pending with SG
8 Viramgam, Ahmedabad District 190 SIR notification in process
9 Simar 84 SIR notification in process
10 Navlakhi 182 SIR notification in process
11 Anjar 237 SIR notification in process
12 Okha 206 SIR notification in process
TOTAL 3168.33

(Source: Industries Department, Government of Gujarat)

- In all SIRs are proposed over an area of about 3168 sq km in Gujarat.
- To date, only one SIR is partially functional that of PCPIR in Bharuch and another one that of Dholera is under planning.

Both the above routes (SEZs and SIR) are fairly new and a recent introduction. The SEZ route was proposed by the Central Government to promote industrial / economic growth in 2005. However since then Gujarat has seen about 10 functional SEZs over an area of about 104 sq km. The SIR route was proposed by the State Government in 2009 again to promote industrial / economic growth. To date about 4 SIRs are notified covering an area of 1641 sq km. However none of these are fully developed and operational as yet, only the Petroleum Chemical & Petrochemical Investment Region in Bharuch District is partially operational. It is yet to be seen how these play out and how the industrial growth gets promoted especially when the State Government continuous to actively promote industrial development in a major way through the Gujarat Industrial Development Corporation (GIDC). GIDC is acquiring lands and setting up industrial estates within and outside SIRs.

Both these routes ensure a systematic and planned provision of land for industrial growth and adequate supporting development which was not possible in the case of setting up of estates by the GIDC.

6 The Unregulated Route
This refers to all the development that occurs in the DP, TPS and non-urban areas in an ‘unauthorized’ manner or when the owners / developers / encroachers / squatters do not seek any formal approvals or permissions before commencing any development.

This is a frequent occurrence and happens in urban area (development authority areas / municipalities) when the costs of complying with any regulatory process are simply not tenable and the regulatory authorities lack the capacity / resources / political will to check these or penalize any sort of violations which are far too many in number.

In the rural areas the regulatory enforcement institutions and mechanisms are simply too weak or rather elementary – the gram panchayats are not equipped to address such issues as they do not have the staff or resources or capacities.
The unregulated has always been there and is the easiest route for development. Development is parcel by parcel and occurs in an ad hoc manner without any provision of services. Large portions of urban areas especially in the early years developed in this manners and it is not possible to get an estimate of such developments. The authorities typically end up ‘upgrading’ and or ‘regularizing’ such developments in future.

4.2 Comparative Overview of Methods for Land Supply

The comparison is based on observations and the processes involved to get an overall comparative sense of the methods and to gain an understanding the strengths and limitations of each vis a vis each other. The indicators or parameters include:

1. **Systematic and planned release of land**
   The question asked here is whether the method enables the release of land for development in a systematic and planned manner. By systematic and planned manner two things are implied – 1) is the location determined where the land will be released and 2) the timely release of land.

2. **Predictable amount of serviced land released**
   The question asked here is whether the method makes it possible to predict the quantum of serviced land released. Serviced land includes provision of infrastructure, space for public amenities and open spaces (public space).

3. **Complexity of the process and minimum time taken for release of land**
   The question asked here is what is the minimum time taken for the release of land as per the statutory provisions.

4. **Costs of development to the owner / developer**
   The question asked here is, are there costs associated with the development that are borne by the owner / developer. These would be actual costs associated with 1) obtaining NA permissions from the revenue department; 2) processing development permissions from the development / local authority / TPVD; 3) complying with various building and planning regulations framed by the development authority and; 4) paying for infrastructure services to the development authority.

5. **Responsiveness to the land market**
   The question asked here is does or is the method responsive to the signals of the land market that is, does it provide land where there is demand for it. The land price would be the indicator of the demand for land.
Table 15: Comparative Overview of Methods for Supply of Land

<table>
<thead>
<tr>
<th>No.</th>
<th>Method</th>
<th>Systematic and planned release of land</th>
<th>Predictable amount of serviced land released*</th>
<th>Complexity of the process and minimum time taken for release of land</th>
<th>Costs of development to the owner / developer</th>
<th>Responsiveness to the land market</th>
</tr>
</thead>
</table>
| 1   | DP TPS Route| Yes. The location of the land to be released is determined but the time frame is unpredictable. | Yes. About 3000 sq km of and is opened up for developable uses. TPS have been done over about 850 sq km of land. | The process is a long one and involves various steps – first a DP has to be prepared and approved and then the TPS have to be prepared to release serviced land into the market. The minimum time for a DP is 4 years and 6 months and the minimum time for a TPS is 4 years and 1 month. Development permissions can be issued once a DP is in place. Development permissions can also be issued even while the TPS is under preparation. | The following costs are associated with development:  
• NA permission  
• Development permission processing  
• Compliance to building and planning regulations  
• Payment of betterment / infrastructure costs | The DP-TPS route is not exactly responsive to the land market or demand for land. It basically opens up a huge quantum of land in several locations. Some of these may develop rapidly while some areas could develop later or slowly. |
| 2   | DDO Route   | No. Neither the location of land is predictable not is the time. | No. NA permissions are issued on a case by case basis. It is certainly not possible to predict where the next request will come from. It is however possible to estimate the total land released in this manner but no systematic and centralized records are maintained to enable this. | The process is not a long one and fairly simple. An NA application can take anything from 6 months to a year. | The following costs are associated with development:  
• NA permission  
• Development permission processing  
• Compliance to building and planning regulations (not so stringent) | This route is driven by the demand for land for development. It occurs on account of the distortions in the land markets caused by the DP TPS process and it is a cause of it also in a sense as the DP-TPS process takes long this process offers a shorter and less expensive way out. This then reduces the demand for serviced land in the DP TPS areas. |
<table>
<thead>
<tr>
<th>No.</th>
<th>Method</th>
<th>Systematic and planned release of land</th>
<th>Predictable amount of serviced land released*</th>
<th>Complexity of the process and minimum time taken for release of land</th>
<th>Costs of development to the owner / developer</th>
<th>Responsiveness to the land market</th>
</tr>
</thead>
</table>
| 3   | Redevelopment Route     | Yes.                                   | No. Requests for redevelopment at present are driven by the market as the DP's do not follow a policy for targeting areas for redevelopment. No data is separately collated that can give an estimation of the rate of redevelopment. | The process is embedded in the DP-TPS route. The process of land assembly is messy and time consuming. It is complicated as the land parcel in most cases has to undergo the NA permission process and amalgamation process. This can take anything from a year to more. | The following costs are associated with development:  
   - NA permission  
   - Development permission processing  
   - Compliance to building and planning regulations  
   - Payment of betterment / infrastructure costs | This route driven by the demand for land for development. |
| 4   | Township Route          | Yes.                                   | Yes. About 18.5 sq km of land is planned for release of which about 5 sq km is in the process of being realized. | The process is simpler than the DP TPS process in a sense that it combines both and the approvals are obtained in a combined manner. It involves approvals from both the development authority and the State Government. The permission for the townships in the AUDA area have on an average taken 1-2 years. | The following costs are associated with development:  
   - NA permission  
   - Development permission processing  
   - Compliance to building and planning regulations (norms are higher)  
   - Absorbing the infrastructure costs | This route driven by the demand for land for development. It is the developer who judges the demand and makes a proposal to develop a township. |
| 5   | Unregulated Route       | No                                      | No                                             | None as no process is followed                                 | Nil                                           | This route driven by the demand for land for development. |
| 6   | Special Act Route (SEZ and SIR) | Yes  
   SEZ – Both the | Yes. SEZs – About 294 sq | SEZs – The process complicated owing to the fact that both the Central and | The following costs are associated with | SEZ – This route driven by the demand for land |
<table>
<thead>
<tr>
<th>No.</th>
<th>Method</th>
<th>Systematic and planned release of land</th>
<th>Predictable amount of serviced land released*</th>
<th>Complexity of the process and minimum time taken for release of land</th>
<th>Costs of development to the owner / developer</th>
<th>Responsiveness to the land market</th>
</tr>
</thead>
</table>
|     |        | location of the land to be released and the time frame are predictable as it is driven by the private sector. SIR – The location of the land to be released is determined but the time frame is unpredictable | km of land is planned for release of which about 104 sq km is is realized. SIRs – About 3168 sq km of land is planned for release of which about 450 sq km is still in the process of being realized. | State Government approvals are required. It has taken about 8 years to realize 60 SEZ covering about 294 sq km of area. SIRs – The process is same as the DP TPS process. It is difficult to estimate the time but it is already 3 years since work on the first two years has commenced and it will take a while for these to be fully operational. | development:  
  - NA permission  
  - Development permission processing  
  - Compliance to building and planning regulations  
  - Payment of betterment / infrastructure costs | for development. It is the developer who judges the demand and makes a proposal to develop a township. SIR – same as the DP – TPS route. |
4.3 Summary

The DP TPS mechanism emerges as the predominant route for supply of land for development; it is the oldest and has earmarked the release of a fairly large amount of land. It ensures systematic and planned release of land and a predictable amount of land. However the complexity of the process (number of steps); the time it takes and the some of the regulatory costs it imposes have resulted in the emergence of the DDO route and the Unregulated route both of which result in unsustainable development in the long term. Both the methods can be easily curbed by addressing the shortcomings in the DP TPS process (dealt with in Section 5 and 6).

The Redevelopment route presently does not contribute to significant amount of land for development but needs to be promoted to encourage densification of urban areas and avoid sprawl and increased development costs. This can be easily done by adopted differential FSI regime in an urban area. Its use for encouraging renewal of areas under slums can be easily scaled up and it could be more extensively used for renewal of other areas such heritage precincts or dilapidated building stock or derelict uses. It is a part of the DP TPS mechanism and if promoted, would contribute to its efficacy.

The Township route emerged as a market based solution to supply of land along with the DP TPS process but does not seem to have taken off as anticipated owing to a more stringent permission process and resulting in much higher costs of development. This route can also be easily promoted by making the approval processes simpler and not imposing unrealistically high standards of development. This would also strengthen the DP TPS process by meeting the demand in certain areas where the DP TPS mechanism cannot address.

Within the Special Act route, the SIR mechanism is the same as DP TPS mechanism and hence is faced with similar challenges and the SEZ route that depends on large scale acquisition of land is faced with the challenges of acquisition. Since the SEZ is predominantly concerned with the supply of land for economic activity, it may, however, be better to leave it to the market to determine its emergence and success. Both the SIR route and the setting up of GIDC estates in a sense compete with it as far the objective of encouraging economic activity and the only advantage it has is some tax breaks on it being geared for exports.

In summary, in Gujarat, it is clear that arguably far too much land is already released for development, or is in the process of being released for development. The important question is about how to make these methods more effective so that they do not compete and thwart each other but work in a synergistic manner and benefit a broad group of stakeholders and not just a few.
5  Land Readjustment in Urban Gujarat

In this section the TPS experience in Gujarat is reviewed. To begin with, land zoned for development is estimated based on the data available for the development plans. Within the estimate, how much of the land zoned for development is transformed through the TPS mechanism is based on the status of the TPS prepared in Gujarat. This is followed by an enumeration of some of the attributes of the TPS mechanism that make it a successful mechanism when compared with other methods of land development. The section ends with some of the limitations of the TPS mechanism drawing from the data presented in the earlier Sections 3 and 4.

5.1  Land Zoned and Transformed for Urban Development

1  Land Zoned for Development

Typically the entire area under the jurisdiction of a UDA or ADA is not ‘zoned’ for developable uses, a major portion of the surrounding area continues to be zoned for agricultural or ‘non-developable’ uses. The data set used for this study does not provide the breakup of the developable and ‘non-developable’ zones in all the development plans. However based on a review of a few development plans (data for which was available) it is estimated that about 25 to 35% of the land is allocated for developable uses. Taking this at 30%, land zoned for development is estimated.

