



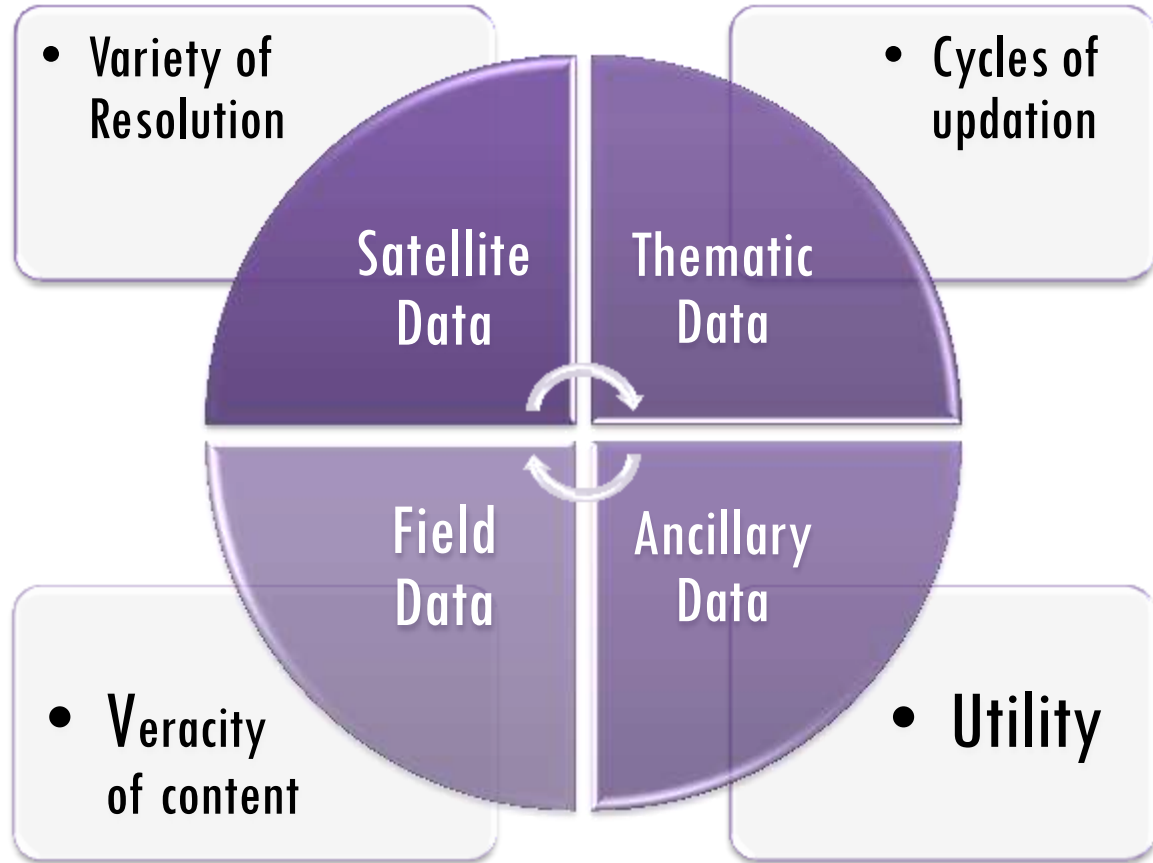
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DATA GAPS

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Data Streams and Traits





Satellite Data

- High Temporality at high resolution needed
- Affordable Precision rectification DEMs
- Pre processing automation



Thematic

- Algorithms for automating data analysis in h-res imagery
- Cycles of updation of h-res based land cover at national level
- Thematic classes from h-res data are few

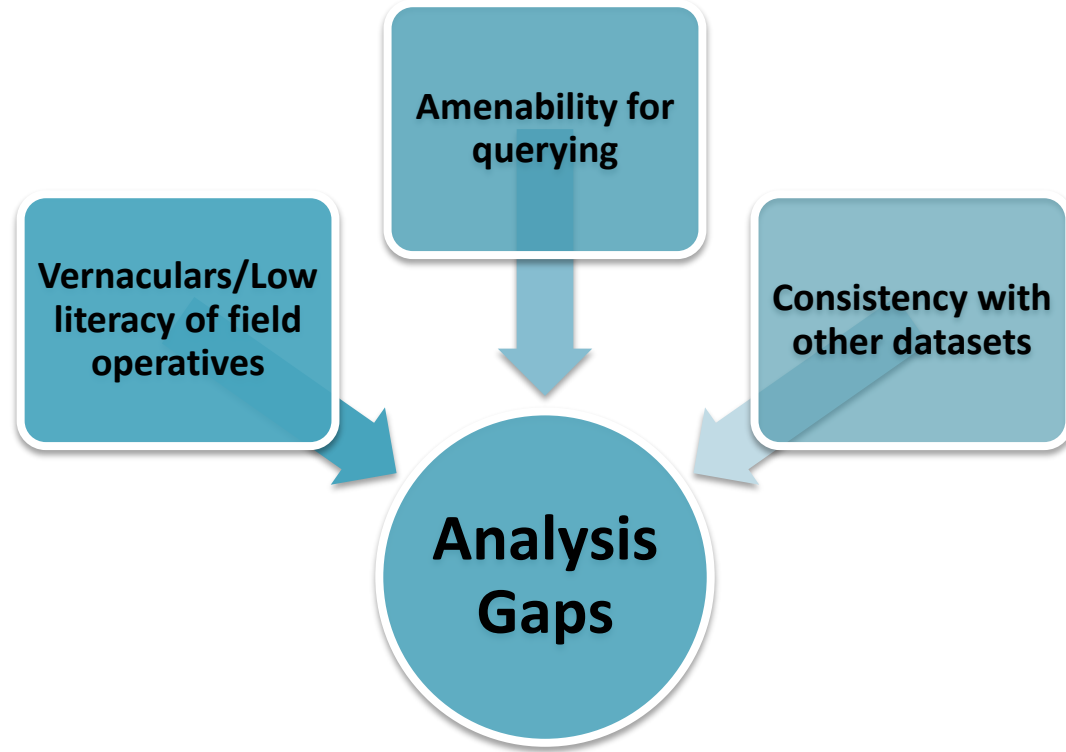


Field Data

- Content overlap in Geotagging attributes
- Inability to bring meaning out of voluminous photographic data
- Repeat collection of same data leading to duplication

