

Milan Ghosh

Er. & Vr. Approved Valuer
(IOV) | A.I.V. 32104

B.Tech in Civil Engineering (2018)



Superimposition of Mouza Map & Satellite View for Dag Verification in Mortgage Property Inspections

Introduction

In property valuation, especially for mortgage-backed loans, one of the most critical tasks is accurately identifying the location of the subject property. In rural or semi-urban areas of India, land parcels are recorded using Dag Numbers under a specific Khatian in a particular Mouza. However, loan applicants may intentionally or unintentionally show a property that does not fall within the documented Dag boundary.

To verify whether the property being shown matches the one documented in the deed, superimposition of the Mouza map over satellite imagery (Google Earth or GIS platforms) is an effective method. This article outlines why this step is essential and how to perform it accurately.

Why Superimposition is Crucial in Property Identification?

- **Misrepresentation Risks:** Sometimes, a borrower might show a different plot—either due to ignorance or intentional misrepresentation—which can result in the wrong property being mortgaged.
- **Legal & Financial Risks:** Incorrect identification can lead to litigation, loan recovery issues, or property attachment failures.

- **Rural Areas? No Problem!:** In rural areas, where there are no clear boundaries, Mouza maps and satellite overlays provide the most reliable reference.

Step-by-Step Procedure of Mouza Map & Satellite View Superimposition

Collect Required Documents

- Mouza map (latest available, preferably ROR or L.R. map)
- Deed copy with Dag/Khatian details
- Plot size, boundary descriptions
- Satellite map access (Google Earth, Google Map Satellite View, GIS portals)

Scan & Digitize or Take Screenshot of Mouza Map

- Scan the Mouza map if it's in paper form.
- Convert it into high-resolution image format (JPG/PNG).
- Or from Official online land records portal, take Screenshot of Mouza Map of the subject property's Mouza.

Open Google Earth or Google Map Satellite View

- Take GPS coordinates of the shown property using your phone (Google Map) or GPS tool.
- Use Google Earth Pro or Google Map. Load the satellite view of the relevant Mouza area.
- Can take a Screenshot of the satellite view of the area as well to use it in Photo Editing Application to superimpose.

Geo-Reference the Mouza Map

- If using Google Earth, Import the scanned Mouza map onto Google Earth. Match visible landmarks (roads, ponds, field shapes) on both the Mouza map and satellite image. Use 'Add Image Overlay' in Google Earth to align.
- Or, Overlay the mouza map on the satellite image using software such as AutoCAD, Photoshop, or Photo Editing Applications. Adjust the transparency and alignment using known landmarks (like roads, ponds, field shapes) to match the two maps accurately.
- Once the two maps are aligned, save the superimposed image.

Locate the Dag Number

- Identify the approximate location of the shown property & it's actual Dag location on the overlaid Mouza map image. Cross-verify with the dag number as per the property documents. Check whether that point/structure (shown) falls under the boundary of the intended dag as per property documents in the mouza map.

- Conclude whether the shown subject property belongs to the given dag number or not, based on this superimposed alignment.

Case Verification Scenarios

Match Found: The shown property lies within the correct Dag → proceed with valuation and mortgage processing.

Mismatch Found: The shown property lies in another Dag → Rejection needed. Record your findings in inspection notes.

Tips for Accuracy

- Always use latest Mouza maps—preferably certified or from Official online land records portal of the Government.
- Take help from local patwari or land records office in case of confusion.
- Consider ground features like field shapes, water bodies, or roads for matching.

Real-Life Example Using Superimposition Technique

Let us now present an actual example of this technique in action. The subject property is situated along Taki Road. The aim is to verify whether this property falls under Dag No. 336 as claimed.

Below are three visual layers used in the verification:

- The first image shows the Mouza map with individual Dag numbers of the locality collected from “Banglarbhum” website [Official online land records portal of the Government of West Bengal, developed and maintained by the Land & Land Reforms and Refugee Relief and Rehabilitation Department.], which contains the dag number of the subject property which is Dag No. 336, as per Subject Property Deed & Porcha or Record of Rights (ROR).
- The second image shows the Satellite view of the shown property from Google Maps.
- The third image is the Superimposed view combining both through a Photo Editing Application. Based on landmarks alignment, the property in question (shown property) visibly falls within the boundary of Dag No. 336. Hence, the verification confirms that the shown subject property is indeed under Dag No. 336.

Conclusion

The superimposition of Mouza maps over satellite views is a powerful tool in modern property inspection and mortgage verification. It bridges the gap between traditional land records and real-time visual validation, ensuring transparency, reducing fraud risks, and upholding due diligence standards.

For any Technical Manager or Field Executive, this should be the first step in the property identification process—before evaluating market value or structural condition. After all, a valuation is only as valid as the certainty of the land it is based upon.

