

BHUNAKSHA

INDIAN CADASTRAL MAPPING SOLUTION

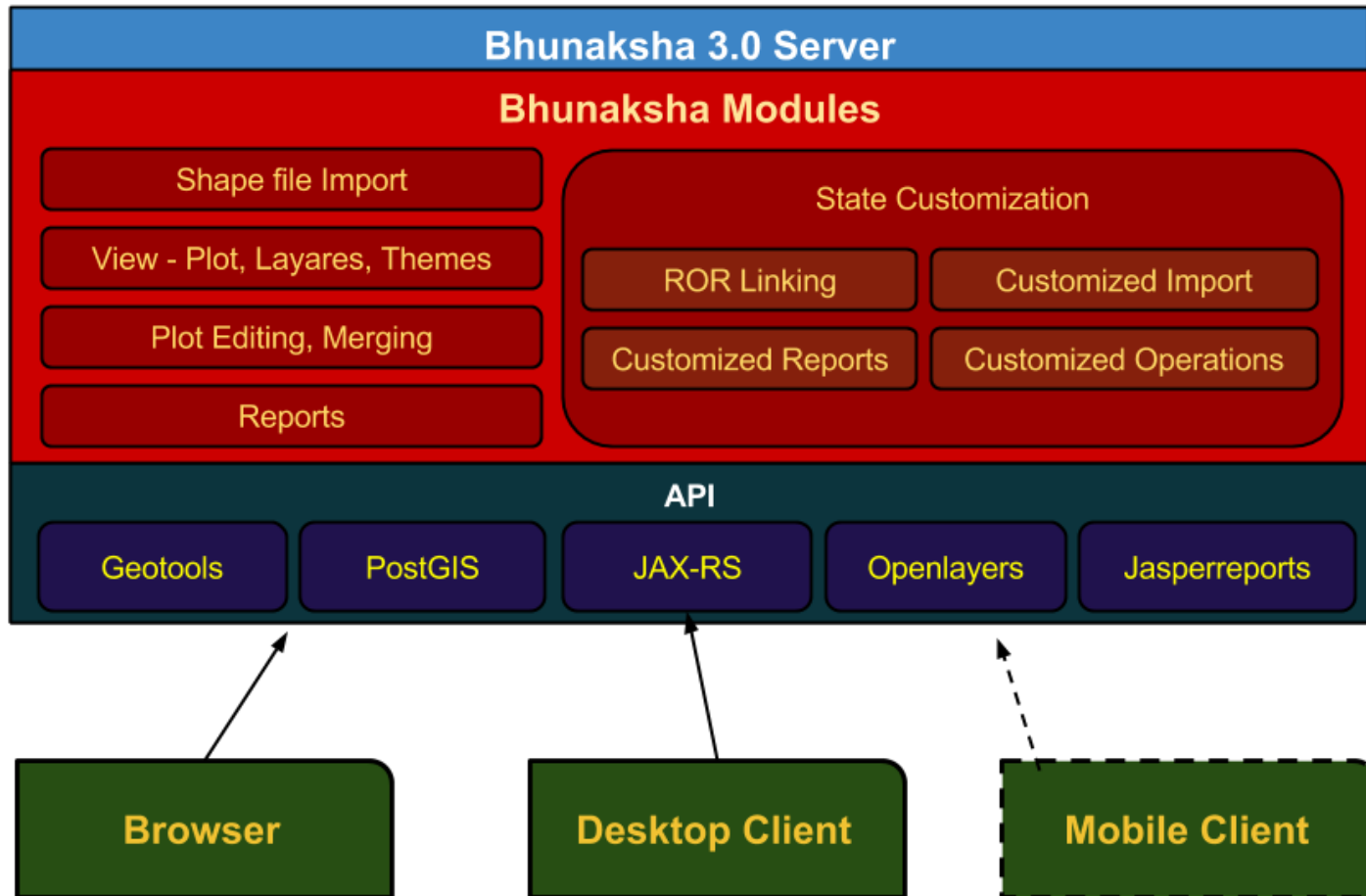
INTRODUCTION

Bhunaksha is a cadastral mapping software developed by NIC using Open source applications and libraries to facilitate management of digitized cadastral maps. With proper customization Bhunaksha can be integrated with existing Land Records application of any states that deals with textual data.

