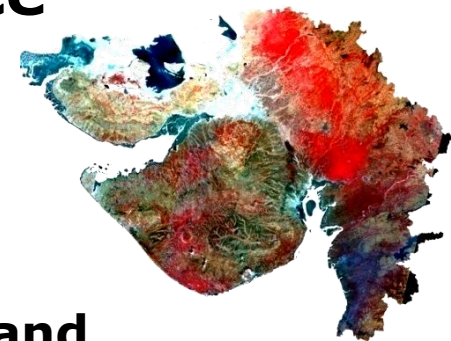


Modernization of Land Records and Applications for Development : Gujarat Experience

A Collaborative Programme



Bhaskaracharya Institute for Space Applications and Geo-informatics



Department of Science and Technology Government of Gujarat

Land Records :

Location, Dimensions, Ownership, Use, History

Modernization :

- Over Coming Deficiencies Through Technology
- Development of Scientific Tools for Land Use Planning to Achieve Sustainable Development & Inclusive Growth

Criteria :

समाज उपयोगी, सही, समय पर, सरल, सरलता से, सस्ता, सहयोग से

Planning Criteria

- Legality
- Suitability
- Acceptability
- Productivity
- Environmental Sensitivity
- Disaster Proneness
- Ownership
- Economic Viability

• Horizontal linkages among sectors

Tasks: Creation of Geo-Spatial Database

Characteristics

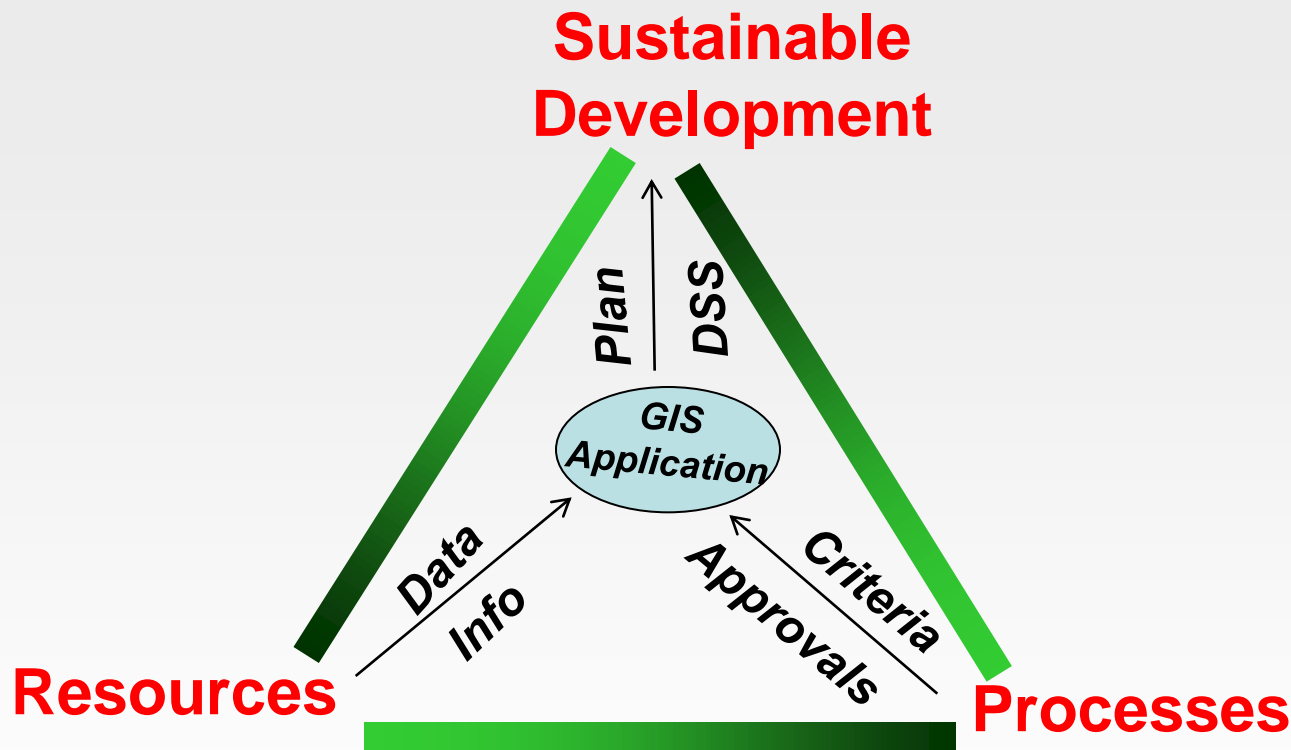
- Multi–Sector (Purpose)
- 2D/3D/4D
- Standardized
- Compatible
- Common
- Sectoral hierarchy

Land Records Related to

- Assets
- Infrastructure
- Natural Resources
- Socio economic aspects
- Man made resources
- Individual Ownership

Tasks (Cont.) :

1.



2. **Technology Integration** : GIS, Remote sensing, Image Processing, Photogrammetry, GPS, Mobile, MIS, Web etc

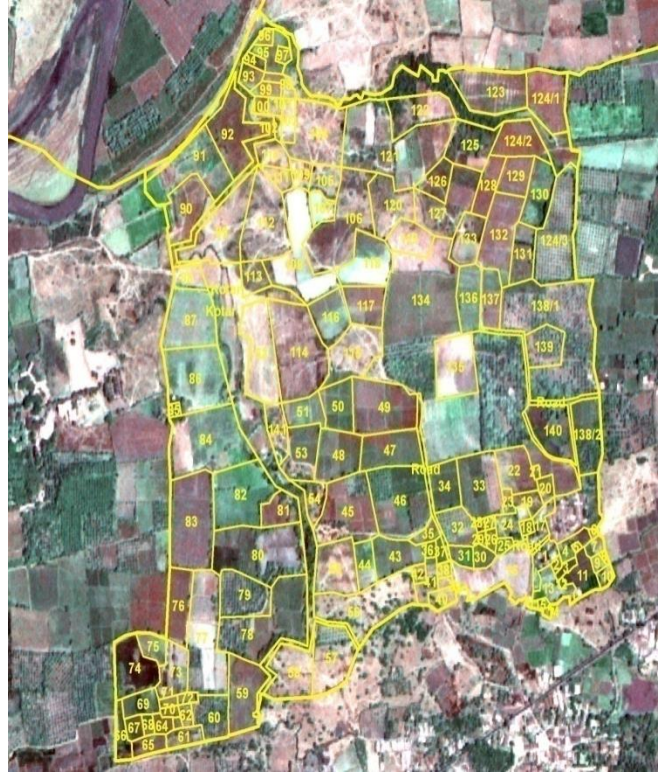
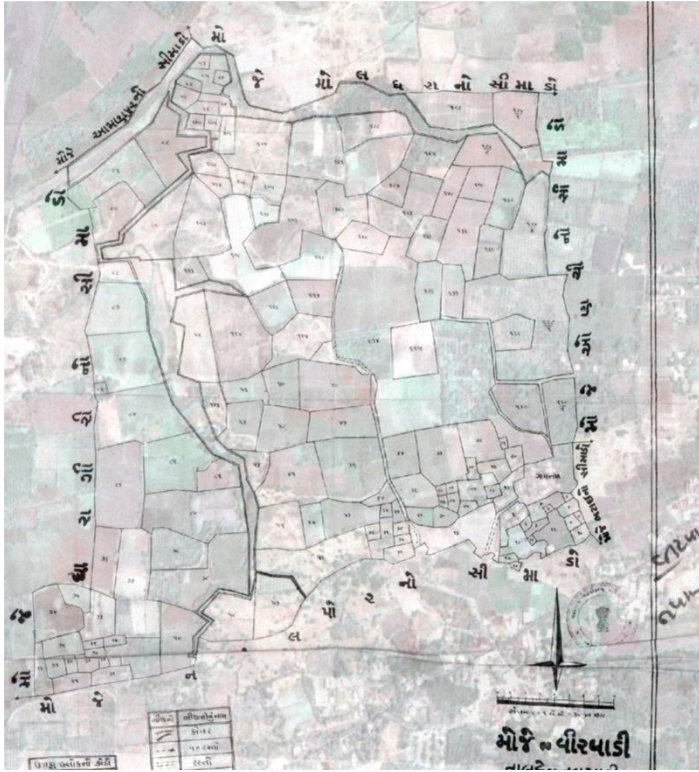
Geo-spatial Database of Village Maps through Geo-referencing on Indian Satellite Images

Collection of Village Map

Scanning of Map

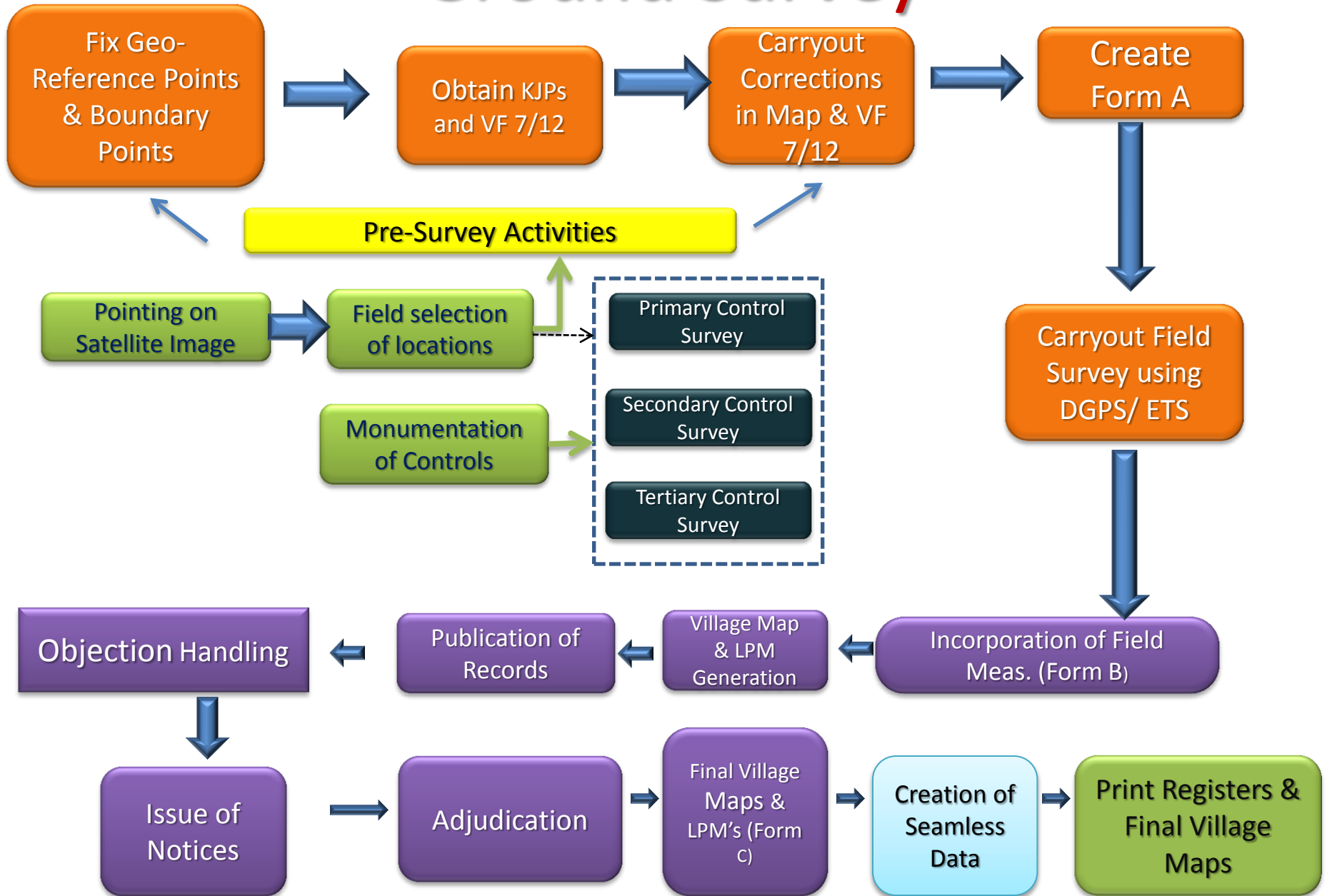
Geo-referencing of Scanned Map to Satellite data

Digitization of Geo-referenced village Map



This process has been completed for the whole State Geo-referencing of Village Map & their Registration with Satellite Image is done every year

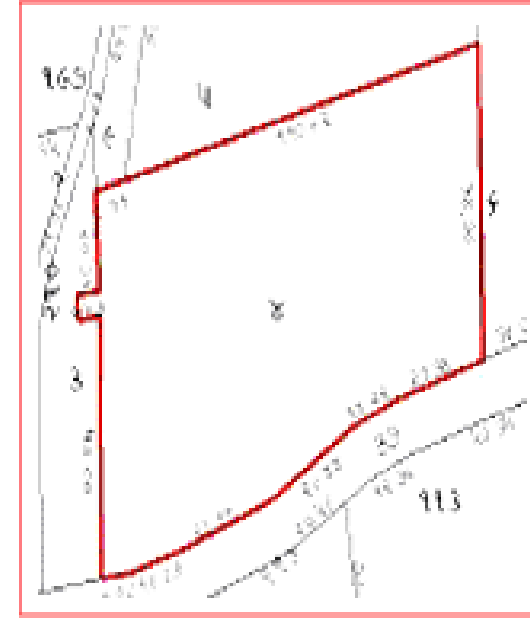
Ground Survey



**New Format of
RoR
Village Form 7
with
Land Parcel Map**

રી-સરવે માટે ગામ નમુનો નંબર ૭

જિલ્લો સુભાષગંજ
 તાલુકો પ્રહરિયા
 મોજી મરખાડ
 જમોડા/સરવે નંબર 4
 સત્તા પ્રકાર ગુની કાન (ગુની)
 ગમીનનો ઉપયોગ ખેતીવાર ઉપયોગ
 ખેતરનું નામ અરોલરવનુ
 જામ વિસ્તાર (અવકાશ નં 1X અને વિસ્તાર 2...)
 ગુની જમોડા/સરવે નંબર 1



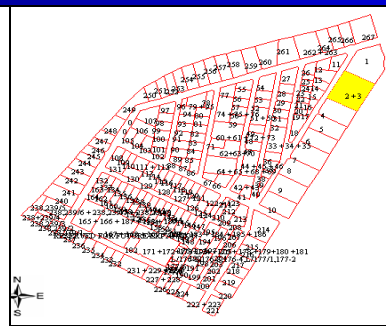
વ્યાજ જાવીન	કોષ્ટક/કે.એ.એ.પી.ની	જાત નંબર/કોષ્ટક/સહાર કે.એ.એ.	નોંધ નંબરો અને કમ્પોઝીશન નામ
વજમત	૦-૮૫૪૮		૧૦૧૭,૧૧૨,૧૪,૧૪૦,૧૭૮,૧૮,૨૩૪,૨૭૮, ૧૬૩,
કુલ કોષ્ટક	૦-૮૫૪૮		
સહાર કે.	૨.૪૫	૧૦૮ ૦-૮૫૪૮ ૨.૪૫	વીજાણુ સંપત્તક નેનાક
ગુની તથા વિવેકાધારો કે.	૦.૦૦		વીજાણુ માધ્યક નેનાક
પાણીમાન કે.	૦.૦૦		વીજાણુ માધ્યક નેનાક વીજાણુ અંતરક નેનાક ૨૫ વીજાણુ નેનાક નિ ૫-ની ગોડીનીમેન

કમ્પોઝીશનની વિગતો	બીજા ફોો અને બીજાની વિગતો
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Applications of Geo-informatics in Gujarat : Starting Point



Village Map



GIDC



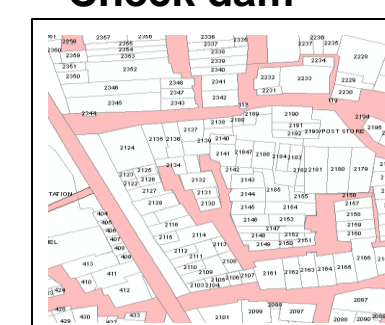
Check dam



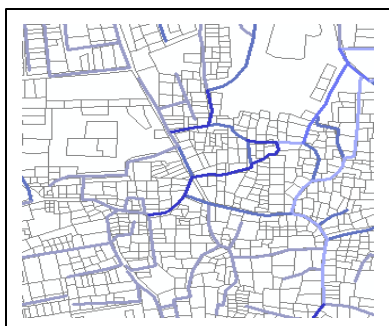
House Location



Canal



City Survey Map



Water Supply

School Name	Electrification	Sanitation	Compound Wall	Play Ground	Drinking Water	Standard at School
Dabhoda boy	Yes	Yes	Yes	Yes	Yes	1-7
Dabhoda Girl	Yes	Yes	No	No	Yes	1-7
Salujina Muvada	Yes	Yes	Yes	Yes	Yes	1-7
Otapina Chhapra	Yes	Yes	Yes	Yes	Yes	1-7
Butakiya	Yes	Yes	Yes	Yes	Yes	1-7
Ramnagar	Yes	Yes	No	Yes	No	1-7
Dadunagar	Yes	Yes	Yes	Yes	Yes	1-7

