



Standard Municipal Governance

Property Tax

Section 1 : Taxonomy

Version 2

March 2024

CONTENTS

0	INTRODUCTION	1
1	SCOPE.....	2
2	REFERENCE	2
3	TERMINOLOGY AND ABBREVIATIONS.....	2
3.1	Terminology	2
3.2	Abbreviations	2
4	Property Tax	3
4.1	Property Tax	3
4.1.1	Property Tax Components.....	3
5	TAXONOMY FOR PROPERTY TAX	4
5.1	Property	5
5.1.1	Ownership.....	8
5.1.2	Use.....	10
5.1.3	Structure	10
5.1.4	Occupancy	12
5.1.5	Property Tax Zone.....	13
5.1.6	Measurements.....	13
5.1.7	Location.....	14
5.1.8	Age of Property	14
5.1.9	Building Permission Compliance	14
5.1.10	Rent.....	14
5.1.11	Capital Value	14
5.2	Property Tax Processes.....	14
5.2.1	Enumeration	16
5.2.2	Assessment	16
5.2.3	Appellate.....	21
5.2.4	Billing	21
5.2.5	Collection	24
5.2.6	Recovery.....	25
5.2.7	Tax Payer Services	26
5.2.8	Write-Off.....	27
5.2.9	Audit	27
5.3	Stakeholders	27
5.4	Reports and KPIs.....	29
5.5	Revenue	30
6	ANNEX A	32
7	BIBLIOGRAPHY	33

0 INTRODUCTION

ULBs across India have different terminologies and vocabularies for Municipal Governance. This is due to the federal structure of governance in India, state specific laws and different e-Governance system implementations. Non-standardised interfaces and storage also lead to data interpretation and interoperability issues. Hence, when municipal performance is measured, there are certain inconsistencies, not merely from city-to-city perspective but also from state to state, with respect to what comprises it per se. Thus, without clear definitions, vocabulary, specifications and benchmarks for municipal governance, it is difficult to enable effective 'Data Driven Governance'.

The municipal governance standards are being designed to have minimum base elements common across ULBs to ensure interoperability, harmonisation and data driven governance. These can then be adopted and built upon by ULBs with higher process complexities.

The Property tax taxonomy defined in this standard includes common property tax entities, processes, stakeholders and their definitions. All definitions in this standard are notional definitions for conceptual purposes. The actual definition of entities for tax purposes should be considered as per state and local legislations. The taxonomy structure in this document is scalable both vertically and horizontally to accommodate ULB specific complexities as well as change in people, process and technology over time.

Property Tax Taxonomy will be used in developing Property Tax Data Models and API Specifications as well as for creating metadata specifications. Few sample parameters and specifications are also given in Annex 1 for understanding purposes .

Together these standards will ensure semantic and syntactic interoperability among all urban Governance systems in India.

The intended audience for this standard includes but is not limited to academicians, architects, customers, users, tool developers, regulators, auditors and standards development organisations.

This document is also interrelated with other Indian standards such as IS 18000 and IS 18006 (Part 1).

1 SCOPE

This standard provides a unified view of the Property Tax data and processes in a municipal corporation and introduces common and widely accepted terminologies and semantics that can be used across multiple systems.

2 REFERENCE

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

SP 7:2016 National building code of India (Third Revision)

IS 18006 (Part 1) Municipal Governance – Part 1 Reference Architecture

3 TERMINOLOGY AND ABBREVIATIONS

3.1 Terminology

For the purpose of this standard, the definitions given in IS 18006 shall apply, in addition to the following:

3.1.1 Aadhaar

Aadhaar is a verifiable 12-digit identification number issued by Unique Identification Authority of India (UIDAI) to the resident of India.

3.2 Abbreviations

AMRUT	Atal Mission for Rejuvenation and Urban Transformation
CCSG	Citizen Centric Smart Governance
CDG	Centre for Digital Governance
DWGs	Domain Working Groups
GIS	Geographic Information System
NMAM	National Municipal Accounting Manual
NOC	No-Objection Certificate
NUIS	National Urban Innovation Stack - Strategy and Approach
PT	Property Tax
ULB	Urban Local Body
MoHUA	Ministry of Housing & Urban Affairs
PTIN	Property Tax Identification Number
NGO	Non-Governmental Organisation
NPO	Non-Profit Organisation
UPIC	Unique Property Identification Code

4 PROPERTY TAX

4.1 Property Tax

Property tax management is an important function for any Urban local body (ULB) and covers making property assessments, paying property tax, generating payment receipts and monitoring tax collection (*see 6, IS 18006 (Part 1)*).

Property Tax is defined as the amount assessed by the ULB or self-assessed as per the law and paid by the owner to the ULB for the financial year based on:

- Rent which likely would have been accrued to him (if the property is owner occupied) or rent actually received by him (if the property is rented out)
- The defined area of the land or building, construction and vacant land surrounding the property
- The type of construction
- The purpose of use
- The basic civic services provided and/or utilised
- Capital value of the property X tax rate as per the law

In addition to the Property Tax, a citizen may be liable to pay additional amounts owing to factors like late payment etc. There might also be scenarios where the citizen is allowed a discount on the tax payable.

4.1.1 Property Tax Components

In many scenarios, Property Tax is a composite of more than one component. The most common components that are usually factored into Property Tax are discussed below:

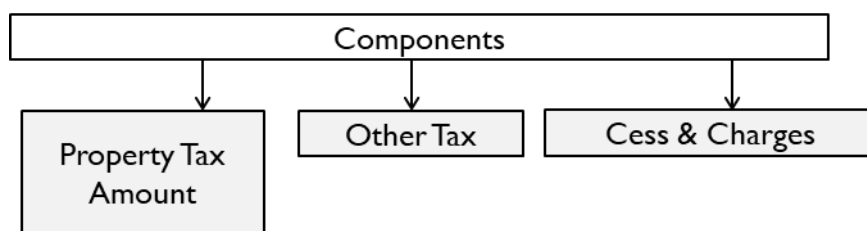


Fig. 1 Taxonomy of Property Tax Components

Key Terms and Definitions:

Property Tax Amount	This is the main base or component in the Property Tax structure, also known as a house or holding tax. This is the 'PT amount value' component of a tax bill. For details, see 5.2.4.1
Other Taxes	These could be taxes levied by the governing authority for facilitating infrastructure and services that enhance the liveability factor associated with the property. These may include water tax, sewerage tax, etc.
Cess and Charges	These are charges that are levied by the governing authority to raise funds for a specific purpose. These may include miscellaneous cess like Library cess, Swastha Cess.

5 TAXONOMY FOR PROPERTY TAX

While building the knowledge models for Property Tax systems, it is imperative to consider entities that are interlinked with Property Tax. **Property Tax** is a **tax-based Municipal Revenue** charged against a **Property**. **Assessment**, **Billing** and **Collection** are the processes that operationalise the Revenue mobilisation within a ULB. Hence, taxonomy for Property Tax cannot be built in a silo and needs to be accompanied by entities like Property, Revenue and associated processes and stakeholders.

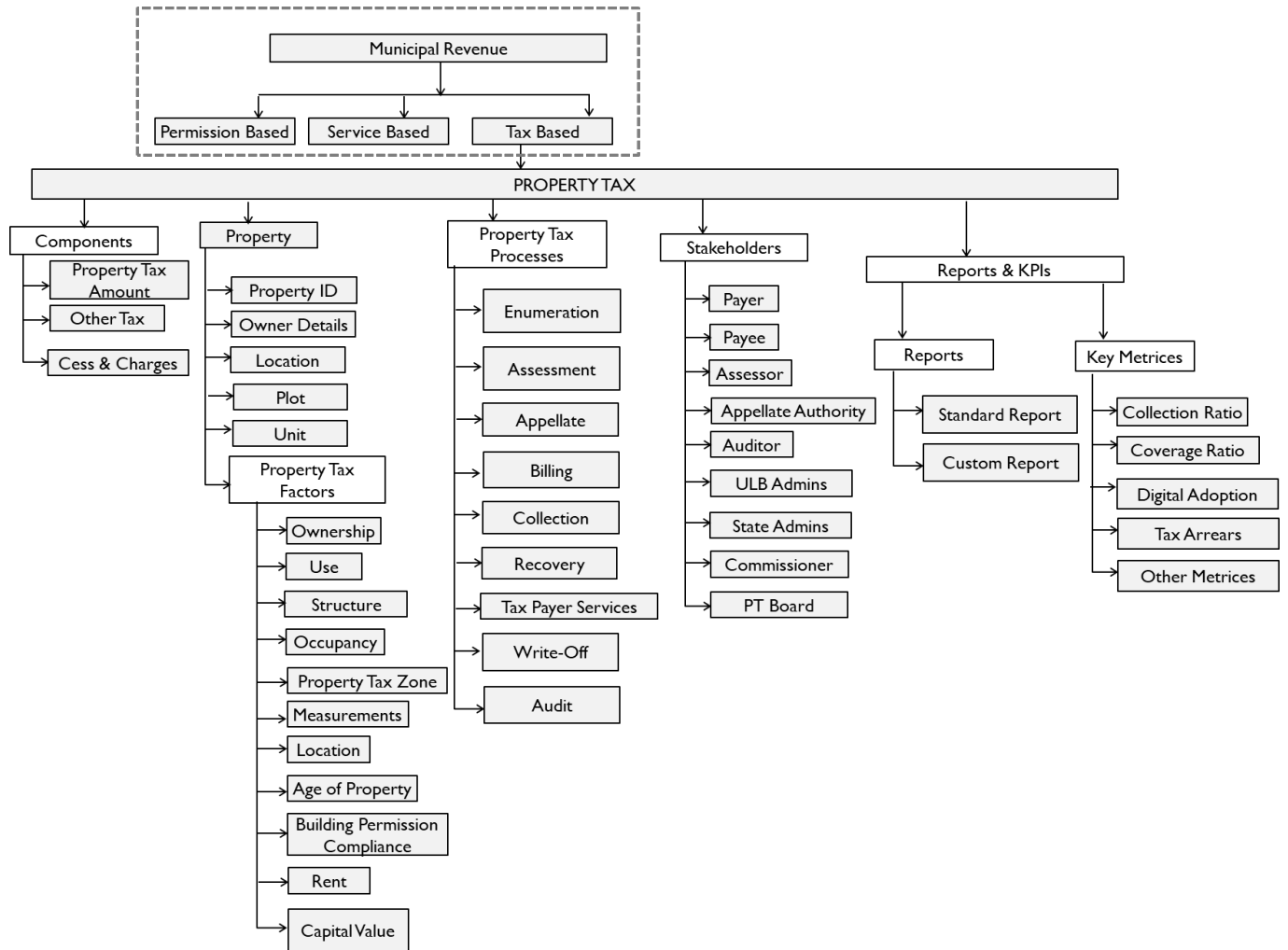


Fig. 2 Taxonomy of Property Tax

The categorisations and sub-categorisations of terms used in figure 2 Taxonomy of Property Tax are summarised in 5.1 to 5.5. The categorisations and classifications primarily establish hierarchical relationships, and as a whole yield the taxonomy around Property Tax.

