**Documents Required for Verification**

Along with their **purpose** and **data sources (portals/APIs)**:

**1. Encumbrance Certificate (EC)**

**Purpose:**  
Confirms if the property is free from monetary/legal liabilities (mortgages, loans, litigations).

**Source Portals:**

* **IGRS/AP IGRS** – Telangana, Andhra Pradesh
* **TNREGINET** – Tamil Nadu
* **KAVERI** – Karnataka

**Access:**

* Public search using Survey Number or Document Number
* Downloadable PDF with ownership timeline

**2. Record of Rights, Tenancy & Crops (RTC)**

**Purpose:**  
Details about ownership, land type, cultivation, tax, and history of land.

**Source Portals:**

* **Bhoomi (Karnataka)**
* **Mahabhulekh (Maharashtra)**
* **Dharani (Telangana)**

**Access:**

* Requires district, taluk, hobli, village, and survey number

**3. Survey Sketch / Village Map**

**Purpose:**  
Visual confirmation of land boundaries, disputes, encroachments.

**Source Portals:**

* **Dishank (Karnataka)**
* **BhuNaksha (India-wide)**
* **Village Maps (Survey Dept. websites)**

**Access:**

* Map-based interface or downloadable PDF sketch

**4. Mutation Report / Extract**

**Purpose:**  
Legal update of ownership transfer after inheritance or sale.

**Source Portals:**

* **Bhoomi – Mutation Status**
* **Dharani / TNREGINET**
* **Revenue Department of respective state**

**Access:**

* Using previous sale deed reference or application number

**5. Tax Paid Receipt**

**Purpose:**  
Proof of no pending municipal or panchayat taxes.

**Source Portals:**

* **BBMP (Bangalore), GHMC (Hyderabad), Local Municipalities**
* Often available in local panchayat offices or ULB portals

**6. Patta/Chitta (Tamil Nadu)(Optional)**

**Purpose:**  
Ownership + type of land (wet/dry), especially for TN

**Source Portal:**

* **eservices.tn.gov.in**

**7. Conversion Certificate (DC Conversion)**

**Purpose:**  
Confirms land converted from agricultural to residential/commercial use.

**Source Portals:**

* **Bhoomi**, **Dharani**, or district-level Revenue Department websites

**8. Aadhar-based Owner Validation (with consent)**

**Purpose:**  
Match input owner name with government-linked Aadhar data.

**Source:**

* Via UIDAI APIs (if KYC authorized and legal)

**9. Legal Case Status (Litigation Check)**

**Purpose:**  
Verifies if property or seller is involved in active legal disputes.

**Source Portals:**

* **ecourts.gov.in** – National Judicial Data Grid
* **High Court Case Status Pages**
* **Judicial Web SG / EC-integrated judicial views**

**10. Green Zone / CDP Validation**

**Purpose:**  
Ensure land is not restricted under green belt or city development planning.

**Source Portals:**

* **BDA (Bangalore)**
* **HMDA (Hyderabad)**
* **NGT Data / Forest Dept. Maps**

**Integration Types:**

| **Type** | **Method** | **Notes** |
| --- | --- | --- |
| Public Portals | Headless scraping / open search | For EC, RTC, Mutation |
| Maps & GIS | API-based or coordinate fetch | For Dishank, BhuNaksha |
| Judicial Data | Search by name / property | Use captcha handling |
| Tax Records | Municipality-specific logic | Varies greatly across cities |
| Aadhar (optional) | Consent-based UIDAI gateway | Only if buyer/seller agrees |

## ****Karnataka Property Document Data Extraction Procedure****

### 1. ****Encumbrance Certificate (EC)****

**Portal:** KAVERI Online Services

**Steps to Extract:**

1. Navigate to **KAVERI Online Services > Online EC**.
2. Register/Login using mobile number & OTP.
3. Select:
   * District
   * SRO (Sub-Registrar Office)
   * Survey No or Document No
4. Submit and preview EC data.
5. Download EC as PDF.

**Automation Possibility:**

* CAPTCHA present (requires OCR or CAPTCHA-solving services).
* Use Selenium headless browser with user session + scraping for the result table.

### 2. ****RTC (Record of Rights, Tenancy & Crops)****

**Portal:** Bhoomi RTC Portal

**Steps to Extract:**

1. Go to Bhoomi RTC WebRTC or Service 84.
2. Choose:
   * District → Taluk → Hobli → Village
   * Survey Number
3. Submit the form to get RTC extract.
4. View & download the PDF.

**Automation Possibility:**

* Can be automated with Selenium (relatively stable interface).
* Map dropdown selections using preloaded mapping data.

### 3. ****Survey Sketch / Village Map****

**Portal:** Dishank

**Steps to Extract:**

1. Use Dishank mobile app or GIS map portal.
2. Enter or pin the survey number and village.
3. View cadastral/survey map and overlay.
4. Export map section or screenshot.

**Automation Possibility:**

* API is private; app automation (Appium) or GIS tile scraping may be required.
* Coordinate-based capture using Google Pin.

### 4. ****Mutation Status****

**Portal:** Bhoomi Mutation Portal

**Steps to Extract:**

1. Go to Bhoomi → Mutation Status.
2. Provide:
   * District, Taluk, Hobli, Village
   * Survey Number or Application ID
3. View mutation history, pending status, or rejection reason.

**Automation Possibility:**

* Same as RTC portal automation via Selenium.
* Data is displayed in table – scrape and convert to structured JSON.

### 5. ****Conversion Certificate (DC Conversion)****

**Portal:** Varies by district; usually found on the **Bhoomi or Revenue Department** district portals.

**Steps to Extract:**

1. Search district DC office websites or physical request via Revenue Inspector.
2. In some regions, old PDFs are uploaded per-survey.

**Automation Possibility:**

* Mostly **manual retrieval** for now unless e-services are published on that district site.

### 6. ****Tax Paid Receipt (Urban Areas)****

**Portal:** BBMP Property Tax Portal

**Steps to Extract:**

1. Go to “View Paid Receipts” or “Property Tax Payment” option.
2. Search using:
   * Property ID / PID No.
   * Owner Name or Ward
3. Download receipt or check pending dues.

**Automation Possibility:**

* Web scraping is feasible.
* CAPTCHA-free portal for receipts.

### 7. ****Zoning / CDP Information (BDA Land Use Map)****

**Portal:** [BDA CDP Map](https://bdabangalore.org/)

**Steps to Extract:**

1. Open CDP Map viewer.
2. Enter survey no. or drag to land parcel.
3. View:
   * Land Use (Residential, Commercial, Green Zone)
   * CDP Plan Zone
4. Capture screen / export as image.

**Automation Possibility:**

* Manual interaction or GIS-based overlay capture.

### Summary of Automation Readiness:

| **Document Type** | **Portal** | **Automation Feasibility** |
| --- | --- | --- |
| EC | KAVERI | Medium (captcha) |
| RTC | Bhoomi | High |
| Mutation | Bhoomi | High |
| Survey Sketch | Dishank | Medium (GIS scraping) |
| Tax Receipt | BBMP Portal | High |
| DC Conversion | District Sites / Manual | Low |
| Zoning/CDP | BDA CDP Viewer | Medium |