Table 16: Estimates of Land Zoned for Urban Development in Gujarat

<table>
<thead>
<tr>
<th>No.</th>
<th>Type of urban area</th>
<th>Area (sq km)</th>
<th>Population (Urban) 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Constituted Urban Development Authorities</td>
<td>4689.53</td>
<td>9,674,920</td>
</tr>
<tr>
<td>2</td>
<td>Constituted Area Development Authorities</td>
<td>1880.56</td>
<td>1,914,609</td>
</tr>
<tr>
<td>3</td>
<td>Designated Area Development Authorities</td>
<td>2312.77</td>
<td>5,771,394</td>
</tr>
<tr>
<td>4</td>
<td>Municipalities other than part of UDAs &amp; ADAs</td>
<td>1064.84</td>
<td>1,131,372</td>
</tr>
<tr>
<td>5</td>
<td>Notified Area</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Industrial Notified Areas</td>
<td>32.75</td>
<td>90,754</td>
</tr>
<tr>
<td>7</td>
<td>Total</td>
<td>9980.45</td>
<td>185,83,049</td>
</tr>
</tbody>
</table>

Total Gujarat Area 196024.00 50,671,017
Percentage of Urban Area 5% 37%
Land Zoned for development (30%) of Row 7 2994
Average Per capita land zoned (sq m) 160 sq m

(Source: Computed on the basis of data obtained from Urban Development and Urban Housing Department (UD & UHD), Government of Gujarat)

- About 37% of the State population lives in urban areas which occupy 5% of the land area (entire area under all types of urban areas).
- About 3000 sq km or 30% of land is zoned for developable uses out of a total area of 9980 sq km.
- Average per capita land zoned approximately works out to 160 sq m.

---

83 By developable it is meant that development for different purposes such as residential, industrial, commercial etc, is permitted.
2 Land Transformed through TPS Process

The development plan zones the land for development under various uses, however not all land that is opened up for development is ‘suitable’ for urban uses meaning the land plots are irregular, there is no infrastructure in place and all the land holdings do not have appropriate access. The TPSs are prepared in the areas zoned for development and as a consequence, the land plots are suitably transformed to support urban uses – plots are reconstituted, each plot is given access and infrastructure services are planned.

In this section, how much of the area zoned for developable uses is transformed or serviced through the mechanism of TPS is reviewed. The amount ‘transformed’ is important to note as an indicator of the mechanism’s efficacy.

Table 17: Estimates of Land under Town Planning Schemes in Gujarat

<table>
<thead>
<tr>
<th>No.</th>
<th>Status of TPSs in Gujarat</th>
<th>Total No. of TPS</th>
<th>No. of TPS for Area is available</th>
<th>Area (sq km)</th>
<th>% Area released at each stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Resolution to Prepare TPS</td>
<td>1</td>
<td>1</td>
<td>0.70</td>
<td>0.08</td>
</tr>
<tr>
<td>2</td>
<td>Preparation of Draft TPS (CTP consultation, Owners meeting, Publication, Draft Submission to SG)</td>
<td>143</td>
<td>121</td>
<td>230.11</td>
<td>27.56</td>
</tr>
<tr>
<td>3</td>
<td>Sanction of Draft TPS</td>
<td>17</td>
<td>17</td>
<td>29.28</td>
<td>3.51</td>
</tr>
<tr>
<td>4</td>
<td>Appointment/Entry of TPO</td>
<td>191</td>
<td>189</td>
<td>201.99</td>
<td>24.19</td>
</tr>
<tr>
<td>5</td>
<td>Preparation of Preliminary TPS</td>
<td>31</td>
<td>31</td>
<td>32.51</td>
<td>3.89</td>
</tr>
<tr>
<td>6</td>
<td>Sanction of Preliminary TPS</td>
<td>25</td>
<td>25</td>
<td>27.10</td>
<td>3.25</td>
</tr>
<tr>
<td>7</td>
<td>Preparation of Final TPS</td>
<td>43</td>
<td>43</td>
<td>43.86</td>
<td>5.25</td>
</tr>
<tr>
<td>8</td>
<td>Sanction of Final TPS</td>
<td>207</td>
<td>194</td>
<td>260.41</td>
<td>31.19</td>
</tr>
<tr>
<td>9</td>
<td>No information / Data not available</td>
<td>7</td>
<td>4</td>
<td>8.99</td>
<td>1.08</td>
</tr>
<tr>
<td>10</td>
<td>Total</td>
<td>665</td>
<td>625</td>
<td>834.95</td>
<td>100</td>
</tr>
<tr>
<td>11</td>
<td>Average area under a TPS (835/625)</td>
<td></td>
<td></td>
<td>1.34 sq km</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Total Area under TPS (665 x 1.34)</td>
<td></td>
<td></td>
<td>891 sq km</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Computed on the basis of data obtained from Urban Development and Urban Housing Department (UD & UHD), Government of Gujarat)

- Out of a total area zoned for development that is 3000 sq km, TPS are prepared for about 891 sq km or roughly 30% of the area.

Table 18: Estimates of Land under Town Planning Schemes in Ahmedabad

<table>
<thead>
<tr>
<th>No.</th>
<th>Status of TPSs in Ahmedabad</th>
<th>Total No. of TPS</th>
<th>No. of TPS for Area is available</th>
<th>Area (sq km)</th>
<th>% Area released at each stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Resolution to Prepare TPS</td>
<td>1</td>
<td>1</td>
<td>0.70</td>
<td>0.17</td>
</tr>
<tr>
<td>2</td>
<td>Preparation of Draft TPS (Declaration of Intention, CTP consultation, Owners meeting, Publication, Draft Submission to SG)</td>
<td>64</td>
<td>62</td>
<td>138.12</td>
<td>34.08</td>
</tr>
<tr>
<td>3</td>
<td>Sanction of Draft TPS</td>
<td>13</td>
<td>13</td>
<td>24.96</td>
<td>6.16</td>
</tr>
<tr>
<td>4</td>
<td>Appointment/Entry of TPO</td>
<td>80</td>
<td>80</td>
<td>87.16</td>
<td>21.67</td>
</tr>
<tr>
<td>5</td>
<td>Preparation of Preliminary TPS</td>
<td>13</td>
<td>13</td>
<td>13.53</td>
<td>3.34</td>
</tr>
<tr>
<td>6</td>
<td>Sanction of Preliminary TPS</td>
<td>8</td>
<td>8</td>
<td>10.06</td>
<td>2.48</td>
</tr>
<tr>
<td>7</td>
<td>Preparation of Final TPS</td>
<td>7</td>
<td>7</td>
<td>8.79</td>
<td>2.17</td>
</tr>
<tr>
<td>8</td>
<td>Sanction of Final TPS</td>
<td>66</td>
<td>66</td>
<td>119.56</td>
<td>29.50</td>
</tr>
<tr>
<td>9</td>
<td>No information / Data not available</td>
<td>2</td>
<td>2</td>
<td>2.46</td>
<td>0.61</td>
</tr>
<tr>
<td>10</td>
<td>Total</td>
<td>254</td>
<td>252</td>
<td>405.34</td>
<td>100</td>
</tr>
<tr>
<td>11</td>
<td>Average area under a TPS (405/252)</td>
<td></td>
<td></td>
<td>1.6 sq km</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Total Area under TPS (254 x 1.6)</td>
<td></td>
<td></td>
<td>407 sq km</td>
<td></td>
</tr>
</tbody>
</table>
• In the case of Ahmedabad, TPS are prepared for almost 100% of the area zoned for development. Figure 20 shows the map of Ahmedabad with the TPS boundaries prepared over the years, the entire area zoned for development is proposed to be developed by TPS.

3 Transformation of Land at Various TPS Stages

In this section we review in detail the supply of land or the transformation of land in the TPS process at various stages. This analysis is based on the dates of the various statutory processes and TPS areas. This information is collated at the state level and was updated as a part of the study.

The dates are maintained for the following statutory steps:
1. Consultation with SG
2. Declaration of Intention
3. Owners Meeting
4. Publication
5. Submission of Draft TPS to SG
6. Sanction of Draft TPS
7. Appointment of TPO
8. Entry of TPO
9. Preliminary Award
10. Preliminary Sanction
11. Preliminary in-force
12. Final Award
13. Final Sanction
14. Final in-force

The statutory steps are collapsed into 7 major stages indicated in the table below:

<table>
<thead>
<tr>
<th>No.</th>
<th>Stage in the Graph</th>
<th>Start Date / in between Dates</th>
<th>In between Dates and End Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparation of Draft TPS</td>
<td>Consultation with SG or OR Declaration of Intention (when the consultation date not available. There is usually a difference of 1 to a maximum of 3 months between the two dates)</td>
<td>Declaration of Intention Owners Meeting Publication Submission of Draft TPS to SG</td>
<td>Authority</td>
</tr>
<tr>
<td>2</td>
<td>Scrutiny of Draft TPS</td>
<td>Submission of Draft TPS to SG</td>
<td>Sanction of Draft TPS</td>
<td>SG</td>
</tr>
<tr>
<td>3</td>
<td>Appointment of TPO</td>
<td>Sanction of Draft TPS</td>
<td>Appointment of TPO OR Entry of TPO (when the consultation date not available. There is usually a time lag between the appointment of the TPO by the SG)</td>
<td>SG</td>
</tr>
</tbody>
</table>
and the actual date when he takes charge of the draft TPS. It can range from ……..

<table>
<thead>
<tr>
<th></th>
<th>Preparation of Preliminary TPS</th>
<th>Appointment of TPO OR Entry of TPO</th>
<th>Award of Preliminary TPS</th>
<th>TPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Scrutiny of Preliminary TPS</td>
<td>Award of Preliminary TPS</td>
<td>Preliminary Sanction</td>
<td>SG</td>
</tr>
<tr>
<td>5</td>
<td>Preparation of Final TPS</td>
<td>Preliminary Sanction</td>
<td>Award of Final TPS</td>
<td>TPO</td>
</tr>
<tr>
<td>6</td>
<td>Scrutiny of Final TPS</td>
<td>Award of Final TPS</td>
<td>Final Sanction/ Final in force</td>
<td>SG</td>
</tr>
</tbody>
</table>

A graph (Figure 20) is prepared for each TPS for the various stages it is at. This analysis is possible for all the TPS prepared under the GTPUDA 1976. In both the earlier BTPAs of 1915 and 1954 the stages were different – the draft scheme was followed by the final scheme. Also limited data on dates was available and hence in these TPS only two stages are shown – preparation of draft TPS and finalization of TPS.
Notes:
1. This graph represents the status of TPS under AMC & AUDA jurisdictions.
2. The graph is plotted for 244 TPS out of total 254 due to non-availability of various data for rest of the 10 schemes

Figure 20: Transformation of Land through TPS, Ahmedabad
5.2 Successful Aspects of the TPS Mechanism

At first glance the data suggests that the TPS mechanism appears complicated, tedious, unwieldy, time consuming and difficult to use. Despite all its inherent flaws, however, it has been and remains a very effective planning, infrastructure development, financing and implementation tool in Gujarat.

Furthermore, the legislation has been continuously improved to address the various flaws and constraints to make it more effective. It was after the 1999 amendments to the GPTUDA 1976 (refer Section 3) that the process was considerably revitalized and the pace of preparing TPS went up significantly. This is clear from the Figure 20, a dotted line highlights the year 2000 and there is a sharp rise in the number of TPS being initiated.

This section enumerates important attributes of the TPS mechanism because of which the mechanism works well in Gujarat, is perceived to be fair, equitable and democratic. It also provides valuable important lessons that can inform public policy in other jurisdictions and possibly places.

1 Versatile Tool to address Several Urban Challenges

The most extensive use of the TPS mechanism is to transform the agricultural land holdings at the periphery of the urban area into land that can be utilized for other non-agricultural uses in a more efficient manner. However managing urban expansion in the periphery of cities is only one use to which the TPS mechanism can be put to. The ‘TPS’ mechanism is powerful and well-coordinated statutory tool for simultaneously preparing a detailed land appropriation, land readjustment and infrastructure building plan, a mechanism for financing and implementing the plan and a mechanism for involving landowners in the process. Being a general purpose mechanism, it can and has been used for addressing a variety of urban land appropriation and infrastructure provision problems.

A series of examples are presented in this section that demonstrates the versatility of the mechanism. This creative use of the mechanism is recent and it is one of a kind. It is debatable whether some of these can be replicated or their use can be widely promoted as a norm without really a strong objective anticipated in the development plan.

A Providing infrastructure in peripheral areas / managing peripheral growth,
B Building city wide infrastructure,
C Providing land for Housing the Urban Poor,
D Providing infrastructure in ‘unauthorized developments’,
E Reconstructing and regenerating a historic core, and,
F Consolidating Land for developing and institutional zone.