5.1 Property

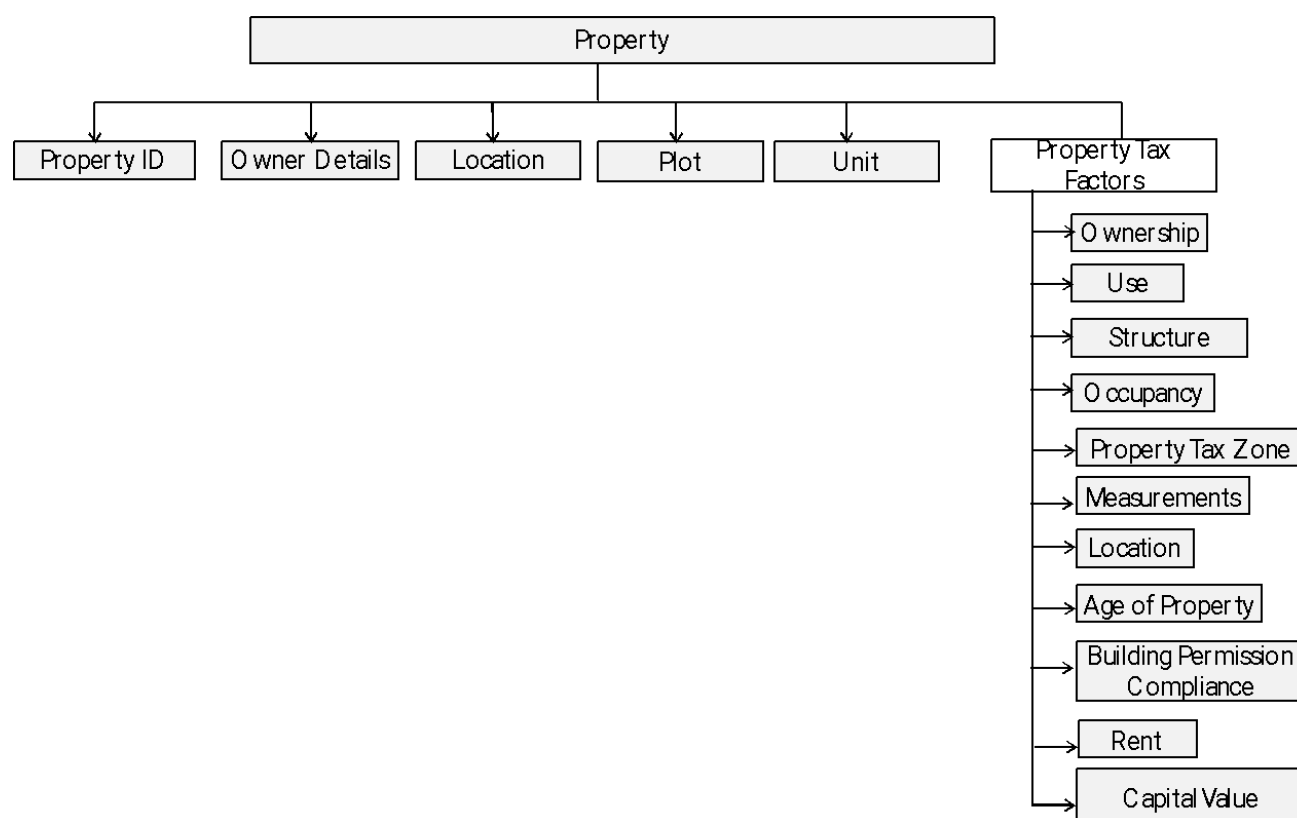


Fig. 3 Taxonomy of Property

Key Terms and Definitions:

Property	Property is defined as an immovable real asset that is owned either by an individual, set of individuals or organisation(s), for a specific usage, has a specific location and dimensions, includes the land and any structure that is built upon and falls under the jurisdiction of a local governing body. Typically, property will include the land itself or together with the structure(s) (or part of it) that is built on that land. It is transferable by law, deed or will to another individual, set of individuals or organisation(s). A property is defined at unit level depending on the ownership status of the unit. This unit can be a plot, building, floor or separate units. A property is identified by a unique house/property number having single/multiple owners.
Property ID	A property ID (PID) or property tax identification number (PTIN) or Unique Property Identification Code (UPIC) is the unique identification number allotted to a property by the ULB for the purpose of property tax records. Typically, the PID/ PTIN is generated after the first-time enumeration of the property and its verification by the ULB officials. It shall be combination of street, wards, usage, occupancy factor etc.

Owner Details	Owner details include the details of the property owner including name, id card, Aadhar number, address, contact information etc.
Location	Location is an important characteristic of a property that includes address, floor number, ward, zone etc. It also indicates the GIS positioning of a property with respect to the urban base map. In the context of Property Tax, location does not have any categorisations, however, it does have certain specifications associated. They are exemplified in Annex A . Location is based on width of road too as in bigger road say more than 40 width PT will be different as compared to narrower roads. Further, location is main parameter for deciding the circle rate to be used
Plot	A plot is a measured piece of land, demarcated for a specific use such as building, vegetation, manufacturing etc other than for agricultural purpose or Government Play ground
Unit	Unit is the part of the property (with clear demarcation) for which at least one of the property tax factors (Use, Occupancy, Structure category, Age etc) is different.

Property Tax Factors: These are the factors associated with a property and used in various property tax processes like assessment, calculation of tax and billing.

Ownership	Property ownership is the state or fact of exclusive rights and control over immovable property. Property may be owned by individuals or organisations.
Use	The purpose to which a property is being put to use is again a vital characteristic that defines the entity 'Property'. It determines factors like the rate of property tax. The Use of the property can be residential, commercial, institutional, public, semi-public, green areas etc.
Structure	<p>A structure is a developed land constructed with any materials whatsoever for any purpose, whether used for human habitation or not. A structure includes the following:</p> <ul style="list-style-type: none"> a) Foundation, plinth, walls, floors, roofs, chimneys, plumbing and building services, fixed platforms etc. b) Verandahs, balconies, cornices, projections etc. c) Parts of a building or anything affixed thereto; d) Any wall enclosing or intended to enclose any land or space, sign and outdoor display structures; etc., <p>Tanks constructed or fixed for storage of chemicals or chemicals in liquid form and for storage of water, effluent, swimming pool, ponds etc.</p>
Occupancy	Occupancy (or Use Group) is the principal occupancy for which a building or a part of a building is used or intended to be used; for the purposes of classification of a building according to occupancy, occupancy shall be

	deemed to include the subsidiary occupancies which are contingent upon it (National Building Code, 2016) ¹ .
Property Tax Zone	Property Tax Zone or 'PT Zone' means the classification of different areas or streets into value zones for the purpose of determining the unit area value of a property.
Measurements	Measurements of a property are values discovered by measuring the corresponding size, shape and/or area of the property. Measurements include details on the measured parameter, measured value, and unit evidence. Unit evidence is optional and can include digital readings, floor pictures etc. Measurements can have certain specifications associated with it. They are exemplified in Annex A
Location	Location is an important characteristic of a Property. In the context of Property Tax, Location does not have any categorisations, however, it does have certain specifications associated with it like floor number, zone, address etc. It also includes the GIS positioning of a Property with respect to the urban base map. They are exemplified in Annex A
Age of Property	The age of property is the chronological age of the built structure which may be considered in the calculation of the property tax. The age factor is not considered in the case of vacant land for the assessment of property tax.
Building Permission Compliance	This is the compliance of buildings to ensure strict adherence to all applicable building or structural-laws and building code requirements. The building permission is granted subject to very stringent scrutiny. This involves various stages starting with the identification and authenticity of land, the geo-location, if the building conforms to all the standards of safety and regulation, the distance from the road, distance from surrounding buildings, height and other criteria set by the Municipal authorities, along with the building plan. Compliance status also determines property tax.
Rent	Rent is the actual amount received from the property let out or the amount which is likely to be received if such owner occupied property is let out.
Capital Value	Capital value means the market value of any building or land fixed in accordance with the provisions of the municipal or other state act. Capital value is generally calculated by multiplying the area of the property with the per sq.ft./per sq. mt. capital value rate (prescribed by the state under municipal or other law of the state) and by deducting depreciation (if prescribed by the law) at the rates prescribed by the law.