Ancillary Data

- Detail in the scale since many are coarse (Intensity of RF)
- No ready access. Sharing policy not transparent (LGD Maps)
- Can't answer current question in spite of huge attribution (Housing)



What is required ?

Current Applications	Gap Areas/ Limitations	Current Sensors	Requirement
<p><i>Water Resources</i></p> <ul style="list-style-type: none"> • Planning and design of new Water Resources projects • Irrigation Infrastructure monitoring 	<ul style="list-style-type: none"> • Insufficient DEM resolution for DPR studies and for canal alignment studies • Insufficient resolution for identification of smaller canals • Lack of multispectral data for improved identification of canals/structures • Limited swath coverage restricting complete command monitoring 	<ul style="list-style-type: none"> • PAN (Cartosat-1) • PAN & MX (Cartosat-2S) • LISS IV 	<ul style="list-style-type: none"> • Tri-camera system • Spatial: < 0.5 m • Radiometry: 10bit • Swath: 20km, • Revisit: 5 - 10 days • Pan-India coverage • mono 60km wide • 1m Spatial, • 60km swath • Bands - B,G,R,NIR • Revisit: 10 days • Radiometry: 10 bit • PAN+Mx-1m from same platform

Current Applications	Gap Areas/ Limitations	Programmatic Linkage
<p><i>Topography – DEM</i></p> <ul style="list-style-type: none"> • Othro- rectification up to medium resolution satellite data. • Landscape 3D visualization 	<p>High Resolution DEM/DTM</p> <ul style="list-style-type: none"> • 1m or better contours • Very High Resolution satellite images with better than 1m spatial resolution 	<ul style="list-style-type: none"> • AMRUT and Smart city • Municipal geospatial applications - SCADA

Current Sensor	Requirement
<ul style="list-style-type: none"> • PAN (Cartosat-1) • PAN & MX (Cartosat-2S) • LISS IV 	<p>Tri-camera system (fore, nadir, aft), Spatial: 0.25, Radiometry: 10bit, Swath: 20km, Revisit: 10 days, twice in a year, pan-India coverage; mono 60km wide</p>
	<p>1m Spatial, 60km swath; Bands - B,G,R,NIR; Revisit: 10 days; Radiometry: 10 bit (PAN and Mx-1m on the same platform)</p>

THEMATIC DATA REQUIREMENT

LEVEL	SCALE	DATA SOURCE	FREQUENCY
1.National	1:500,000	Medium Resolution (56 m) Satellite data	annually
2.State	1:250,000	Medium Resolution (24 m) Satellite data	Once in five years
2.District	1:50,000	Medium Resolution (24 m) Satellite data	Once in five years
3. Village	1:10,000	High resolution satellite data (2.5 m)	Once in eight years
4. Cadastral ??	1:5,000	Very High resolution satellite data (<1 m) / cadstre	Once in 3 years in LUZ only

GEOTAGS UNDER IWMP PROJECTS

SNo.	State	Total Projects	Total Geotags	Yet to be moderated	Accepted	Rejected
1	ANDHRA PRADESH	432	155144	9004	125555	20585
2	ARUNACHAL PRADESH	2	250	250	0	0
3	ASSAM	303	8080	513	6932	635
4	BIHAR	123	5408	1664	3486	258
5	CHHATTISGARH	264	47608	1842	42068	3698
6	GUJARAT	610	158485	6133	140632	11720
7	HARYANA	79	6206	796	4983	427
8	HIMACHAL PRADESH	159	16311	5	14906	1400
9	JAMMU AND KASHMIR	160	7111	693	5072	1346
10	JHARKHAND	144	15783	76	14640	1067
11	KARNATAKA	575	151606	6503	129644	15459
12	KERALA	83	11846	111	10603	1132
13	MADHYA PRADESH	492	24266	1837	20130	2299
14	MAHARASHTRA	1177	181553	356	167915	13282
15	MANIPUR	68	3140	596	2416	128
16	MEGHALAYA	39	2071	714	1334	23
17	MIZORAM	89	6386	74	5582	730
18	NAGALAND	98	5696	608	4678	410
19	ODISHA	310	40478	680	35644	4154
20	PUNJAB	62	1126	1	1058	67
21	RAJASTHAN	739	122886	824	113550	8512
22	SIKKIM	15	1088	13	1058	17
23	TAMIL NADU	278	86875	3404	80265	3206
24	TELANGANA	326	73294	14832	46062	12400
25	TRIPURA	67	5415	2	4948	465
26	UTTARAKHAND	66	1794	414	1197	183
27	UTTAR PRADESH	420	31043	3027	26904	1112
28	WEST BENGAL	163	6102	140	4448	1514
Total		7343	1177051	55112	1015710	106229

FIELD LEVEL GEO-TAGGED INFORMATION

Issues

Standard parameters

Improper filing of information

Data gaps in attributes

Inconsistence in text of the attribute

Errors in geo-tag locations

Quality of the photos

THANK YOU