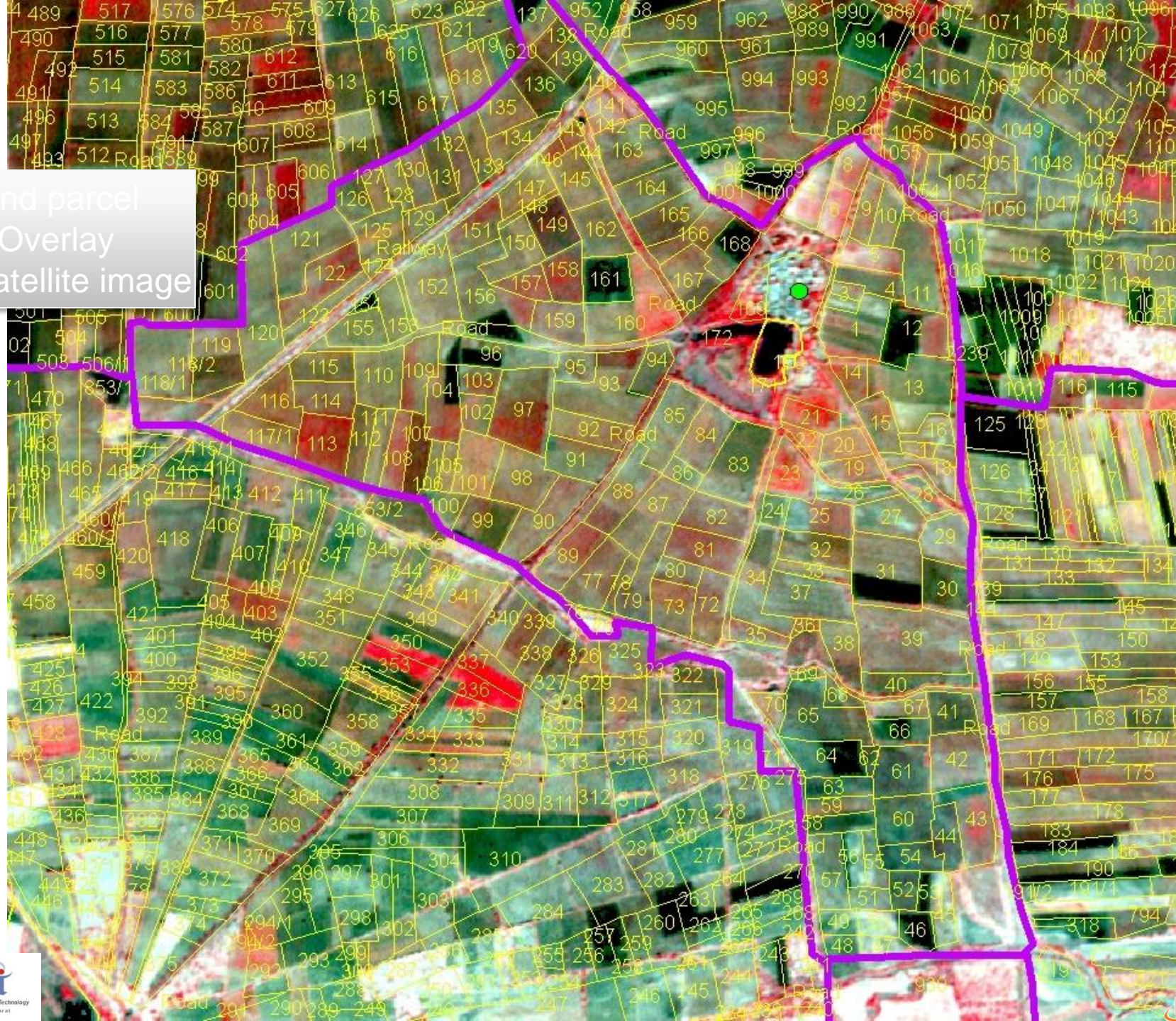
School



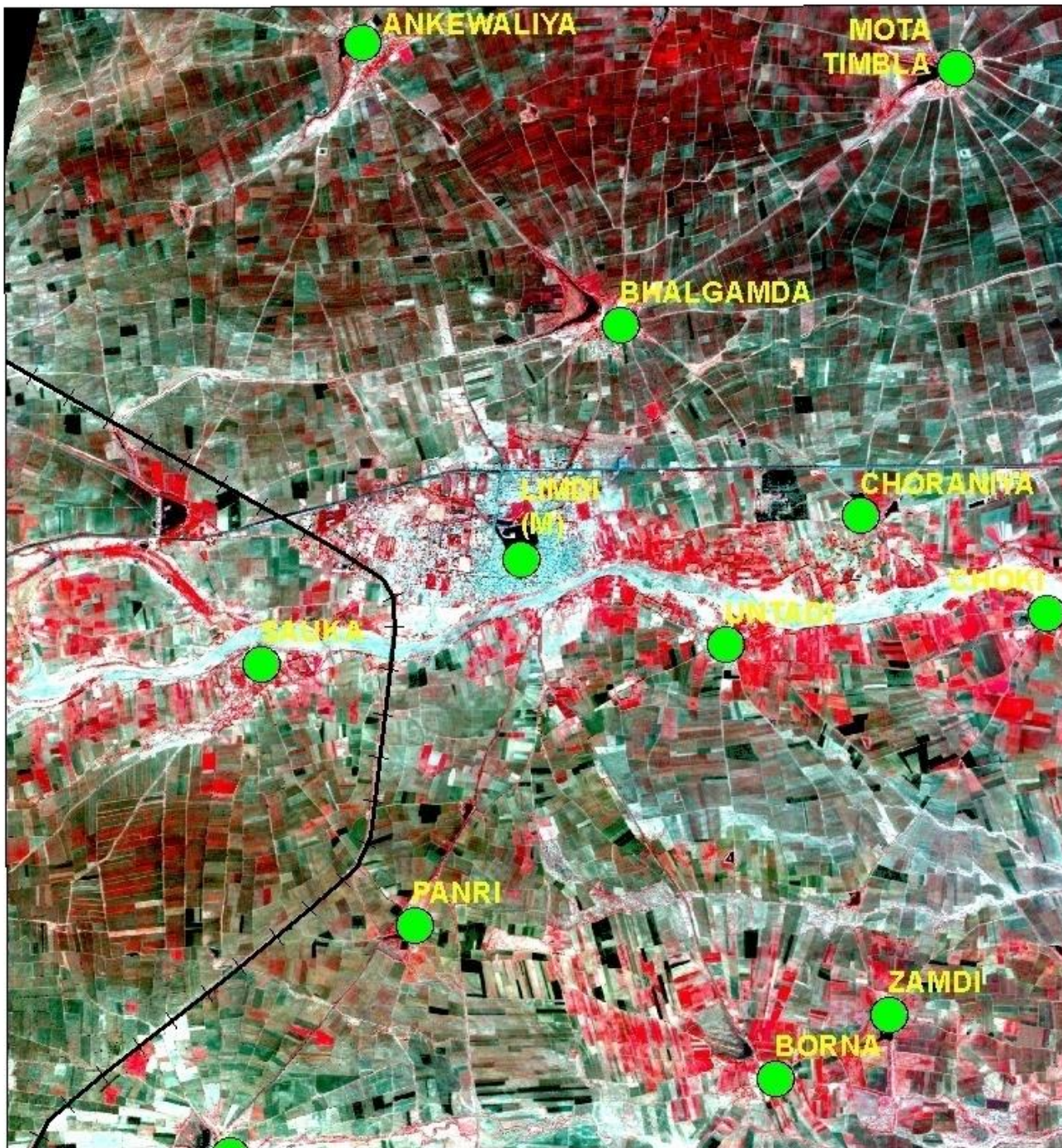
CRZ Demarcation

Through Seamless Satellite Image as a Base Map

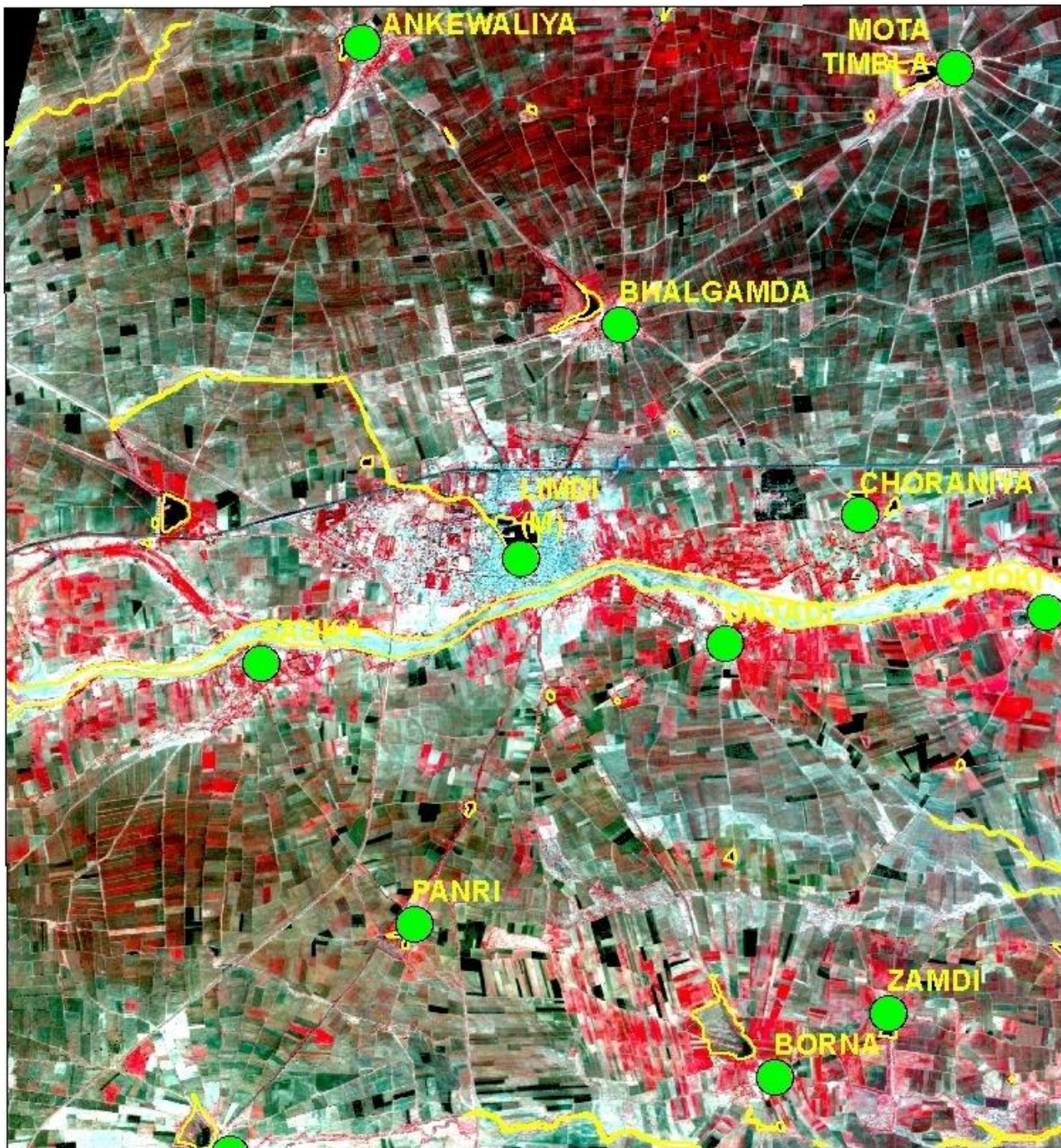
Land parcel
Overlay
On satellite image



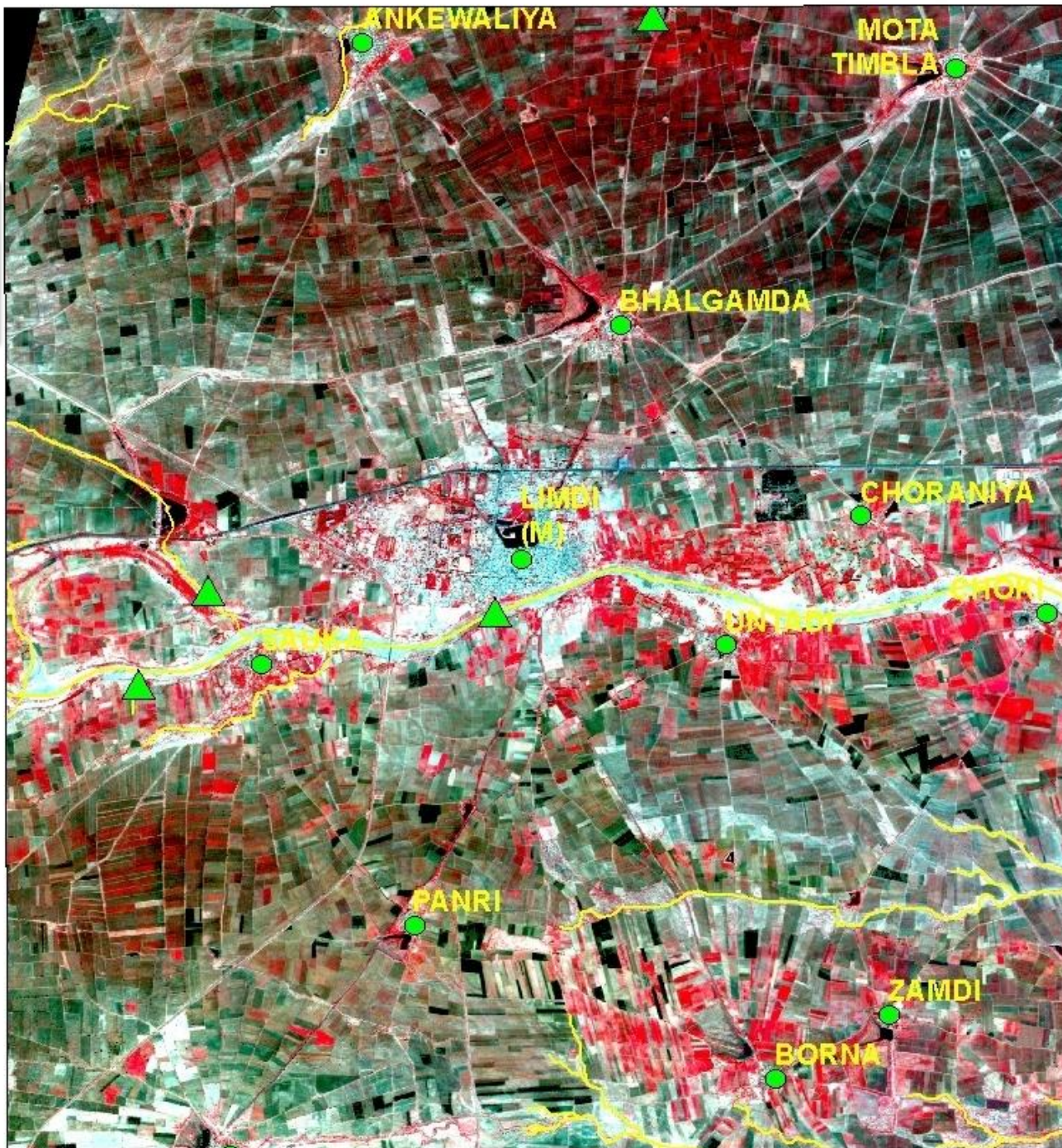
Railway
Network



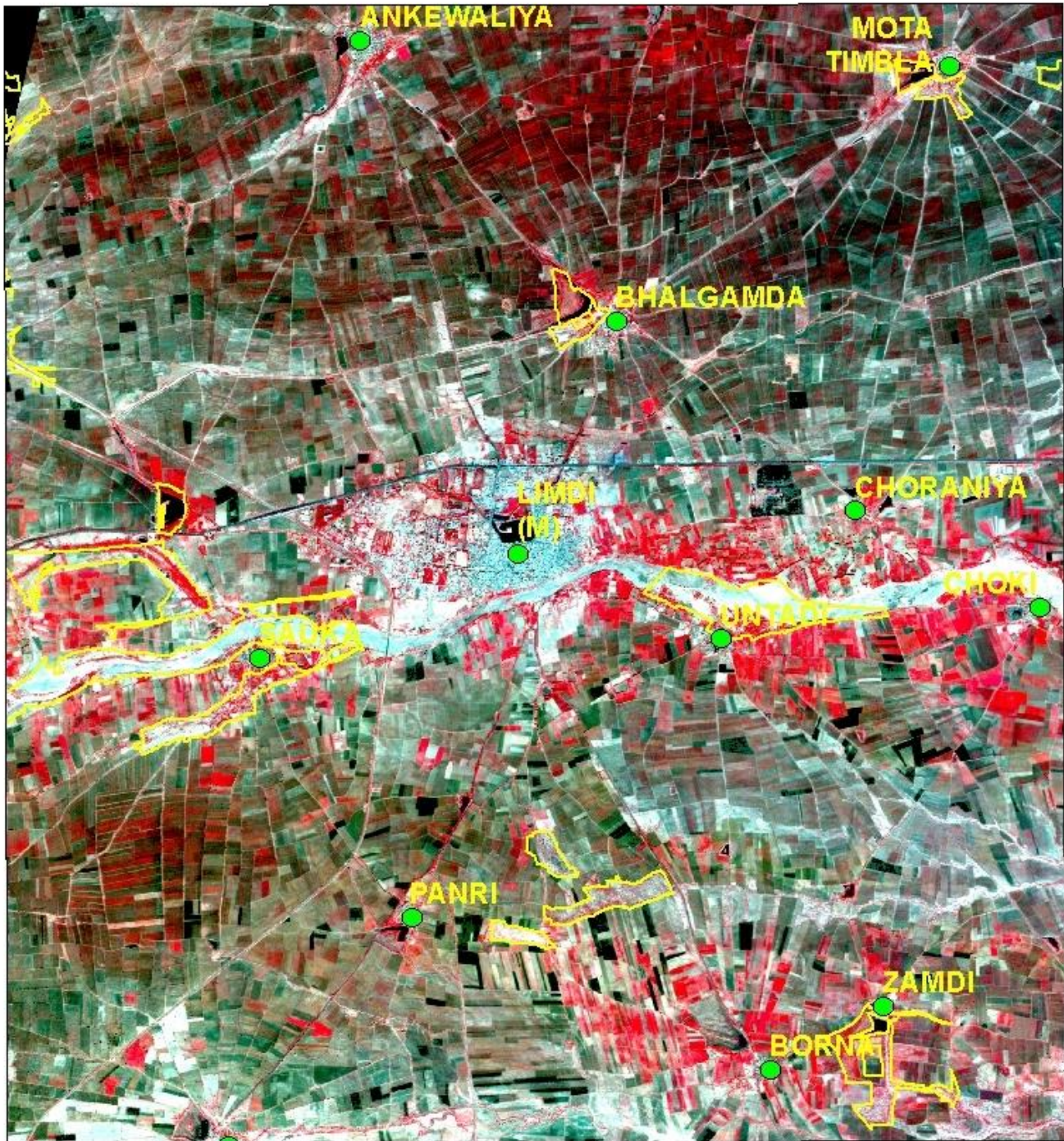
River &
Waterbody



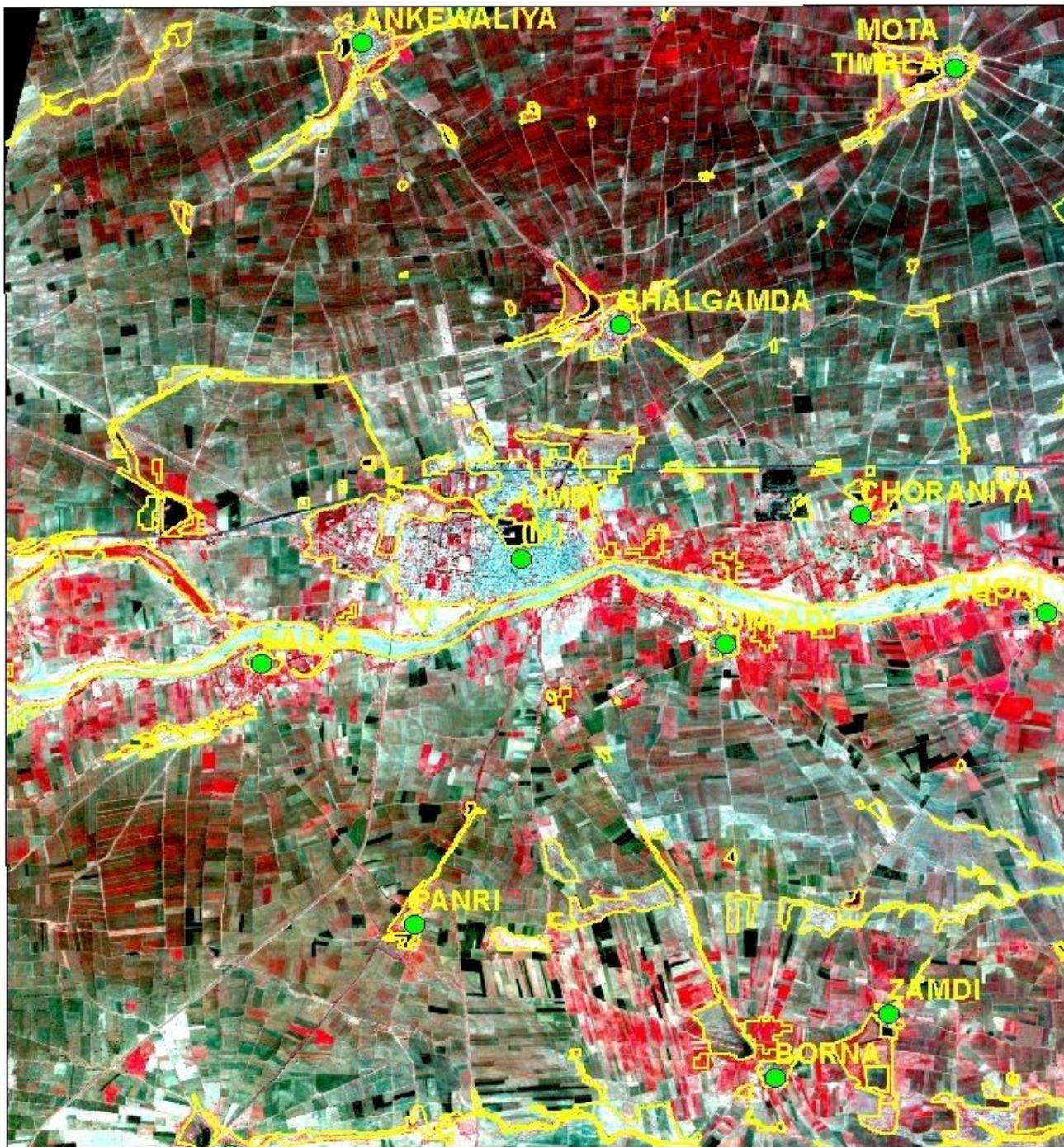
Drainage
and
Checkdams



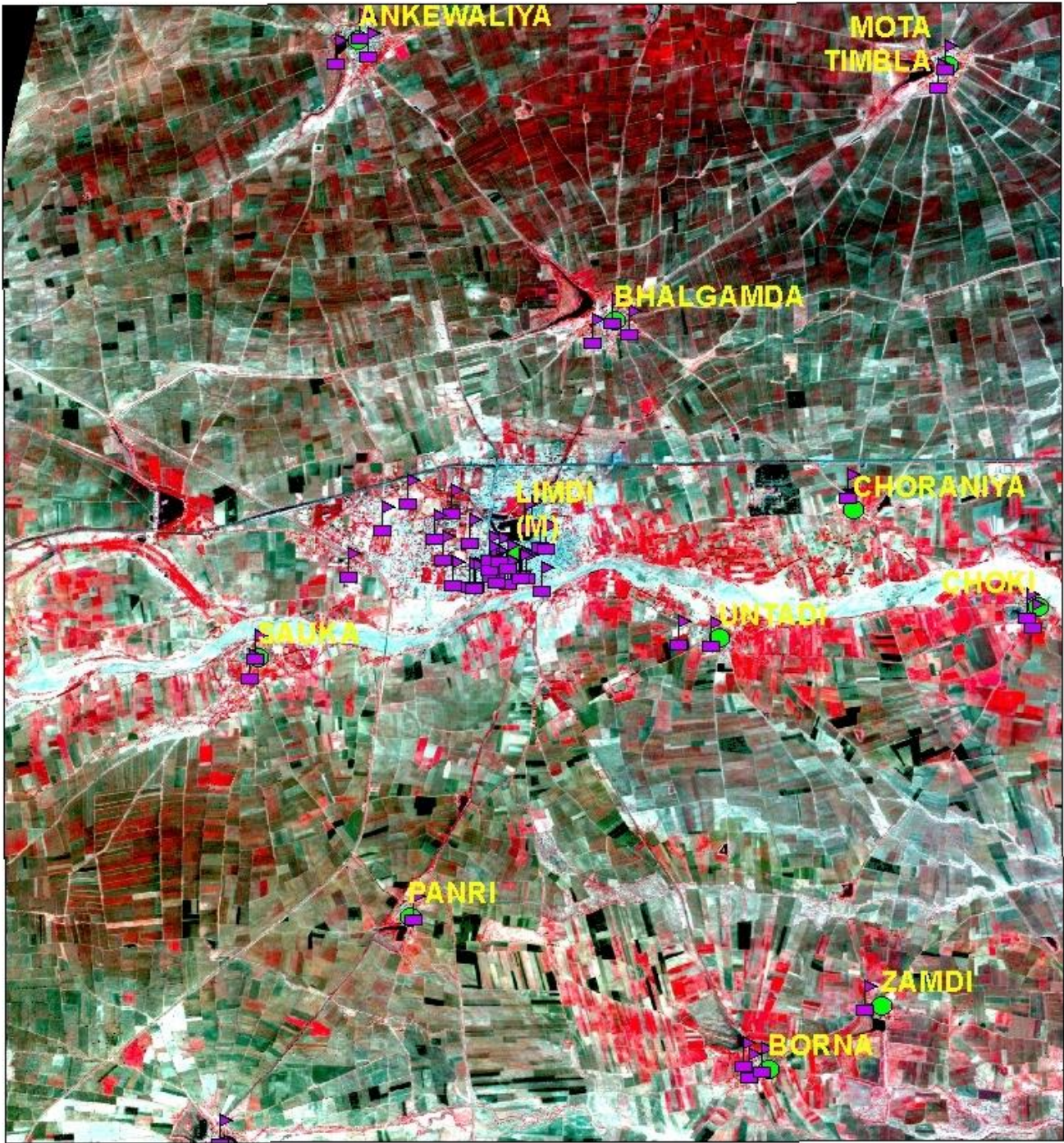
Landbank



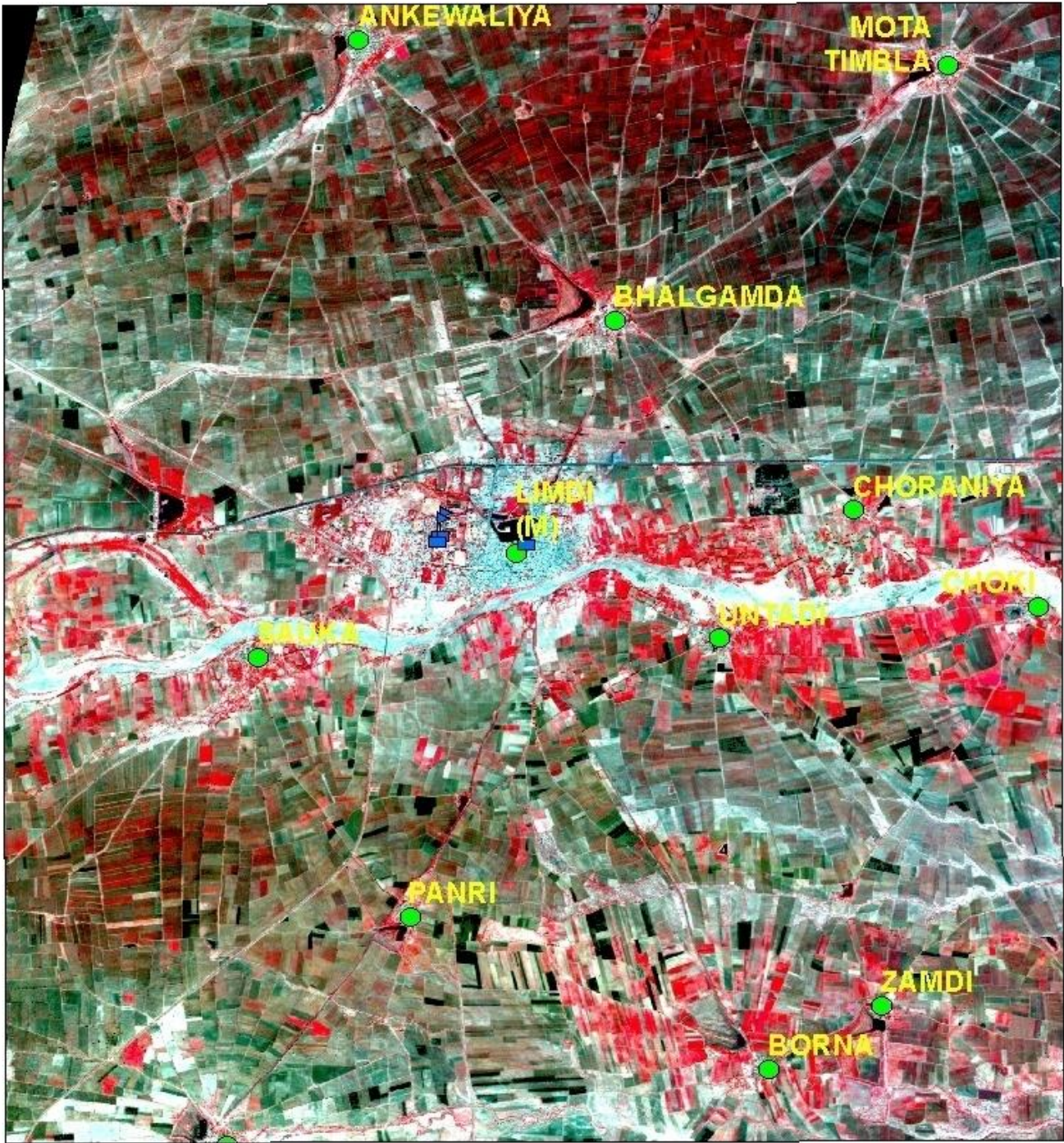