¹ Bureau of Indian Standards. (2016). *National Building Code of India* (ICS 01.120; 91.040.01). Retrieved from <http://mddaonline.in/downloads/MDDALINKS/pdf/nbc.pdf>

5.1.1 Ownership

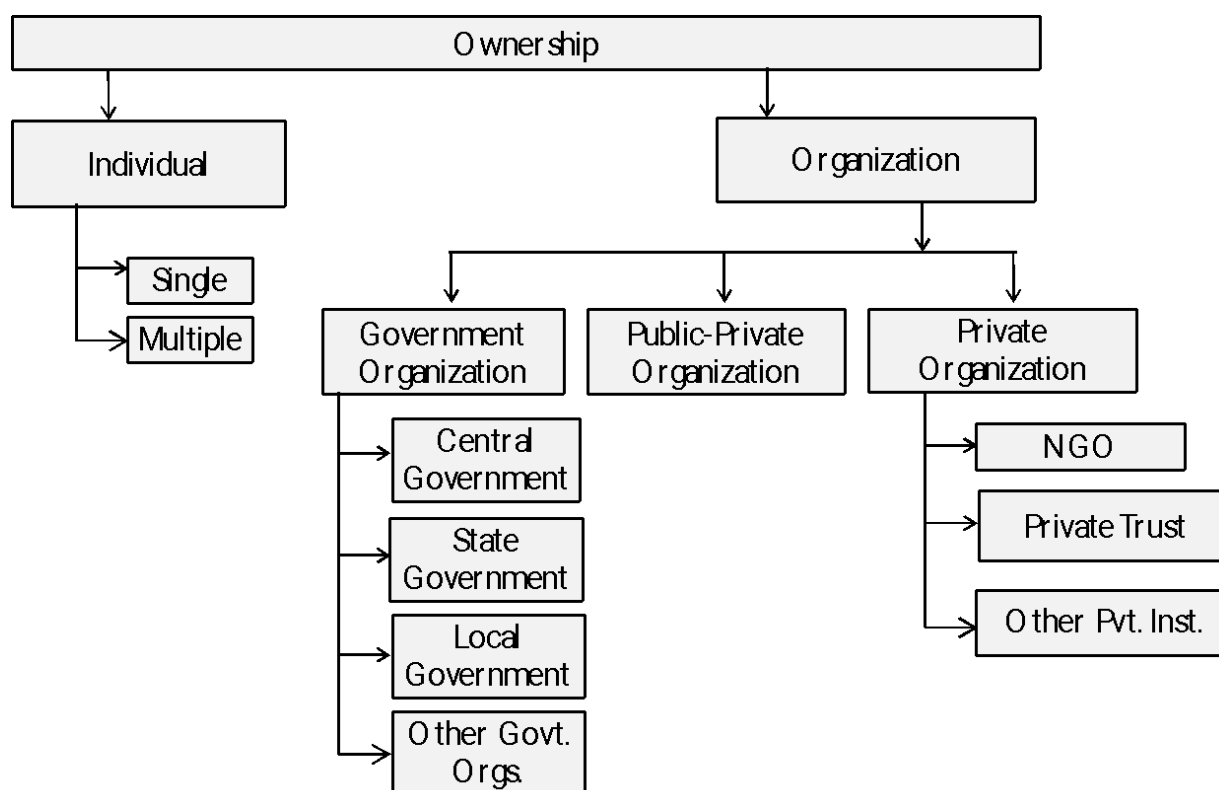


Fig. 4 Taxonomy of Ownership

Key Terms and Definitions:

Ownership	Property ownership is the state or fact of exclusive rights and control over immovable property. Property may be owned by individuals or organisations.
Individual	A person, a group of persons or a body having a legal interest in land and/or building thereon. (Bureau of Indian Standards, 2016) ²
Single	Single ownership refers to an individual who owns one or multiple properties.
Multiple	Multiple ownership refers to ownership of a property by two or more individuals or groups.
Organisation	Organisation means a group of people working or functioning together with a set aim. Organisation refers to a trust, charitable organisation, non-governmental organisation etc.
Government Organisation	Government Organisation or Public agency is often a government appointed group, it can be a permanent or semi-permanent

² Bureau of Indian Standards. (2016). *National Building Code of India* (ICS 01.120; 91.040.01). Retrieved from <http://mddaonline.in/downloads/MDDALINKS/pdf/nbc.pdf>

	organisation and is funded by the government. A government agency may be created by either a national government or a state government within a federal system.
Public Private Organisation	A public–private partnership is a cooperative arrangement between two or more public and private sectors, typically of a long-term nature. In other words, it involves government and business that work together to complete a project and/or to provide services to the population.
Central Government	A central government is a government that is a controlling power over the country. Essentially, the central government has the power to make laws for the whole country, in contrast with local governments. It also includes central government undertakings such as railways, highway authorities, health departments, education departments, airports etc.
State Government	State governments in India are the governments ruling the states of India. It also includes state government undertakings such as state education boards , police departments, state health departments, educational institutions etc.
Local Government	Local government means the local authority with a city as a jurisdiction formed under the constitution. This includes <ul style="list-style-type: none"> a) Municipal corporations/Nagar Nigam. b) Nagar palikas (also called municipal councils) c) Nagar panchayats/Town area.
Other Government Organisation	Other government organisations includes government-owned enterprises not listed above in central or state or local government. These companies are wholly or partly owned by the Government of India or one of the many states or territorial governments or both together in parts.
Private Organisation	A private organisation is any partnership, corporation, person, or agency that is not operated by a profit or a public body. It includes all businesses that are for-profit that are not government owned or operated.
Non-governmental Organisation (NGO)	Non-governmental Organisation (NGO) or Non-Profit Organisation (NPO) is a group, an organisation, a non-profit establishment or a non-profit entrepreneurship of individuals, activists, voluntary and social persons.
Private Trust	A private trust, created under and governed by the Indian Trusts Act, 1882 manages assigned trust property for private or religious purposes .
Other Private Institutes	It includes other categorisations of private ownership not listed above.

5.1.2 Use

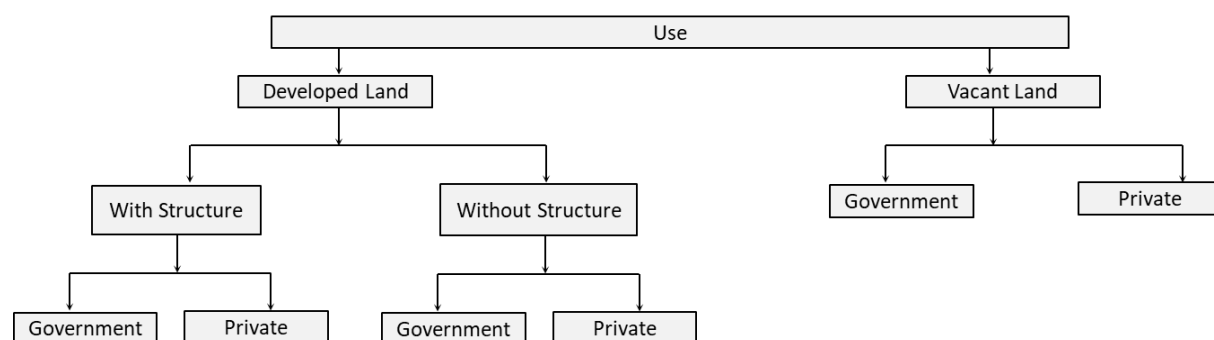


Fig. 5 Taxonomy of Use

NOTE - This is a partial depiction of the subcategories under "Use." Diagrammatic rendering of broad and extensive subcategories available under "Use" may not be effective in the current representation.

Key Terms and Definitions:

Use	The purpose to which a property is being put to use is again a vital characteristic that defines the entity 'Property'. It determines factors like the rate of property tax.
Developed Land	Developed land is a piece of land with the provision of various infrastructure including accessibility, utilities, water supply, drainage system, electricity etc.
Vacant Land	A vacant land is a piece of land without having any built structure or any other specific use of land.
With Structure	It is developed land with built structure(s).
Without Structure	It is developed land without built structure(s).
Government	Government, refers to the parliamentary system formed under the constitution of India. This is broadly categorised in the 3 types of government i.e., the Central Government, State Government and Local government. In reference to the property tax, the government means the ULB or the Municipal bodies of the cities.
Private	Private means any property, firm or organisation which is owned by any individual or group and not shared by any other individual group or government.

5.1.3 Structure

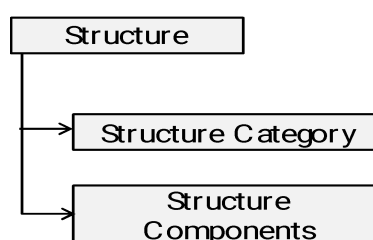


Fig. 6 Taxonomy of Structure

Key Terms and Definitions:

Structure	<p>A structure is a developed land constructed with any materials whatsoever for any purpose, whether used for human habitation or not. A structure includes the following:</p> <ul style="list-style-type: none">a) Foundation, plinth, walls, floors, roofs, chimneys, plumbing and building services, fixed platforms etc.b) <i>Verandahs</i>, balconies, cornices, projections etc.c) Parts of a building or anything affixed thereto;d) Any wall enclosing or intended to enclose any land or space, sign and outdoor display structures; etc., <p>Tanks constructed or fixed for storage of chemicals or chemicals in liquid form and for storage of water, effluent, swimming pool, ponds etc.</p>
Structure Category	In the context of Property tax, built structures can be categorised into Kuccha or Pucca or Semi Pucca, based on the materials used.
Structure Components	Structure components are defined as the key parts of the built structure. In the context of Property tax, the material used in each structural component changes the property assessment. For example, the structure components are wall, roof, floor.