Features

- Developed using Free and Open source software. Platform independent
- Web, Desktop and Mobile Application
- Facilitates Dividing plot maps, Printing, Merging and more..
- Can take input from multiple sources: Shape file, ArcInfo files, Survey Data, FMB Ladder Data...
- Supports Geo-Referencing legacy maps

BHUNAKSHA ARCHITECTURE



VILLAGE MAP VIEW

Village map view is the default view of Bhunaksha when invoked through web url by public, after logging in as user in web or desktop application.

Bhu-Naksha Zoom To Scale: [File](#) [Report](#) [Help](#)

Map Info

Location

State: Andhra Pradesh
District : 06 Krishna
Mandal :
VIJAYAWADA RURAL
Village :
NUNNA

Plot Info

Plot No 223
Base Survey No. 223
Survey No. 223-1 Total Extent :
4.9600 acre
Pattadar Name : గుంటక అరుణ
Father's Name : గుంటక
Occupant Name : గుంటక అరుణ
Father's Name : గుంటక. Extent:
4.9600
Land Type : పచ్చ
Tax : 6.51

Survey No. 223-2A Total Extent
: 3.2200 acre
Pattadar Name : వాగంట కౌతప్ప
Father's Name : కౌతప్ప
Occupant Name : వాగంట కౌతప్ప
Father's Name : వాగంట. Extent:
1.4700
Land Type : పచ్చ

Layers
Derived Layers
Themes

Scale 1 : 8991

District : Krishna

PLOT REPORT

Plot Report is a printable report which will have map of an area containing the plot. It will have location and owner information along with the map. It is possible to generate the map to any scale and overlaying layers.

Village: गाँव : 000101 रोपा

Plot No: 146

Scale : Best Fit
1600

Show Single Plot
 Show All Plots of Owner(Multiple Pages)

Show

Export PDF

Close

Legend

Layers \ Derived \

- POLY_MALA
- POLY_SUB_PARCEL
- LINE_REFERENCE
- POLY_VILL_BO
- RI
- SURVEY_POINT
- BURJI
- ABADI
- SHEDA
- POLY_PARCEL

माला : 06 MATDI, बसनाल : 12 अ, गाँव : 000101 रोपा (496)

खसरा क्रमांक : 146

वेपनाल : 02-01-05 वीथी-सीलवाह-सीलवाही

1 Inch = 40 Karam

नाम : इन्दु सिंह पुत्र अमर चन्द पुत्र भाग चन्द

Neighbours :

- 142 :
- 143 :
- 144 : बंमिती चन्दी भाग वरमन (170640) भाग
- 145 : भूत देव सिंह पुत्र रोम बंमिती अल्ला

Page 1 of 1

MAP PRINTING

Bhunaksha has a module for printing Village Map and Plot Map with ROR information