Landuse



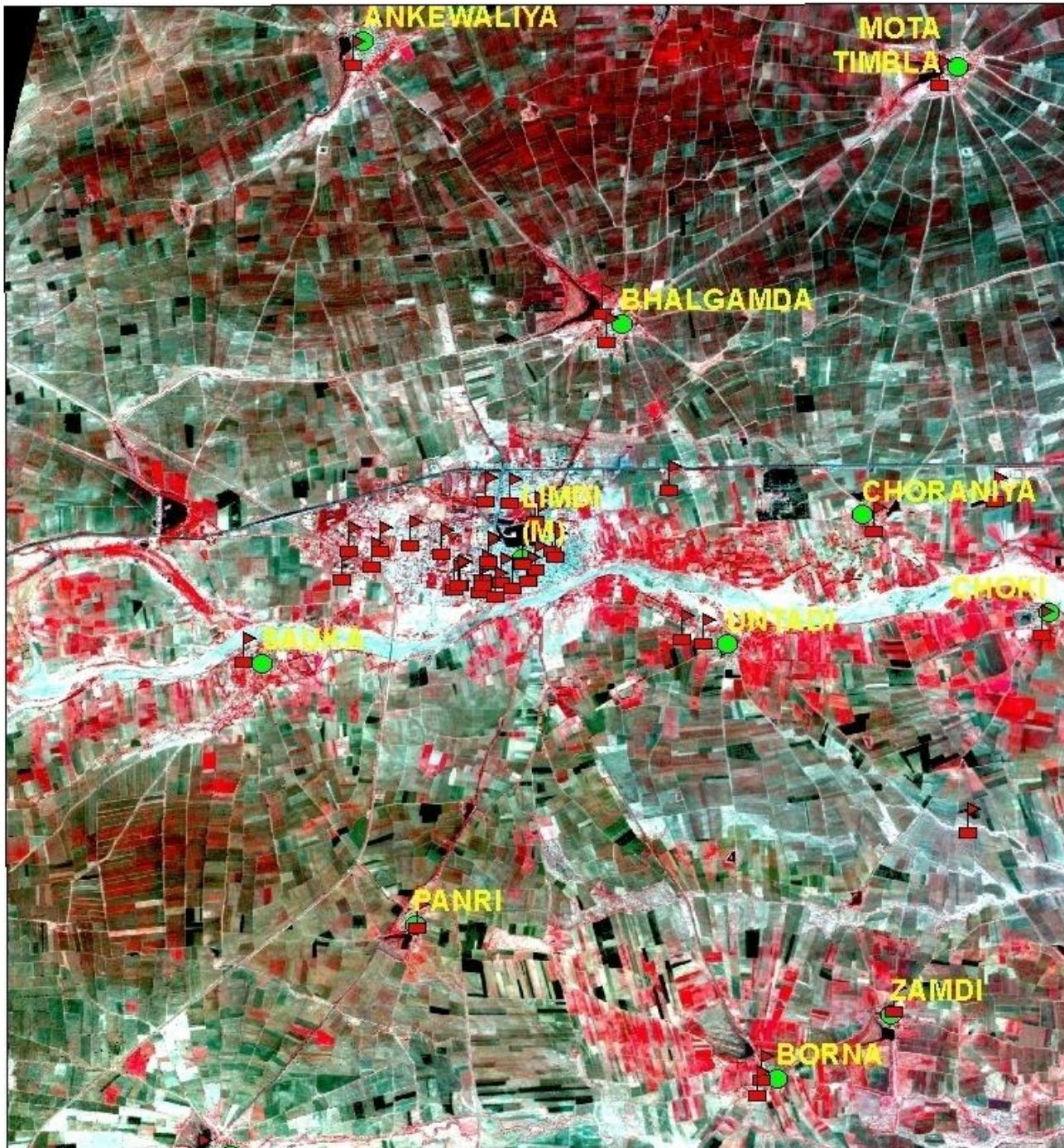
Schools



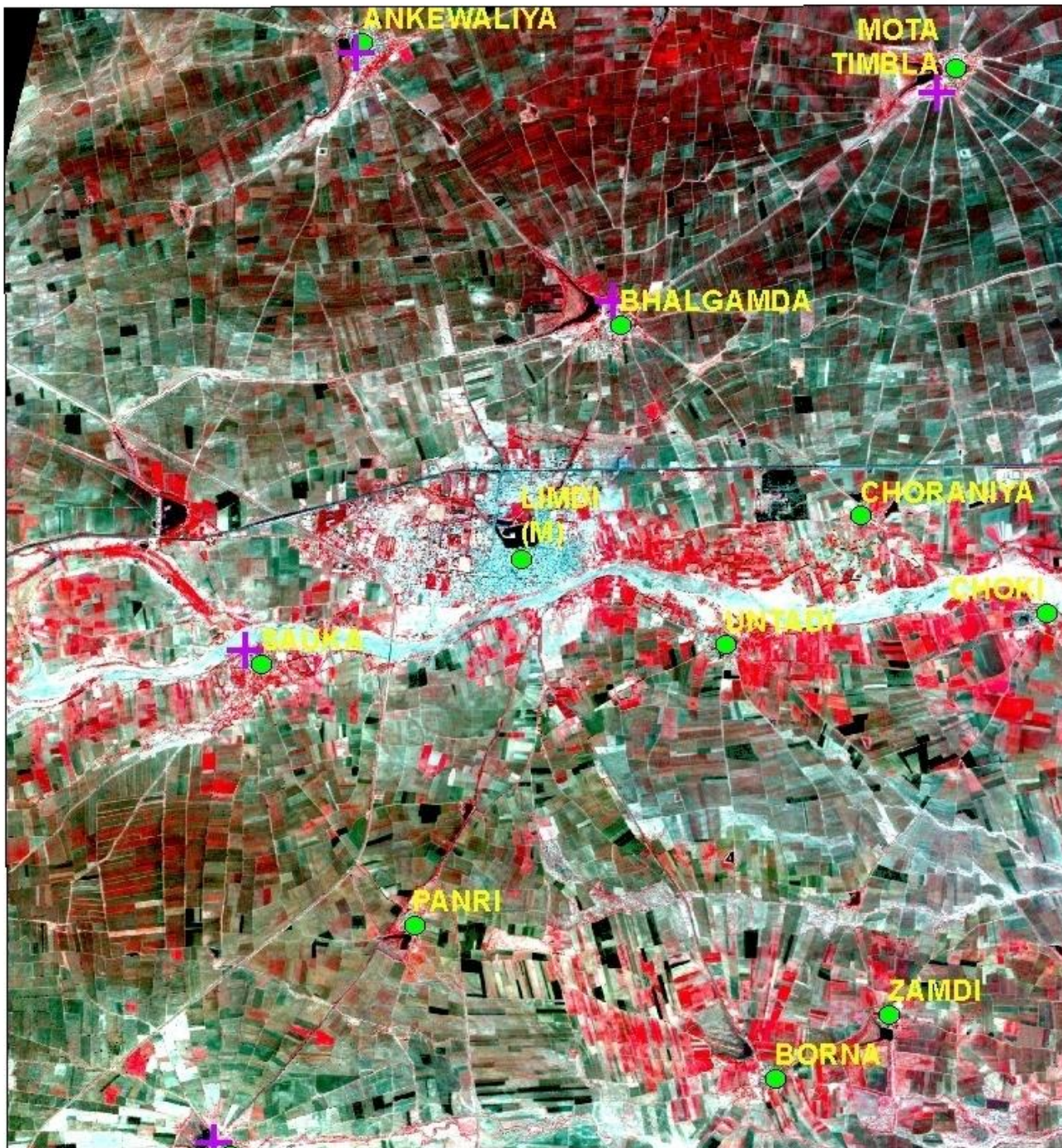
Collages



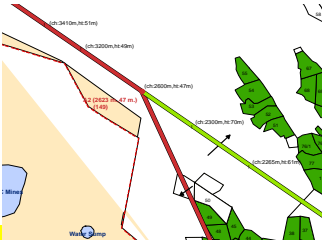
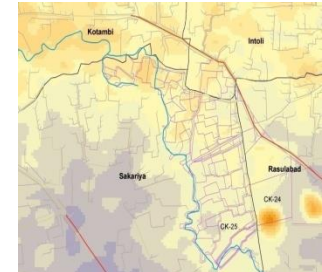
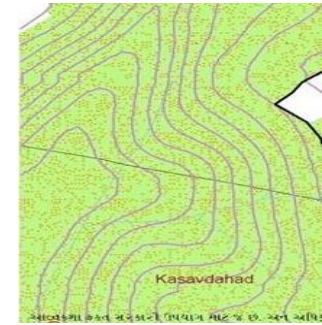
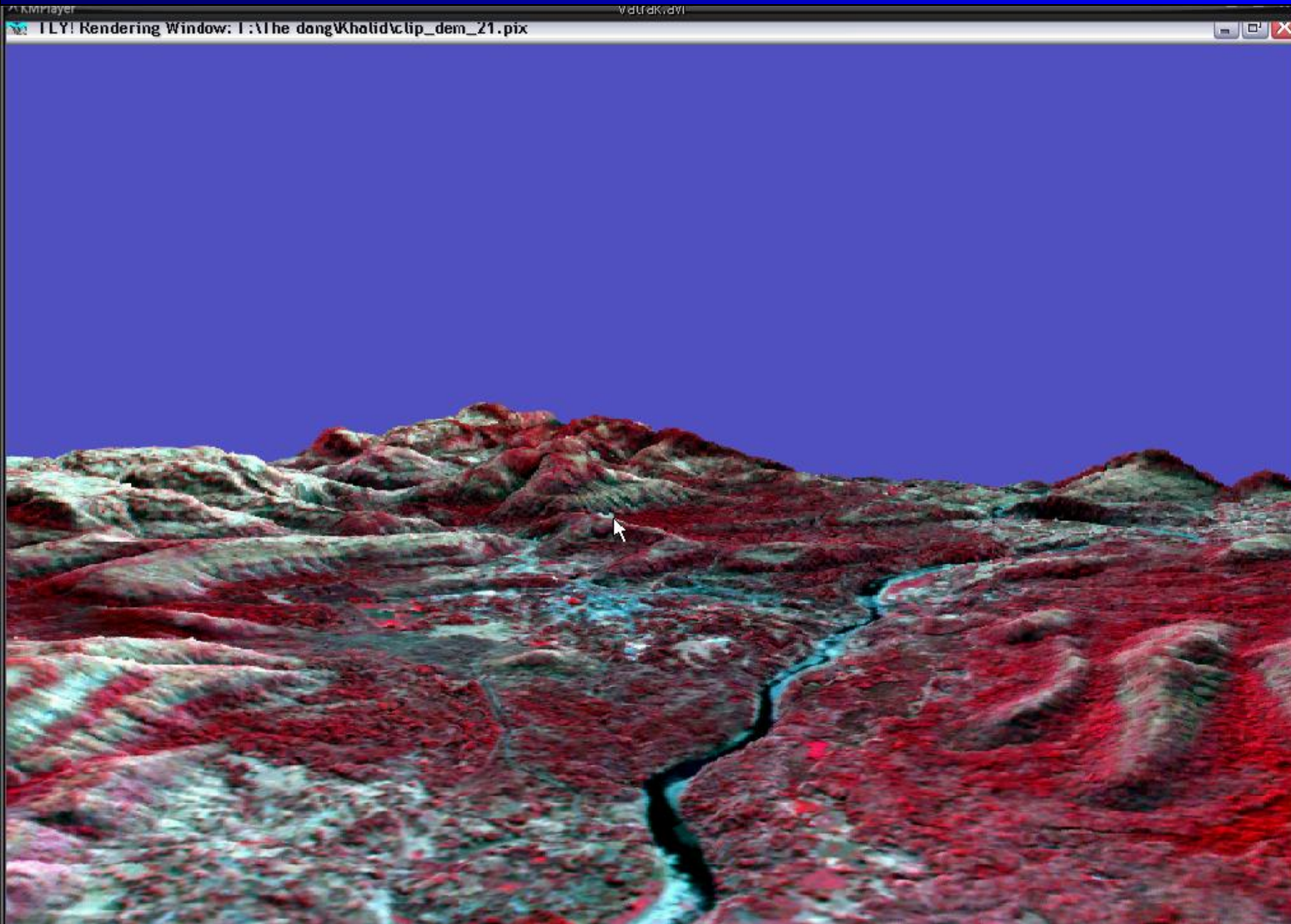
Anganvadi



Sub center



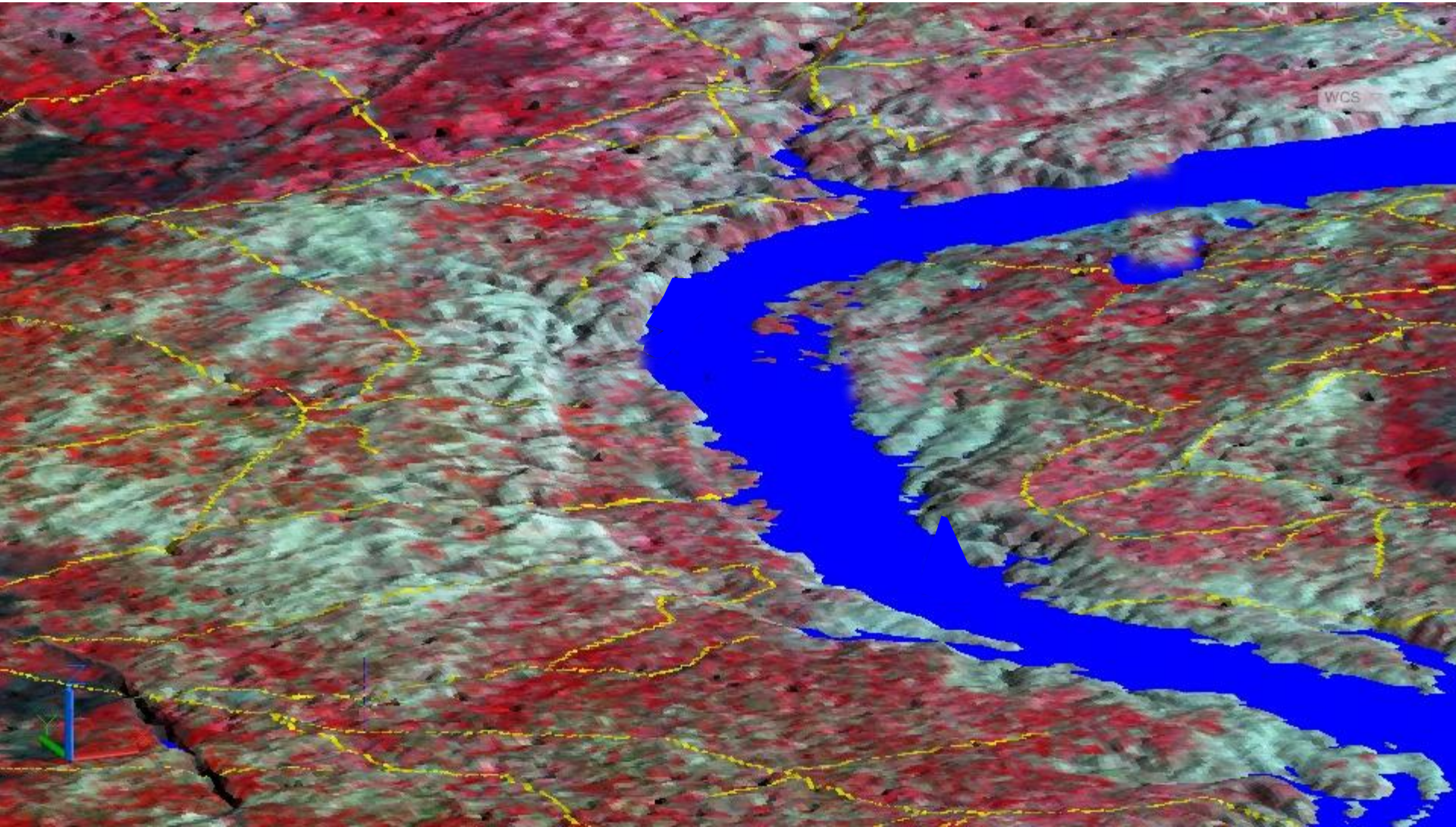
Digital Elevation Model : Conceptualization & creation



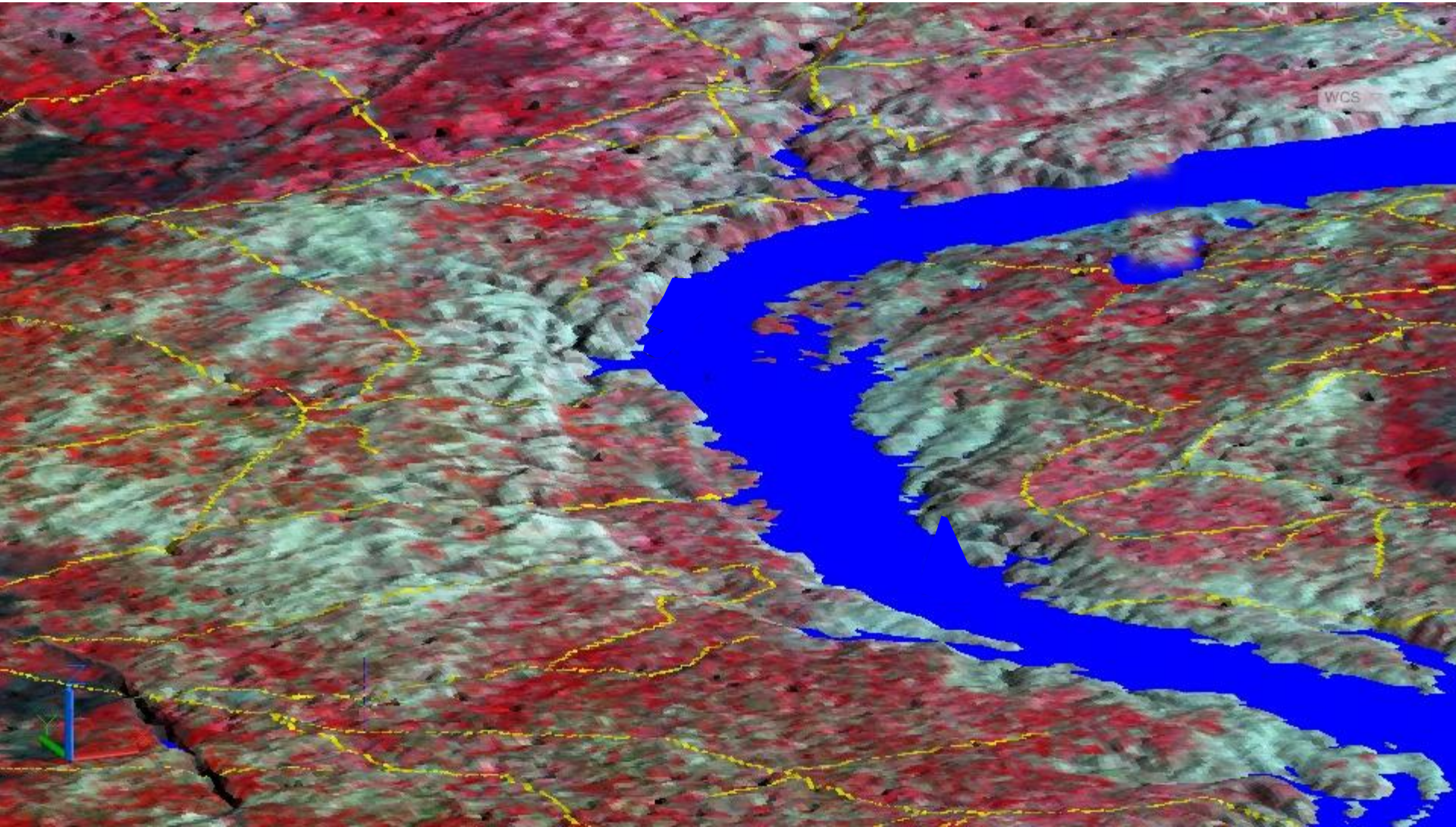
3-D images for entire state generated using IRS stereo data