84 The town planning scheme mechanism or land readjustment is one of the methods to covert agricultural land to serviced urban land. Some other methods include laissez-faire development, laissez-faire with minimal planning, bulk land acquisition and its development by public land development agencies and bulk land acquisition by private players and it development (private townships). These are explained in Ballaney and Patel, 2009.
A Providing Infrastructure in Peripheral Areas / Managing Peripheral Growth

Case Study of Ahmedabad Urban Development Authority, Ahmedabad

Managing the growth in the periphery of cities thus far has been the most extensive application of the TPS mechanism in Gujarat\(^{85}\). Typically the authorities undertake the preparation of the town planning schemes in the new areas zoned for development in their respective development plans. Key tasks involved the preparation of a town planning scheme include (as practiced):

- Delineating an area for preparing a scheme,
- Undertaking a detailed topographical survey of the area,
- Collating the land ownership documents and land tenure status,
- Preparing the base map and area statements,
- Tabulating the ownerships, plot sizes and original land values,
- Marking original land ownerships on map,
- Preparing conceptual plan – determining the road network, reconstituting land plots and appropriating land\(^{86}\) from each, carving out plots for amenities and delineating final plots,
- Designing the area level infrastructure – water supply, sewerage, drainage, street lights,
- Estimating the costs of infrastructure and other costs of implementing the scheme,
- Valuing the final plots,
- Computing the compensation for the land appropriated, estimating land values increases and betterment charges,
- Formally informing landowners of proposed plans in the owners’ meeting,
- Recording their suggestions and objections,
- Empowering TPOs (quasi-judicial officers) for redressing grievances and finalizing the plots, compensation and charges, and,
- Building the physical and social infrastructure.

The entire city of Ahmedabad has been developed using the TPS mechanism since the enactment of the very first Act – the BTPA 1915. The very first TPS was prepared for Jamalpur (an already developed area in the historic core of the city) in 1925 and the first TPS on the western bank of the river was prepared for Ellisbridge area (now a part of the city) in 1945. Figures 17 and 18 show the TPS done over the years under the different Acts – 1915, 1954 and 1976.

---

\(^{85}\) Although the Act does not limit it to this; in fact it clearly mentions that TPS can be done on partially or already developed areas.

\(^{86}\) The term appropriating land is used for obtaining the land contribution from each land owner while reconstituting his / her plot. This could range from 25% to 40% depending on the appropriation policy set by the authority. Compensation is paid on the land appropriated based on the original land value that is before the implementation of the TPS.
Figure 21: TPS in Ahmedabad over the years
(Source: Town Planning Scheme Mechanism, Gujarat, Presentation by Shirley Ballaney at The World Bank, 26-28 April 2012)
Figure 22: TPS in Ahmedabad under various Acts
(Source: Town Planning Mechanism in Gujarat, India, Shirley Ballaney, the World Bank Institute, 2008)

Data for about 103 TPS covering an area of about 154 sq km\(^7\), prepared by AU\(A\) DA for the areas newly zoned or opened up for development in its Development Plan 2002 shows the following:

**Table 20: Land Appropriated in Ahmedabad through TPS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Land appropriated for</th>
<th>Area (sq km)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Roads</td>
<td>21.78</td>
<td>14.2</td>
</tr>
<tr>
<td>2</td>
<td>Public purpose (education, health etc)</td>
<td>1.01</td>
<td>0.70</td>
</tr>
<tr>
<td>3</td>
<td>Affordable housing</td>
<td>4.52</td>
<td>2.90</td>
</tr>
<tr>
<td>4</td>
<td>Land bank / land for sale</td>
<td>12.05</td>
<td>7.80</td>
</tr>
<tr>
<td>5</td>
<td>Public utilities</td>
<td>4.69</td>
<td>3.10</td>
</tr>
<tr>
<td>6</td>
<td>Gardens, open Spaces, playgrounds</td>
<td>4.45</td>
<td>2.90</td>
</tr>
<tr>
<td></td>
<td><strong>Total land with Authority</strong></td>
<td><strong>48.52</strong></td>
<td><strong>31.60</strong></td>
</tr>
<tr>
<td>7</td>
<td>Total land with private owners Area</td>
<td>105.25</td>
<td>68.40</td>
</tr>
</tbody>
</table>

(Source: Ahmedabad Urban Development Authority)

---

\(^7\) This data is as on 2010. Currently AU\(A\) DA has added to this list, however this data could not be collated.
• AUDA has managed in a period of last 10 years prepare and implement 103 TPS covering 154 sq km of newly zoned area for development.
• In process it has painlessly appropriated nearly 32% of land to service this area in terms of physical and social infrastructure.

Ahmedabad’s growth has been managed using the TPS mechanism over the years and a few noteworthy outcomes are:

• Clear and well defined road network pattern that enables efficient movement
  o Ahmedabad has a clear ring and radial road pattern forming grids at regular intervals supported by fairly good density of second level road network. The road network enables efficient movement of traffic and thereby much less levels of congestion are observed.

• Clear and well defined road network pattern that enables equitable access
  o The road network provides fairly good accessibility to all parts of the city irrespective of the socio economic status of the residents.
  o Further owing to adequate right of ways, the road net has been able to support the introduction of Bus Rapid Transit System (BRTS) fairly well. The BRTS system also has improved accessibility to public transport to most parts equitably.

• Efficient and equitable provision of infrastructure of infrastructure
  o A regular and well defined grid road network has enabled efficient provision of basic infrastructure – water supply, sewerage, storm water drainage and street lighting.
  o Good road network density allows adequate and equitable coverage of physical infrastructure.

• Better urban form
  o A regular and well defined grid road network and regular shaped final plots has resulted better urban form.

• Compact urban form
  o Implementation of the TPS have ensured a far more systematic and timely supply of land in Ahmedabad resulting compact development as compared to other large cities such as Bangalore, Hyderabad etc which have developed in a laizze fare manner.

• Land availability for amenities, social infrastructure
  o Land is now available with AUDA to provide for amenities and social infrastructure.
  o More importantly this land available in a well spread or distributed manner across all parts of the city that creates the possibility of equitably covering all areas with social infrastructure.

88 The case of Ahmedabad is cited as an example
89 This observation is based on perceptions, Ahmedabad unlike Mumbai, has several alternate routes to get from one place to another.
B Building City Wide Infrastructure
Case Study of the Sardar Patel Ring Road, Ahmedabad

The Sardar Patel Ring Road was envisaged in Ahmedabad’s Draft DP 2002 to handle increased traffic volumes, segregate the regional and urban traffic, ease congestion on present highways and peripheral roads, provide good infrastructure to support the new growth and support a mass transportation system if required. Figure 23 shows the arterial road network in the DP of Ahmedabad.

![Figure 23: Road Network in the Development Plan 2002, Ahmedabad](source)

The total length of the Ring Road is about 76 km and the right of way is 60 m. To implement a road project of such a scale typically a Development Authority would have to go through the process of land acquisition. The total land to be acquired in this case worked out to approximately 456 ha/ 4.56 sq km. The Ahmedabad Urban Development Authority (AUDA) was responsible for implementing the road as it was outside the Ahmedabad Municipal Corporation (AMC) limits. This was a formidable task as it would not only be very expensive given the land prices in the area, but the whole process of acquisition would be extremely time consuming as it could easily involve over several hundred land owners.
The other impacts of taking the land acquisition approach would be that the affected land owners would be forcibly evicted and the benefit of the project would accrue to the adjacent land owners and not to those evicted.

AUDA instead of taking the conventional approach of land acquisition for the entire length, decided to use a combined approach of using the TPS mechanism and land acquisition. This is because although a major portion of the alignment fell in the developable area or the area zoned for development in the DP wherein it was possible to introduce TPS, there was a stretch of about 13 km that was in the agricultural zone and here compulsory land acquisition was the only way out. By taking such an optimal approach the cost of land acquisition was minimized.

AUDA declared a series of about 47 TPS having a total area of about 91.2 sq km along the alignment of the Ring Road on both the sides of the Ring Road to appropriate land for the Ring Road. Figure 24 shows these. The process of preparing the TPS was initiated as soon as the revised Draft DP was submitted to the State Government in 1999, not waiting its approval. Treating this as a special project the AUDA Chairman and Officials had initiated systematic consultations / meetings with the land owners since the very beginning to ensure their cooperation.

Figure 24: TPS along the Ring Road, Ahmedabad
The draft TPSs were rapidly prepared and land plots on both the sides of the road were reconstituted and land for a 60 m wide road was carved out! Figures 25 and 26 illustrate the process in one of the TPS prepared along the alignment (TPS No. 54 Ognaj). Most of the TPSs were submitted to the State Government by 2006. Usually as per the provisions of the GTPUDA, the Development Authority can get the possession of the roads only after the Draft TPS has been approved by the State Government. However in this particular case, since AUDA had been working closely with the land owners while preparing the TPS and had played a very proactive role in building consensus around the project, it was able to get advance possession of the land required for the Ring Road from the land owners by their 'voluntary consent’ even before the approval of the Draft TPS by the State Government. In this case the land owners were assured that the land that they were contributing would be considered towards their contribution in the TPS and that they would get FPs abutting the Ring Road.

Figure 25: Original Plots, TPS No. 54 Ognaj, Ahmedabad
Figure 26: Final Plots, TPS No. 54 Ognaj, Ahmedabad
(Source: Adapted from Ahmedabad Urban Development Authority)

Table below summarizes the salient features:

**Table 21: Land Details for the SP Ring Road, Ahmedabad**

<table>
<thead>
<tr>
<th>No.</th>
<th>Detail</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total length of the Ring Road</td>
<td>76 km</td>
</tr>
<tr>
<td>2</td>
<td>Length of the Ring Road acquired under the Land Acquisition Act</td>
<td>13 km</td>
</tr>
<tr>
<td>3</td>
<td>Total length of the Ring Road appropriated through the TPS mechanism</td>
<td>63 km</td>
</tr>
<tr>
<td>4</td>
<td>Total No. of TPS</td>
<td>47</td>
</tr>
<tr>
<td>5</td>
<td>Total Area under the TPS</td>
<td>91.2 sq km</td>
</tr>
<tr>
<td>6</td>
<td>Total Area under the Ring Road</td>
<td>4.56 sq km</td>
</tr>
<tr>
<td>7</td>
<td>% area of the Ring Road to the total area under TPS</td>
<td>5%</td>
</tr>
</tbody>
</table>

(Source: Derived from data provided by Ahmedabad Urban Development Authority)
The Ring Road was implemented in 4 years – construction began in 2002 and was completed by 2006, Figure 27 shows the implemented road.

![Sardar Patel Ring Road, Ahmedabad](image)

**Figure 27: Sardar Patel Ring Road, Ahmedabad**

- The example shows that it is possible to realize large scale infrastructure projects envisioned in the development plans through the TPS mechanism.
- A combination of two methods was used very effectively – land readjustment as well as minimal land acquisition.
C Providing Land for Housing the Urban Poor
Case Study of Ahmedabad Urban Development Authority, Ahmedabad
The GTPUDA, 1976 unlike the previous two town planning acts included a provision for allocating up to 10%\(^{90}\) of the total land of the scheme area for the purpose of providing housing for ‘socially and economically backward classes of people’\(^{91}\). This provision ensures that some amount of land is generated to enable the provision of ‘affordable housing’. As can be seen in the table 20 above, about 4.5 sq km of land is generated for this purpose by AUDA in a span of 10 years. The TPS of Prahladnagar was prepared by AUDA as a ‘model scheme’. Of the total area of about 161 ha about 8% or roughly 13 ha of was appropriated for developing low cost housing. AUDA then went on to develop about 5000 units of affordable housing which then it allocated to ‘eligible’ persons through a ‘due process’.