5.1.3.1 Structure Category

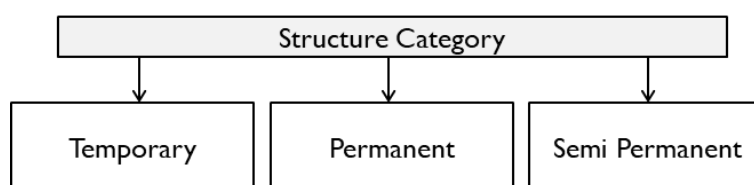


Fig. 7 Taxonomy of Structure Category

Key Terms and Definitions:

Structure Category	Built structures can be categorised into Kutchha or Pucca, based on the materials used.
Permanent Structure (Pucca)	Permanent structure implies a structure fixed to the ground by any of the various types of foundations, slabs, piers, poles, or other means to remain at one location.
Temporary Structure (Kuccha/ kutchha)	A temporary structure means structure that has been built for temporary usage and not expected to maintain its durability for long a period
Semi-permanent Structure (Semi-pucca)	A house that has fixed walls made up of pucca material but roof is made up of the material other than those used for pucca

5.1.3.2 Structure Components

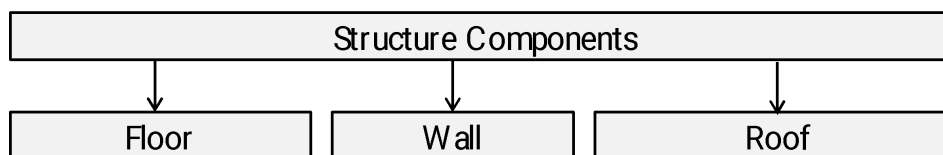


Fig. 8 Taxonomy of Structure Components

Key Terms and Definitions:

Structure Components	Structure components are defined as the key parts of the built structure. The material used in each structural component changes the property assessment. Structure components are wall, roof and floor.
Floor	Flat surface of the building which is used for walking or other purposes. These can be marble, tandur, granite, wood, shabad, vitrified Tiles, linoleum etc.
Wall	A solid, vertical structure made of stone, brick, etc. that is built around an area of land to protect it or to divide it. This may include mud walls, cement walls etc.
Roof	A roof is the top covering of a building, including all materials and constructions necessary to support it on the walls of the building or on uprights, providing protection against rain, snow, sunlight, extremes of temperature, and wind. A roof is part of the building envelope. Roofs can be made of RCC Slab, Madras Terrace, Jack Arch Roofed, Stone Slab, Slate Roofed, Asbestos Sheets, Mangalore Tiled, GI Sheet Roofed etc.

5.1.4 Occupancy

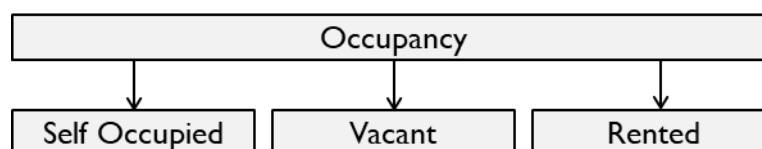


Fig. 9 Taxonomy of Occupancy

Key Terms and Definitions:

Occupancy	The principal occupancy for which a building or a part of a building is used or intended to be used; for the purposes of classification of a building according to occupancy, occupancy shall be deemed to include the subsidiary occupancies which are contingent upon it (National Building Code, 2016) ³
Self-Occupied	The Owner resides or utilises the Property.
Vacant	The property is unoccupied
Rented	The Property is let out in lieu of a certain amount.

³ Bureau of Indian Standards. (2016). *National Building Code of India* (ICS 01.120; 91.040.01).

5.1.5 Property Tax Zone

Property Tax Zone or ‘PT zone’ means the classification of different areas or streets into value zones for the purpose of determining the unit area value of a property. It may be possible to group non-contiguous streets/ area /locality falling under each value zone together and publish them as PT zones.

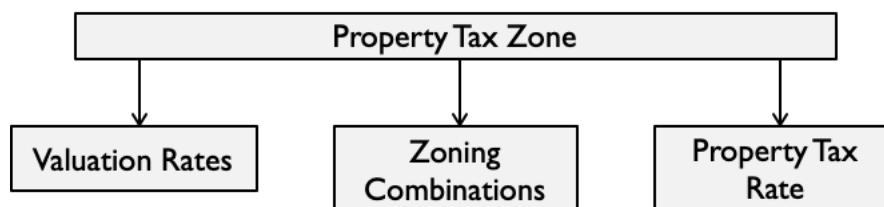


Fig. 10 Taxonomy of Property Tax Zone

Key Terms and Definitions:

Property Tax Zone	Property Tax Zone or PT Zone means classification of different areas or streets into value zones for the purpose of determining the unit area value of a property.
Valuation Rates	Valuation rate is the actual rate determined for the unit based on the zoning combination and structure combination.
Zoning Combinations	Zoning combinations are the boundary combinations based on which rates or guidance values are published by departments such as municipal, registration or PWD.
Property Tax Rate	Property tax rates are the rates determined by the municipal body for Property Tax which is applicable on the base value determined by the Property Tax calculation method.

5.1.6 Measurements

Measurements of a property are values discovered by measuring the corresponding size, shape and/or area of property.

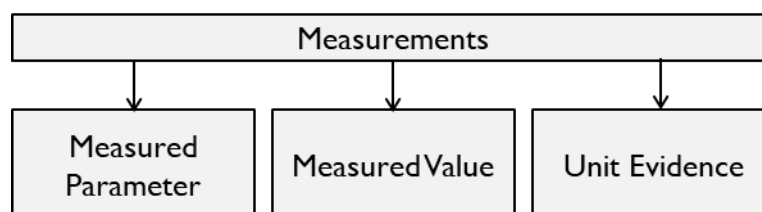


Fig. 11 Taxonomy of Measurements

Measurements include details on the measured parameter, measured value, and unit evidence. Unit evidence is optional and can include digital readings, floor pictures etc.

Measurements can have certain specifications associated with it. They are exemplified in [Annex A](#).

5.1.7 Location

Location is an important characteristic of a property that includes address, floor number, ward, zone etc. It also indicates the GIS positioning of a property with respect to the urban base map.

In the context of Property Tax, location does not have any categorisations, however, it does have certain specifications associated. They are exemplified in [Annex A](#).

5.1.8 Age of Property

The age of property is the chronological age of the built structure which may be considered in the calculation of the property tax. The age factor is not considered in case of vacant land for the assessment of property tax.

Generally, the age of the property will be observed as declared by the owner or as assessed by the corporation.

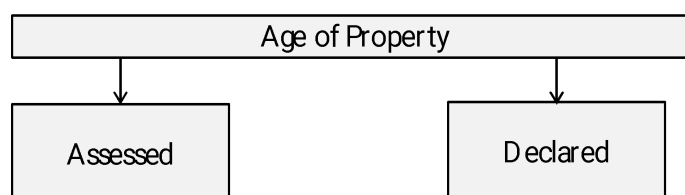


Fig. 12 Taxonomy of Age of Property

5.1.9 Building Permission Compliance

This is the compliance of buildings to ensure strict adherence to all applicable building or structural laws and building code requirements. The building permission is granted subject to very stringent scrutiny. This involves various stages starting with the identification and authenticity of the land, the geo-location, if the building conforms to all the standards of safety and regulation, the distance from the road, distance from surrounding buildings, height and other criteria set by the municipal authorities, along with the building plan. Compliance status also determines property tax.

5.1.10 Rent

Rent is the actual amount received from the property let out or the amount which is likely to be received if such owner occupied property is let out.

5.1.11 Capital Value

Capital value means the market value of any building or land fixed in accordance with the provisions of the municipal or other state act. Capital value is generally calculated by multiplying the area of the property with the per sq.ft./per sq. mt. capital value rate (prescribed by the state under municipal or other law of the state) and by deducting depreciation (if prescribed by the law) at the rates prescribed by the law.

5.2 Property Tax Processes

The following processes are usually applicable on a Property that directly or indirectly has a bearing on Tax associated with the Property.

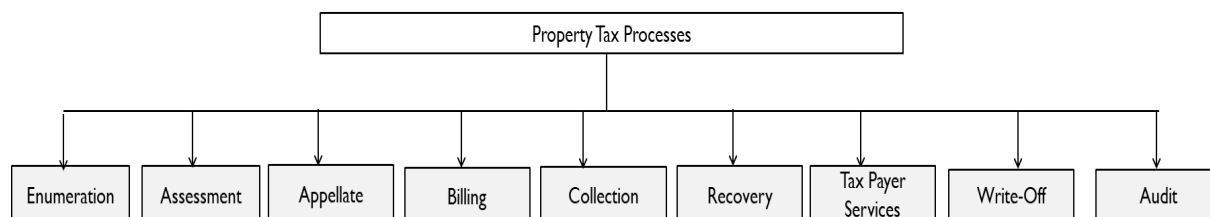


Fig. 13 Taxonomy of Property Tax Processes

Key Terms and Definitions:

Enumeration	Enumeration of property is the process of enrolling a property in the property tax register of the ULB. The property tax register may be a physical register or a digital property tax database of ULB's property tax register.
Assessment	Property tax assessment is the method of estimation of property tax by factoring various current and historical property data including size, shape, height, location, age, usage, ownership, rent etc. The property tax assessment also includes factors of deductions, rebates, surge, exemptions etc. Governmental agencies like ULBs conduct an assessment for measuring the applicability of property taxes based on the monetary value of the property. The property tax assessment processes include any changes in the given attributes of the property including merging of property, mutation, occupancy etc.
Appellate	Appellate is the process followed after the assessment notice are presented and the tax payer is aggrieved by the fixation or the charging of the tax. The appeal process kicks off with a simple property tax assessment appeal letter.
Billing	Billing is the process of generating tax demand for a financial year based on set triggers like time-based roll over on completion of a financial year.
Collection	Collection is the process of collecting money by the governing body from its citizens against taxes, permissions and services.
Recovery	Recovery means, recovery of tax from the tax payers or defaulters. In some cases, recovery may be in terms of impounding any movable or immovable asset of the tax defaulter. Few methods of recovery are: <ul style="list-style-type: none"> a) by presenting a bill b) by serving a written notice of demand c) by distraint and sale of a defaulter's movable property d) by the attachment and sale of a defaulter's immovable property e) in the case of octroi and toll, by the seizure and sale of goods and vehicles f) in the case of property tax by the attachment of rent due in respect of the property g) by a suit.
Tax Payer Services	These are the services available to all tax payers in a municipality. In the context of property tax, these are grievance redressal, no due certificate and duplicate bills.
Write-Off	Write-Off of property tax is the process of deductions or exemptions of tax, in compliance with any law, or through the guidelines of the ULB or the court of law. Write-off amount is then adjusted in ULB Tax Arrears.