Applications

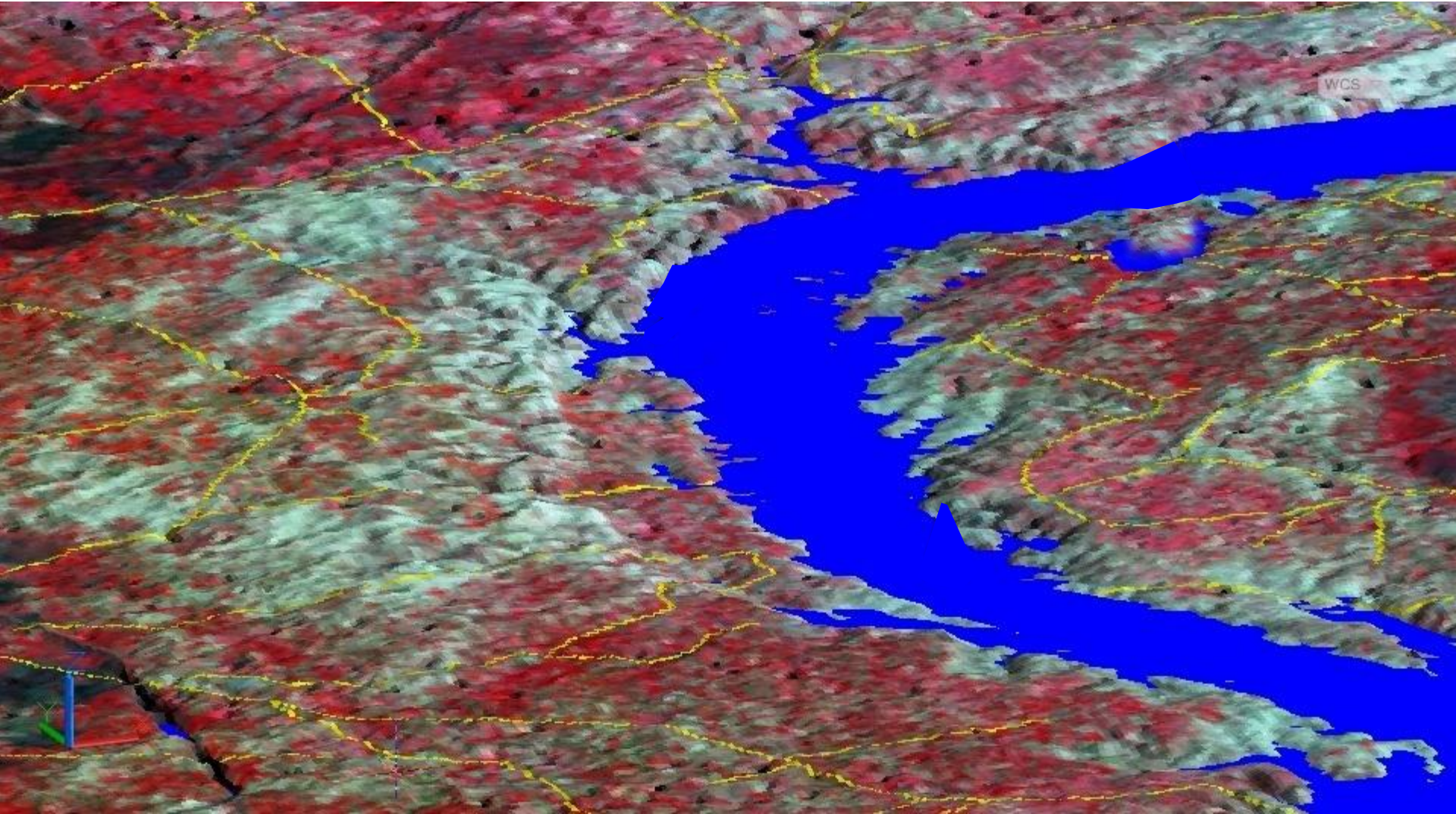
Floods Visualization using 3D Satellite images



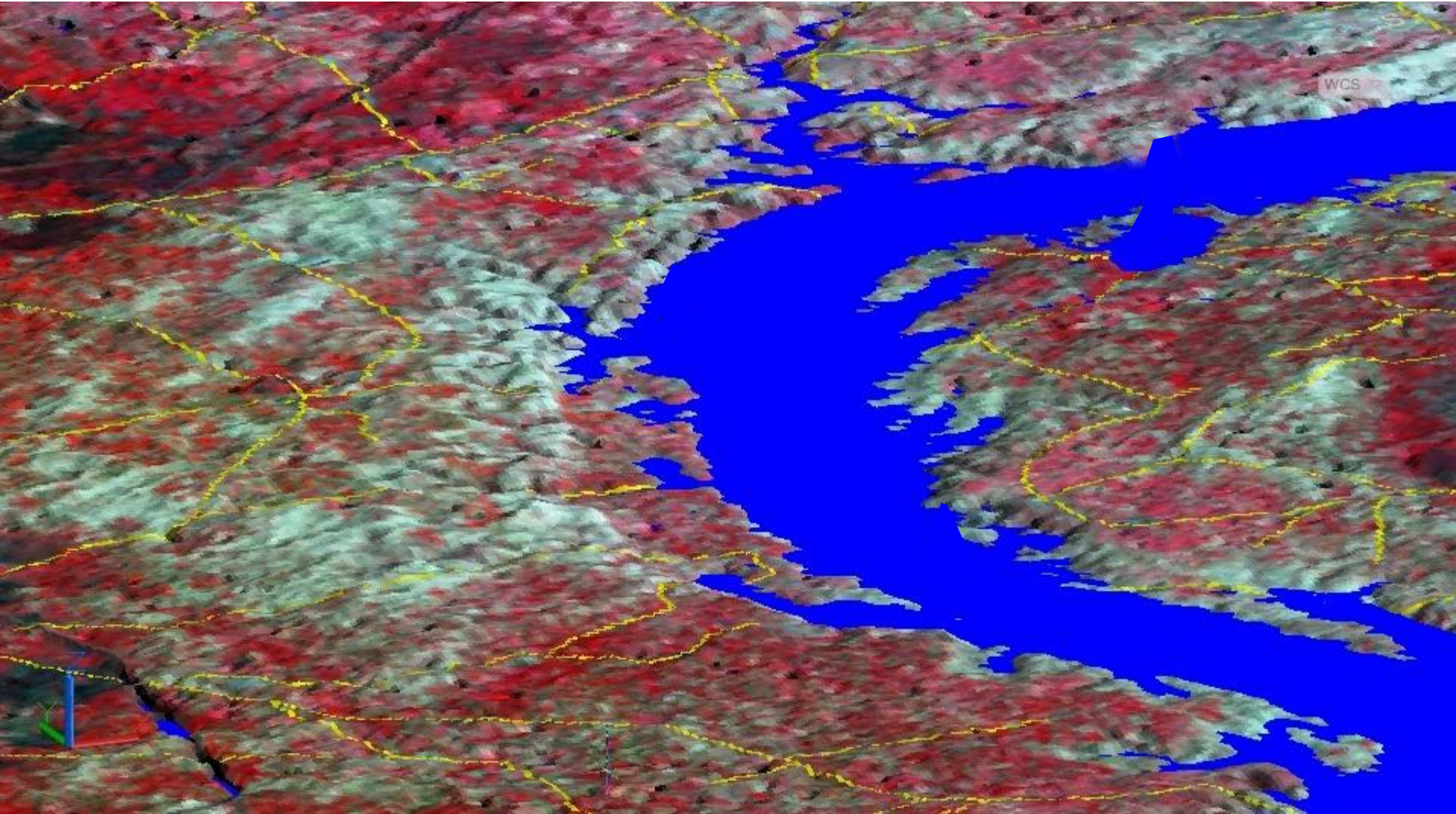
Floods Visualization using 3D Satellite images



Floods Visualization using 3D Satellite images



Floods Visualization using 3D Satellite images



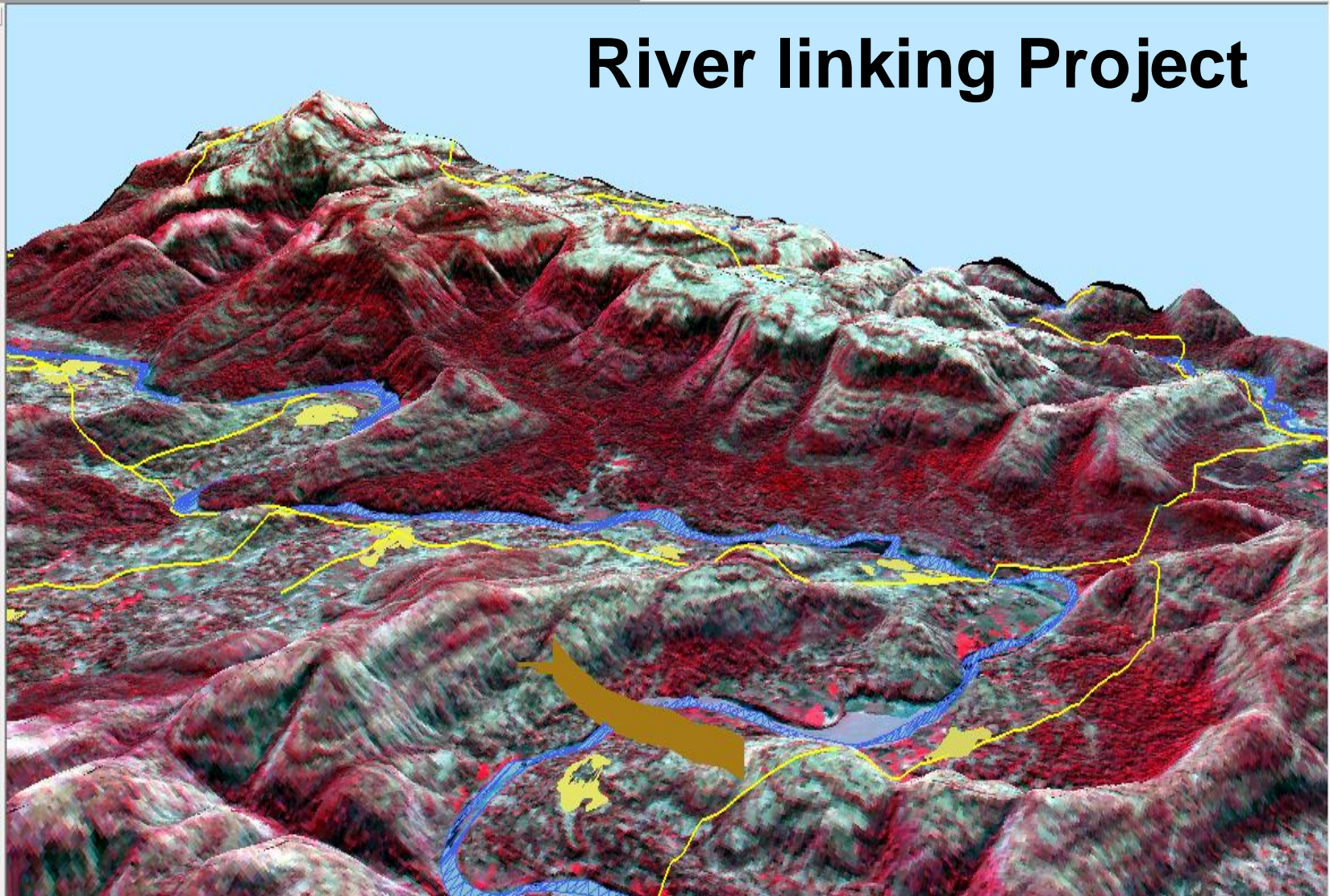
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

River linking Project

Scene layers

- mpdamaxis
- submergence
- cont_179
- cont_174
- cont_169
- cont_164
- cont_159
- cont_154
- cont_149
- cont_144
- cont_139
- cont_134
- cont_129
- Landuse_adj_Village
- Road_2007-08
- River
- IMAGE.tif
 - RGB
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3

Display Source



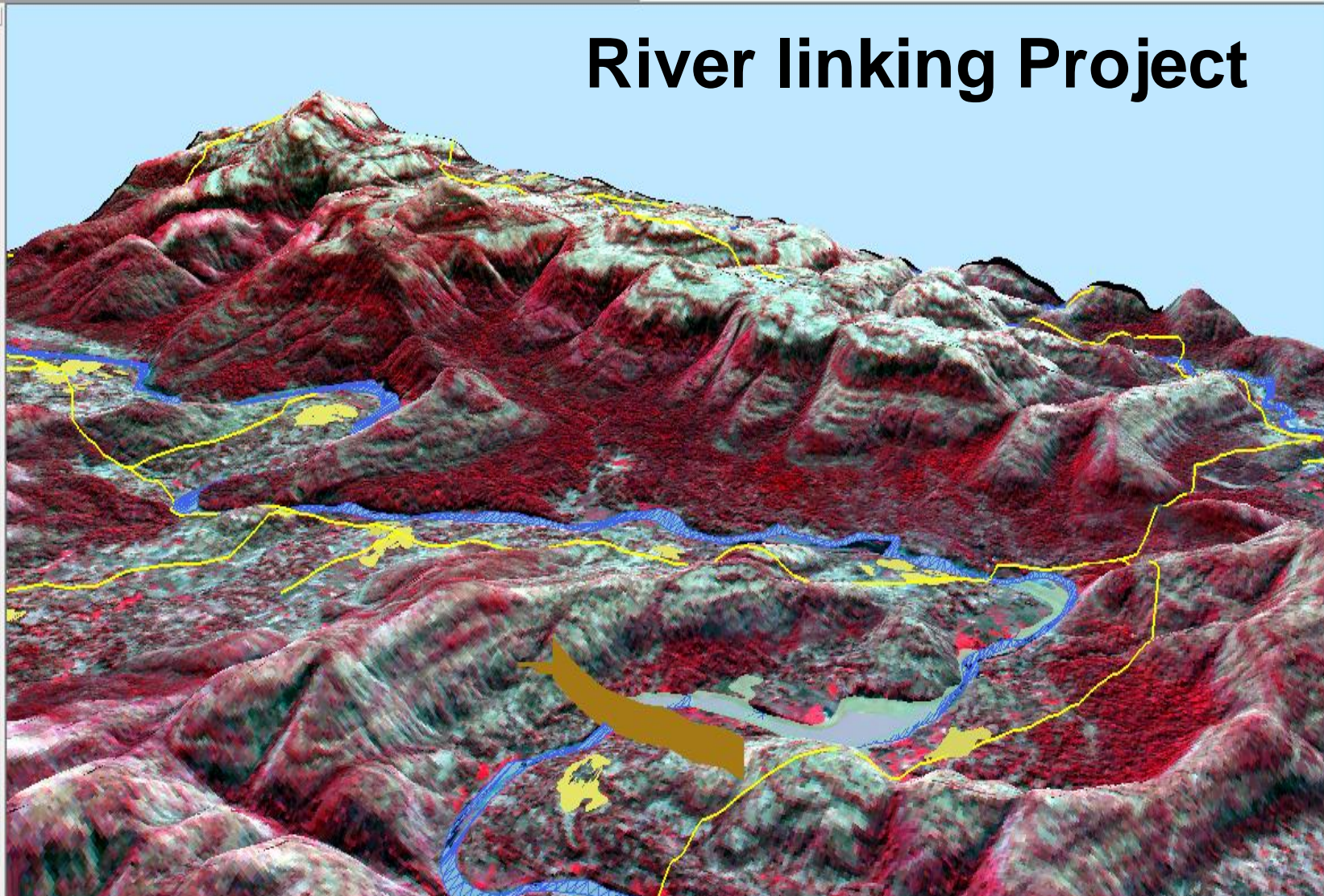
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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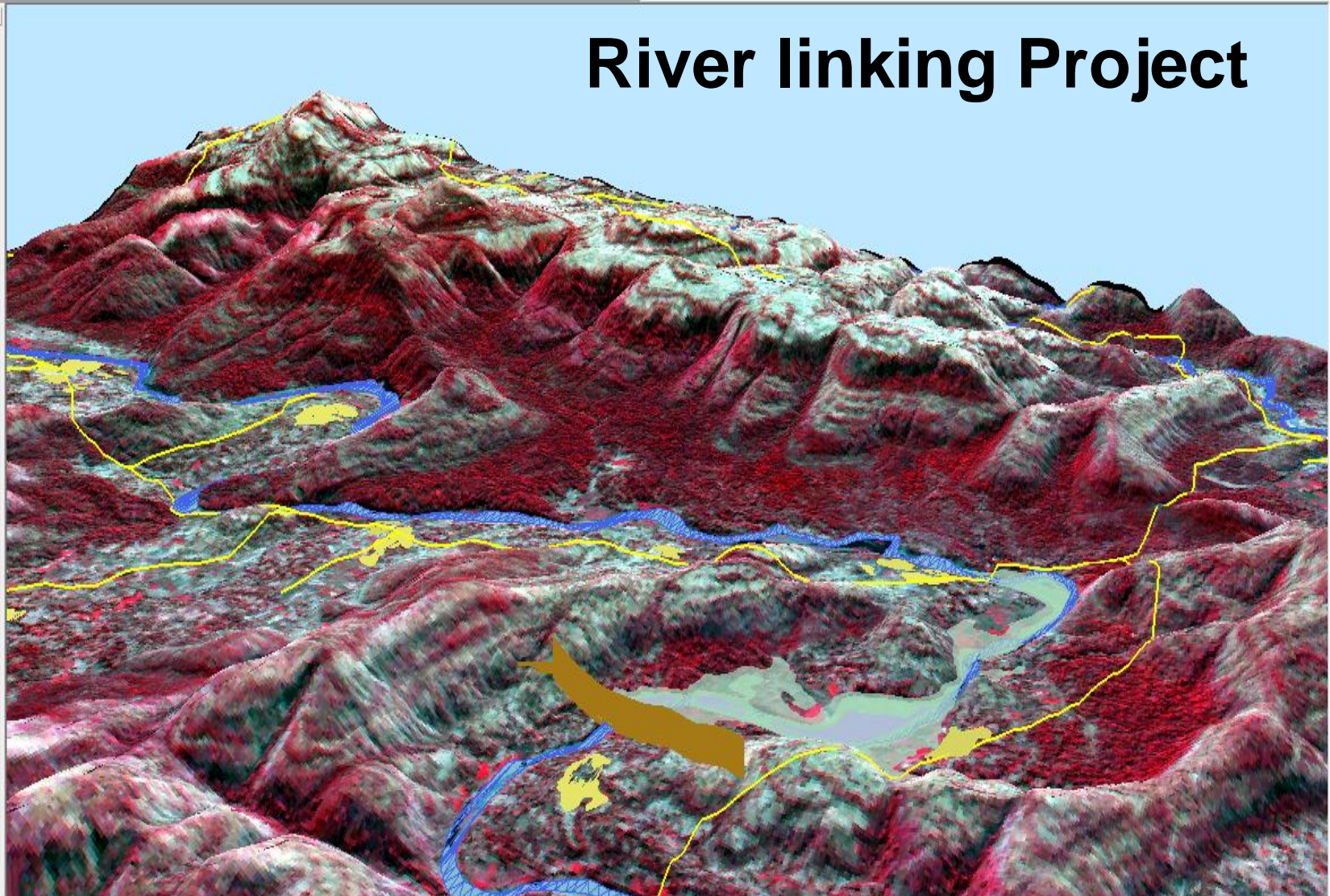
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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Display Source