![low income housing in TPS Prahladnagar, Ahmedabad](source: Adapted from Ahmedabad Urban Development Authority)

- Such a provision ensures land for creating affordable housing in high land value neighbourhoods. This is a positive consequence of the provision in the GTPUDA, 1976 of ensuring a certain percentage of land for creating affordable housing in a TPS. Such lands may be developed for creating affordable housing over a period of time.
- More recently such land parcels are being used to relocate people that are dislocated owing to implementation of large scale urban development projects in Ahmedabad

\(^{90}\) The total maximum suggested percentage of appropriations in the GPTUDA, 1976 is 50%.
\(^{91}\) This term is used in the GPTUDA, 1976, Refer Section 3.
D Providing Infrastructure in ‘Unauthorized Developments’
Addressing Informal Contexts
Accommodating Irregular Construction

Case Study of TP Scheme 97 Naroda North, Ahmedabad

Several areas of our cities and towns have already been developed prior to introduction of any planning interventions. It is crucial to provide basic infrastructure services in such areas viz., roads, water supply, drainage and storm water networks. The TPS Mechanism has been extensively used in Ahmedabad in many such situations, primarily to provide basic infrastructure services and levy development charges. An example of one such TPS is TPS No. 97 Naroda North in Ahmedabad.\(^{92}\)

The revenue village of Naroda lies in eastern part of Ahmedabad. It was outside the Ahmedabad Municipal Corporation limits when the two successive DPs were prepared in 1965 and 1976.\(^{93}\) In around early 1970s the Gujarat Industrial Development Corporation (GIDC) established the three major industrial estates of Naroda, Odhav and Vatva encompassing the entire eastern periphery of Ahmedabad. The entire eastern periphery saw development because of the industrial estates. Most of this was ‘unauthorized’ development or had perhaps come about using the DDO route (Refer Section 4). In 1983 the limits of AMC were extended to include the entire periphery. The next Revised DPs were prepared in 1987 and 2002 which included the extended limits. For AMC it was crucial to build some of the major roads indicated in the successive Revised DPs and provide the existing developments with infrastructure such as roads, water supply, drainage and street lights. Several TPS were declared and prepared in the area. One of these, TPS No. 97 Naroda North is illustrated.

The TPS was declared in June 2004, prepared within 13 months and submitted to the State Government for approval in August 2005. The State Government approved it in 30 August 2006. Figure 29 shows the TPS area with the boundary and findings of the topographical survey. It is evident approximately 70% of the area of the TPS was already developed. There were a few access roads which accounted for about 3.6% of the area. The TPS proposals were prepared and as a consequence it was possible to appropriate an additional 18.08% (aside from the 3.6% already under roads) of the total area for more roads and plots for amenities and revenue generation. Figure 30 shows the proposed roads and the plots for amenities and revenue generation. The salient features of the TPS are summarized in the table below:

\(^{92}\) This TPS was prepared by Environmental Planning Collaborative for Ahmedabad Municipal Corporation.  
\(^{93}\) The 1976 DP was prepared under the 1954 BTPA but before it could be published, the 1976 GTPUDA was promulgated. Hence the process was not taken forward but the same DP was Incorporated along with new areas and the next DP was brought in 1987.
Table 22: Key Statistics of TPS Naroda North, Ahmedabad

<table>
<thead>
<tr>
<th>No</th>
<th>Detail</th>
<th>Area (Ha)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total TPS Area</td>
<td>87.45 Ha</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Before the TPS was prepared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Area under original plots</td>
<td>84.30 Ha</td>
<td>96.40</td>
</tr>
<tr>
<td>2</td>
<td>Area under access roads</td>
<td>3.15 Ha</td>
<td>3.60</td>
</tr>
<tr>
<td></td>
<td>After the TPS was prepared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Area under final plots</td>
<td>68.47 Ha</td>
<td>78.32</td>
</tr>
<tr>
<td>2</td>
<td>Area under access roads</td>
<td>8.27 Ha</td>
<td>09.46</td>
</tr>
<tr>
<td>3</td>
<td>Plots for amenities and poor</td>
<td>5.90 Ha</td>
<td>06.75</td>
</tr>
<tr>
<td>4</td>
<td>Plots for revenue generation</td>
<td>4.78 Ha</td>
<td>05.46</td>
</tr>
<tr>
<td>5</td>
<td>Total area under roads and plots for amenities and revenue generation (2+3+4)</td>
<td>18.95 Ha</td>
<td>21.68</td>
</tr>
</tbody>
</table>

(Source: Computed from TPS 97 Naroda North, Ahmedabad, EPC)

Since in this TPS it was not possible to appropriate the usual prescribed 35 to 40% of the land, a higher betterment charge was levied in comparison to the TPSs where usually the amount of land appropriated is usually in the prescribed range.

Figure 29: Topographical Survey and Boundary, TPS 97 Naroda North
(Source: TPS 97 Naroda North, Ahmedabad, EPC)
The TPS is a formal mechanism that has been used in both formal and informal contexts – it has been used to deal with areas that are new and are being formally brought in the process of development (without any development as we saw in the first example) and in areas that have already seen some amount of development in an informal or unauthorized manner.

This TPS is an example of the latter. It is clear that the informal construction is acknowledged and accommodated. The planners did not apply the land appropriation policy very stringently – land to the only extent possible was appropriated and demolition of structures was kept to the minimum – only to the extent of providing the access roads.

The TPS mechanism ends up providing the infrastructure services and lays the framework for ‘formalizing’ the informal development at a later stage through other tools such as acts dealing with regularizing informal / unauthorized areas.
E  Reconstructing and Regenerating a Historic Core

Case Study of the Walled City, Bhuj

Bhuj was established as the capital of Kutch Region in 1549 AD. The early settlement was fortified in 1723 AD. The Walled City also functioned as the regional trade and business center. It is 1 sq km in area and had 5 gates. Growth beyond the fort wall began from 1960’s onwards. Today, Bhuj is the administrative headquarter of Kutch district and continues to function as an important centre for trade & commerce, tourism and traditional handicrafts. According to the 1991 census, approximately 38,600 persons inhabited Walled City. Bhuj Municipality covered an area of about 20 sq km and had a population of 125,000 persons.

On January 2001, Bhuj was devastated by a severe earthquake of magnitude 6.9 on the Richter scale. Most of the buildings and existing public infrastructure such as the roads, sewerage network, water supply network & street lights saw considerable damage. In particular the densely built and populated Walled City was severely affected. Over 7,000 people perished in Bhuj of which the majority died in the Walled City area, as buildings constructed of stone and mud mortar came crashing down on extremely narrow streets. About 40 to 50% of the standing structures were razed to the ground. The lack of an effective street pattern was a major obstacle to disaster management in the earthquake’s aftermath.

The DP – TP mechanism was adopted to facilitate the reconstruction of Bhuj after the earthquake and also plan for a larger area around it as the city had been witnessing growth. The earlier Development Plan (DP) was archaic; it was prepared in 1968 under the 1954 Bombay Town Planning Act and had not been revised since then. A lot of growth had already taken place in the periphery and outside the municipal limits and it was haphazard, without any basic infrastructure services. Post the earthquake, a larger planning area was delineated with a total area of 56 sq km. Bhuj Area Development Authority was established and a comprehensive DP was prepared within a span of 6 months. This then became the framework for building a brand new road networks and infrastructure. The planning process was far participatory than the regular DP TPS process, involving over a 100 consultations and ward meetings.

In case of the Walled City the situation was quite complex, a lot of buildings had collapsed as the building stock was old and densely built. The infrastructure also had been almost totally damaged. There was a clear consensus that the Walled City needed to be drastically improved. The key requirement was to enhance safety and enable effective disaster management. For this was necessary to make the street network more efficient and create more open spaces. The existing street network was full of bottlenecks. There were two options:

94 Environmental Planning Collaborative (EPC), Ahmedabad were appointed at Town Planning Consultants; the entire task of planning, reconstruction and rebuilding of Bhuj was supported by the Asian Development Bank and the nodal agency to manage the assignment was the Gujarat Urban Development Company (GUDC), Gandhinagar.
95 The preparation of the Bhuj DP and TPSs is an exceptional example in terms public participation as the contract executed between GUDC and EPC had mandated additional public consultations than what is specified in the GPTUDA, 1976.
Option 1 Widen existing main streets: This would have meant demolition of large numbers of standing buildings, particularly the thriving market streets that survived the earthquake. It would have resulted in massive displacement of people and businesses which drive Bhuj’s economy.

Option 2 Create new streets using space created by collapsed buildings: The second option was clearly the better one not only from the economy point of view but also from a practical implementation point of view. The DP published in September 2001 proposed that a set of new wide loop roads be created utilizing patches of open land created by collapsed buildings. These roads would give access to the markets and the entire walled city, while the market streets could be converted into pedestrian areas. This approach was endorsed by all stakeholders from the general public in Bhuj to the officials.

There were three options again for realizing the proposed plan:

1. Putting in ‘road widening lines’ in the DP and hoping that the roads will be created over many years when buildings are rebuilt.
2. Acquiring the land and buildings coming in the major road alignments through the land acquisition process (leaving the rest of the Walled City as it is).
3. Reorganizing all the open plots using the TPS process, improving the plot layout and also creating the new streets.

Since urban renewal in such a complex situation had never been attempted before in India and perhaps rarely in the world, it was a difficult decision for the State Government to take. Having evaluated all options, it was decided that the TPS option as it would create an overall improvement and at the same time, spread the burden of land/property loss evenly over all affected properties. Displacement would be minimized.

Preparing TPSs in the Walled City was quite a formidable task – there were about 12000 land holdings in an area of 1 sq km, the plot sizes ranged from 5 sq m to over 500 sq m and the land records were in a mess. Using the municipal ward boundaries, the entire Walled City was divided into 8 TPSs which would make each TPS a manageable design unit, Figure 31 shows the TPS boundaries.
In the case of the Walled City of Bhuj, in order to ensure equity and taking the practical situation into consideration – the earthquake had caused hardship, the following deduction policy was adopted:

<table>
<thead>
<tr>
<th>No.</th>
<th>Plot Size Range</th>
<th>% Deduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plots less than 30 sq m</td>
<td>no deduction</td>
</tr>
<tr>
<td>2</td>
<td>30 sq m to 100 sq m</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>100 sq m to 200 sq m</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>200 sq m to 500 sq m</td>
<td>30%</td>
</tr>
<tr>
<td>5</td>
<td>More than 500 sq m</td>
<td>35%</td>
</tr>
</tbody>
</table>

It was decided that standing buildings would be spared from deduction unless they were affected by proposed road alignments. Against every Original Plot a Final Plot is allotted after deduction as per policy. The ownership rights associated with the Original Plot are transferred into the Final Plot. Figures 32 and 33 show the Original Plot and Final Plot plans for one of the eight TPSs that were prepared.
This example demonstrates the use of the TPS mechanism in a post disaster situation to facilitate the rebuilding and reconstruction of an entire historic core. The entire walled city was re-planned and rebuilt to be more disaster resilient in future. The extent of access was improved and the amount of open space was increased.

New roads and infrastructure\(^{96}\) were provided and entire urban fabric was re-knit in a manner that made the area much more resilient in case or eventuality of another disaster.

\(^{96}\) The infrastructure investments were financed by the Government of Gujarat initially funded by a loan provided by the ADB. GUDC procured infrastructure design consultants after the work of the town planning consultants was over to undertake detailed infrastructure design and implement the infrastructure works.
F Consolidating Land for Developing an Institutional Zone

Case Study of TP Schemes 19 and 20, Gandhinagar

In 2005, the State Government intended to create an “institutional enclave” or a special zone to bring together a host of public / semi-public institutions such as Institute of Seismological Research, Gujarat Institute for Disaster Management, Gujarat Energy Research and Management Institute & its Convention Center (now known as Pandit Deen Dayal Petroleum University) etc., between Ahmedabad and Gandhinagar along the highway connecting the two cities. The possible location was in and around the villages of Koba, Raysan and Randesan situated within the Gandhinagar Area Development Authority (GUDA) Area. Figure 34 indicates this.
There were several land plots belonging to the State Government in the area and it was proposed to allot these to the various institutions that needed land to establish their campuses. However it was soon realized that there were two issues. First the Government plots were not contiguous and had irregular shapes. Further, the amount of available land was not adequate for the agglomeration of institutions of public importance that was being envisaged. Second, it was also necessary to give appropriate access to each institution from the highway connecting Ahmedabad and Gandhinagar. Figure 35 illustrates the situation.

To address these issues, the use of the TPS mechanism was proposed, the idea was to consolidate the Government lands as well as to augment additional land requirements by earmarking the plots that would be appropriated for revenue generation in the TPS for the use of institutions. Initially there only one TPS was envisaged – TPS 19 Raysan – Randesan in the area but as the task of preparing this proceeded, a second TPS – TPS 20 Koba was immediately declared to scale up the idea and create an ‘Institutional Zone.”97.