Audit	Audit of the property tax bill is a process by which the correctness of the property tax levied or recovered is assessed.
-------	---

5.2.1 Enumeration

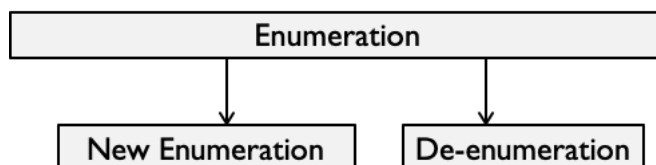


Fig. 14 Taxonomy of Enumeration Process

Key Terms and Definitions:

Enumeration	Enumeration of property is the process of enrolling a new or an existing property in the property tax register of the ULB. The property tax register may be a physical register or a digital property tax database of city's property tax register. Typically, the PID or PTIN is generated after the first-time enrolment of the property and its verification by the ULB officials.
New Enumeration	New Enumeration of property is the process of enrolling a new property in the property tax register of the ULB.
De-enumeration	De-enumeration of property is the process of deleting an existing property from the property tax register of the ULB

5.2.2 Assessment

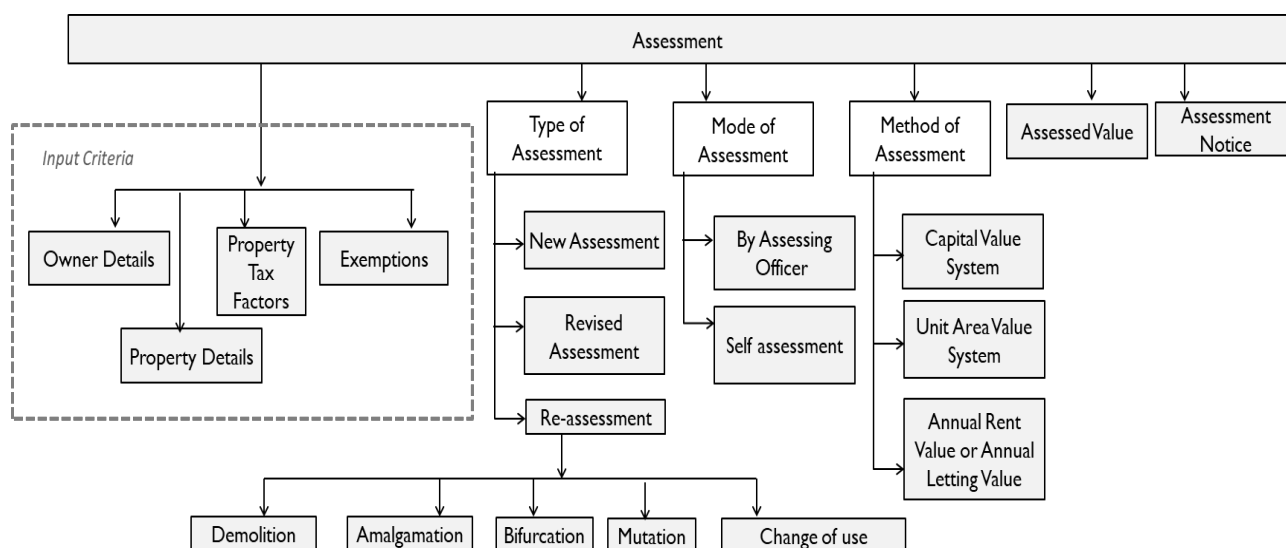


Fig. 15 Taxonomy of Property Tax Assessment Process

Key Terms and Definitions:

Assessment	Property tax assessment is the method of estimation of property tax by factoring various current and historical property data including size, shape, height, location, age, usage, ownership, rent etc. The property tax assessment also includes factors of deductions, rebates, surge, exemptions etc. ULBs conduct assessment for measuring the applicability of property taxes based on the monetary value of the property.
Owner Details	Owner details include the details of the property owner including name, ID card, Aadhar number, address, contact information etc.
Property Details	Property details include the attributes of the property which are required for assessment and identification of the property. This includes PID, locational information, complete address of the property, physical attributes of the property such as area, built-up space, number of floors, structure, age etc. see 5.1 for details.
Property Tax Factors	These are the factors associated with a property and used in various property tax processes like assessment, calculation of tax and billing. Property tax factors are detailed in 5.1 .
New Assessment	Process undertaken to assess tax for the first time for a specific property.
Revised Assessment	Process undertaken by the ULB of changing the assessment for a property based on the periodic increase in rates (based on Local acts) or based on noticed changes in the property tax factors.
Re-Assessment	Process to determine new tax value based on the change in the usage of an existing property or change in the measurements of existing property.
Self-Assessment	Self-Assessment is a mode of assessment through which the owner or occupier assesses the property tax on their own adhering to the tax calculation rules set by the ULB. A self-declaration is given by the owner or occupier stating that the information about the property including its usage, size, no of floors etc. are correct and updated as per the existing situation of the property.
By Assessing Officer	Property tax assessment done by an individual assessing officer authorised by the ULB. These include tax inspectors, tax surveyors and tax collectors.
Capital Value System	Under this system, the market value of the property is the basis of estimating the tax to be paid. The market value is determined by the government and revised annually, based on the sale and purchase transactions that have taken place in the city and other factors like cost of construction etc. The capital value system in some cases also considers depreciation amount.

Unit Area Value System	Under this system, the tax is levied on the per unit price of carpet area or the built-up area of the property.
Annual Rent Value or Annual Letting Value System	Annual Rent Value is the amount of the property which might be let out on a yearly basis. In the case of self-occupied property used for staying by the owner, the value is zero. In a situation where the owner is neither staying or letting it out, then too the value is zero. Under this system, the gross annual rent of the property is fixed by the municipal body which is generally higher than the actual rent received or expected rent.
Assessed Value	For the purpose of taxation, a property is assessed for its monetary worth. This ascertained price is known as Assessed value or Taxable property value. Assessment of non-assessed building can be done any time and revision of assessed value is done at regular interval of four or five years as prescribed by local law.
Assessment Notice	Assessment notice is the notice served to the property owner indicating the value of property tax assessed on basis of the property details. This notice is not considered as the final bill. The assessment notice is the interim notice to confirm the tax value of the property.
Demolition	It is typically an order issued when the property structure is dismantled or proposed to be dismantled and the property tax becomes applicable only on the underlying land.
Amalgamation	Processes undertaken when two or more properties are merged into a single property with a Single or Joint owner
Bifurcation	Process undertaken to split the property into two or more parts with or without change in ownership. (Oftentimes, one of the parts retains the old property number).
Mutation	Process that validates ownership change and incorporates the name of the new owner in the property records.
Change of use	Process undertaken to revise the Property Tax because of the way the property is put to use at present vis-a-vis its earlier use. For details on 'use' types, please refer to sec 5.1.2.

5.2.2.1 Exemptions

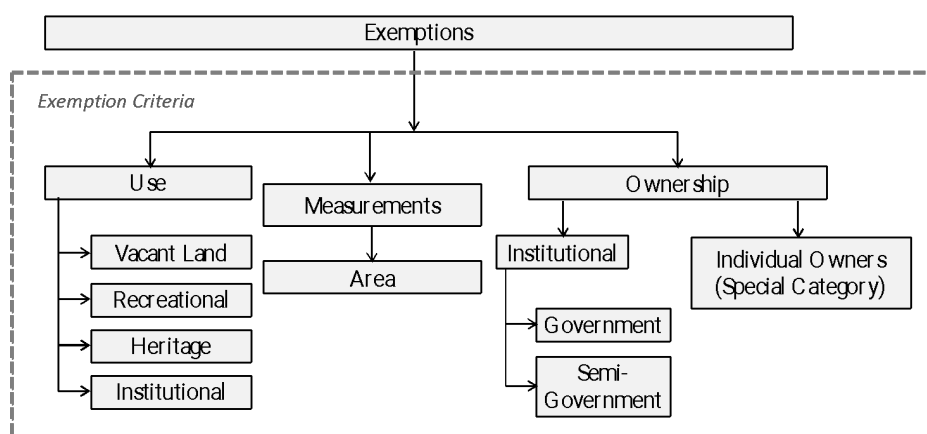


Fig. 16 Taxonomy of exemptions

NOTE - This is a partial depiction of the subcategories under "Exemptions". Diagrammatic rendering of broad and extensive subcategories available under "Exemptions" may not be effective for the use here.