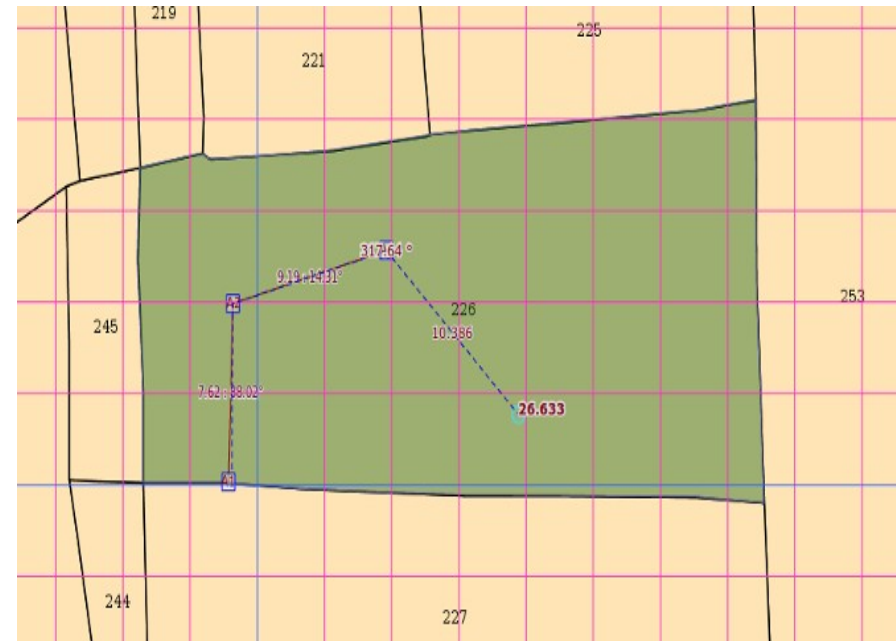
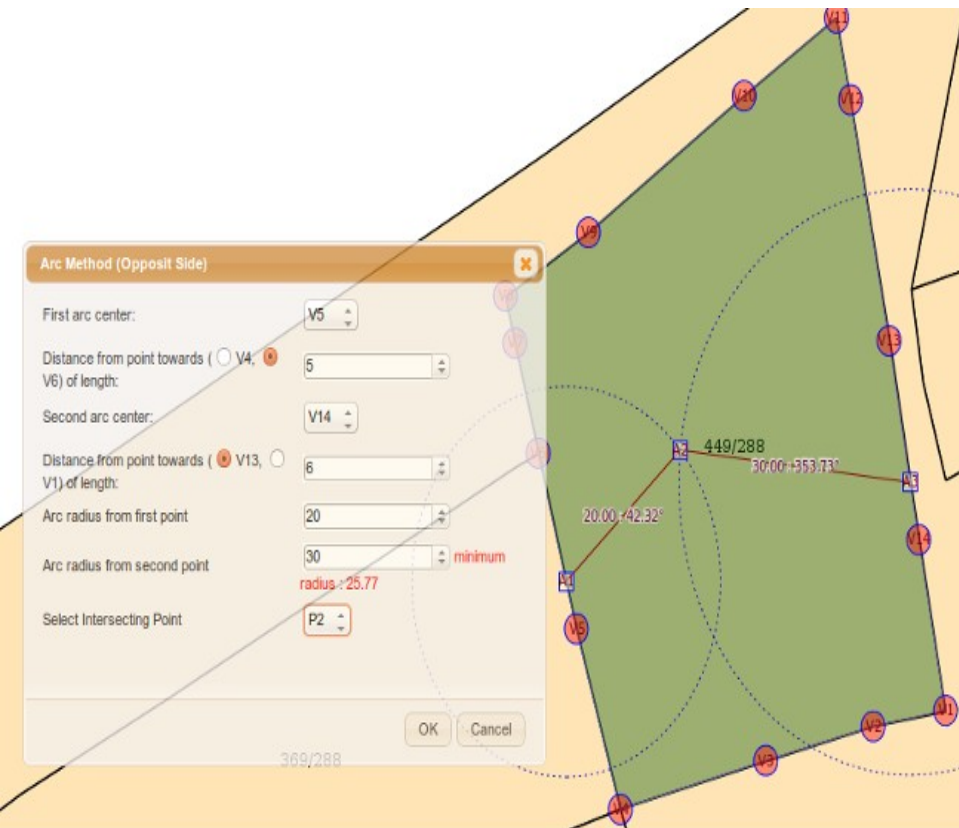
The screenshot displays the Bhunaksha software interface for printing a village map. The main window shows a detailed plot map with various colored overlays and a legend on the left. The legend includes layers such as GA, 11, Road, 06, 04, 15, 05, 07, 0305, 9999, 0304, and 0108. The right side of the interface features a table with a list of plot numbers and their corresponding symbols.