Through the process of the TPS a fairly large “Institutional Zone” of about 150 ha is created to house several public institutions. Both the TPS were prepared and implemented rapidly; construction of some of institutions is already underway. The following table gives the details and the Figure 36 illustrates the outcomes.

---

97 Both TPS 19 and 20 were prepared by EPC Development Planning and Management Pvt. Ltd for the Gandhinagar Urban Development Authority.
Table 24: Institutional Zone Land Details, Koba, Gandhinagar

<table>
<thead>
<tr>
<th>No.</th>
<th>TPS Name</th>
<th>Area (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>TPS 19 Raysan – Randesan</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Total TPS Area</td>
<td>263.62 Ha</td>
</tr>
<tr>
<td>2</td>
<td>Government Land in the TPS Area</td>
<td>17.53 Ha</td>
</tr>
<tr>
<td>3</td>
<td>Plots appropriated for Institutions in the TPS Area</td>
<td>38.50 Ha</td>
</tr>
<tr>
<td></td>
<td><strong>Total appropriation for Institutions</strong></td>
<td><strong>56.03 Ha</strong></td>
</tr>
<tr>
<td>B</td>
<td>TPS 20 Koba</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Total TPS Area</td>
<td>186.35 Ha</td>
</tr>
<tr>
<td>2</td>
<td>Government Land in the TPS Area</td>
<td>74.86 Ha</td>
</tr>
<tr>
<td>3</td>
<td>Plots appropriated for Institutions in the TPS Area</td>
<td>20.00 Ha</td>
</tr>
<tr>
<td></td>
<td><strong>Total appropriation for Institutions</strong></td>
<td><strong>94.86 Ha</strong></td>
</tr>
<tr>
<td>C</td>
<td>TOTAL LAND FOR INSTITUTIONS</td>
<td>150.89 Ha</td>
</tr>
</tbody>
</table>

(Source: Computed from TPS 19 and 20, Gandhinagar, EPCDPM)
2  Simultaneous Techno Legal Tool for City Planning, Financing and Implementing

The TP mechanism is simultaneously a technical and legal mechanism. Using it requires paying attention to, both, technical issues such as engineering, finance and urban design.

The TPS mechanism enables all of the following three tasks:

1. Planning
   - The DP – TPS mechanism promotes and enables the development authority to think and plan at both, the macro and micro level. The DP –TP mechanism requires planners to think at a city wide level and then allows them to undertake very detailed planning.
   - The DP-TPS mechanism is spatial planning tool that promotes a comprehensive approach. When developing a spatial plan, a planner is forced to simultaneously deal with all the complexities of an urban area—roads, variety land uses, buildings, infrastructure, traffic, rights of way, and so on. Thinking in a sector based engineering fashion in the urban context and not anticipating how one piece of infrastructure is linked with the rest and how all the infrastructure connects with living environments in an area, is often the main reason why projects fail.

2. Financing
   - TPS mechanism allows for raising finances for providing basic infrastructure services by the way of levying betterment and creating assets in the form of land.
   - Betterment
     - The computation of these is linked to the costs of providing infrastructure in the TPS area. Typically all costs of infrastructure and some administrative costs associated with preparing the TPS are calculated and then are spread over all the final plots.
   - Land Bank
     - Up to about 10% of the total area of the TPS can be appropriated for creating a land bank for the development authority.
     - The development authority can accumulate a significant asset base (refer Table 20).
     - Such plots sell at a higher price than the market as there is a premium attached to these – such plots come with clear titles, are fairly large, better shaped and better located.

3. Implementing
   - TPS mechanism as in GTPUDA, 1976 makes possible coordination across an array of very different tasks under single legislation.
   - Although in the absence of such a mechanism / legislation, many of the tasks can be accomplished using various existing legislations. Private property can be acquired using the Land Acquisition Act. Land for low income housing can be acquired using the Land Ceiling Act. Municipal legislation allows the levying of betterment charges. Revenue laws specify mechanisms for reordering property holdings.
   - However, it would be extremely difficult to work with such disparate laws. A number of different authorities and departments would have to work in tandem while being governed by different government departments and different legal clocks. Also many of these legislations are widely considered to be clumsy, outdated, impractical and unfair.
Solving complex urban problems requires a single legal mechanism, under a single control, working towards a single objective such as the GTPUDA.

3 Flexible Tool that Enables Computation of and Allocation of Costs and Benefits in a Rational and Transparent manner

- The TPS mechanism is structured in a manner that provides tremendous flexibility in the allocation of costs and benefits.
- The F form or the land valuation and distribution statement is the master statement (table) which enables this process in a fairly rational and logical manner.
- Most importantly it is accessible to all the land owners making the process entirely transparent.
- The F form tabulates to begin with all the owners in a sequence along with the details of the land parcels – number, area, rights, tenure status. Next to it the original land values are tabulated and the value of the original land parcel is entered. This is followed by the details of the final land parcels namely size and final land values. The final land values take into account several factors such as original values, location of final plot, zoning, shape of the plot etc. Then the increase in the land value or the increment is computed for each land parcel. The compensation to be paid for the land appropriated is computed. The net demand to be levied on each land owner is increment minus the land compensation to be paid.
- In the F form all land owners are brought on a single decision making platform. Once prepared it enables the planner to allocate costs and benefits in a rational, logical manner – for example in case of land owners making differential contributions to the land for the authority, the F form allows for levying a larger betterment on a land owner who contributes less land (owing to certain circumstances) versus a land owner who contributes the maximum land as per the policy. Or in another example differences in land values get accounted for in the F form or for that matter locational advantages could be factored etc.
- All the reasons for making decisions are documented in writing. In summary costs and benefits can be valued and allocated in the form of land, location, money or development rights.
**Figure 37: F Form or the Land Valuation and Distribution Table**
4 Inexpensive Tool for achieving a Variety of Tasks

- The TPS mechanism is relatively inexpensive for planning if one compares it with the other formal methods of land supply. For example, the cost of acquiring land to provide for physical and social infrastructure by the planning authority is reduced to zero as land is appropriated from each land owner as each plot is reconstituted. Further, other costs such as for providing the infrastructure and the administrative and technical surveys costs for preparing TPS can be easily realized from the increments in the land value that accrue to the land owners owing to the implementation of the TPS. The Development Authority can also be simply a ‘no-profit-no-loss’ facilitator. Finally, all that is required is a pool of skilled planners with the development authority.

5 Consensus Building Tool - Promoting Participation and Collective Action

- At a broad level, the TPS mechanism is simultaneously a technical and a governance mechanism paying attention to, both, technical issues such as engineering, finance and urban design and governance issues, such as consensus building amongst land owners on the proposals, deliberative decision making to ensure equity and collective action, and redressing grievances.

- The process as defined in the GTPUDA is geared towards promoting participation and collective action of the stakeholders.

- Once the TPS is given the CTP consultation, a public notice is issued by the development authority in the newspapers that announces the ‘declaration of intention’ by the development authority to prepare the TPS. At this stage anybody who may or may not have a direct relationship with the land parcels may raise objections or give suggestions towards the preparation of the TPS.

- When a draft TPS is ready, the development authority announces the ‘owners meeting’ through a public notice in the newspapers. Again at this stage anybody who may or may not have a direct relationship with the land parcels may raise objections or give suggestions towards modifying the proposals suitably.

- Once the draft TPS is approved by the State Government and the TPO takes over the TPS, the process gets limited to the stake holders who have a direct relationship with the land parcels as owners or lessees. The mechanism offers a redress platform to the land owners at several stages in the process till the end. If the owner is not satisfied with the proposals even after the TPS has been finalized by the TPO, a Board of Appeal is constituted where such cases are addressed. The land owner can go to the court of law if he / she is not satisfied with the decision of Board of Appeal.

- On the whole the TPS mechanism promotes participation and collective action of the land owners by bringing them together and agree on a common plan for the area.

- There is a bit of an element of coercion involved – if more than 50% of the land owners agree to the plan at the preliminary stage then nothing can stop the finalization and implementation of the TPS.

- But when comparing the use TPS mechanism to realize land for projects with the use of the Land Acquisition Act, it is far more participatory and takes cognizance of / respects collective action.

- The development authority here plays the role of the facilitator or facilitates common decision making amongst the land owners.
6 Tool to Update and Harmonize the Cadastre

- There are two aspects to updating of cadastral information – 1) actual updating of the cadastral records to reflect the changed status with respect to ownership, subdivision, amalgamation, use and tenure and 2) the plethora and complexity of the cadastral records.

- The TPS mechanism offers a one-time opportunity to update the cadastral records which have been prepared very long ago and since then have not been updated in an ongoing manner. Updating of cadastral records happens whenever there is a change, generally initiated at the request of the owner and therefore it is parcel by parcel updating. On the other hand when a TPS is prepared the development authority collates all the cadastral records (map and text), reconciles them with the actual situation on ground. This is verified by the Land Records Department. All the existing land parcels are then systematically listed and numbered as ‘original plots’. The development authority in the process of preparing the TPS reconstitutes the ‘original plots’ into ‘final plots’ which have a different shape and size. Once the Final TPS is sanctioned by the State Government, the development authority then sends the TPS records to the Revenue Department for promulgation. From this point the original plots cease to exist and are replaced by the new final plots, thus new cadastral records are created.

- More important than the updating of the cadastral records is perhaps the harmonization and the integration of records into a single system. At present there is plethora of land records for a single land parcel – one record states the ownership and tenure status, another one gives the area, and yet another gives a schematic map showing its configuration. There is yet another set of records that records the changes or mutations. There is no link between the text and map records – in case a text records is updated it is not essential that the corresponding map record may get updated. On the other hand in case of a TPS, there is only one record which is the F Form that gives the area, tenure, size and other rights which is linked to the map. The link can be made dynamically using GIS systems, so that whenever there is a change, it is effected in both the records.

7 Tool for facilitating Slum Upgrading

The TPS mechanism facilitates slum upgrading –by bringing access to services and trunk infrastructure to the parcels under slum neighbourhoods. To give a brief overview of the response of the TPS mechanism to presence of slums:

- In TPS prepared before the GTPUDA, 1976, wherein there were no provisions for providing for housing for socially and economically weaker sections, the development authority / local authorities varied these TPS and reserved those land parcels which had slums for the purpose of slum upgrading. Such land parcels are eventually taken up under different slum upgrading efforts. The TPS mechanism in such cases provided the frame work for slum improvement programs. The TPS mechanism also ensured that the infrastructure was already available in the area.

- In the TPS done under the purview of GTPUDA, 1976 there is provision of appropriating up to 10% of the total TPS area to create plots for the ‘socially and economically weaker sections’. Some of the plots created in this manner may be used for relocating slums.

- In general, when a TPS is declared over an area, there may be slum pockets. The TPS mechanism looks at and respects the ownership of land as indicated in the official cadastral records. In case of a land parcel with a slum which is recorded as a single plot with one or more ownerships in the cadastral records, in the TPS mechanism a single FP is allocated to the same owner/s. The mechanism does not recognize informal arrangements that the land owner/s may have had with individual slum dwellers if they
are not updated on the land cadastre. The status quo is maintained as far as the land rights and tenures are concerned.

- While the TPS mechanism does not recognize the informal land ownership rights, it does nothing to undermine these either. The planners take into consideration the reality – the land appropriation policy is not stringently applied – the land is appropriated to the extent possible and the status quo as far as the residents is maintained – they are not evicted or thrown out. In fact, it brings in the trunk infrastructure to the plots and sets the framework for future slum upgrading if planned for.

5.3 Limitations of the TPS Mechanism

The TPS mechanism has several inherent strengths which make it possible to plan, finance and implement plans. More importantly the law underpinning the mechanism has been continuously improved and the mechanism has been put to a variety of uses.

Nonetheless, the increasing pace of urbanization, tightening and vibrancy of the land markets, the emergence of new challenges and aspirations, constraints on government resources, change in the ideology of planning and governance, have exposed a number of weaknesses in the TPS mechanism. Simultaneously the dynamic context in which the TPS is used, has thrown open a range of opportunities for improving the efficacy of the mechanism and for creatively using it in a variety of new ways for improving urban areas.

