

# **A Python Library for Detection of Inconsistencies between Parcel Database and Plot Register**

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## **SUMMARY**

Accurate cadastral database are fundamental to effective land administration. This realization has prompted nations to develop cadastral databases either through cadastral field surveys or the digitization of paper-based cadastral maps. Digitization of paper-based cadastral maps to develop cadastral databases is a widely followed methodology as it is one of the most cost effective methods. However, during the digitization process, a large number of errors can be introduced into the cadastral databases. Identification of these errors is necessary to make subsequent corrections. While identifying the errors can be accomplished manually through visual inspection of the cadastral database overlaid on scanned cadastral maps, this is a very tedious and time-consuming method. Instead, the errors can be identified through alternative methods. One method for identifying errors is detecting inconsistencies between the plot register and the cadastral database. A plot register is a book that maintains record of subdivision and consolidation of land parcels. In Nepal, which has separate Land Registry and Cadastral offices, the plot register is maintained by Cadastral Offices to keep records of parcel subdivision and consolidation.

This paper introduces a python library developed to identify different categories of inconsistencies between the Plot Register and Cadastral Databases. These inconsistencies point out errors in cadastral databases. This python library is useful for quality checks during cadastral map digitization process as well as to identifying errors in cadastral databases that are already in implementation.

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