Key Terms and Definitions:

Exemptions	Exemptions are special permissions granted to 'Not Pay' based on some defined criteria as per the Act or Law. For example, Property tax exemption can be provided for following or implementing certain desirable projects like green development, rain water harvesting, solar power installation in building and green building etc. as an incentive (URDPFI Guidelines, 2014) ⁴
Use	Use factor is considered while assessing the property tax. The usage factor is defined based on the actual use of the property i.e. commercial, residential, public use etc.
Vacant Land	A piece of land which does not have a type of built structure on it and has not been put in any use.
Recreational	Recreational use refers to active public spaces including, sports grounds, parks, gymnasiums, swimming pools etc.
Heritage	“Heritage building” means and includes any building of one or more premises or any part thereof and/or structure and/or artefact which requires conservation and/or preservation for historical and/or architectural and/or artisanry and/or aesthetic and/or cultural and/or environmental and/or ecological purpose and includes such portion of land adjoining such building or part

⁴ URDPFI Guidelines. (2014). *Volume II A & II B* (MoHUD).

	thereof as may be required for fencing or covering or in any manner preserving the historical and/or architectural and/or aesthetic and/or cultural value of such building
Institutional	Includes a building constructed by Government, Semi-Government Organisations or Registered Trusts and used for medical or other treatment, or for an auditorium or complex for cultural and allied activities or for a hospice, care of persons suffering from physical or mental illness, handicap, disease or infirmity, care of orphans, abandoned women, children and infants, convalescents, destitute or aged persons and for penal or correctional detention with restricted liberty of the inmates ordinarily providing sleeping accommodation and includes <i>dharamshalas</i> , hospitals, sanatoria, custodial and penal institutions such as jails, prisons, mental hospitals, houses of correction, detention and reformatories etc.
Religious, Educational, Healthcare	Includes buildings with social purposes constructed by the government or semi government organisations including schools, educational institutions, hospitals, nursing homes etc.
Measurements	Includes properties that are smaller in size than a benchmark. These properties may be exempted from property tax.
Ownership	Based on the ownership, various buildings are exempted from property tax, these including buildings owned by trusts, government or semi-government organisations, non-profit organisation.
Institutional	Government and semi-government institutions may also be considered for exemption from property tax based on municipal laws of the state.
Government	Buildings on which the government has complete right and legal ownership including offices, institutions etc.
Semi-Government	Buildings on which the government has complete right and legal ownership including offices, institutions etc.
Individual Owners (Special Category)	Individual with a special background including freedom fighter, widow, specially-abled, defence personnel and others such as senior citizens etc

5.2.3 Appellate

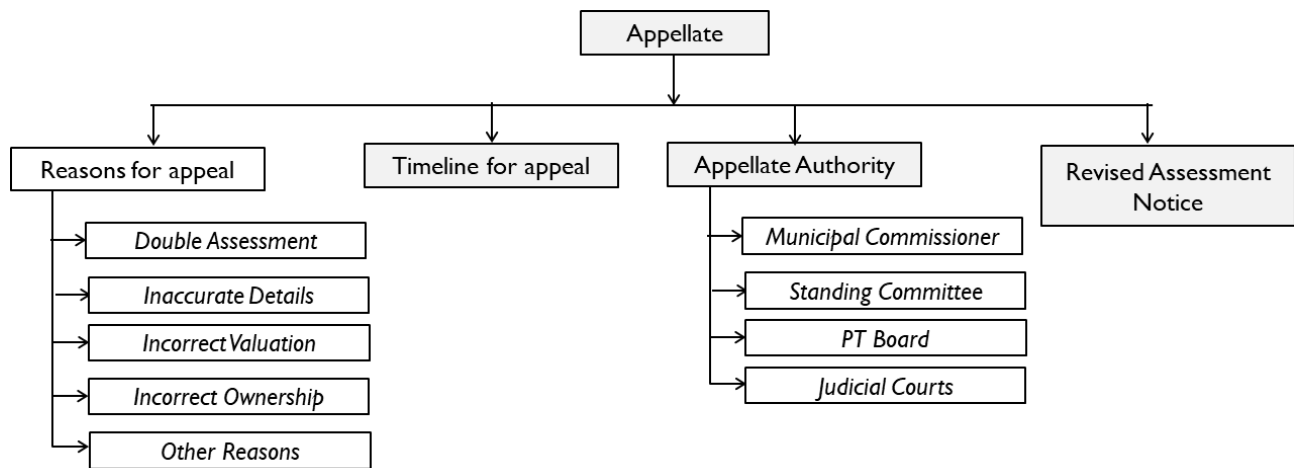


Fig. 17 Taxonomy of Appellate Process

Key Terms and Definitions:

Appellate	Appellate is the process followed after the assessment notice are presented and the tax payer is aggrieved by the fixation or the charging of the tax. The appeal process kicks off with a simple property tax assessment appeal letter.
Timeline for Appeal	This is the timeline mentioned in an assessment notice by when an aggrieved person can appeal to the appellate authority.
Appellate Authority	Appellate Authority is the authority or representative of the authority assigned to review the procedures and decisions or assessment of property to make sure that the proceedings were fair and that the proper law/ regulation are applied appropriately.
Revised Assessment Notice	Revised Assessment notice is the assessment notice served to the property owner post completion of the appellate process (if there is a change).

5.2.4 Billing

The below diagram illustrates the classifications for the Billing process.

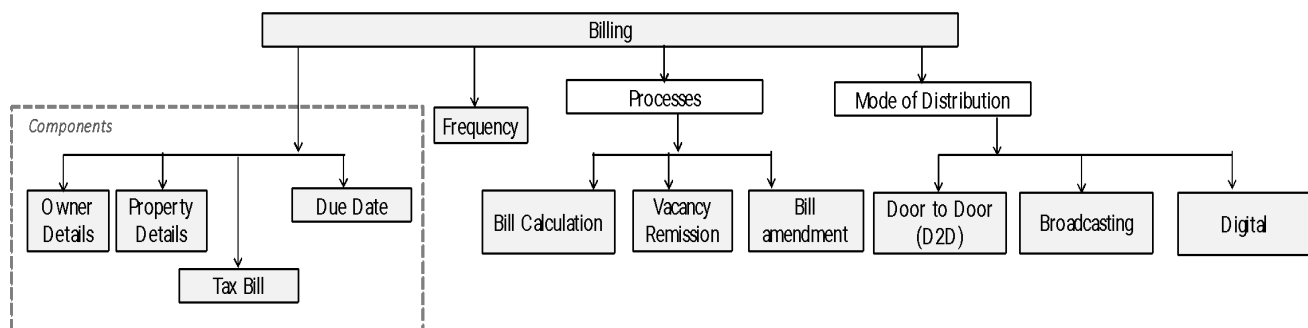


Fig. 18 Taxonomy of Billing Process

Key Terms and Definitions:

Billing	Billing is the process of generating tax demand for a financial year or half-year or quarter, based on set triggers like time-based roll over on completion of a financial year.
Owner Details	Owner details include the details of the property owner including name, ID card, Aadhar number, address, contact information etc.
Property Details	Property details include the attributes of the property which are required for assessment and identification of the property. This includes PID, locational information, complete address of the property, physical attributes of the property such as area, built-up space, number of floors, structure, age etc.
Tax Bill	Tax bill is the note in which the actual tax in consolidated form and in a specified format, generated and are distributed to the property owners for payment of the assessed property tax. A tax bill once served is called demand or tax demand.
Due Date	Due date is the date on which the property tax for a particular property is due for the current assessment duration. Upon non-payment of tax by the given due date, a surcharge may be levied on the initial demand by the imposition of a penalty.
Frequency	Frequency of billing means the interval of time in which the property tax is collected by the authority. The tax frequency can be annual, bi-annual or quarterly.
Bill Calculation	Property tax bill calculation process comprises the use of any one or combination of methods like annual rental value or area based or capital value method using various attributes of property such as rent received or likely to be received, ownership, area, location, type of structure, usage, age of the structure, capital value of land and structure, depreciation etc. to come up with a tax amount.
Vacancy Remission	Process undertaken to verify claims of rebates on PT if the property is vacant for a specified period of time as defined in the law.
Bill Amendment	Bill amendment is the process of amending tax bill when tax payer notices a discrepancy in the calculation of the tax bill and submits a request for amendment or when the ULB realises discrepancy in the calculation of tax bill and amends it.
Distribution	Distribution refers to the broadcasting or door to door distribution of the property tax bill through a digital or physical medium.
Door to Door (D2D)	Door to Door means the process of distribution of tax bill and property tax collection by physically visiting every individual property by an authorised representative of the local government or municipal body.
Broadcasting	Broadcasting is a distribution method used by ULB to communicate to the masses about property tax bill distribution, amendment and bill payment schedule. It covers a wide range of different communication methods that include television, SMS, radio, podcasts, blogs, advertising, websites, online streaming and digital journalism.

Digital	Digital means an electronic way to collect, store, process and transmit data in the desired form. In the context of property tax, this refers to all the relevant data of property, owner, and tax register stored and shared in digital form and is used by the authority and the individual for property tax management via web and mobile applications.
---------	--

5.2.4.1 Tax Bill

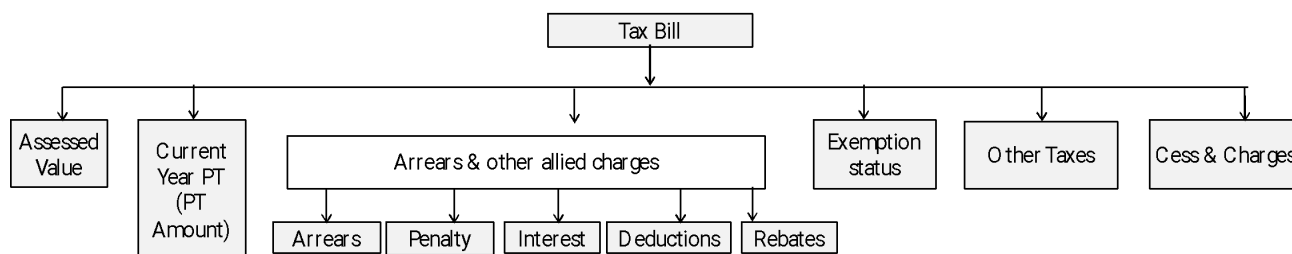


Fig. 19 Taxonomy of Tax Bill

Key Terms and Definitions:

Assessed Value	For the purpose of taxation, a property is assessed for its monetary worth. This ascertained price is known as Assessed value or Taxable property value. Assessment of non-assessed building can be done any time and revision of assessed value is done at regular interval of four or five years as prescribed by local law.
Arrears	Arrears are defined as previous year's and/or unpaid property tax
Current Year PT (PT Amount)	This is the current year PT amount levied by the ULB as a house or holding tax. This is calculated by taking into consideration - tax rate and assessed value.
Penalty	The amount of extra money the citizen has to pay for failing to adhere to Property tax rules and/or/laws, timelines.
Interest	The Amount collected above Property Tax in the event of late payment. It is usually determined at a particular rate of Property Tax.
Deductions	Deductions is the component of tax which has been deducted from the gross tax in lieu of advance or any other exemptions made subject to the rules of assessment of taxes.
Rebates	Discount given to the citizen for paying Property Tax in advance or before end of the statutory period or for undertaking certain listed activities as per the applicable rules.
Exemption Status	Exemption status is the status of exemption granted on some defined criteria as per the Act or Law.
Other Taxes	These could be taxes levied by the governing authority for facilitating infrastructure and services that enhance the liveability factor associated with the property. This may include water tax, sewerage tax, etc.