11	
RO	
06	
04	
15	
05	
07	
0305	
9999	
0304	
0108	
0301	
0201	
1207	
0902	
0801	
0202	
0903	
26	
1209	
0206	
0220	
0108_Point	
Area > 10	
area < 1	

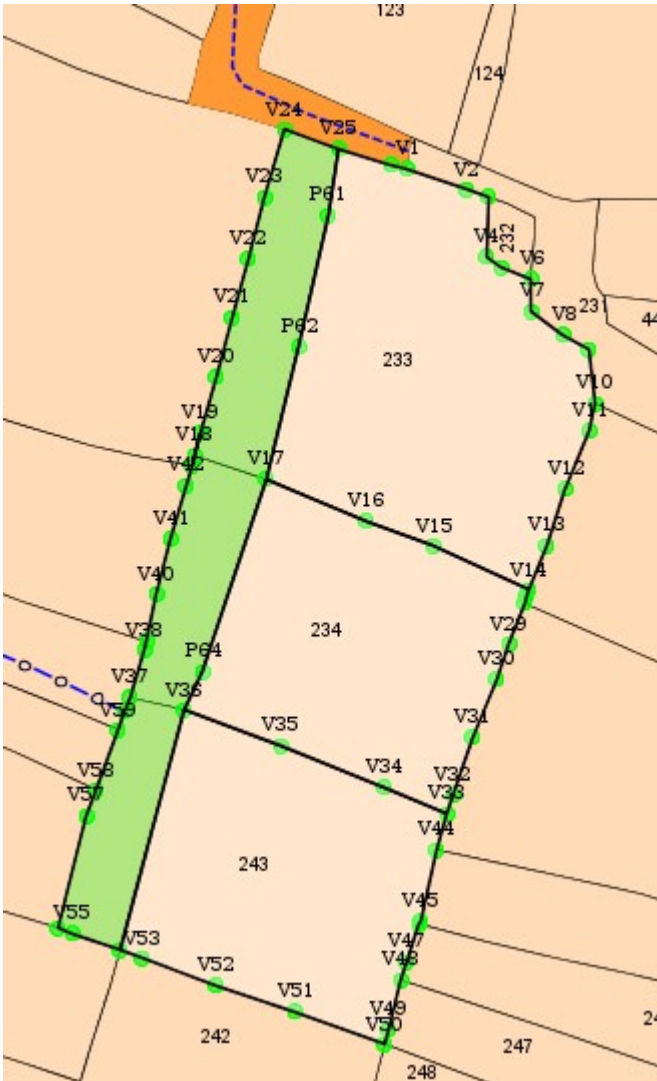
Page 1 of 1

DIVIDING PLOT

A plot can be split into any number of subdivisions. Splitting is done by creating division line. There are a number of methods for creating division line.



MULTIPLE PLOT DIISION



Bhunaksha has the facility to cut out one or more parcels from area of existing plots in a village map. The new parcel can be extracted by joining a group of points identified in the village map.

Cutting a road in the village map is an example of multiple plot division.

CREATING MAP FROM FMB/TIPPON/ETS DATA

Maps can be created interactively from FMB (Field Measurement Book) data and tippon sketch. Data extracted from ETS/GPS equipments can be used for generating maps