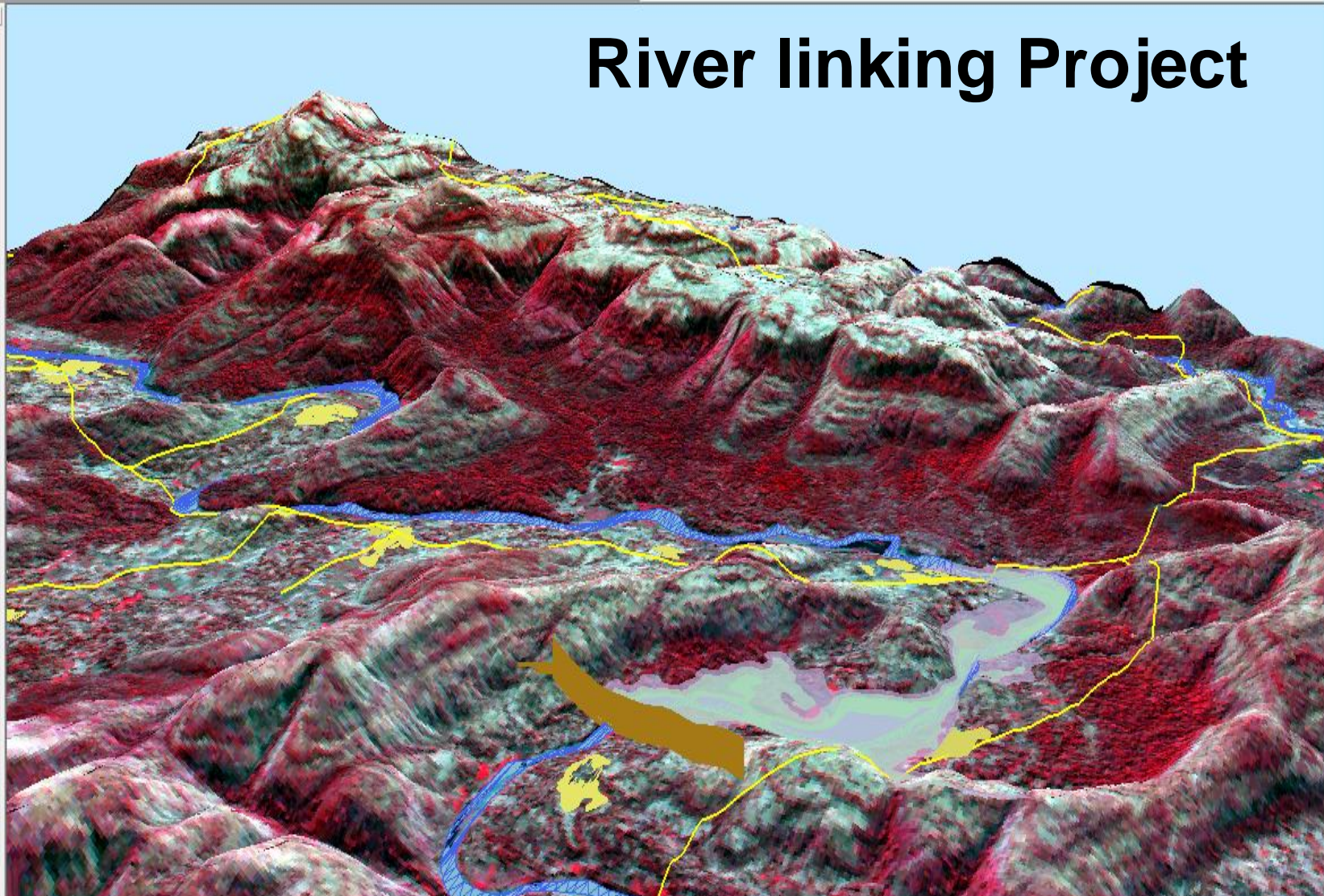
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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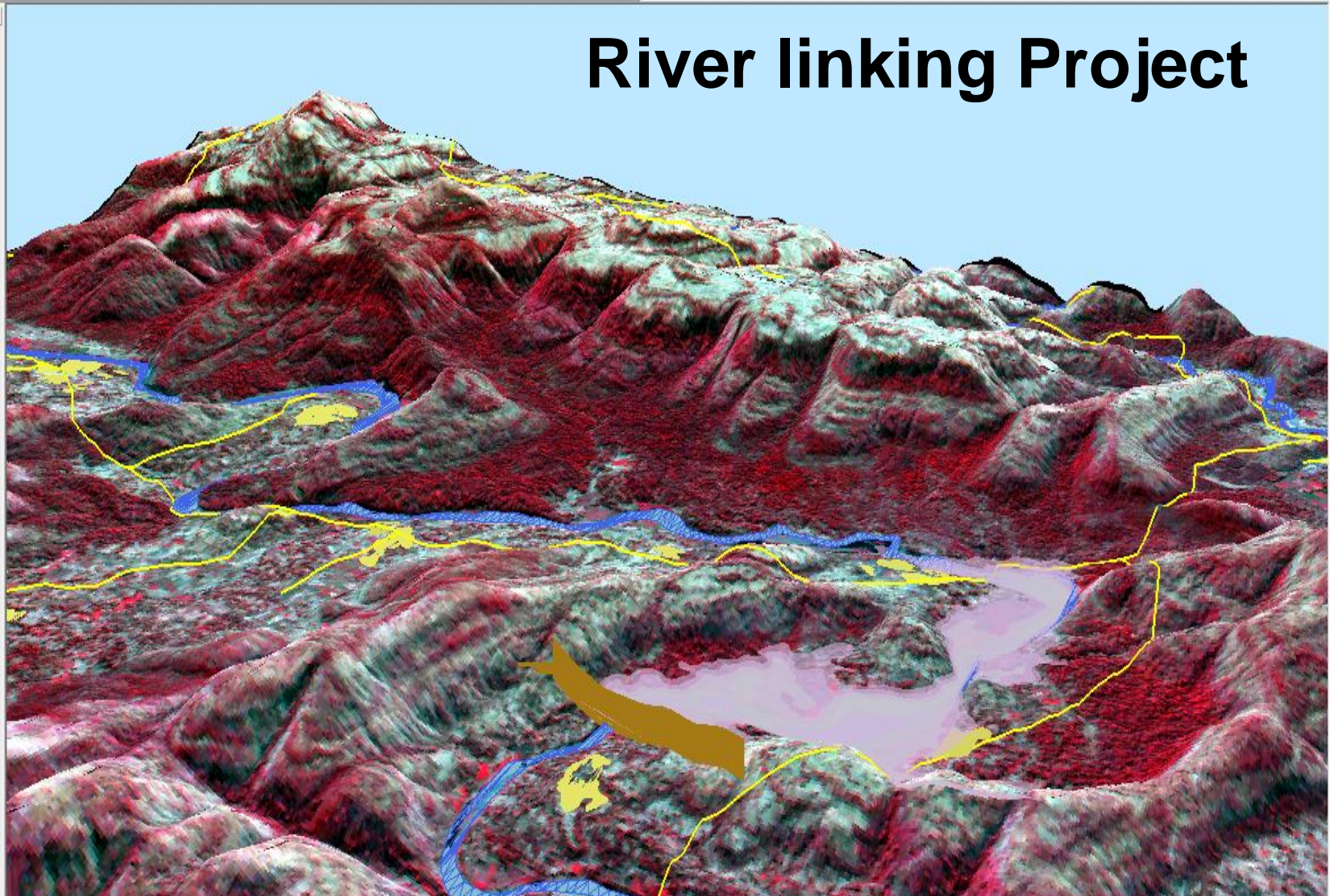
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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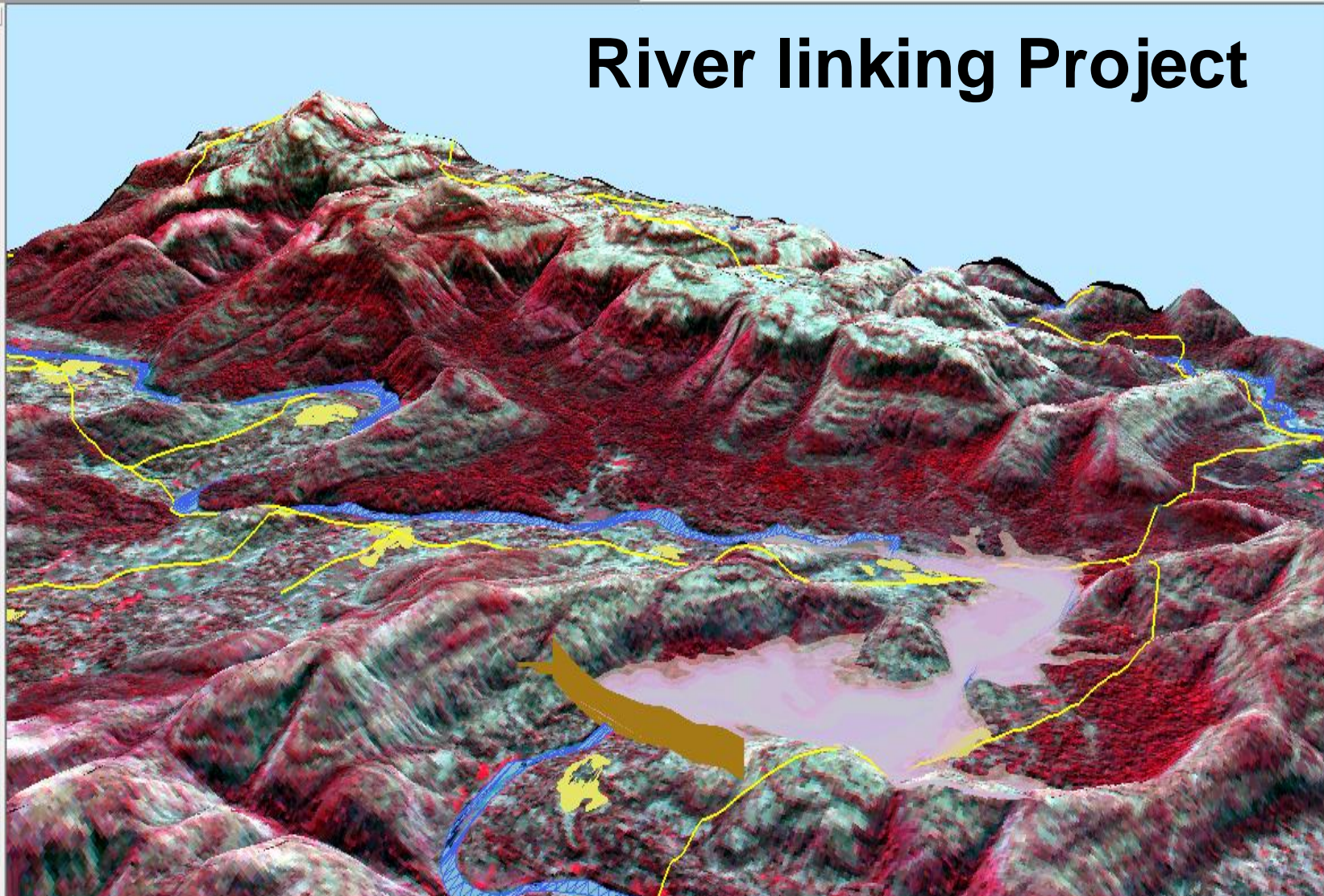
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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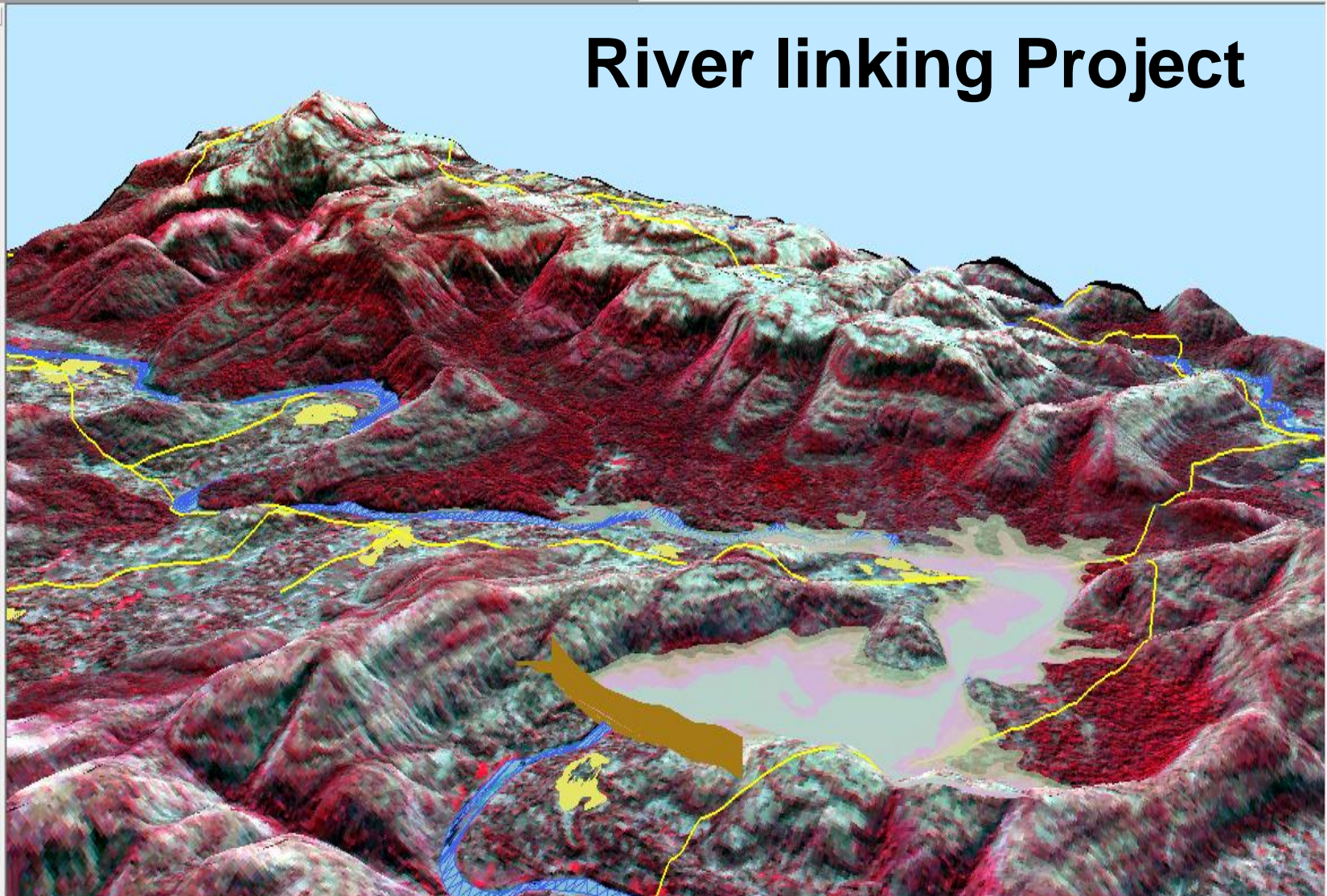
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

River linking Project

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Display Source



Changes interactively the layer transparency

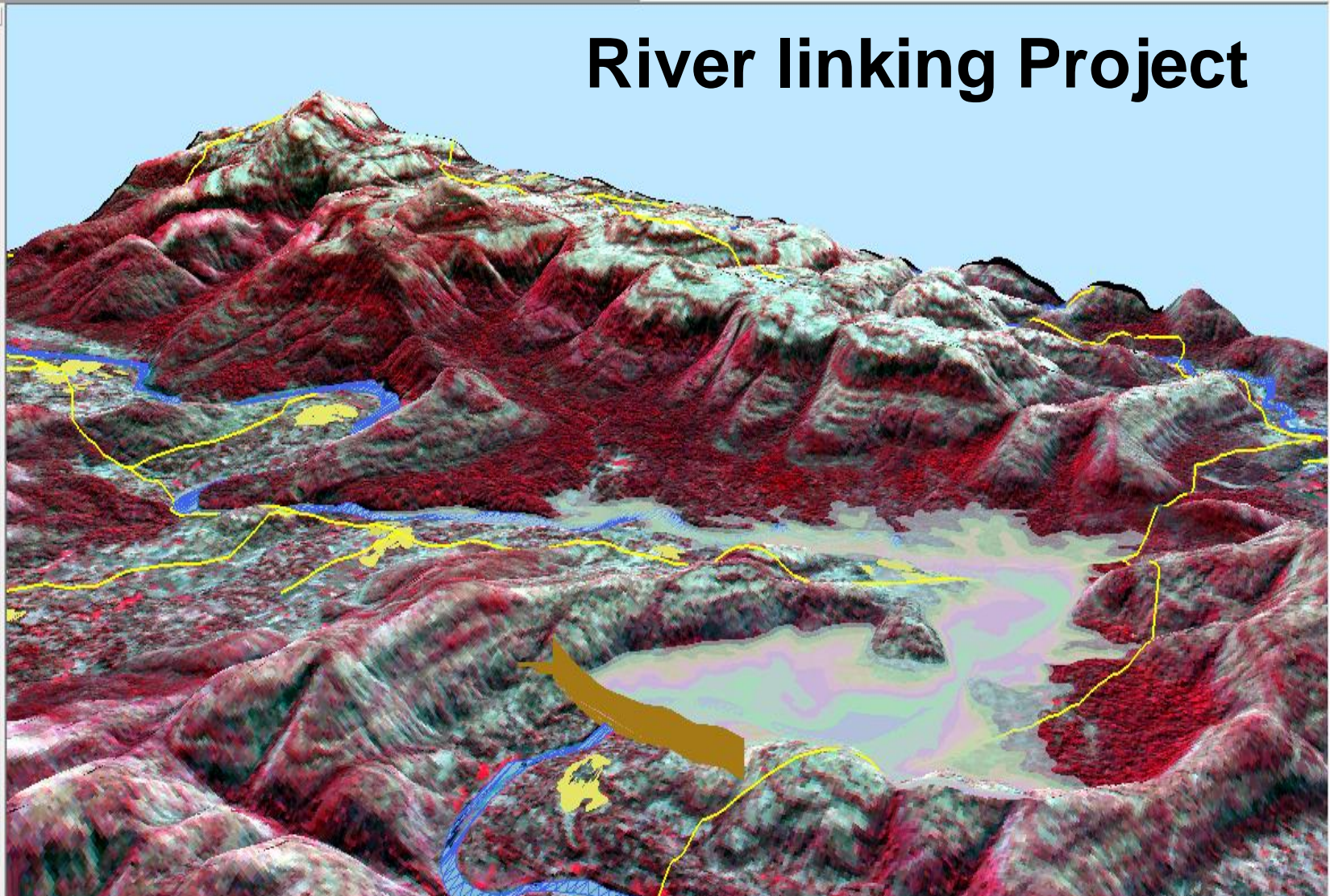
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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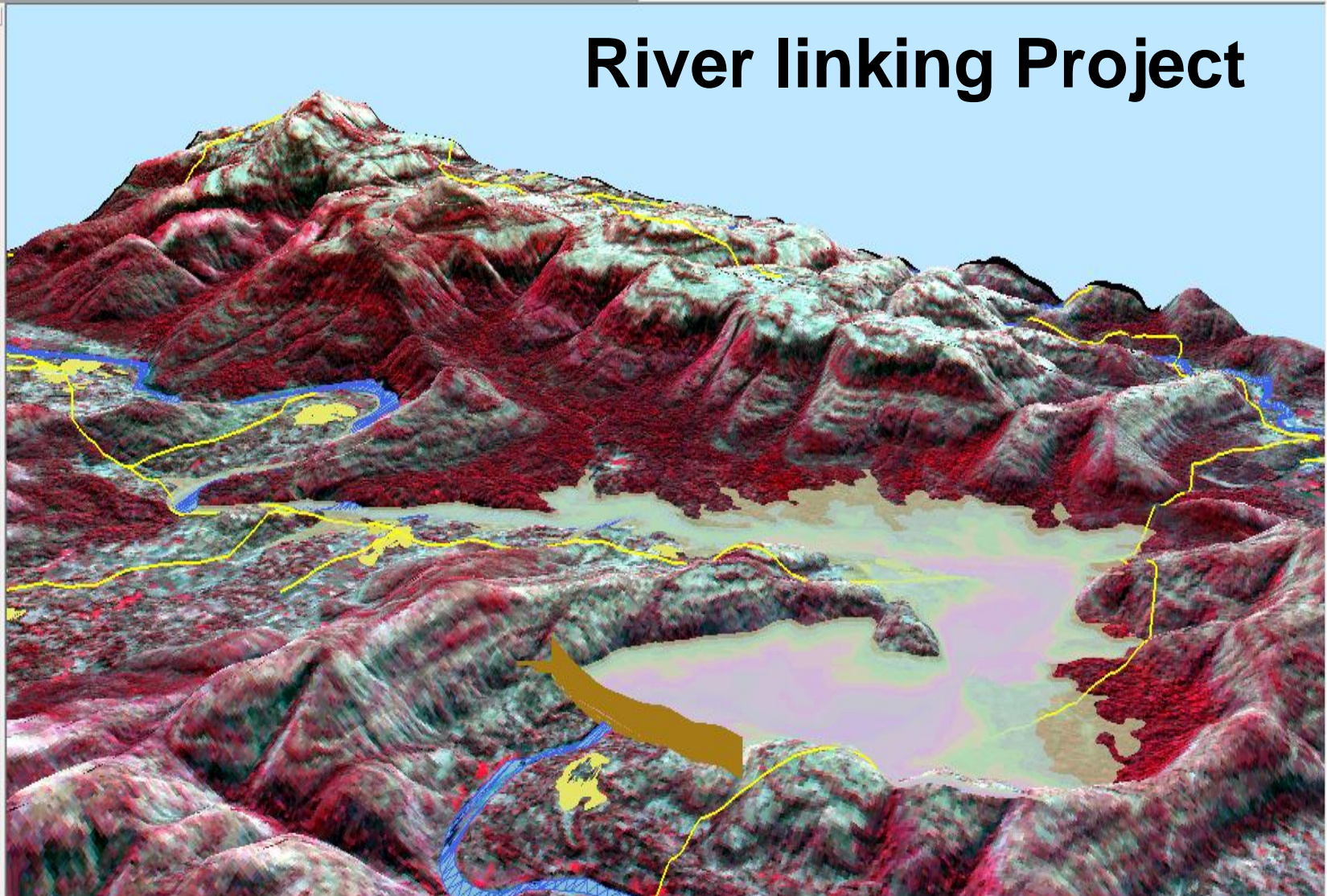
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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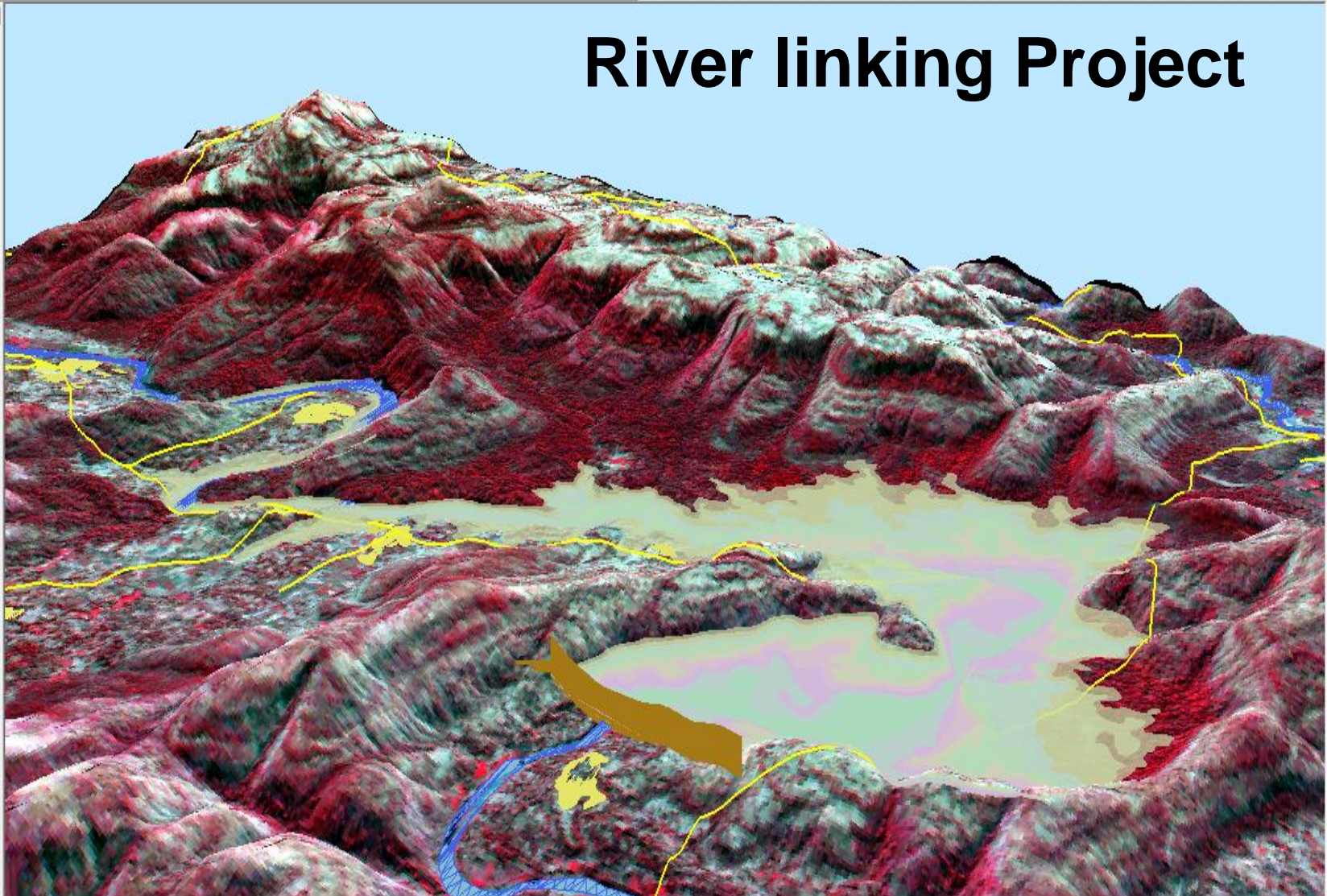
INDIAN REMOTE SENSING SATELLITE 3D IMAGE