Cess and Charges	These are charges that are levied by the governing authority to raise funds for a specific purpose. These may include miscellaneous cess like Library cess, Swastha Cess.
------------------	---

5.2.5 Collection

Figure 18 illustrates the Property Tax Collection process

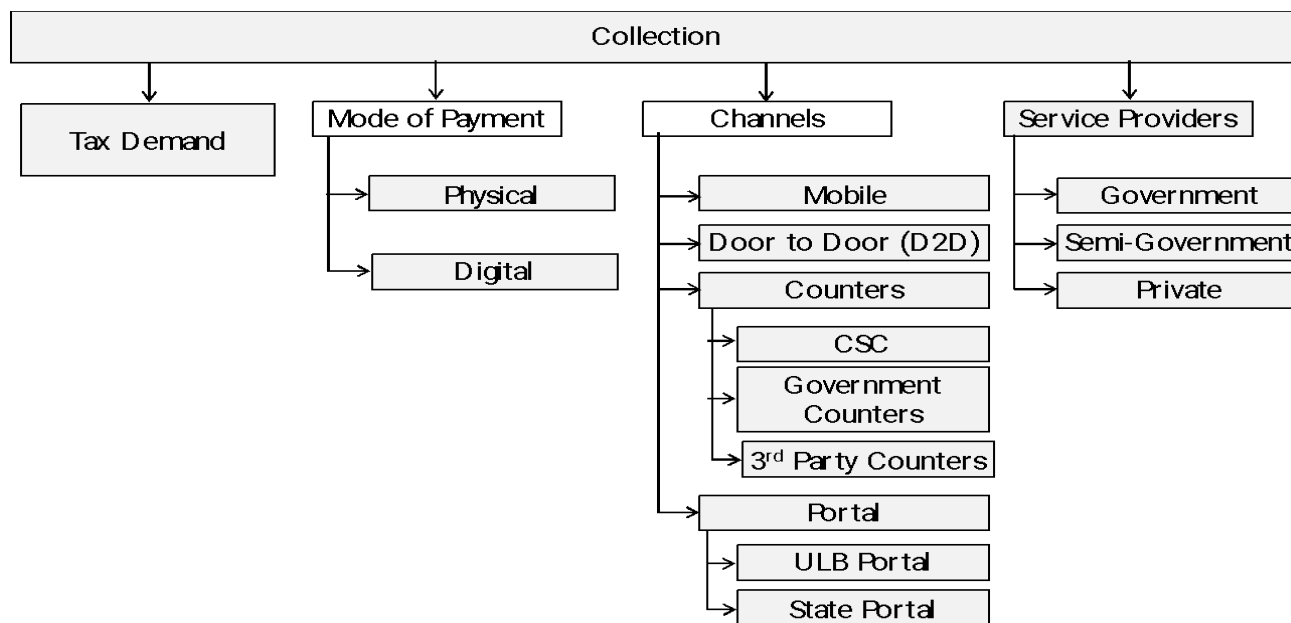


Fig. 20 Taxonomy of Collection Process

Key Terms and Definitions:

Collection	Collection is the process of receiving money by the ULB from its citizens against taxes, permissions and services.
Counters	Physical window or office where an individual can physically visit for various purposes for governance related services including payment of taxes, grievances, seeking permissions, applications etc.
Portals	Web portals or web application refer to the websites developed for property tax management. This broadly includes an assessment calculator, property data, owner's information and facility to pay the property tax through payment gateways linked to the portals. These portals also include a grievance redressal system.
Mobile	A portable handheld device with inbuilt capability for voice, SMS (short messaging service) communication through a cellular network (e.g. 2G/3G/4G/5G) with possibly other communication capabilities such as WiFi, Bluetooth, NFC; The Device may have data communication capability. Example: Mobile phone, smartphone, tablet

Door to Door (D2D)	Door to Door means the process of distribution of demand notice and property tax collection by physically visiting every individual property by an authorised representative of the local government or municipal body.
Physical	In the context of property tax, physical refers to the mode of payment of money in physical form like cash, demand draft, cheque etc.
Digital	Digital means an electronic way to collect, store, process and transmit data in a desired form. In the context of property tax this refers to payment of money in digital form like credit card, debit card, internet banking, e-wallets etc.
Service Provider	A 'Government body' or 'Government body authorized entity' which can collect monies from citizens.
Government	Government Organisation or Public agency is often a government appointed group, it can be a permanent or semi-permanent organisation and is funded by the government. A government agency may be created by either a national government or a state government within a federal system.
Semi-Government	Semi government arrangement between two or more public and private sectors, typically of a long-term nature. In other words, it involves government and business that work together to complete a project and/or to provide services to the population.
Tax Demand	Tax Demand is the money to be received by the governing body from its citizens against taxes, permissions and services; also known as a demand.

5.2.6 Recovery

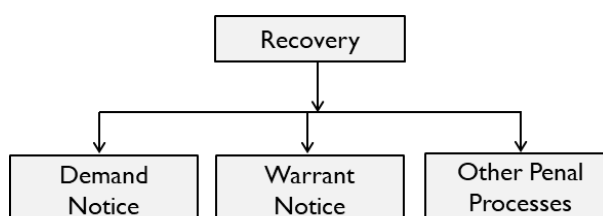


Fig. 21 Taxonomy of Recovery Process

Key Terms and Definitions:

Recovery	<p>Recovery means, recovery of tax from the tax payers or defaulters. In some cases, recovery may be in terms of impounding any movable or immovable asset of the tax defaulter. Few methods of recovery are:</p> <ul style="list-style-type: none"> a) by presenting a bill b) by serving a written notice of demand
----------	---

	<ul style="list-style-type: none"> c) by distraint and sale of a defaulter's movable property d) by the attachment and sale of a defaulter's immovable property e) in the case of octroi and toll, by the seizure and sale of goods and vehicles f) in the case of property tax by the attachment of rent due in respect of the property g) by a suit.
Demand Notice	Demand notice is the tax bill that is served by the authority on the tax payer.
Warrant Notice	Warrant notice is a legal or authorised notice from the authority to property tax defaulter, to pay the tax in the given period of time. The authority, on the basis of the warrant, may recover the taxes by distress or sale of any movable or immovable asset of the defaulter.
Other Penal Processes	These are other penal processes that the authority can undertake for the recovery of the tax amount.

5.2.7 Tax Payer Services

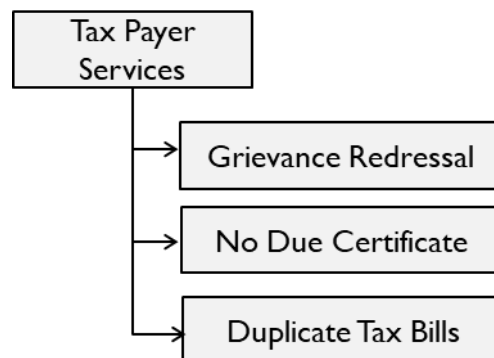


Fig. 22 Taxonomy of Tax Payer Services

NOTE - This is a partial depiction of the subcategories under "Tax Payer Services" to show the linkage between Municipal Services and Property Tax. Diagrammatic rendering of broad and extensive subcategories available under "Tax Payer Services" may not be effective for the use here.

Key Terms and Definitions:

Tax Payer Services	These are the services availed to all tax payers in a municipality. In the context of property tax, these are Grievance redressal, no due certificate and duplicate bills.
Grievance Redressal	Grievance Redressal is a mechanism where a citizen can lodge their grievances to the ULB on various services. Few categories under Grievance Redressal for property tax are: <ul style="list-style-type: none">a) Property tax Assessmentb) Property tax appeal petitionc) Change of title/ownership of propertyd) Dealer registration (Cess)e) Dealer Assessmentf) Refund Claims
No Due Certificate	No-Dues is the certificate issued by the ULB upon full payment of property tax. Property Tax No Objection Certificate is majorly required while taking building permission, civil renovation permission from ULB, or at the time of buying and sale of any property.
Duplicate Tax Bills	These are duplicate copies of tax bills that a payer can ask for.

5.2.8 Write-Off

Write-Off of property tax is the process of deductions or exemptions of tax, in compliance with any law, or through the guidelines of the ULB or the court of law. The write-off amount is then adjusted in ULB Tax Arrears.

5.2.9 Audit

Audit of the property tax bill is a process by which the correctness of the property tax levied or recovered is assessed.