This section outlines some of the limitations of the TPS mechanism which have emerged owing to certain provisions in GTPUDA as well the procedural and institutional aspects and the manner in which it is practiced. Most of the issues raised could easily be ameliorated and the possible improvements are suggested in Section 6. These suggestions may also be taken as inputs towards the formulation of an improved land readjustment mechanism at the national level and for providing lessons learnt for other countries.

Limitation # 1

Long Time Periods allowed for Preparing and Sanctioning TPS

- The GTPUDA defines procedures that Development Authorities and TPOs have to follow for preparing TPSs and those that the State Government has to follow for sanctioning them. The maximum period of time that may be taken for various steps are also prescribed.
- A total of 49 months are available between declaration of intention to undertake a TPS and its sanction which is far too long.
- The State Government has been enabled to extend the periods for both reviewing and sanctioning schemes. A review of all the TPS prepared thus far (Refer Section 3.3) shows that not a single scheme was completed within stipulated period and quite a few, in fact, stretched beyond 20 years!
- The GTPUDA allows long time periods for preparation and sanction of the TPSs on account of the following:
  1. In the 1970s when the GTPUDA was enacted, computers, GIS systems and total station survey equipment were not available. Long time periods were required to undertake detailed and accurate surveys, manually prepare drawings and documents, deal with tedious repetitive tasks such as the preparation and dispatch of notices to various land owners etc.
  2. The pace of urban development was slow and it was possible to freeze development in an area for a long period of time. Today this is simply not
possible as this impedes development and constrains the supply of land into the land market.

- Allowing State Government latitude to extend time periods in an open ended manner – without having to clearly specify firm dates for completion of schemes – provides actors in land and property markets no time frames on the basis of which to formulate long term expectations and plans. This encourages short sighted behavior, and thus inadvertently promotes unauthorized construction. This encourages informality in land delivery as well development.

Limitation # 2

Procedure requiring case by case Approvals from the Chief Town Planner (CTP) at various stages in the Preparation of TPSs causes delays

- Procedure requires a Development Authority intending to prepare a TPS to seek approval from the State Government. Such approval is granted after the CTP has been consulted and after he has reviewed and approved the proposal of the Development Authority. Both procedural and planning aspects of the proposal are audited to verify the merit of the proposal. Some of the audits are very simple, for example:
  1. Survey numbers along the boundaries of proposed TPSs are checked to verify that they are not missed or included in another scheme.
  2. Boundaries of proposed TPSs are verified to ensure that they fall within areas zoned for urban development in relevant development plans.
  3. Survey of the TPS area is checked for unauthorised construction, to ascertain the possibility of implementing a scheme is there.
  4. Availability of staff within the Development Authority is checked to ascertain capacity to plan and implement the scheme and to provide support to the town planning officer.
- After the initial consultation, the CTP is consulted 5 times during the entire process.
- Procedure requiring such detailed in-house audit at the State Government level for all the urban areas is bound to generate considerable work. When one takes into consideration the severe lack of staff in the office of the CTP, and the fact that the audit is a mere desk review of rudimentary aspects of proposals, based on data supplied by Development Authorities98, and subsequently the TPO, it is not surprising that Development Authorities see this stage as a cause of delays that can be easily avoided; by retaining the CTP’s oversight function but modifying the procedure for effecting it.

---

98 While seeking the CTP’s approval, the DA is required to send maps showing the following: 1) TPS boundaries and survey numbers; 2) existing land use in the TPS area; and 3) development plan proposals in area around the TPS.
Limitation # 3

Tradition insisting on building the TPS base maps on archaic maps of Revenue Administration and their certification by Revenue Administration is irrelevant and wasteful.

- As a practice, base maps for drawing up TPSs are prepared by first undertaking a detailed survey of the area in which the TPS is proposed. The survey drawing is then reconciled with cadastre maps maintained by the revenue administration along with the areas; and the reconciled map and area statement is required to be certified by relevant officer of the revenue administration.

- The revenue department maintains maps separately for every land parcel in each village and a group of plots in the city survey area to broadly establish the shape and relative location of land parcels. These maps were produced nearly a 100 years back using plane table surveys and have been manually updated / redrawn over the years (occasionally / infrequently for limited areas or on a case basis). Thus they are inaccurate and only serve as a reference.

- The revenue department maintains text records separately for each land parcel. These records are updated in a far more regular manner as they are used for effecting transactions. In past they were updated as the thrust was on effectively collecting revenue.

- When a TPS is prepared often times (and as expected) the land parcel boundaries as obtained from the survey may not match with the cadastral maps and there are area discrepancies. In such a situation the survey data (which far more accurate) is distorted to match the revenue administration maps and areas else the revenue administration department may not approve. When a TPS is ready for implementation, problems arise with what the map shows and what is on ground and again a round of distortion occurs. In the process a unique opportunity, to create a highly accurate cadastral map that mirrors ground condition is lost.

- While preparing a TPS what matters is the accurate ownership, area and encumbrances. The old spatial information maintained by the revenue department is irrelevant (only a useful reference to trace missing records at best) as new land parcel boundaries are drawn.

Limitation # 4

Limited availability of Accurate, Updated and Well Collated Cadastral Information Records delays the Preparation of TPS.

- Accurate and updated cadastral records are absolutely essential for preparing the TPS.

- Cadastral information is not updated on a regular basis and is not available in a collated manner which considerably delays preparation of TPSs this is a task that the planner has to undertake.

- The problem is exacerbated further as there is no coordination between the revenue administration and urban development administration. It can take up to six months to collate the information and bring it up to date. Too much time and effort are wasted on procuring records and reconciling the base map with revenue maps.

99 The CTP Consultation procedure requires submittal of a certified base map.

100 This process takes a long time/fraught with delays. It can take 6 months atleast and involves:

- Procuring records – full records are never available at the first shot, as one proceeds with the process, the need for other records such as KJP, LAQ sheets, hiss sheets, hissa patraks etc comes up. Very often is the TPS is spread over both the city survey and revenue survey areas, records have to be procured from both departments.

- Drafting the tippans and matching them with the ground lines such as fences, bunds, walls etc
Limitation # 5

Manner of Reviews and Sanctions by the State Government severely impedes the planning and urban development process.

- State Government reviews both the procedural and planning aspects of a TPS involving several rounds of reviews. The State Government first of all, approves the Development Authority’s decision to prepare a TPS. Typically a TPS is prepared by the Development Authority / urban local body is first reviewed when the TPS is submitted to the State Government after the physical planning proposals have been vetted by the land owners. It usually gives conditional sanction with a list of issues that the TPO has to bear in mind while finalizing the TPS. After sanctioning the State Government appoints a TPO who then divides the task of finalizing the TPS into two stages – a preliminary TPS and final TPS. The State Government does two rounds of review before sanctioning the preliminary scheme and only after this does the task of final scheme commence. The final scheme involves another two reviews by the State. The manner in which this is undertaken makes the reviewing and sanctioning of TPS a lot of work. In addition to the task of reviewing DPs, the State is involved in reviewing several TPS at the same time. The increased load, the lack of technical and institutional capacity and the manner in which TPS are reviewed and sanctioned, have all made the State Government review and sanctioning process formidable impediment to the urban planning process.

- Section 3.3, Status of TPS clearly indicate s that out of total of 716 TPS since 1915 only 205 or 29% have been sanctioned and are in force. A significant number is pending with the TPO. Also the analysis of the time taken for completion of TPS clearly shows that none of the TPS have been completed in the prescribed timelines.

- The manner of reviewing and sanctioning TPS also seems very paternalistic. It presumes that local capacities are inadequate, that they cannot be developed and that higher levels of government know better. That plans need to be protected from vested interests at local levels is often cited as the main reason why the State Government should have such broad and overarching review and sanctioning powers. Whatever be the merit of this view, it is clear that role of the Development Authority is envisaged as being dependent; a vision that undermines the building of capacity at local levels.

Limitation # 6

The Role of Town Planning Officers and the protocols they are required to follow are insufficiently transparent and accountable. Powers granted to TPOs to alter schemes are unlimited.

- The position of the TPO is quasi-judicial and his role is that of an arbitrator. Both the GTPUDA and the State Government give tremendous powers to the TPO. Usually most of the decisions are taken and finalized by the TPO. Except for compensation and contribution related issues in case of plots none of the decisions of the TPO can be challenged. This gives tremendous powers to the TPO while conducting hearings with

  - Cross checking the areas from the fitted tippan and area record and reconciling the differences. Generally differences within a limit of +-5% are allowed. The final area is usually taken as per the DSO record (spatial records – kayam khardo, ekatrikaran takhto, hissa patrak or KJP). Anything more or less than 5% leads to further inquiry and its resolution. This could involve search for additional records, site verification / inquiry etc.
  - The “draft” melavni is taken to the DILR for verification and resolving the aberrations in area / records.
  - The final area statement and the drawing is required to be “certified” by the DILR. This takes a very long time as DILR does a sample verification and it is understaffed to cope with the task.
individual land owners to finalize the TPS. It is reported that a lot of changes occur in
the overall physical layout of the TPS at this stage as a result of individual negotiations
between the land owners and the TPO. Extended and open ended timelines further the
tendency of malpractices by the TPOs. One of the reported outcomes is that the extent
of final plots that are appropriated after the final scheme is sanctioned is considerably
less than what is envisioned in the draft scheme.

Limitation # 7

In practice, Town Planning Schemes are often\textsuperscript{101}:

\begin{itemize}
\item a. Mechanically prepared and therefore formulaic
\item b. Uncoordinated with one another
\item c. Insufficiently detailed
\item d. Limited in their scope and approach
\item e. Prepared with insufficient stakeholder engagement prior to owners meeting
\item f. Arbitrary, particularly with reference to valuation of land and betterment charges
\end{itemize}

- The GTPUDA and Rules areas a confusing mix of enabling provisions, procedural
  prescriptions and planning prescriptions. Both procedural and planning prescriptions
  are mixed up in certain sections and this makes it very difficult to discern the
  procedural prescriptions from planning prescriptions. These are supported by a range
  of government resolutions and guidelines issued from time to time which add to the
  confusion.

- The technical or planning prescriptions are not articulated sufficiently and are not
  illustrated by the way of manuals which results in insufficient attention being paid
  towards planning aspects. The task of preparing a TPS is usually treated as a
  mechanical exercise – it is reconstitution of plots as per a uniform deduction policy,
  ensuring that every plot gets access and that in most cases the final plot is given over
  the original plot.

- Preparation of each TPS is seen in a piecemeal manner and not coordinated with the
  adjoining TPS, the reasons are quite apparent, the adjoining one may not have received
  CTP consultation or the development authority may not have considered it. A
  consequence of this is that the continuity in the alignment of road networks is seldom
  maintained resulting in odd junctions and alignment shifts.

- Absence of a meaningful strategy to create the land appropriations within a TPS or
  across a group of TPSs for public purpose results in creating small, scattered
  appropriations that cannot be used meaningfully. In fact the location of public plots is
  not based on any design principles or planning standards. Instead, the overriding
  concern is to place at least one appropriation in the middle of a sector of plots defined
  by roads so that if there are any ‘area adjustments’ to be made when the TPO finalizes
  the TPS it is possible to do so.

- Although the GTPUDA allows for framing for special development control regulations
  for TPS, this provision is rarely invoked. Use of this provision can enable planning of
  the third dimension and the TPS mechanism can be fully exploited to shape smaller
  portions of a city in detail.

\textsuperscript{101} Here the reference is to the practice of preparing the TPS over the years which needs to improve given the
changed context. The regulatory provisions do not advocate any of the foregoing, in fact, they permit
innovation or improvements to the process of preparing TPS. Improvements are visible in the practice post the
1999 amendments and introduction of the private sector in the planning process which also happened in
Gujarat around the same time. Most of the examples cited in the report are post 1999 and an evidence of this
trend.
The GTPUDA prescribes several points of engagement throughout the TPS preparation process. However most of these occur after the first draft of the layout is prepared and it is presented in the owners’ meeting. The GTPUDA however, does not prevent having more rounds of consultations and engagement with the stakeholder prior to this – a planner can do so if he/she wishes to. In case of preparation of the TPS in Bhuj, we see that a systematic engagement process was carried out before the presenting the draft TPS to the owners in the owners’ meeting. This was possible as the private sector was brought in the preparation of the draft TPS and the process of engagement was made a part of their terms of reference. This however still continues to an exception rather than the norm. A reason this has not yet become the norm is that the sort of engagement process that was carried out in Bhuj requires a massive effort and time which the authorities with their staffing patterns and capacities are not geared towards. Authorities and the state government are still very guarded about involving the private sector on a regular basis as they perceive this as losing control over the process, are wary of the intentions of the private sector and also is the fact the private sector capacities need yet to be considerably enhanced.

