

DECODING THE UNIQUE CODES FOR REVENUE PLOTS IN UTTAR PRADESH

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Highlights

Prior to land record modernisation, locating concerned land parcel was a challenging task for state-level revenue officials.

UPIC comprises a 16-digit code combining census village code, khasra/ gata number, division of khasra, and land type.

Limitations of the UPIC- Insufficient to capture land parcel partitions, absence of geo-coordinates, urban areas not covered, partial integration with court cases and legacy registration records.

ULPIN - It is a 14 digit alpha-numeric unique code for land parcel based on international standards of Electronic Commerce Code Management Association (ECCMA) and Open Geospatial Consortium (OGC).

The Digital India Land Records Modernisation Programme (DILRMP) has improved the quality and accessibility of the land records. Earlier, identifying and locating a particular land parcel was a difficult task for revenue officials at the state level. In 2018-19, the Government of Uttar Pradesh (GoUP) became one of the pioneer states in India to assign a unique property code to every rural land parcel in the state under the project 'Digital Land' (DARPG, 2019). According to BoR officials, before the Unique Property Identification Code (UPIC) was developed, plots were identified based on the khata number, which was inefficient and time-consuming (BOR, 2017). The khata number was not unique and changed often. The UPIC resolved the problem of plot identification and helped officials locate the plot cost-effectively with minimal time and effort. The Board of Revenue (BoR), GoUP, has enabled the first elementary step

towards an integrated digital land management system in the state. Like the unique Aadhaar number for every Indian resident, a UPIC acts as an identification number for individual revenue plots to ensure its exclusivity. UPIC comprises a 16-digit code combining census village code, khasra/ gata number, division of khasra, and land type.

This policy brief is a part of the research work conducted by the Indian Institute for Human Settlements (IIHS). The study found that some aspects of the UPIC needed improvement. This policy brief also compares the UPIC with the Unique Land Parcel Identification Number (ULPIN), launched by the Ministry of Rural Development, Government of India, which assigns a unique number for each land parcel.

In-sufficient UPIC code

The UPIC has a 16-digit code with four major components. The third segment of the code (11th to 14th digit- plot division) should be increased from four to five digits, as it is insufficient to enrol all the partitions in the plots in some districts. For example, the study found that Mirzapur district has more than 9,999 partitions of a few plots; hence, the UPIC found it difficult to capture such land parcels (Yadav et al, 2021).

Duplication of census village code

The UPIC uses village code generated by the Census of India; however, discussions with revenue officials revealed that revenue villages were more than the number of census villages. Therefore, there are possibilities of unavailability of census codes for some villages to generate the UPIC. Numbering of villages that are not enlisted by census is a challenge for the administrators, as the same number may be used by other states, leading to duplication in the case of pan-India implementation.

Absence of geo-coordinate information

Geo-coordinates are the precise locational attributes consisting of the longitude and latitude of any location. Geo-coordinates cannot be repetitive. However, creating such data sets requires a detailed and accurate topographical survey. The UPIC works on the concept of a nomenclature comprising four attributes and does not have the provision to capture geo-coordinates of land parcels.

Non- integrated with few datasets

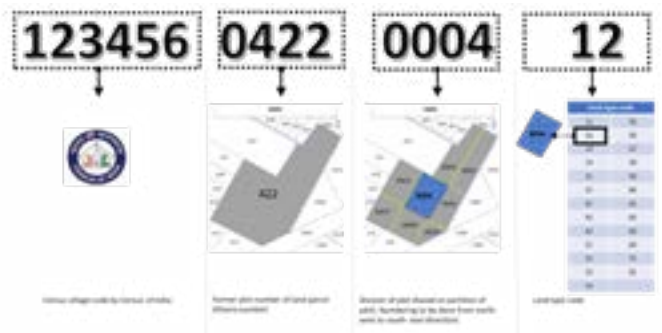
Post-implementation of the UPIC, the BoR has adopted the code to link various applications related to land administration and registration, including the Revenue Court Computerised Management System (RCCMS), meant to digitise revenue court cases. However, land disputes filed with the state's civil courts or the Supreme

Court are yet to be integrated under the scope. Therefore, cases filed in such courts cannot be viewed through UPIC. Further, historical registration data (up to 30 years) is not integrated with the UPIC.

