

Acquisition of high-resolution satellite imagery

A very high-resolution satellite imagery is a pre-requisite to establish a robust and reliable base dataset required for IMIS specifically for digitizing building outlines, road data and water bodies. High-resolution satellite imagery can be created through downloading freely available high-resolution Google Imagery given that acquisition of images under Area of Interest (AOI) have been done recently (less than a year ago). A freely available SAS Planet software (<https://www.sasgis.org/>) provides a simplified procedure to acquire Google Imagery of highest resolution. The SAS Planet software outputs georeferenced single imagery under AOI in various raster formats (TIFF, JPEG or ECW). Some well-known commercial vendors that provides high-resolution satellite imagery include Maxar (formerly Digital Globe), Airbus Defense and, Space Planet etc. All commercial vendors have a catalogue service that can be inspected to ensure that they have data coverage for desired AOI and have acquired images recently with minimal cloud cover (less than 5 % cloud cover is desirable). However, purchasing high-resolution satellite imagery through reputable commercial vendors that offer high-resolution satellite imagery is preferable. Requirements about the data (e.g., data formats, spatial and spectral resolutions, requirements related to the data must be clearly outlined (e.g., AOI, data formats, spatial and spectral resolution) when placing any order to commercial vendors. Preparing high-resolution image using Drone Survey is highly recommended if the fund is available with LGs. This technology helps producing high resolution images compare to the satellite image and also reduces field verification time.

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