5.3 Stakeholders

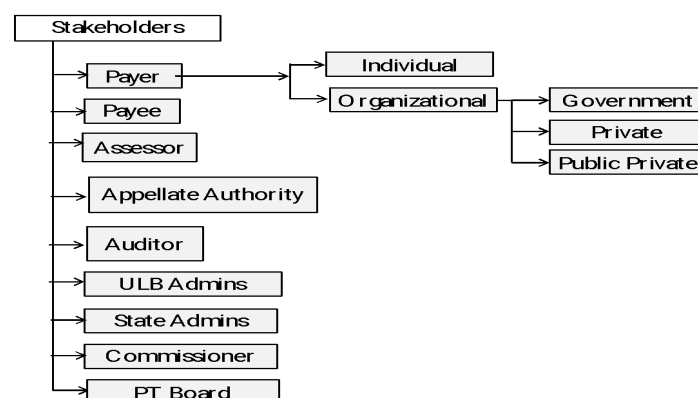


Fig. 23 Taxonomy of Stakeholders

Key Terms and Definitions:

Payer	Person who is liable to pay or whose behalf it is paid.
Individual	Individual in terms of revenue refers to a person also referred to as assessee or the owner, who is liable to pay taxes to the government.
Organisation	Organisation means a group of people working or functioning together with a set aim. Organisation refers to a trust, charitable organisation, non-governmental organisation etc.
Government	Government, refers to the parliamentary system formed under the constitution of India. This is broadly categorised into the three types of government i.e. the Central government, State Government and Local government. In reference to the property tax, the government means the ULB or the Municipal bodies of the cities.
Private	Private means any property, firm or organisation which is owned by any individual or group and not shared by any other individual group or government.
Public Private	Public private means collaboration of government and individual or group made for a particular aim.
Payee	The governing body which is authorized to collect the tax as per prevailing laws.
Assessor	An assessor is a ULB official who determines the value of a property for taxation purposes. The figures assessors derive are used to calculate future property taxes. The assessor estimates the value of property within a city or town's boundaries. This value (assessed value) is converted into an assessment, which is one component in the computation of property tax bills.
Appellate Authority	Appellate Authority is the authority or representative of the authority assigned to review the procedures and decisions or assessment of property to make sure that the proceedings were fair and that the proper law/regulation are applied appropriately.
Auditor	Auditor is the person bestowed with the responsibility to check the correctness of the property tax levied or recovered is assessed.
ULB Admins	ULB Admins means and includes all the officers, employees and other staff employed in the Municipality.
Commissioner	Commissioner of the ULB or municipal body means an officer appointed by the Government, and includes an Additional Director, a Joint Director, Deputy Director, or any other officer of the Government authorized by it to perform the functions of the Commissioner and Director of Municipal Administration.
State Admins	State Admins means and includes all the officers, employees and such other staff employed in the State government.
Property Tax Board	Property Tax Board is a board constituted by the state government by notification in the official gazette, to exercise the powers conferred on, and to perform the functions assigned to it.

5.4 Reports and KPIs

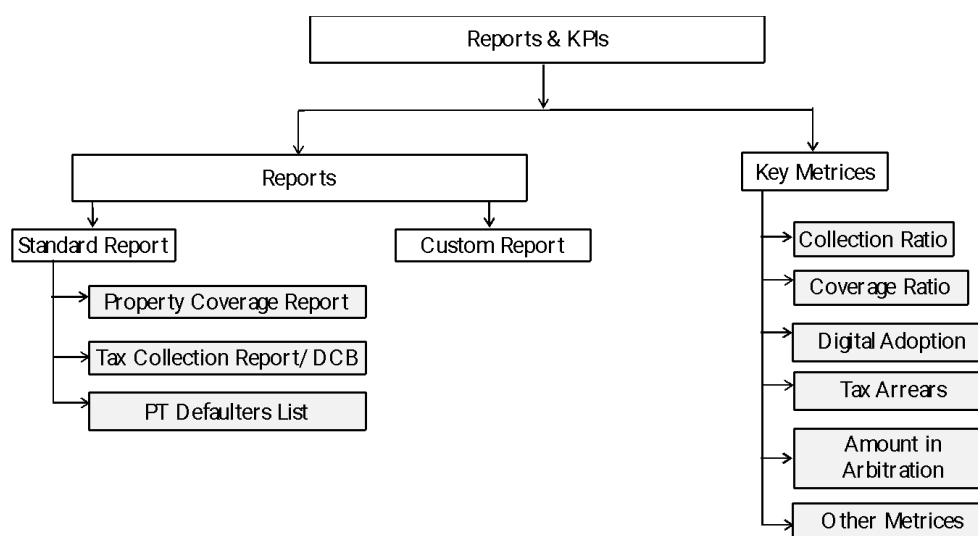


Fig. 24 Taxonomy of Reports and KPIs

Key Terms and Definitions:

Property Coverage Report	Property coverage report is the report that gives coverage of properties under the tax net.
Tax Collection Report	Tax Collection report is the current statement of total receipts or collections and outstanding balance against the demand. These reports are generated in desired formats in a graphical or tabular form summarising the detail of property tax demand, collection and balance of property tax for a particular period of time.
Property Tax Defaulters List	PT Defaulters List is the list of property tax defaulters, as on date. Defaulter is a person or body that has not paid last or previous years property tax. This covers assessment number, owner details, property details, demand year and arrears.
Collection Ratio	Collection ratio is the total amount of Property tax collected against the total Demand for that period in the ULB.
Coverage Ratio	Coverage ratio is the number of properties covered under the tax net against the total properties falling within the ULB.
Digital Adoption	Digital Adoption means attaining a state where an individual is capable enough to utilise an application, software, or tools to its fullest capacity or the potential to carry out a variety of digital processes. Digital adoption of property tax can be measured in the following terms: <ol style="list-style-type: none"> % of Citizens using Digital Channels for PT Payment % of citizens using Digital Channels for accessing Services % Volume from different Channels
Tax Arrears	Tax arrears are the PT liability that has accrued because of payment not received by the due date. These are reflected as balance and disputed amount in Tax collection report.

5.4.1.1 Tax Collection Report

The Tax Collection report is the current statement of total receipts or collections and outstanding balance against the demand. These reports are generated in desired formats in a graphical or tabular form summarising the detail of property tax demand, collection and balance of property tax for a particular period of time.

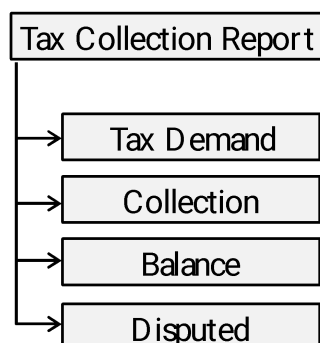


Fig. 25 Taxonomy of Tax Collection Report

Key Terms and Definitions:

Demand	Tax Demand is the money to be received by the governing body from its citizens against taxes, permissions and services; also known as demand.
Collection	Collection is the actual collection of property tax receipts for a particular tax cycle.
Balance	Balance refers to the amount due or the amount which is pending and is to be realised in the future. The balance amount is sometimes also known as arrears.
Disputed	This is the amount under arbitration.

5.5 Revenue

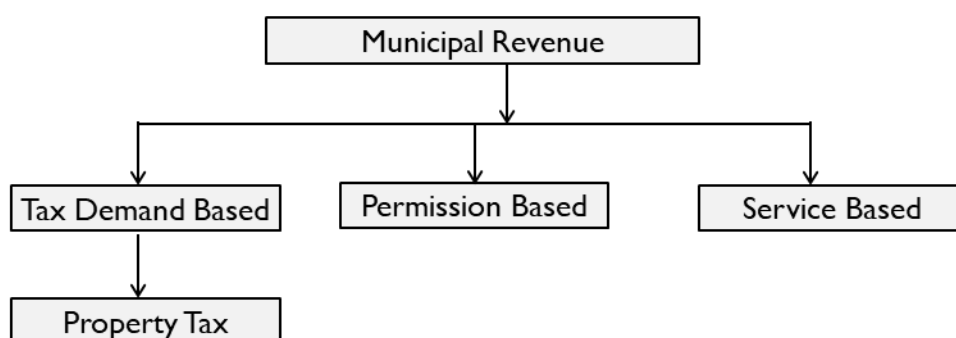


Fig. 26 Taxonomy of Revenue

NOTE - This is a partial depiction of the subcategories under "Revenue" to show the linkage between Municipal Revenue and Property Tax. Diagrammatic rendering of broad and extensive subcategories available under "Revenue" may not be effective for the use here.

Key Terms and Definitions:

Revenue	Revenue is the income earned by the governing body from taxes, charges and fees .
Tax Based Demand	The amount charged by the governing authority for public purposes enforceable by law. e.g.: Property Tax
Permission Based Demand	The amount charged by the governing authority against approvals of permissions provided. e.g.: Building Plan Approval etc.
Service Based	Amount charged by governing authority for services provided such as Water charges, Advertising Charges etc.

6 ANNEX A

SAMPLE PARAMETERS AND SPECIFICATIONS IN PROPERTY TAX

A-1 Sample Parameters and Specifications for Location

Type	Location Specification
Address	House No, Building Name, Plot/Survey No, Street Name, Locality, Zone/Ward, City/Town, District, Region, State, Country, Pin code
Geo Location	Latitude, Longitude, Polygon
Digital Numbers	PTIN or UPIC number
Other evidences	This can include Geo tagged images of Property, DDN, QR codes etc.

- a) **Address:** The address of the property provides the particulars of the place as per the administrative boundaries or norms defined by the local governing body.
- b) **Geo Location:** Geolocation is the identification or estimation of the real-world geographic location of property. This refers to the latitude and longitude coordinates of a particular location where property is located.
- c) **Digital Numbers:** Property Numbers defined using scientific methods and often assigned with QR code for traceability and usability.

A-2 Sample Parameters and Specifications of Measurements for Different Types of Property

Type of Property	Area of Measurement	Representation on Map
Vacant Land	Polygon Area (square feet or m ²)	Polygon
Built Structure	Built Up Area of Premise (square feet or m ²)	Polygon, Centroid
	Appurtenant Area (square feet or m ²)	Polygon, Centroid

7 BIBLIOGRAPHY

- a) Town and Country Planning, Ministry of Housing and Urban Development. (2014). Urban and Regional Development Plan Formulation and Implementation (URDPFI) Guidelines.
- b) Town and Country Planning, Ministry of Housing and Urban Development. (2016). Model Building Bye Laws.
- c) URDPFI Guidelines. (2014). Volume II A and II B (MoHUD).