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Display Source



Applications

- **Governance –**
 - Administrative functions
 - Monitoring of Programmes
 - Gap identification
 - Allocation of resources
 - Management of resources
- **Developmental Planning -**
 - Integrated
 - Sector based
 - Problem specific
 - Convergence
- **Spatial Decision Support System**
- **Support for Disaster Management**
- **Services – G2G**

Status : Operational

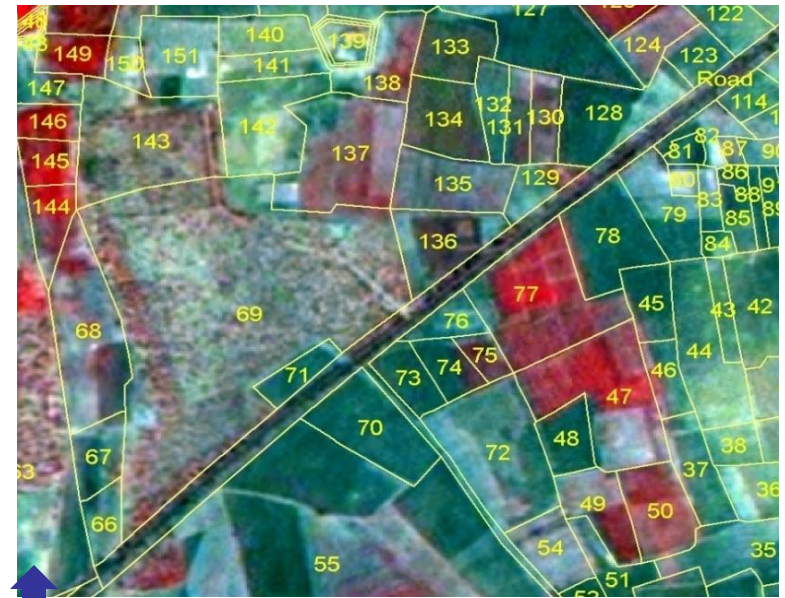
Land Use Planning & Its Development

Planning as per decided use

- Sanctuary /National Parks
- Eco sensitive zones
- Forests
- Habitations/Built-up Area
- Mineralized zones
- Urban Authorities Area
- Archeological sites
- Coastal Regulation Zones
- Gochar/Common Lands
- Water bodies
- Area along Infrastructures
- SEZ

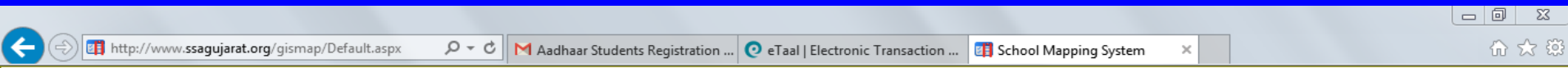
Planning for present or intending use

- Agriculture/Horticulture
- Social/Agro forestry
- Wastelands



Categories identified and demarcated through Survey nos.

Exploring school specific information



Year: 2012-2013 | District: GANDHINAGAR | Taluka: DEHGAM | Cluster: ---Select--- | Village: ---Select---

School Available from my location | Search School | School Location | Report with map | Enter Buffer Value(km): Buffer

Revenue Admin | School | Unservd Villages | Landmark | Infrastructure | Natural Resource | Criteria

Identify Pan
 Distance

Layer Pane

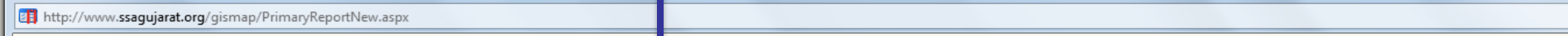
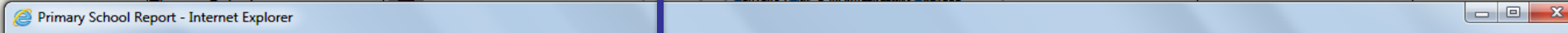
Theme [On/Off]

School

For Official Use Only
 District : GANDHINAGAR
 Taluka : DEHGAM
 Village : ---Select---

Legend

- Village
- Primary
- Primary with UP
- UP



Primary School Report

Enrollment Facility

Total SchoolCount : 3

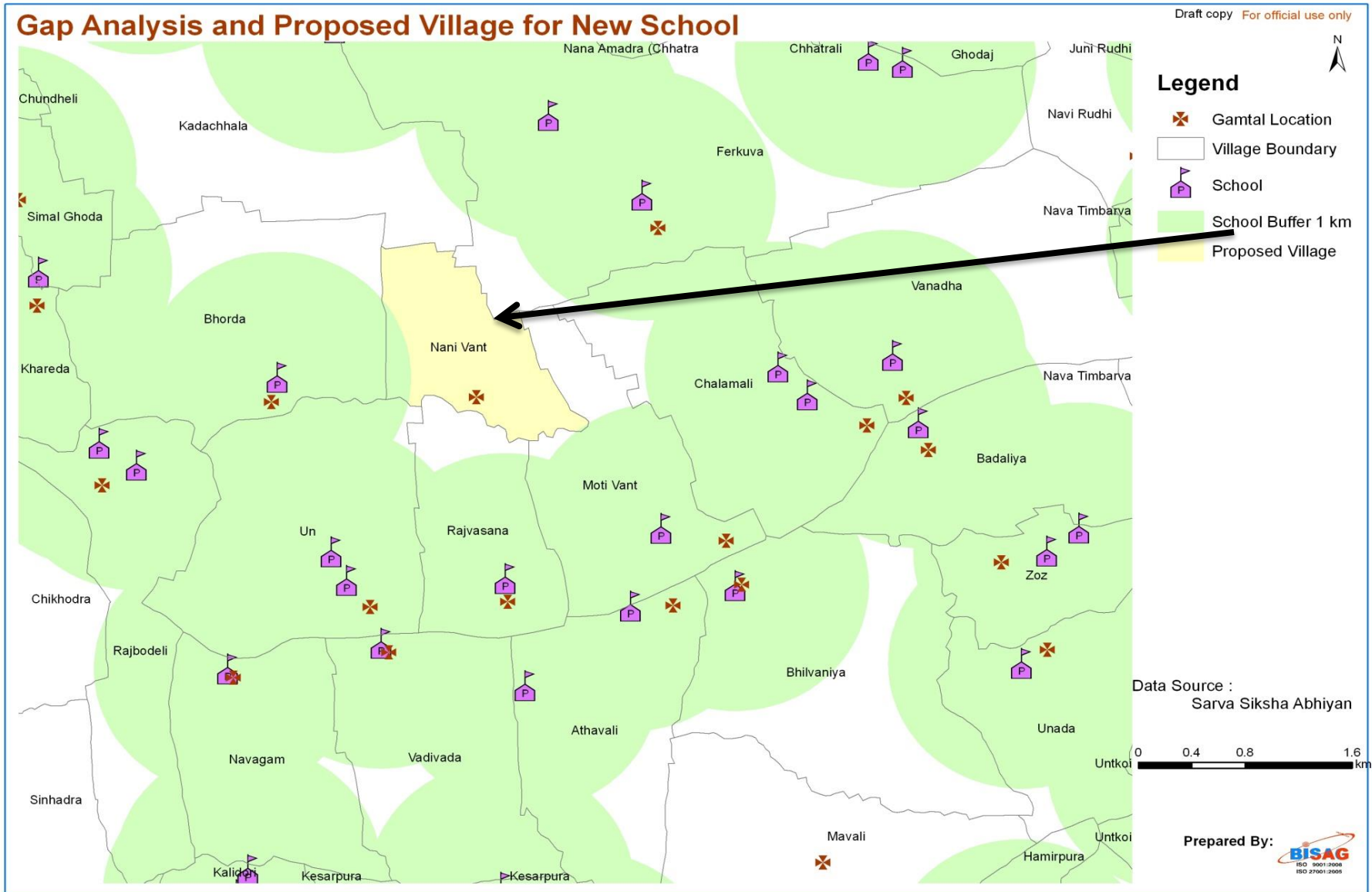
SchoolCode	District	Taluka	Cluster	Village	School Name	School Type	Year	Building Status	Management Description	Category Description	Class1 Boys	Class1 Girls	Class2 Boys	Class2 Girls	Class3 Boys	Class3 Girls	Class4 Boys	Class4 Girls	Class5 Boys	Class5 Girls	Class6 Boys	Class6 Girls	Class7 Boys	Class7 Girls	Class8 Boys	Class8 Girls
060106101	GANDHINAGAR	DEHGAM	HALISA	HALISA	HALISA PRI. SCHOOL	3	1889	Government	Local body	Primary with Upper Primary	46	44	46	58	26	35	34	28	40	40	15	25	20	22	0	0
060105001	GANDHINAGAR	DEHGAM	HALISA	DOLATPURA	DOLATPURA PRI. SCHOOL	3	1997	Government	Local body	Primary	5	2	7	2	5	5	3	4	4	5	0	0	0	0	0	0
060106102	GANDHINAGAR	DEHGAM	HALISA	HALISA	SWASTIK HIGH. SCHOOL	3	1964	Private	Pvt. Unaided	Primary with Upper Primary	0	0	0	0	0	0	0	0	13	5	25	7	32	11	0	0

Enrollment Facility

Total SchoolCount : 3

School Name	School Type	Year	Building Status	Management Description	Category Description	Common Toilet	Girls Toilet	Electricity	BoundaryWall	PlayGround	BlackBoard	Water	Computer	Kitshed	Ramp	NPEGEL	KGBV_MODEL	ADEPTS	PPSEC	FURNSTU	FURNTCH	CRCROOM
HALISA PRI. SCHOOL	3	1889	Government	Local body	Primary with Upper Primary	0	1	1	Pucca	1	15	Tap Water	0	0	1	2	2	9	2	3	2	2
DOLATPURA PRI. SCHOOL	3	1997	Government	Local body	Primary	0	1	1	Pucca	1	6	Tap Water	0	0	1	2	4	2	2	3	2	2
SWASTIK HIGH. SCHOOL	3	1964	Private	Pvt. Unaided	Primary with Upper Primary	0	1	1	Pucca but Broken	1	3	Tap Water	3	0	2	2	4	2	2	3	2	2

Criteria based proposed new school identification



Gap Analysis and Proposed New PHC, District: Bhavnagar Taluka: Botad

Draft C
(For official use only)



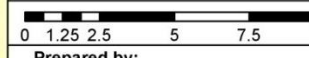
District : Bhavnagar
Taluka : Botad
Population : 286618
Gap PHC : 2
Existing PHC : 3
**Proposed PHC : 2 (Sarva - 6630
 Zamrala - 3769)**

Legend

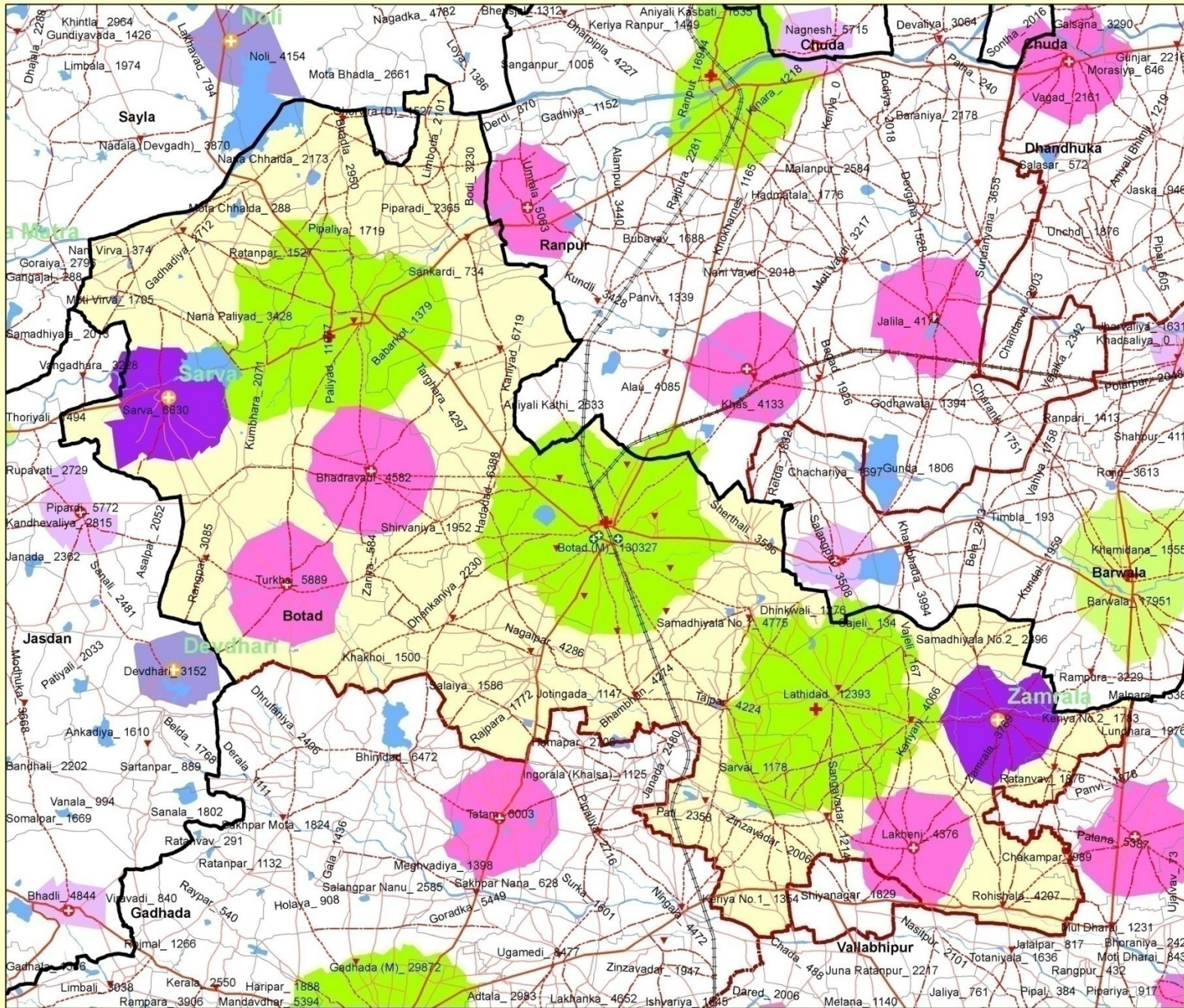
- Proposed PHC
 - Proposed CHC
 - DH
 - SDH
 - CHC
 - PHC
 - Sub Centre
 - GIA
 - NGO
- ### Road & Railway
- National Highway
 - State Highway
 - Express Highway
 - Ring Road
 - Major District Road
 - Other District Road
 - Village Road
 - Railway
- ### Boundary
- District Boundary
 - Taluka Boundary
 - Village Boundary
- ### Service Area
- PHC:TB and DDP 2km Buffer
 - PHC:NonTribal 3km Buffer
 - PHC Proposed by Department :TB and DDP 2km Buffer
 - PHC Proposed by Department :NonTribal 3km Buffer
 - CHC Proposed by Department :TB and DDP 4km Buffer
 - CHC Proposed by Department :NonTribal 6km Buffer
 - CHC: TB and DDP 4km Buffer
 - CHC:Non Tribal 6km Buffer
 - DH :TB and DDP 4km Buffer
 - SDH:TB and DDP 4km Buffer
 - SDH: NonTribal 6km Buffer

Data Source

Commissionerate of Health

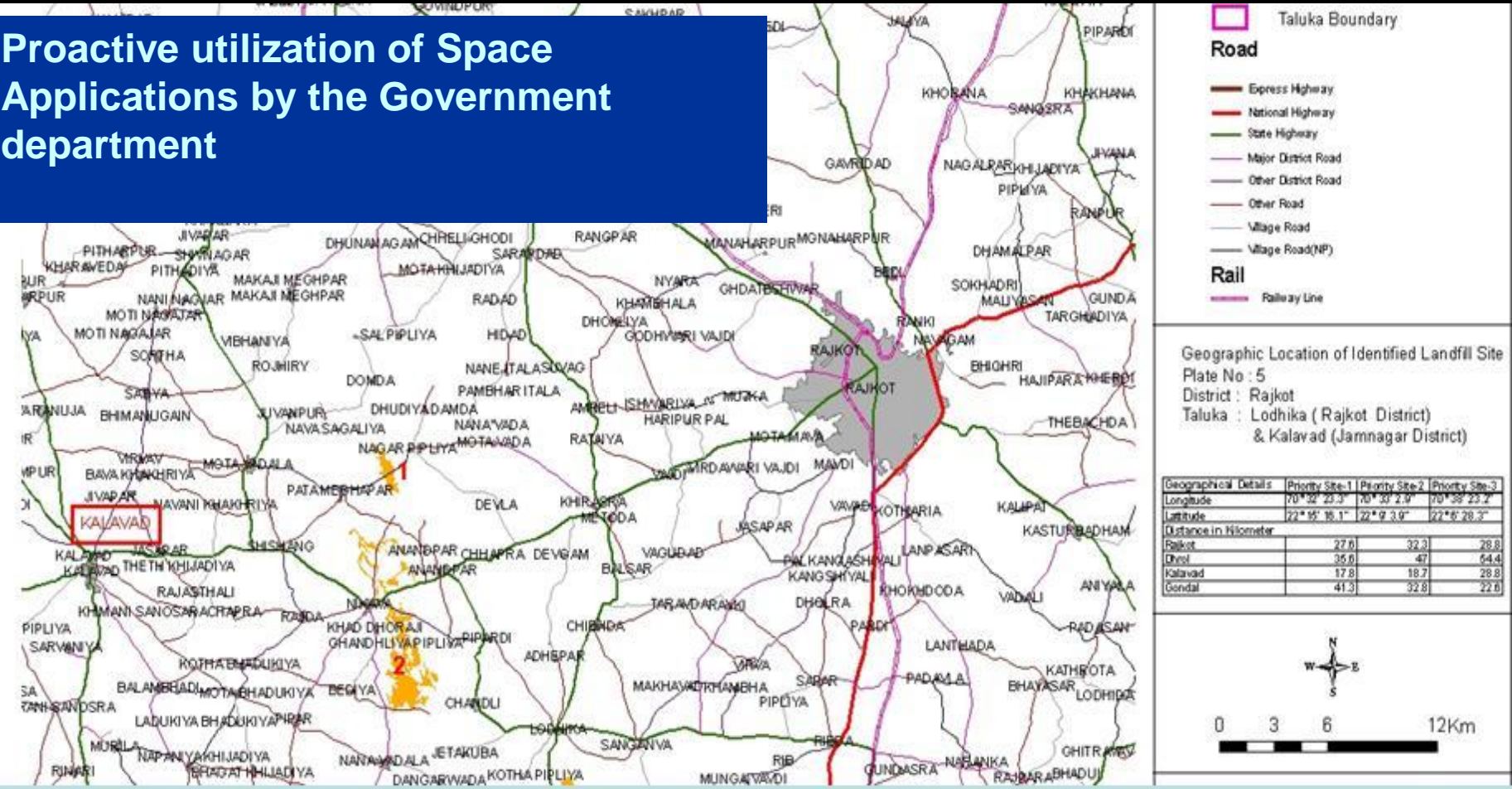


Prepared by:



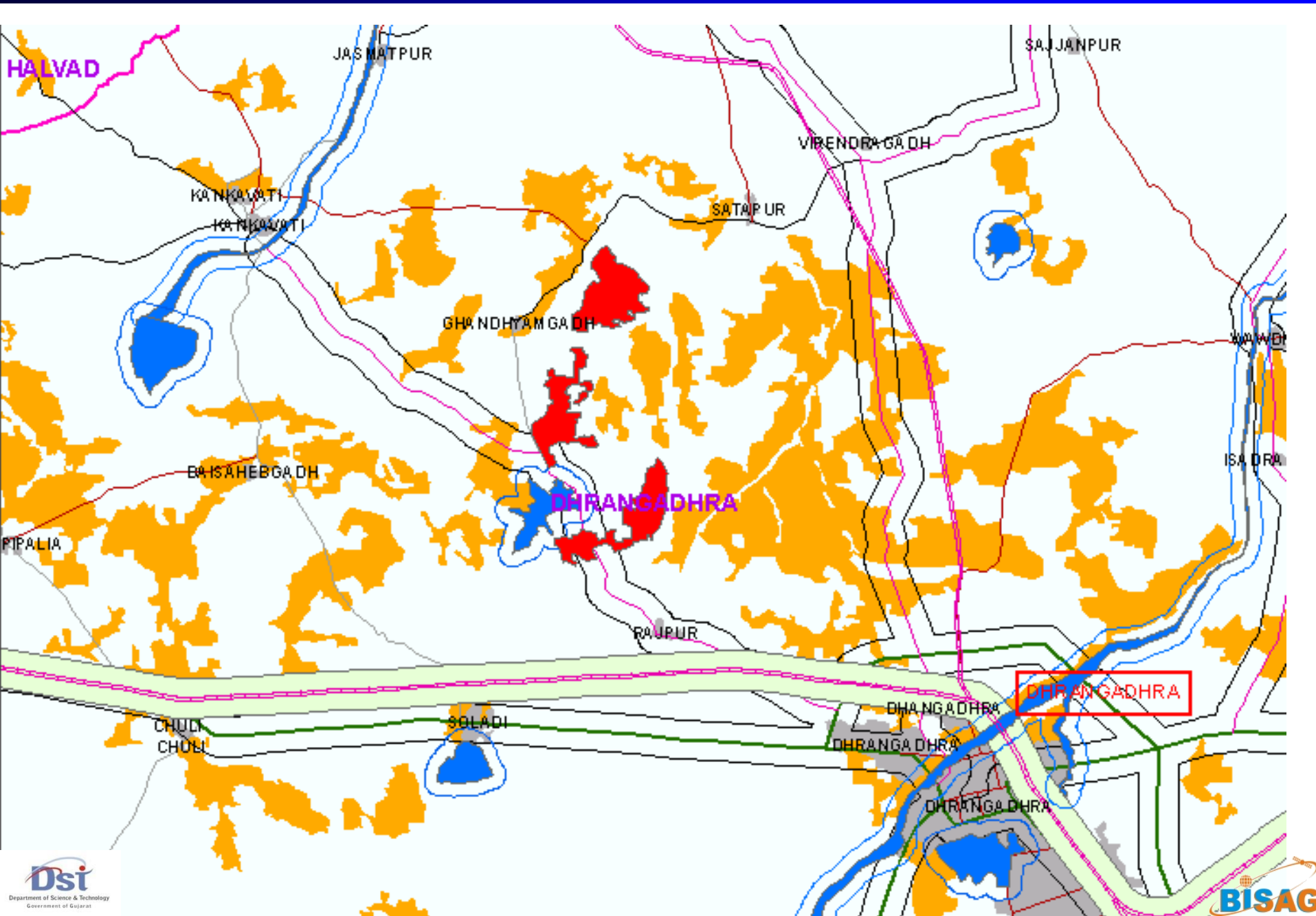
Land Fill Site Selection for ULBs

Proactive utilization of Space Applications by the Government department



Site Selection Criterion Distance from *Habitation* > 500 meters, *Rivers / Lakes / Water bodies* > 200 meters, *Non meandering (canal, drainage, etc.)* > 30 meters, *Highway / Railway line* - 300meters from centre line, should *not be in Coastal Regulation Zoning, Earthquake Zone* ie. 500 meters from *fault line fracture, Flood Prone Area*.