Box 1: Composition of UPIC

In the 16-digit unique plot code, the first 6 digits are the census village code (same as generated by the Census of India). The next 4 digits (7-10) represent the khasra number (gata number), whereas the next 4 digits (11-14) represent the division of khasra number. The last 2 digits (15-16) denote the category of the land type which is classified into 25 types.

Figure: 16-Digit Unique Property Identification Code for revenue plots in Uttar Pradesh



Source: Yadav, M., Jha, D., Moun, R., Goswami, A. (2021). Land Records Modernisation: Uttar Pradesh. Indian Institute for Human Settlements, Bengaluru

Comparison with the ULPIN

The ULPIN incorporates the use of geo-coordinates, Electronic Commerce Code Management Association (ECCMA), and Open Geospatial Consortium (OGC) standards in the unique numbering system of ULPIN. However, geo-coordinates-based ULPIN applies only to states with a geo-referenced Bhū-Naksha platform (DOLR, 2020). The lack of accuracy of spatial land records in different states of India and their mismatches with textual records is a major concern with the land records. For states that do not have accurate geo-referenced spatial records, the UP model of UPIC may be more suitable and achievable in the short run, followed by interlinking of various databases using UPIC.

Box 2: Comparison between UPIC and ULPIN		
Attributes	UPIC	ULPIN
Composition	Numeric	Alpha-numeric
Digits	16	14
Components	Composition of four attributes (Census village code, plot number, parcel division and land type)	Electronic Commerce Code Management Association (ECCMA) standard and Open Geospatial Consortium (OGC) standard.
Implementation status	At state level (Uttar Pradesh)	Pilot testing has been done in 11 states.
Data integration	It is integrated with Bhu-Lekh, RCCMS, Bhu-Naksha, Anti- Bhu-Mafia, PRERNA (for Stamp and Registration) etc.	It has the provision to integrate with land records, registration/ mutation and revenue courts data records.
Others:	<ul style="list-style-type: none"> • On voluntary basis. • It is embedded with the land type, which can prevent illegal sale and purchase. • It can be replicated in other Indian states 	<ul style="list-style-type: none"> • On voluntary basis. • ULPIN does not have the provision to classify land type. • It requires geo-referenced spatial map to replicate.
Source: Ministry of Rural Development, Minimum Government and Maximum Governance, press release on 08.02.2021 and authors analysis.		

Properties excluded from UPIC

The UPIC does not include villages under land consolidation or re-survey and therefore have not been assigned the unique code to their revenue plots. Further, it cannot be used for urban properties since it does not include height features, an essential attribute of the urban property.

Technological downside

Uttar Pradesh has 1,08,848 revenue villages and 7.65 crore revenue plots. As the numbers of revenue plots are high, the number of property transactions and required storage space is also high and shall keep increasing. Integration of UPIC with other land-allied online applications burdens the data server. The Bhu-Lekh portal sometimes performs very slowly, which reduces the system's efficiency in case of high user demand. Also, the high costs of cloud servers may often act as a financial constraint.

Recommendations

The BoR should increase the total number of digits in UPIC. It is crucial to understand that for some land parcels in the Mirzapur district, the number of partitions is more than 9,999; therefore, increasing the number of digits in UPIC from 16 to 17 or more is essential to incorporate each land parcel.

Both state and central agencies should share datasets and learning experiences on a common platform as part of their institutional structure. The state government should convey the exact number of revenue villages to the Ministry of Panchayati Raj to generate the census village code for the respective revenue village in the local government directory. This shall resolve issues on village codes at the national level to avoid duplication.

The government should prioritise the digitisation of spatial components of the land records, including geo-coordinates. This shall delineate exact plot boundaries and avoid land disputes in the long term. Furthermore, the government could use such datasets for future developmental projects. These geo-coordinates can later be integrated with UPIC.

To ensure integration of UPIC with other datasets, it should be essential to provide UPIC numbers during registration of land related disputes in any court, court proceeding, or

property transaction. Further, it will be beneficial to link historical registration datasets with UPIC to ease data accessibility and management. Simultaneously, finding the UPIC number of a land parcel must be easy and user-friendly.

The extension of UPIC to urban properties shall provide a common platform to the users to check agricultural land and built-up properties on a single platform, enhancing data accessibility and institutional integration. However, this requires institutional coordination with multiple urban-rural authorities/ departments.

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