The type of infrastructure taken into consideration and the manner in which costs are estimated is questionable. Only for 4 basic infrastructure services – roads, water supply, drainage and street lights are considered. These estimated at unrealistically low prices. To these costs, other administrative expenses are factored in on a lump sum basis without really estimating the level of effort involved. Usually the cost to be borne by the development authority is predetermined (as it presumed that the development authority cannot recover full costs or make profit) and the resultant development costs to be levied on each land parcel owner are worked out. These are deliberately kept low at it is regarded as politically unfeasible to charge infrastructure at cost.

Finally the manner in which the financial aspects are worked out also seems arbitrary. To begin with the process of valuation that is followed is flawed, it is based on the jantri or the ready land recknor and there is a substantial difference between the land values prescribed in the jantri and prevalent market values. As described in the Section 2: Land Management, the preparation of the jantri itself is flawed. The costs of the TPS are estimated and per sq m development cost is (as described above) is worked out. Then the increment in land value is worked out which is the addition of the development costs to the original land values times two. This increment is then halved and is termed as the land owner’s contribution to the TPS. From this amount the compensation to be paid to the land owner is deducted and the ‘net demand’ or the development charge is levied. The value of the development final plot is thus much lower than the market value. This practice works well as the owners are very happy paying low development charges and letting go of the 35 to 40% as the market value of the land after the TPS is done are atleast 10 times higher. But the negative impact of this is low quality of infrastructure and that the authority is not able to really tap into the land value gains. What the authority ends up gaining is the land for roads and amenities and a land bank which becomes a substantial source of raising funds for city level infrastructure.

---

102 These usually range from Rs. 150 to 300 per sq m of land while the actual development costs for good quality infrastructure range from Rs. 700 to 1000 per sq m.
103 Jantri is the land and property price cadastre. The State Government maintains this and revises the rates periodically.
Limitation # 8
At present the Rules to GTPUDA stipulate that only an officer of the TPVD can be appointed as TPO, which considerably delays the finalization of the TPS.

- The Rules of GTPUDA clearly specify that only a person with the TPVD who has functioned as a Junior Town Planner and above and with at least 3 years of experience in town planning and valuation can be appointed as a TPO. This is because the TPO plays a quasi-judicial role and it is believed that only serving government officers can be appointed as TPOs.
- The TPVD is already understaffed because of a freeze on recruitment. Most of the officials are holding multiple charges and overloaded with work. Usually a TPO is appointed within one month of a TPS being sanctioned but this usually is not possible as there is dearth of staff. Even if TPO appointments are made, they are unable to take charge immediately they have previous tasks to complete. It is observed that a TPO handles the task of 8 to 10 TPS at a time and these schemes may be scattered all over Gujarat. In many instances TPOs are shifted in between finalization of TPS. All of these factors cause considerable delays in finalizing the TPS.

Limitation # 9
There are no provisions for overlaying a new TPS over an older one. This deters the redevelopment / renewal of older areas

- Given the present practices, the ‘boundary’ of a TPS becomes water tight once declared. The GTPUDA does provide for varying a TPS but this is to be done keeping the boundaries intact. The explanation given for this is that the financing of the TPS is linked with it. There is no precedent or procedures prescribed for overlaying a TPS over an older TPS or say overlaying a new TPS over a group of older TPSs. A reason this is that when the GTPUDA was framed this possibility was never envisaged. Several new uses have been introduced and new requirements have emerged since then. At present one witnesses a large scale redevelopment occurring in several areas, amalgamation of plots and introduction of high intensive activities which are creating problems such as traffic congestion and discordant uses. This does raise the issue of modifying or re-planning areas and raise the infrastructure standards but it is not possible to undertake this in the present provisions.

Limitation # 10
Planning capacity in Development Authorities, State Government and the Private Sector is inadequate.

- At present only the constituted UDAs have separate planning divisions which are responsible for preparing their own DPs and TPSs, for the rest of the constituted ADAs and designated ADAs, the TPVD (branch offices) provide the technical support to prepare DPs and TPSs.
- TPVD is severely constrained in its task of providing the technical support as it does not have adequate personnel – about 37% of the posts are vacant which results in multiple allocation of tasks with no clear allocation of responsibility on the existing staff. The officers are involved in everything ranging from valuation, dealing with legal queries, preparing DPs/TPSs, serving as TPOs, election duties etc and holding of additional charges.
- Gujarat is at the forefront in using private sector capacities to augment government capacity to undertake statutory planning. Unfortunately on account of such initiative being of very recent origin, private sector capacities have not significantly developed.
6 Lessons for National Policy

6.1 Summary

The study has attempted to analyze the Gujarat Model of land readjustment or the TPS mechanism from various perspectives with a view to guiding a future process of legislative reform – issues and concerns to be taken into account when considering legislative options that govern urban land supply and expansion in India.

Overall, the TPS mechanism as practiced, has worked relatively well in Gujarat after the process was revitalized due to the amendments made to the GTPUDA in 1999. Seen in comparison with other methods of supply serviced land for development, the TPS mechanism is extremely versatile to deal with several challenges of urbanization in a fair, equitable and inclusive manner. In view of the present growth trends and the changing context, there certain limitations posed by the manner in which the TPS is practiced and certain provisions in the GTPUDA, 1976. Both of these are not insurmountable and can be addressed. We have seen that since its inception in 1915, both the practice and the statutory provisions are continuously improved.

The following section suggests a few areas for improving the Gujarat model of land readjustment or the TPS mechanism.

6.2 Improvements to the TPS / Gujarat Model of Land Readjustment

A few key areas for improving the land readjustment as practiced in Gujarat include:

1 Speeding up the process of preparing and implementing TPS and making it more efficient

This can be achieved by:

a) Reducing time periods in the GTPUDA for preparing and sanctioning TPS
   - The actual time periods to prepare the TPS can easily be reduced with the technological changes and increasingly available pool of private sector expertise
   - The timelines for the State Government to review and approve TPS need to be introduced. The concept of deemed approval can be introduced as suggested below.

b) Reviewing / limiting the role of the State Government in the TPS process
   - State Government reviews, both procedural and planning aspects of a TPS involving several rounds of reviews at all stages involving both procedural and substantial aspects. This severely impedes the TPS process. Scrutiny of procedural aspects can be streamlined if the GTPUDA, rules and government regulations are restructured and simple checklists are devised to verify if procedures have been complied with and a concept of deemed approvals and or conditional approvals is introduced.
   - Some rounds of the consultations and review processes by the State Government can be reduced or made into procedural checks. This can substantially reduce the workload at the State Government level. Scrutiny of planning issues can also be streamlined if MANUALS are prepared as described improvement 3 below. Further a better system of reviewing plans can be introduced by outsourcing the service to competent private sector actors.

c) Simplifying and limiting the number of times a CTP is consulted
   - The CTP is consulted 6 times in the entire process of preparing a TPS.
The approval / audit on behalf of the CTP can be considerably simplified by limiting it to examining whether the Development Authorities and the TPOs have fulfilled the various conditions required to undertake a TPS or not. Having simple checklists and documents for record can considerably streamline the process and reduce the burden at the State level and speed up the process of approving the preparation of the TPS.

d) Giving up the practice of preparing base maps on archaic revenue records and their certification by revenue department

- While it is important to prepare a base map before commencing a TPS by overlaying the records on the accurate physical survey, it must be kept in view that this is necessary only for the purpose of reference as while doing this one realizes the missing records or the fact that several of the records have not been updated and hence need to update these as far as the areas, ownerships and tenures are concerned.
- The insistence on ‘certification’ of this base map by the revenue administration considerably delays the process as the revenue administration does not have adequate staff to check and verify the maps. The situation also leads to corruption. It is reported that officials of the department do not undertake timely verifications until receiving informal payments.
- In practice, the precise matching of the spatial configurations of the plots with the map records is irrelevant as what matters is the accurate ownership and area. In view of this, this preparing accurate and/or certified map of the existing situation seems unnecessary and can to be easily given up.

e) Streamlining the land records at State level

- Planners spend considerable time and effort on collating the cadastral information. There are a variety of records, often not updated and further the lack of coordination between the revenue and urban development administration, makes accessing relevant data quickly more difficult.
- Accurate and updated land records for ‘urban areas’ need to be built at the State level. Once built, they must be updated as soon as a mutation or a change occurs. Use of technology can easily make this possible.

f) Streamlining the land administration processes

- Processes such as tenure changes and non-agricultural permissions need to be simplified and streamlined for ‘urban’ areas as they cause phenomenal delays. The concept of ‘deemed approved’ non-agricultural permissions for all areas that are zoned for development can be introduced. The applicable conversion charges can be realized along with the development permissions. Tenure changes in ‘urban’ areas must be triggered or commenced as soon as on an area wide basis and this will enable faster release of land to the market.

- Currently the rules of the GTPUDA stipulate that only an officer of the TPVD can perform the functions and duties of a TPO. This is because the TPO plays a quasi-judicial role and it is believed that only serving government officers can be appointed as TPOs. The TPVD is already understaffed because of a freeze on recruitment. Most of the officials are holding multiple charges and overloaded with work. It is observed that a TPO handles the task of 8 to 10 TPS at a time and these schemes may be scattered all over Gujarat. In many instances TPOs are shifted in between finalization of TPS. All of these factors cause considerable delays in finalizing the TPS.
- Given the pace of urbanization a large number of TPSs will have to prepared and implemented. In view of this and in view of the inadequate skills of typical
TPO’s it may be necessary to review the present stipulation that only a staff member of the TPVD may be appointed as a TPO. It may be useful to create a specially trained dedicated cadre of professionals who would be equipped to deal with finalizing the TPSs rapidly and efficiently. This would require training in both law and being proficient in the understanding and interpretation of the GTPUDA.

h) Using the private sector capacities
   - Private sector capacities though not very well developed are being used for surveys and the task of preparing TPS till the draft stage and eventually for demarcating the final plots when the TPS is finalized.
   - The scope of tapping the private sector needs to expand considerably – having TPOs from the private sector and providing technical assistance to the TPOs to speed up their tasks which right now are constrained because of a lack of support staff within the TPVD.
   - This will need building capacities within the private sector in the areas of performing the technical tasks to assist the planning authorities.

2 Making the role of the town planning officer sufficiently accountable and transparent
   - The position of the TPO is quasi-judicial and his role is that of an arbitrator. Both the GTPUDA and the State Government give tremendous powers to the TPO. Usually most of the decisions are taken and finalized by the TPO. Except for compensation and contribution related issues in case of plots, none of the decisions of the TPO can be challenged. This gives tremendous powers to the TPO while conducting hearings with individual land owners to finalize the TPS. It can also lead to corrupt practices. It is reported that a lot of changes occur in the overall physical layout of the TPS at this stage as a result of individual negotiations between the land owners and the TPO. Extended and open ended timelines further the tendency of malpractices by the TPOs. One of the reported outcomes is that the extent of final plots that are appropriated after the final scheme is sanctioned is considerably less than what is envisioned in the draft scheme.
   - The role and powers of the TPO needs to be reviewed given the current lack of transparency in the system. Such a review, however, will require in-depth discussions with State Government and major changes in the GTPUDA.