CRITERION BASED IDENTIFICATION OF WASTELANDS FOR LANDFILL SITES



Selected Parameters for Selection of Industrial site

Administrative Boundary

District
Taluka
Village
Settlement

Area of Interest

Investment Region
Landbank
Along the road
SEZ
GIDC Estates
Existing Industries
Landbank with CRZ
ALL

Infrastructure

Industries

CETP
Mining Site
Industrial Zoning
Major Industries
ALL

Area to be Avoided

Settlement
Double Cropping
CPCB Guideline
Forest
Horticulture
Coastal Regulation Zone
National Park and Sanctuary
Thor Nalsrovar 5 km buffer
Thor Nalsrovar 10 km buffer
Critical Taluka

Investment Criteria

Industries List
Land Criteria
Others

Infrastructure

Road
Rail
Ports
Airports
Power Line
Power Substation
Major Town
Gas Pipeline
ALL

Water Resources

River/Waterbody
Canal
Command Area
Checkdam
Ground Water Prospects

Calamities

Earthquake
Flood
Cyclone
Tsunami

Amenities

School
ITI
Health
Drinking Water
Police Station
Bank
ALL

Cadastral Map

Along The Road
Investment Region
Land Bank

Land Resources

Soil
Wasteland
Government Wasteland

• • • • •

Selected Parameters for Selection of Industrial site

District **AHMEDABAD** Taluka **VIRAMGAM** Village Go Back **Suitable Industry** Home View Photos

Industrial Zone

- Z1Wh
- Z1Wl
- Z1Wm
- Z2Wh
- Z2Wl
- Z2Wm
- Z3Wh
- Z3Wl
- Z3Wm
- Z4Wh
- Z4Wl
- Z4Wm

Revenue Plots

RAIL

TYPE OF ROADS

- Expressway
- National Highway
- State Highway
- Ring Road
- Major District Road
- Other

VIRAMGAM'S VILLAGE

AHMEDABAD'S TALUKA

Investment Region

Active Theme

INDUSTRIAL ZONE

Investor Support System

Suitable Industry

Z4Wm
Low Air Pollution Sensitivity & Medium Water Pollution Sensitivity
Type of Industries
Thermal Power Plants Coal or coke based ³ 200/210 MW
Nitric Acid
Sulphuric Acid
(Synthetic; Semi Synthetic)
Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black etc
Incineration plant
Power generating plants (excluding DG Sets)
Chlorine, fluorine, bromine, iodine and their compounds
Hydrocyanic acid and its derivatives
Including all process involving the use of Asbestos
Dry coal processing/Mineral processing industries like ore sintering, palletization etc
Phosphate rock processing plants
Coke making, coal liquefaction, coal tar distillation or fuel gas making
Industry or process involving foundry operations
Ceramic/refractoriness
Hot mix plants
Mining and ore-beneficiation

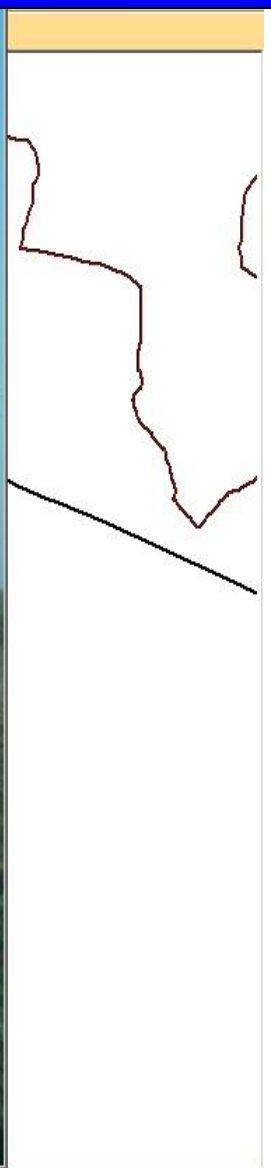
Selected Parameters for Selection of Industrial site

District **AHMEDABAD**

- Revenue Plots
- RAIL
- TYPE OF ROADS
 - Expressway
 - National Highway
 - State Highway
 - Ring Road
 - Major District Road
 - Other
- VIRANGAM'S VILLAGE
- AHMEDABAD'S TALUKA
- Investment Region
- DISTRICT

Active Theme

INVESTMENT REGION



[Next](#) [Previous](#) [Cancel](#)

20/05/2010

Agriculture GIS

Crop Monitoring

Rabi Season

Zaid Season

Information of Agricultural Assets

Cold Storage

Agriculture Processing industries

Fertilizer Company

Pesticides and insecticides company

Cotton Processing unit

Gujarat agro-industries

Marketing yard

Rural Co-op bank

Soil fertility map

Linking of Soil health card

Preparation of Soil Fertility Map

Calculation Of Fertilizer Requirement

Water harvesting and Recharging structures

Check Dams

Percolation Tank

Well Recharging farm ponds

Recharge Pits

Crop Suitability Analysis

Superimposed Of NBSS& LUP MAP

Delineation Of NBSS& LUP MAP

Criteria based Query in GIS

Survey Number Wise Linking of Soil Health Card in GIS

જમીન આરોગ્ય પત્રકની વિગતો

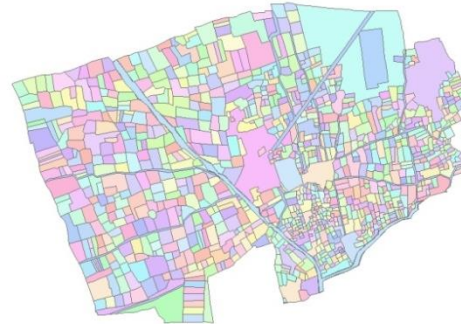
ખેડૂતની સામાન્ય માહિતી

સુચિપત્ર નંબર SHC01208735

સુચિપત્ર વર્ષ 2009-2010

1. ગામ	ગાવડકા	તાલુકો	અમરેલી
જિલ્લો	અમરેલી	રાજ્ય	ગુજરાત
2. ખેડૂતનું નામ	વાઘેલા કુલબાઈબેન રાઘવભાઈ		
3. લેવાનો પાક	* ઉનાળું મગફળી		
4. ખાતા નંબર	-		
5. સર્વે નંબર	18		
6. સર્વે નંબરનું ક્ષેત્રફળ (હેક્ટર)	00 : 99 : 15		
7. જમીનનો પ્રકાર	મધ્યમ કાળી જમીન		

(* પાકની માહિતી ચેળવા માટેની હડી)



- Supports in**
- Soil health
 - Monitoring
 - Management

ગામની જમીનની ચકાસણી આધારિત ફળદ્રુપતાનો વર્ગ (ગણતરીની રીત)

ફળદ્રુપતાનો વર્ગ	નાઇટ્રોજન	ફોસ્ફરસ	પોટાશ
ઓછા		✓	
મધ્યમ	✓		
વધારે			✓

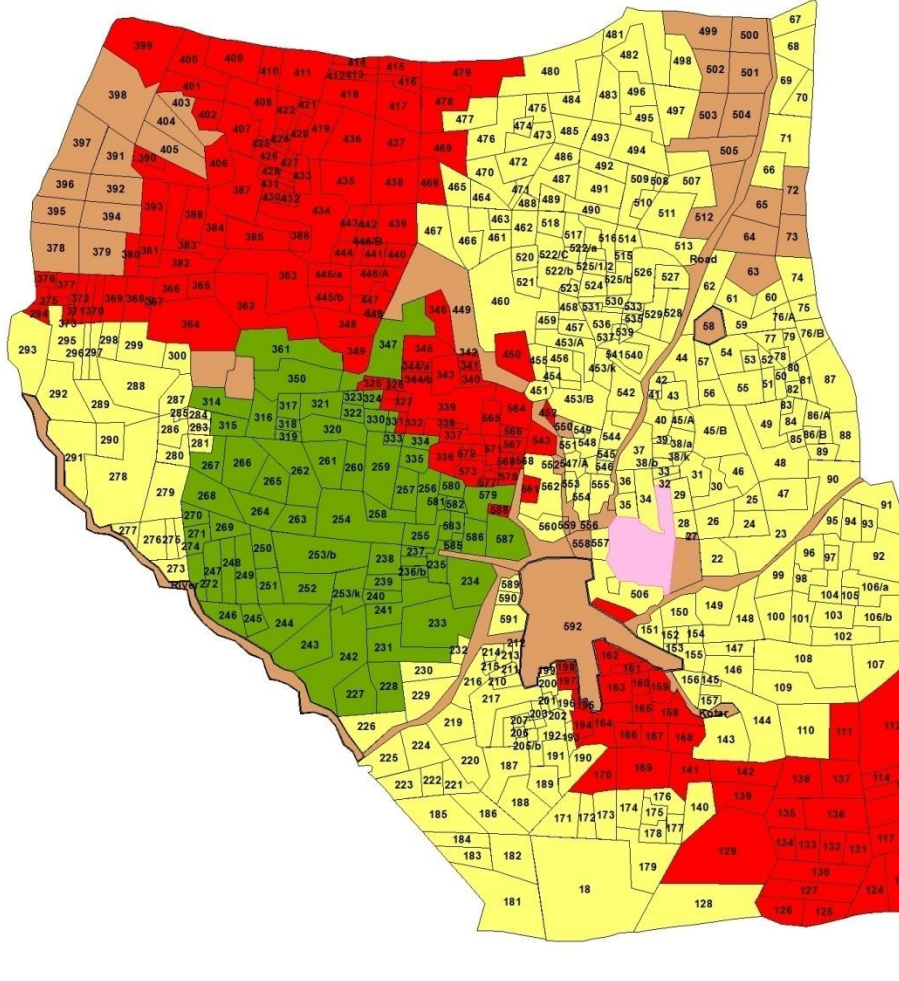
વ્યક્તિગત જમીનની ચકાસણી વિગત

ક્રમ	વિગત	પરિણામ	પરિણામની સમજ
1.	પી.એચ આંક (જમીનની પ્રતિક્રિયા)	7.80	ભાસ્મિક
2.	ઈ. સી (કુલ દ્રાવ્ય ક્ષારો) (ડેસીસાચમન/મીટર)	0.56	સામાન્ય
3.	સેન્દ્રિય કાર્બોન (ટકા)	0.78	મધ્યમ
4.	લઘ્ય ફોસ્ફરસ(કિ.ગ્રા./હેક્ટર)	45.60	મધ્યમ
5.	લઘ્ય પોટાશ (કિ.ગ્રા./હેક્ટર)	345.84	પૂરતો

Micro level Planning

Survey Number wise Soil Fertility Map

જસત

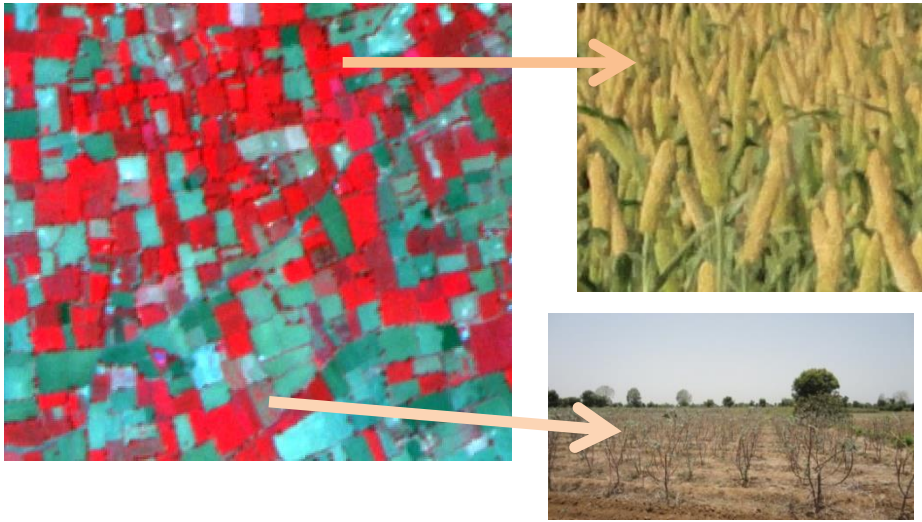


જસત તત્વ માટે ભલામણ

- ઓછું : ઝીક સલ્ફેટ (૨૧% ઝીક) ખાતર ૨૫ કિગ્રા પ્રતિ હેક્ટર જમીનમાં આપવું
- મધ્યમ : ઝીક સલ્ફેટ (૨૧% ઝીક) ખાતર ૮ કિગ્રા પ્રતિ હેક્ટર જમીનમાં આપવું
- પુરતુ : જસત તત્વ પુરતા પ્રમાણમાં છે.

CROP ACERAGE ESTIMATION

Indian Remote Sensing Satellite Imagery



Field verification with Gramsevak



Survey No wise ,village wise Crop area estimat



Survey No wise majority pixel
Classified in same class



Survey No wise crop map



Crop Insurance Scheme

MAP SHOWING CLUSTER

DISTRICT: Ahmedabad
TALUKA : Dhandhuka

Cluster



Baseline data: Cluster of Villages With Survey Number

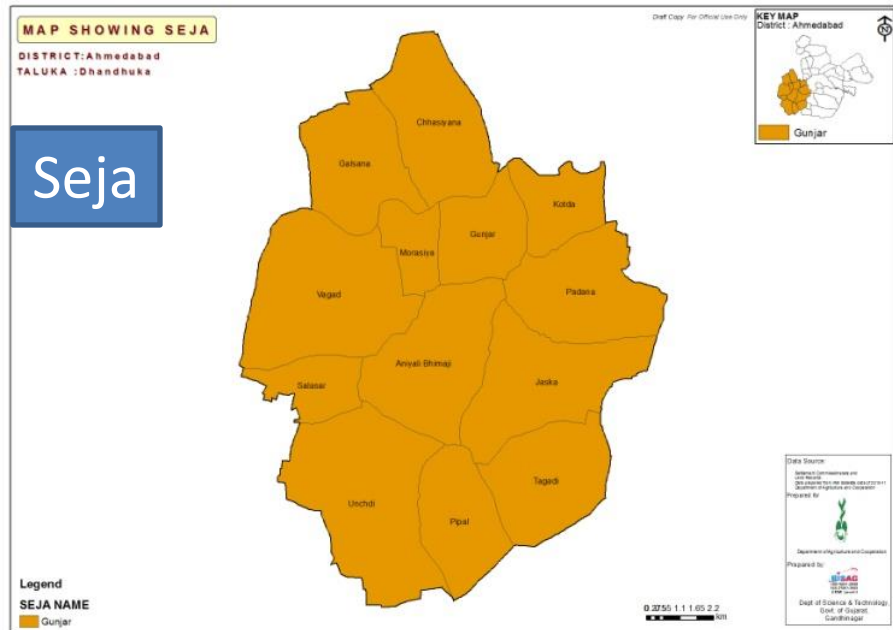
E Dhara database

Survey No wise crop & loan details

MAP SHOWING SEJA

DISTRICT: Ahmedabad
TALUKA : Dhandhuka

Seja

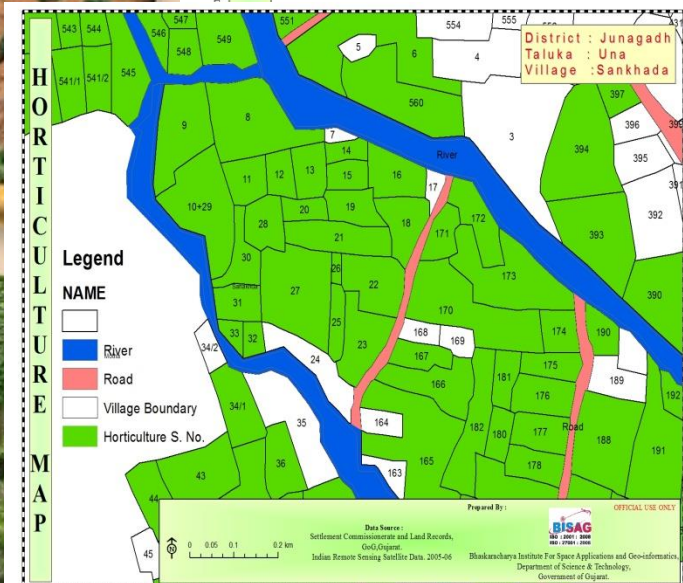


GPS tagged field photograph and Satellite images

Horticulture Atlas of Gujarat State

District : Junagadh
Taluka : Vanthali

H O R T I C U L T U R E



OFFICIAL USE ONLY
BISAG
 ISO 9001 : 2000
 ISO 27001 : 2005
 For Space Applications and Geo-informatics,
 Department of Science & Technology,
 Government of Gujarat.

BISAG
 ISO 9001:2000

Survey no wise preparation of horticulture

Scheme Benefits for Horticulture Farmers

ulture/Default.aspx

District: JUNAGADH Taluka: TALALA Village: Dhava

Pan Distance Report

Horticulture Infrastructur

Report - Microsoft Internet Explorer

Select Year: 2011
Select Yojana: ગુજરાતમાં સંકલીત બાગાયત વિકાસ
Select Ghatak: કેળ
Select Sub Ghatak: ---Select---
Select Sub Ghatak: ---Select---

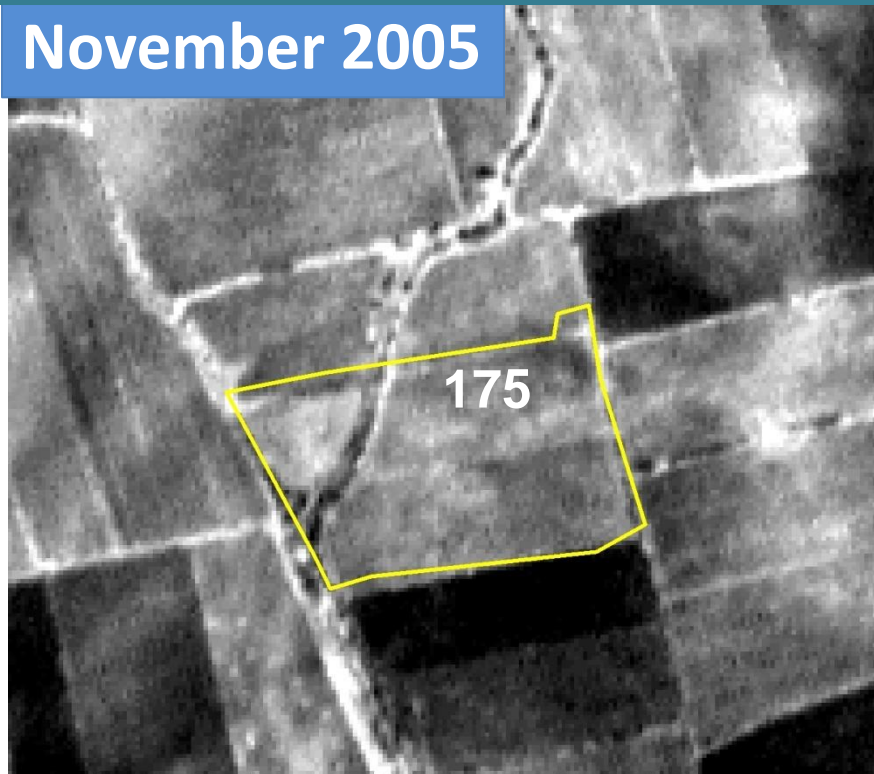
Submit ViewMap Cancel Export To Excel Print

Village	Yojana Name	Ghatak Name	FarmerName	Caste	Sex	Sahay	CropName	SNo
A Dhava	ગુજરાતમાં સંકલીત બાગાયત વિકાસ કાર્યક્રમની	કેળ	KANTILAL BAVANJI KANERIYA	ખબર	પુરુષ	7275.00		252
A Dhava	ગુજરાતમાં સંકલીત બાગાયત વિકાસ કાર્યક્રમની	કેળ	KARASHAN GOVIND DALSANIYA	ખબર	પુરુષ	3750.00		84

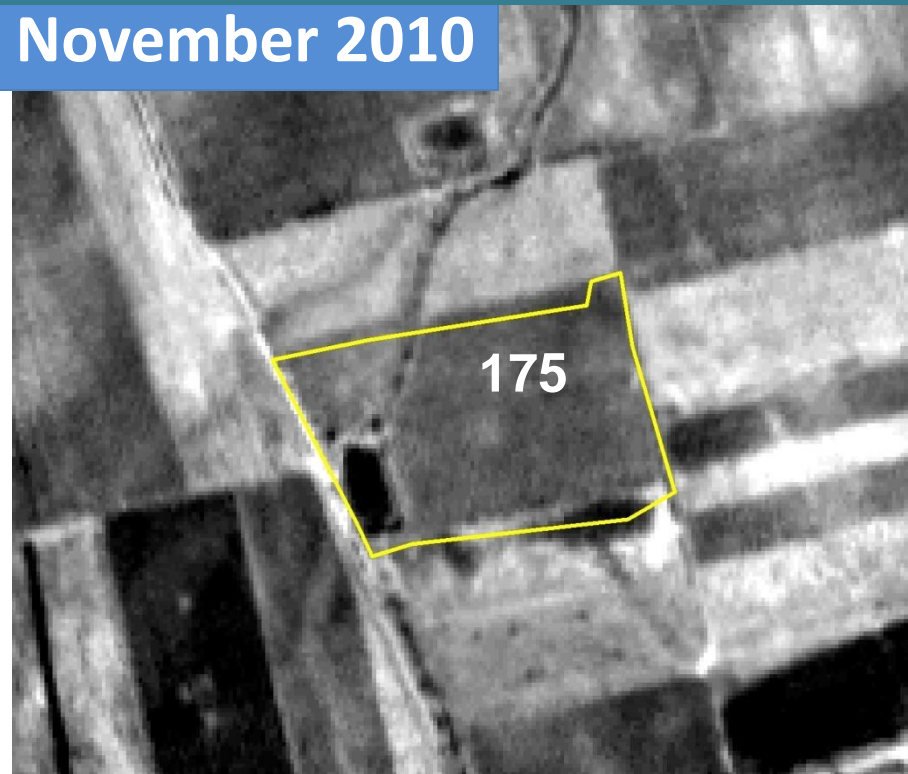
Provides list of beneficiary for banana cultivation in Dhava village of Junagadh District

Planning, Delineation and Monitoring of Farm Pond Through High Resolution Satellite Imagery

November 2005



November 2010



Gujarat State Land Development Corporation Ltd.