बांधा : 81 मारेडे

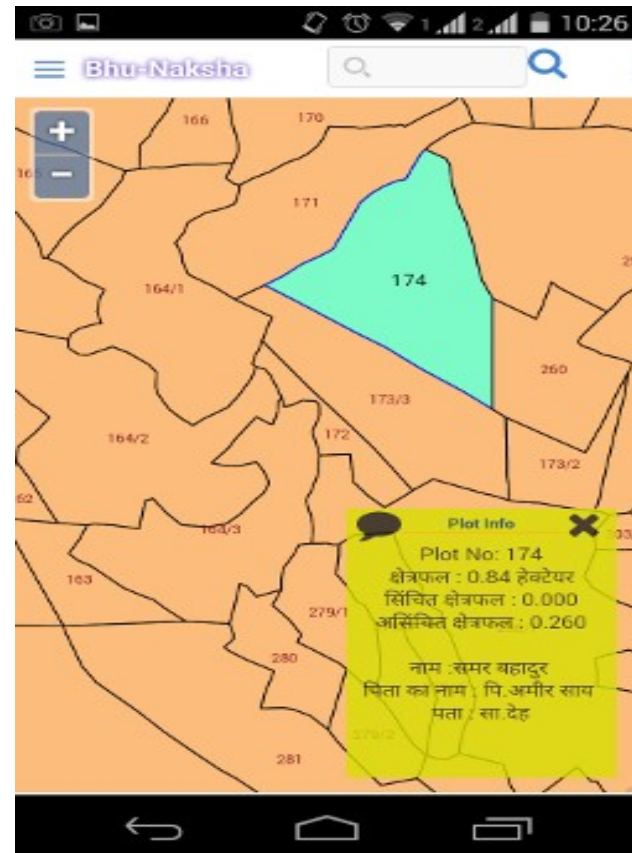
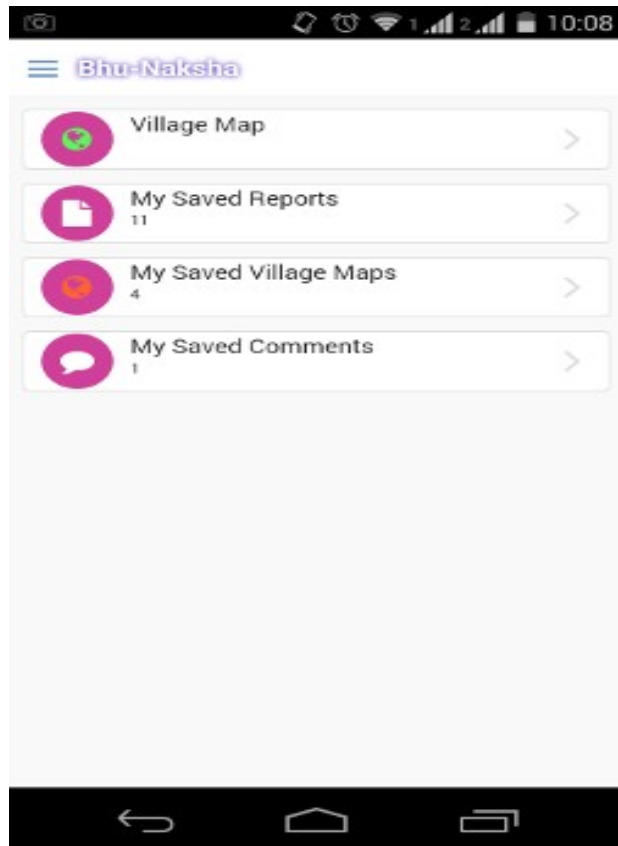
जिला: 25 पुणे
 तालुका: 6 मुळशी
 गाव: 81 मारेडे
 Type: 01 Tippan
 Book No.: 100
 Page No.: 002

Ladder Data \ Polygons \ Lines \ Points				
1	2	3	4	5
		H		
		(89.61)		
21	30.00	19.00		
20	10.00	18.00		
		G		
		B		
		(150.00)		
		10.00	20.00	10
		32.00	26.00	19
18	12.00	30.00		
17	10.00	20.00		
		A		
		(120.00)		
16	22.50	23.00		
15	32.00	35.00		
14	43.00	23.00		
13	10.00	11.00		
		C		
		(110.00)		
12	22.00	34.00		

Maharashtra (admin)