3 Improving the practice of preparing TPS
   - In practice, the TPS are often mechanically prepared, insufficiently detailed, limited in their scope and approach, arbitrary with reference to valuation of land and computation of betterment charges. Part of the problem lies in the way the GTPUDA and it rules are framed – these are a confusing mix of enabling provisions and procedural prescriptions. Several amendments have been made resulting in introduction of clauses in section they may best fit and there are several government resolutions, circulars and checklists introduced over time making the process cumbersome and opaque. The technical or planning prescriptions are not sufficiently articulated or illustrated by the way of manuals. Each TPS is seen as an isolated exercise without really referring to the adjoining context. Further, there being no strategy at the city level for using the land appropriated, the resultant land appropriations are scattered, odd sized and residual parcels that cannot be used meaningfully. The manner in which the financial aspects of the TPS are worked out also seems arbitrary – the land recknor values are used which are substantially lower than market prices, costs for infrastructure are estimated as unrealistically low levels and the final plots values are usually arrived at by adding the
costs of providing infrastructure along with some administration costs to the original land values. An opportunity to recover the cost of providing good quality infrastructure by capturing a portion of the real gains in land values is lost. Some of these issues can be easily addressed by:

a) **Revamping the GTPUDA**

The enabling provisions, procedural prescription and planning prescriptions could be segregated into the bare ACT containing the enabling provisions, the procedural prescriptions and formats could be prescribed into a separate publication titled RULES and the planning prescriptions could be illustrated in a more elaborate and comprehensive manner in the form of a series of MANUALS dealing with various aspects from preparing base maps, public participation, principles, approaches and guidelines along with best practices etc. This would render the process transparent and easier to understand by lay persons. It would enable the amending of rules and manuals far easier and responsive to the changes in the technology or the requirements of the context.

b) **Increasing the stakeholders engagement in the process while preparing the draft TPS**

Such process can be easily ensured especially by harnessing the private sector in preparing the draft schemes and mandating such process as a part of their scope. At the same time the state government and the authorities need to provide manuals or guides or toolkits to ensure consistent and systematic processes which are then monitored by them. By doing this in fact many other stakeholders who may not have formal right may also be brought into the process and better addressed to, the emerging layouts may be better and there would be less scope for objections in subsequent stages which may end up speeding up the process.

c) **Improving the system of valuation – jantri**

The valuation process and methods used for determining the jantri is vital as this approach is the accepted source for all valuation – sale, levy of stamp duties, acquisition etc. The fact that valuation is an art and a science makes the practice very difficult even under more advanced conditions. Therefore, the practice requires an ongoing calibration and continual capacity development. The experience of countries with respectable valuation practices show that this is one area where private sector expertise, under robust regulatory and accountability framework, can be outsourced.

d) **Introducing design manual for planning the layouts**

The preparation of the TPS layouts can be very easily improved by having simple and illustrated manual on good design principles – walkable blocks, locations of appropriations, urban design guidelines, consolidation of appropriations, road network design, and design of street sections for example.

e) **Expanding the scope and quality of infrastructure**

Currently only 4 basic infrastructure services are included while preparing the TPS. The standards adopted for providing these services are also quite low. As a consequence the new areas that are opened up for development have the basic and low quality infrastructure. With the changing context – higher economic growth, there is a demand for higher and better level of services. A greater number of infrastructure services and higher standards will have to be factored in while designing the infrastructure in a TPS. Here again, there could be a manual on the ‘design and planning of infrastructure services’.

f) **Changing manner of pricing infrastructure costs and cost recovery**

Infrastructure needs to be appropriately and realistically priced and the cost must be recovered if the TPS mechanism needs to be made effective as a mechanism to
capture the land value gains which at this time are going to the land owners. There is now an increasing willingness on the part of people to pay real time costs for good quality infrastructure and we are no longer in times when this was politically unfeasible. The practice of cost recovery needs to be changed. A new practice that is more realistic can be easily prescribed in one of the manuals.

g) Putting in place an asset management framework and linking with the DP requirements

There is no comprehensive list of all the land parcels appropriated by the way of TPS over the years. This can be easily built although the data is scattered over different TPS documents. An asset management plan and a strategy of using the land appropriated can be easily and quickly put in place to leverage the land assets created efficiently to raise resources for city development.

4 Introducing provisions for preparing a new TPS over an older TPS to enable renewal / redevelopment of older areas

- Given the present practices, the ‘boundary’ of a TPS becomes water tight once declared. The GTPUDA does provide for varying a TPS but this is to be done keeping the boundaries intact. The explanation given for this is that the financing of the TPS is linked with it. There are no procedures prescribed for overlaying a TPS over an older TPS or say overlaying a new TPS over a group of older TPSs. Perhaps this possibility was never envisaged when the GTPUDA was framed. Several new uses have been introduced and new requirements have emerged since then.

- At present there are several older areas undergoing redevelopment and there is an introduction of new and high intensive activities which are stressing the existing infrastructure, creating problems such as traffic congestion and discordant uses. This process of redevelopment occurs on existing land parcels or often land parcels are amalgamated to achieve higher intensities of development and intensive uses. This does create the need for systematically guiding the process renewal / redevelopment and one of the ways is to do another TPS over the area but it is not possible to do this under the present provisions.

- To enable to the renewal of older areas using the TPS mechanism it will be necessary to clarify procedures or introduce enabling provisions in the GTPUDA.

5 Building capacities in public and private sector to prepare TPS

- Planning capacity in Development Authorities, State Government and the Private Sector is inadequate. Only the UDAs have separate planning divisions which are responsible to preparing the DPs and TPS, the rest of the DAs are dependent on the State’s planning department – TPVD for the tasks of planning.

- TPVD is severely constrained in its task of providing the technical support as it does not have adequate personnel – about 37% of the posts are vacant which results in multiple allocation of tasks with no clear allocation of responsibility on the existing staff. The officers are involved in everything ranging from valuation, dealing with legal queries, preparing DPs/TPSs, serving as TPOs, election duties etc and holding of additional charges.

- Apart from inadequacy of numbers, the skill sets of the planning staff need to be considerably improved – computer literacy, domain knowledge, communication and consensus building skills and a good understanding of the GTPUDA.

- Gujarat is at the forefront in using private sector capacities to augment government capacity to undertake statutory planning. Unfortunately on account of such
initiative being of very recent origin, private sector capacities have not significantly
developed.

- Given the pace of growth and the severe dearth of technically qualified personnel for urban planning, systematic efforts need to be made to build planning capacities in the public and private sectors. The State Government may well play the role of enabling and facilitating planning rather than getting into the task of it. Efforts could well range from:
  - Capacity building programs in the public sector which could be run by academic institutions, NGOs involved in the field of development planning etc.
  - Short term courses on specific subjects by academic and research institutions such as Center for Environmental Planning and Technology, Indian Institute of Management, Environmental Planning and Technology etc.
  - Opening up of more graduate planning courses and increasing the capacity of the existing ones to generate more number of professionals.
  - Quality improvement programs for teachers / instructors.
  - Building up databases of best practices to share with the public and private sector.
  - Organizing urban symposiums, conferences and exhibitions to showcase and share best practices across the public and private sectors to increase learning and create a forum for cross sectoral information exchange.

6 Strengthening and reorienting the roles of the planning departments

- At present, the preparation of DPs and TPSs is handled by the planning departments in case of the urban development authorities and by the TPVD in case of area development authorities.
- In both instances the planning departments are insufficient and inadequately equipped – staff is inadequate (insufficient in number), the staff is expected to perform several other tasks (overloaded and not dedicated), does not possess modern infrastructure and skills sets to perform. This results in considerably slowing the process of planning and making it inefficient.
- It is debatable whether creating a separate Land Readjustment / TPS agency (which is public) would be a solution to some of these concerns or instead strengthen the planning departments to address these concerns.
- One must also keep in view the fact the planning department would prepare the DP and that the TPS process in inextricably connected with it, it therefore makes sense for the planning department to do both. For this to happen efficiently, the planning department would have to be strengthened sufficiently.
- A related aspect that needs to be kept in view also is the emerging private sector capacities in some of the tasks and harnessing these, to speed up the process of preparing TPS and making it more efficient. Some of these tasks include topographical surveys and planning until the draft stage. So instead of having huge government departments that have all capacities in built and which perform all tasks in-house, it makes sense to have leaner departments that focus on the statutory aspects of the TPS process and managing/monitoring the tasks that can be easily preformed by the private sector (far more efficiently). This will need restructuring of the planning departments and considerable capacity building of the planning staff to monitor and facilitate the planning processes.
6.3 Transferring the Land Readjustment Practice to other States and Countries around the World

The land readjustment mechanism is currently not being used in other parts of India. It is interesting to note that modern town planning legislation in India was introduced by the British and in fact it began with the introduction of town planning schemes or improvement schemes. After attaining independence in 1947, all States enacted their respective urban or town planning laws as the management of land and urban development is a state subject. While doing so, the prevalent legislation was adapted and modified as we see in the case of BTPA 1954 that was enacted to replace BTPA 1915. Owing to this, in most town planning legislation across states, the provisions pertaining to TPS or Improvement Schemes continue to be retained. This is indeed a positive aspect as the legislative basis continues to be there and can be resumed albeit with some improvements.

It also emerges from the review of the 1915, 1954 and 1976 legislations in Gujarat and the time taken to finalize the early town planning schemes, the TPS process in its initial stages was cumbersome and time consuming. In Gujarat with the enactment of the 1976 legislation, the process was restructured in a manner to ease implementation and amended at critical junctures to speed it up. This somehow did not happen in case of other states and the provisions were retained in the acts and were seldom used. So while Gujarat continued the tradition of preparing the TPS, other states gave up the practice and as a result have no familiarity with the process and practice of preparing TPS.

In the present context when the urban land values have gone up considerably and the city governments are finding it increasingly impossible to appropriate land for public purpose through eminent domain (land acquisition), many of the states in India are exploring the option of implementing TPS. Some of the apparent (though not impossible to overcome) bottlenecks or constraints to recommence the practice of TPS or land readjustment are:

- The existing archaic legal framework
- Unfamiliarity with the legal process makes the TPS process as practiced in Gujarat appear an insurmountable and complex task to the planners, politicians, administrators and public at large.
- Lack of technical capacity to revamp the existing legal frameworks. The legal frameworks need to be rewritten in a much simplified manner and need to be oriented towards modern planning ideologies and more responsive to markets.
- Lack of skilled planners both in the public and private sectors to take up the challenge of preparing the TPS.

Transferring the capacity to undertake land readjustment to other states in India and possibly other cities around the world will require an in depth consideration of what can be adapted to suit that particular local context. Several things will have to be done simultaneously so that the practice takes root:

- Appropriate regulatory changes will have to be introduced. In most case the town planning legislation of states need to be rewritten to better address the present context. It is not going to be enough to simply insert clauses that enable preparation of TPS or land readjustment schemes in the present legislations as such piecemeal changes have more often than not complicated issues. Lessons from the Gujarat experience suggest that strong urban legislation and regulatory frameworks are vital.
- All stakeholders – land owners, politicians, planners, administrators etc - will have to be made familiar with the process and made to see the advantages of it as compared to
other methods of development so as to be committed to the process. This will require a lot of preparatory work, several and ongoing consultations as well as specific capacity building with certain stakeholders.

- Investments will have to be made in building the capacities of both the public sector and private sector actors that will be involved in the process.
- ‘Pilot TPS’ or ‘special projects’ will have to be tried out and for this experienced planning professionals who are familiar with the process will have to be brought in to initiate and hand hold the process, effectively communicate the process and build consensus around it. A very recent example of this is the transfer of the TPS practice to the city of Nagpur in Maharashtra. Private sector experts have been brought in to achieve this task. Interestingly here the Nagpur Improvement Trust Act, 1936 is being used and the process of preparing improvement schemes modified based on the Gujarat pattern is being attempted and along with it certain limitations such as the long time durations and approval process are being done away with. The level of stakeholder engagement is being increased.
- Effort will also have to be made to improve or introduce the governance and implementation aspects. The existing structure and functioning of the planning authorities need to be geared towards this.

The process will take long, there will be lot of learning on all fronts and the learning curve is going to be very slow before benefits of the process are realized. The short duration or time frames that the administrators and politicians operate within will add to slowing the process. The one way out perhaps is to build strong planning departments within development authorities who will continue to remain long term and be committed to the process.
References:


Jindal, M L. Commentary on The Bombay Land Revenue Code, India Publishing House, Jodhpur, 2005


Sources of Figures and Tables:

All figures in the report are generated by the author based on the previous work done by her as part of EPC, EPCDPM and HPCDPM unless indicated otherwise below each figure or table.
Annex 1

Interviews and Discussions:
Interviews and discussions with the following experts were carried out at several instances during the course of writing the paper:

1. **Ms. Neela Munshi**, Senior Town Planner, AUDA, Ahmedabad.
2. **Mr. R B Joshi**, Retd Town Planner, AUDA, Ahmedabad.
3. **Mr. Vatsal Patel**, Deputy Town Development Officer, AMC, Ahmedabad.
Annex 2
Statutory TPS Planning Process