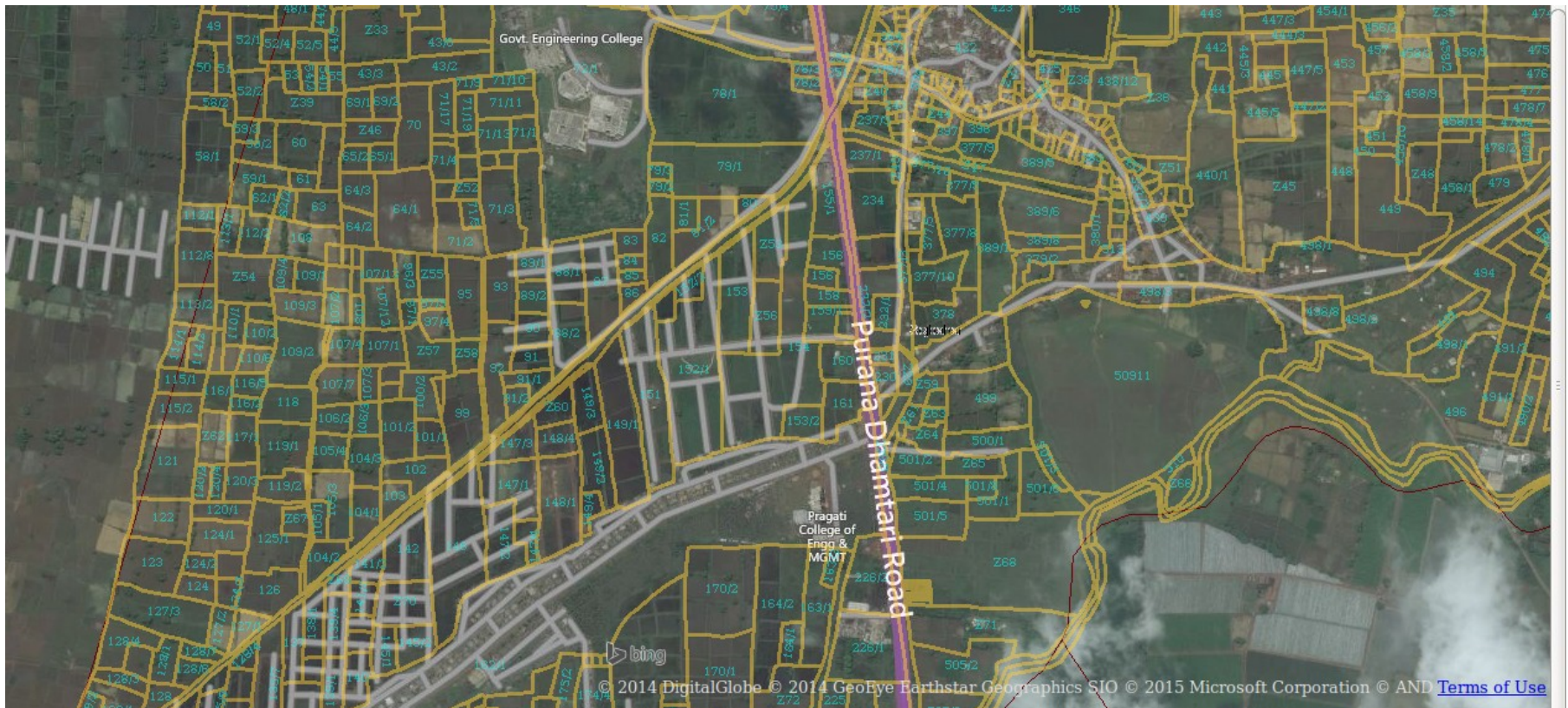
BHUNAKSHA MOBILE APP

Bhunaksha mobile app is available for android mobiles. It supports viewing village map and plot details online, viewing plot report online, saving village map and plot report for offline operation, updating comments of any selected plot.



GEOREFERENCING VILLAGE MAPS

It is possible to georeference a village map with the help of village boundary layers from NIC Maps (<http://nicmaps.rgis.nic.in/>) and other online services offered by Bing, Google, Bhuvan etc. Onscreen georeferencing is possible by correlating some known coordinates of digitized map with the coordinates of georeferenced maps.



Person Parcel Pixel Linking

Georeferenced cadastral maps interlinked with Aadhaar updated ROR data facilitates person parcel pixel linkage through bhunaksha



SERVICE INTEGRATION

Bhunaksha serves web map services and other spatial services which can be used for GIS based service delivery interfaces

The screenshot displays the Bhunaksha web application interface. On the left, a sidebar menu is visible with the following options: Home, District (01 Srikakulam), Mandal (05 గంనువారిపిఠాడం), Village (008 మెట్టవలస), Survey No: (4-7) with a GO button, and a list of services: Adangal(1-15), Crop Details, Registration Details, Loan Details, History, Location Map, State Wide Land Details, Services Utilized, Grievances, and Court Cases. The main area shows a satellite map with land parcels outlined in red and yellow. A pop-up window is open over a parcel, displaying the following information: Base No:4, Survey No:4-7, Total Extent:0.36, and Pattedar Name: అంబా శివరావుడు. Below the text is a portrait photo of a man. The top right corner of the map area is labeled 'Bhu-Naksha'. At the bottom, there is a footer with the text: 'Map data ©2016 Google Imagery ©2016 CNES / Astrium, DigitalGlobe | Terms of Use | Report a map error.'