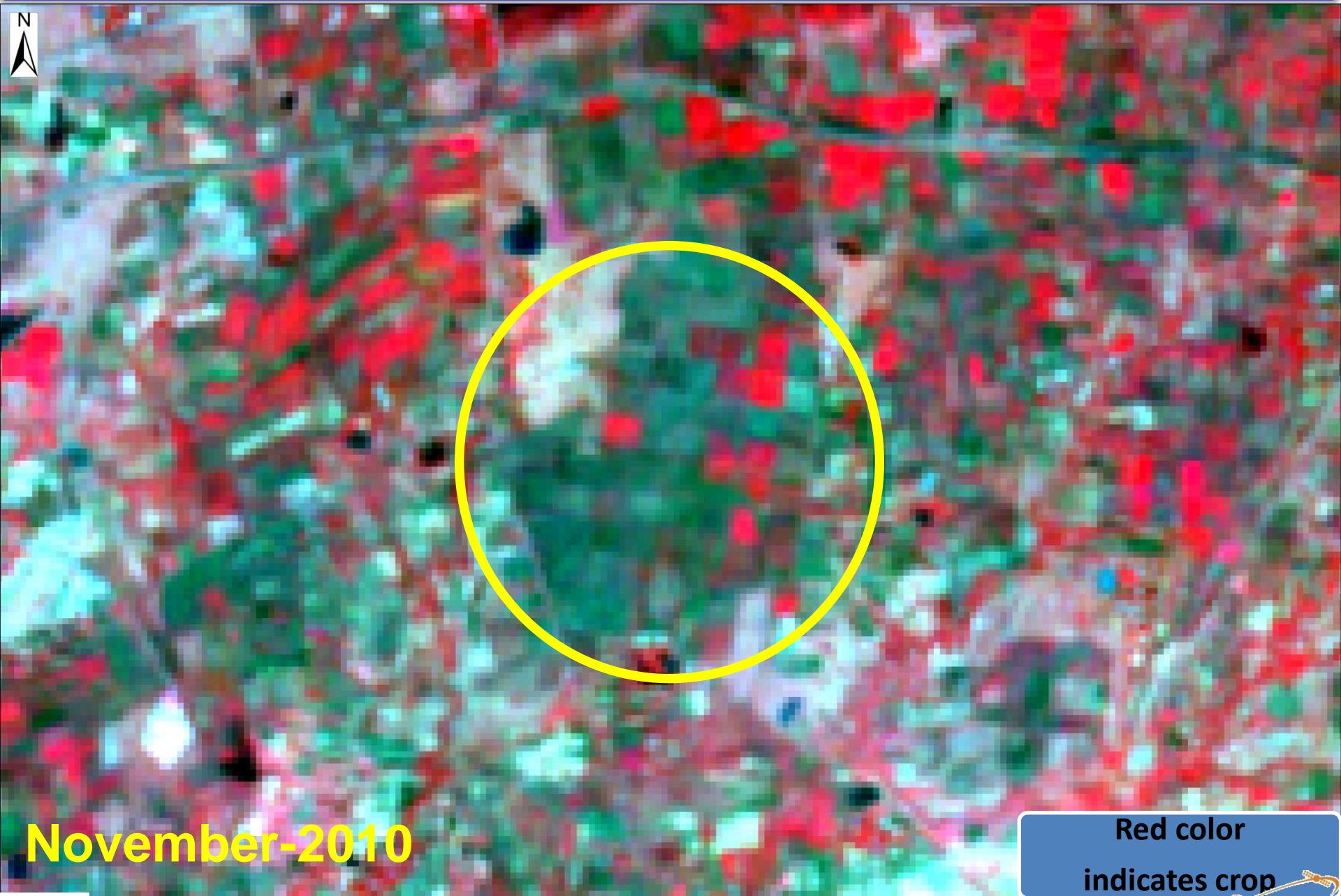
District wise/ Village wise/ Survey No. wise details of water bodies.

Name of Scheme:		SLC-8		MARCH TO APRIL Month 2009-2010 Year ending															
																		(financial Rs. in Lakh)	
District Name	Taluka Name	Name of Village	survey number	details of water harvesting												Total			
				Farm Pond (No.)	Expenditure (Rs.)	Sim Talav di	Expenditure (Rs.)	WHS masonry (No.)	Expenditure (Rs.)	WHS Earthen (No.)	Expenditure (Rs.)	Village Pond (No.)	Expenditure (Rs.)	Percolation tank (No.)	Expenditure (Rs.)				
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
RAJKOT	MORBI	KERALA	175P2	1	0.27											1	0.27		

Month wise irrigated crop monitoring



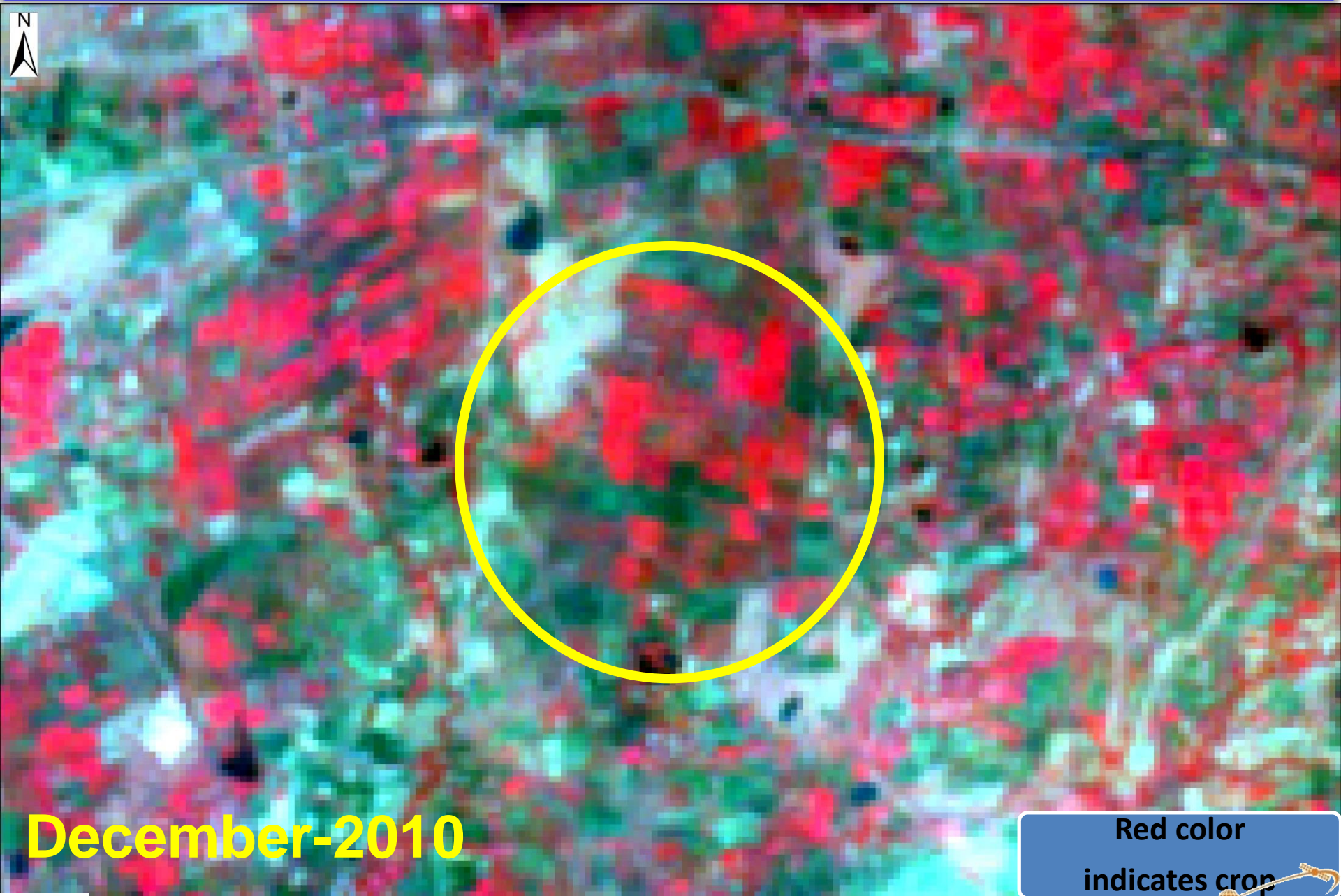
Month wise crop monitoring



November-2010

Red color
indicates crop

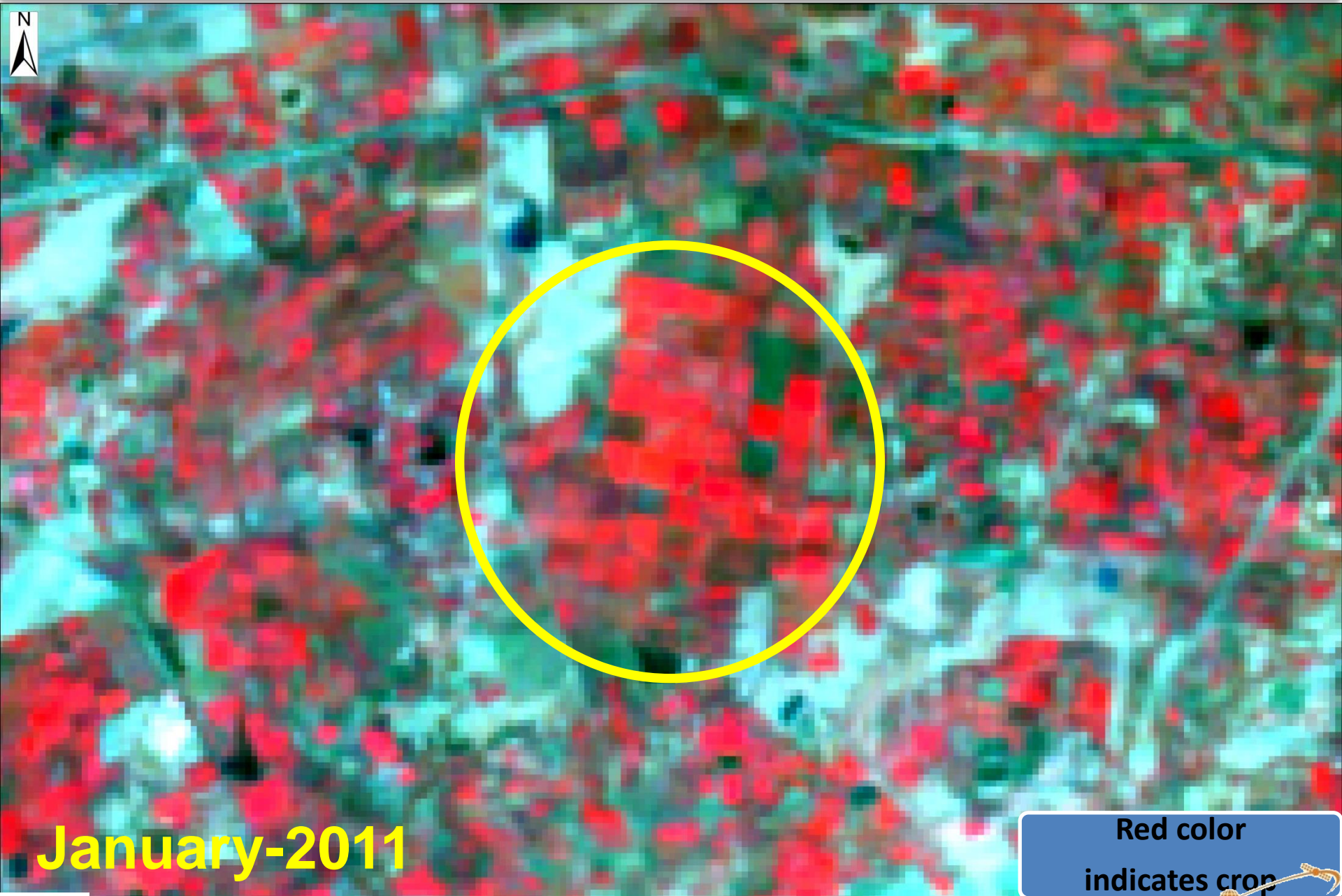
Month wise crop monitoring



December-2010

Red color
indicates crop

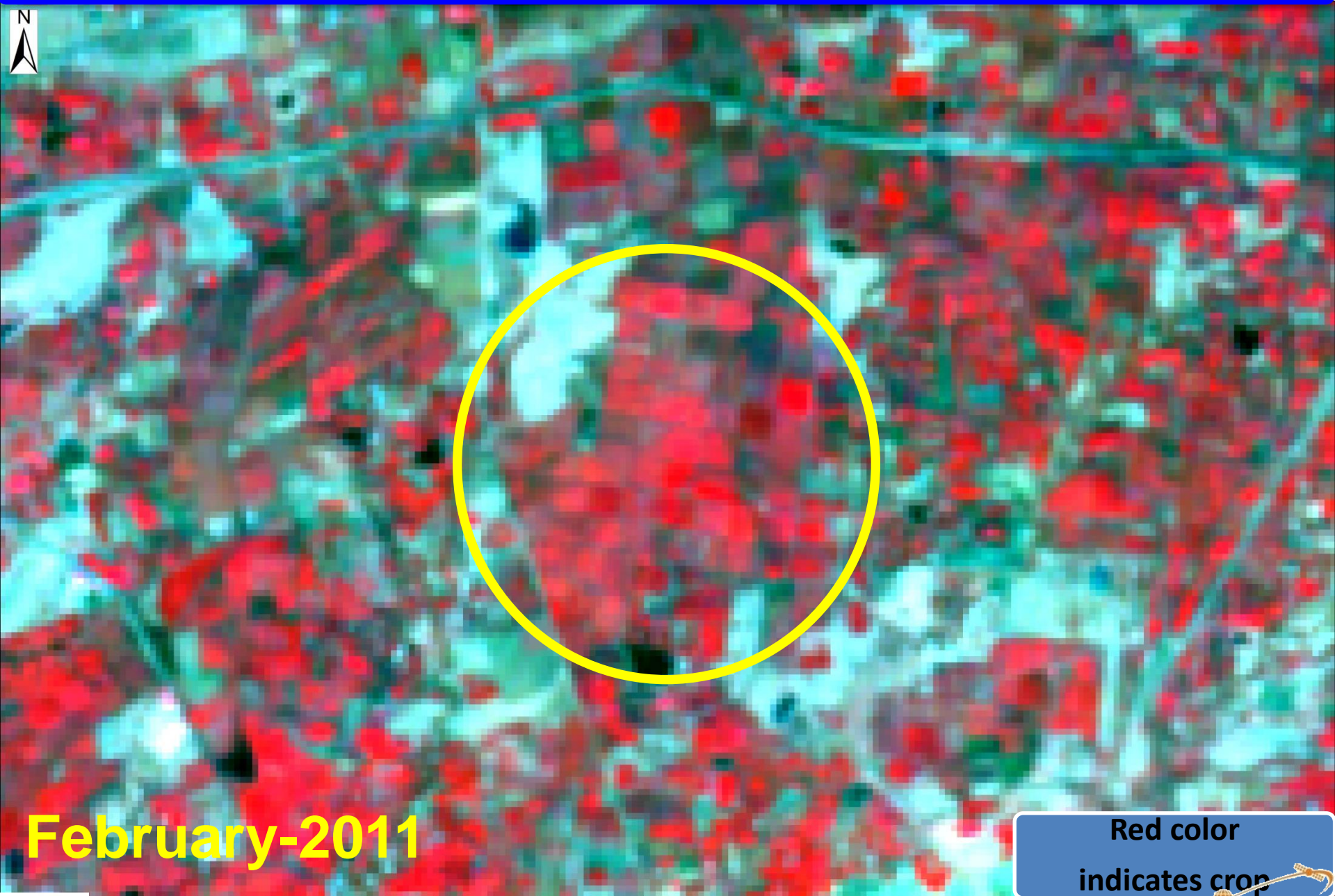
Month wise crop monitoring



January-2011

Red color
indicates crop

Month wise crop monitoring



February-2011

Red color
indicates crop

Month wise crop monitoring



May-2011

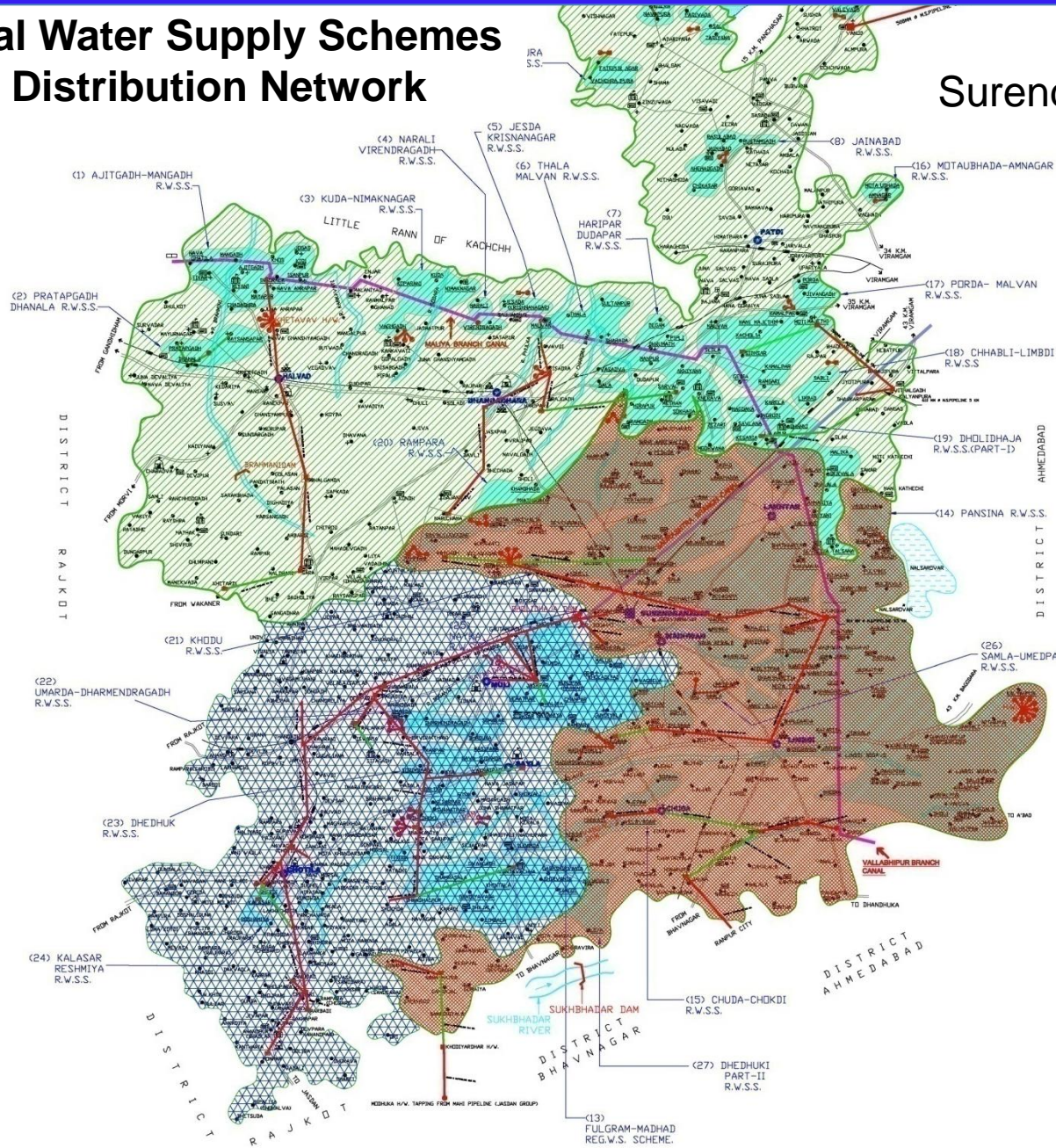
Red color
indicates crop

Gujarat GIS: Water Supply Network and DSS

N

Regional Water Supply Schemes and Distribution Network

Surendranagar District



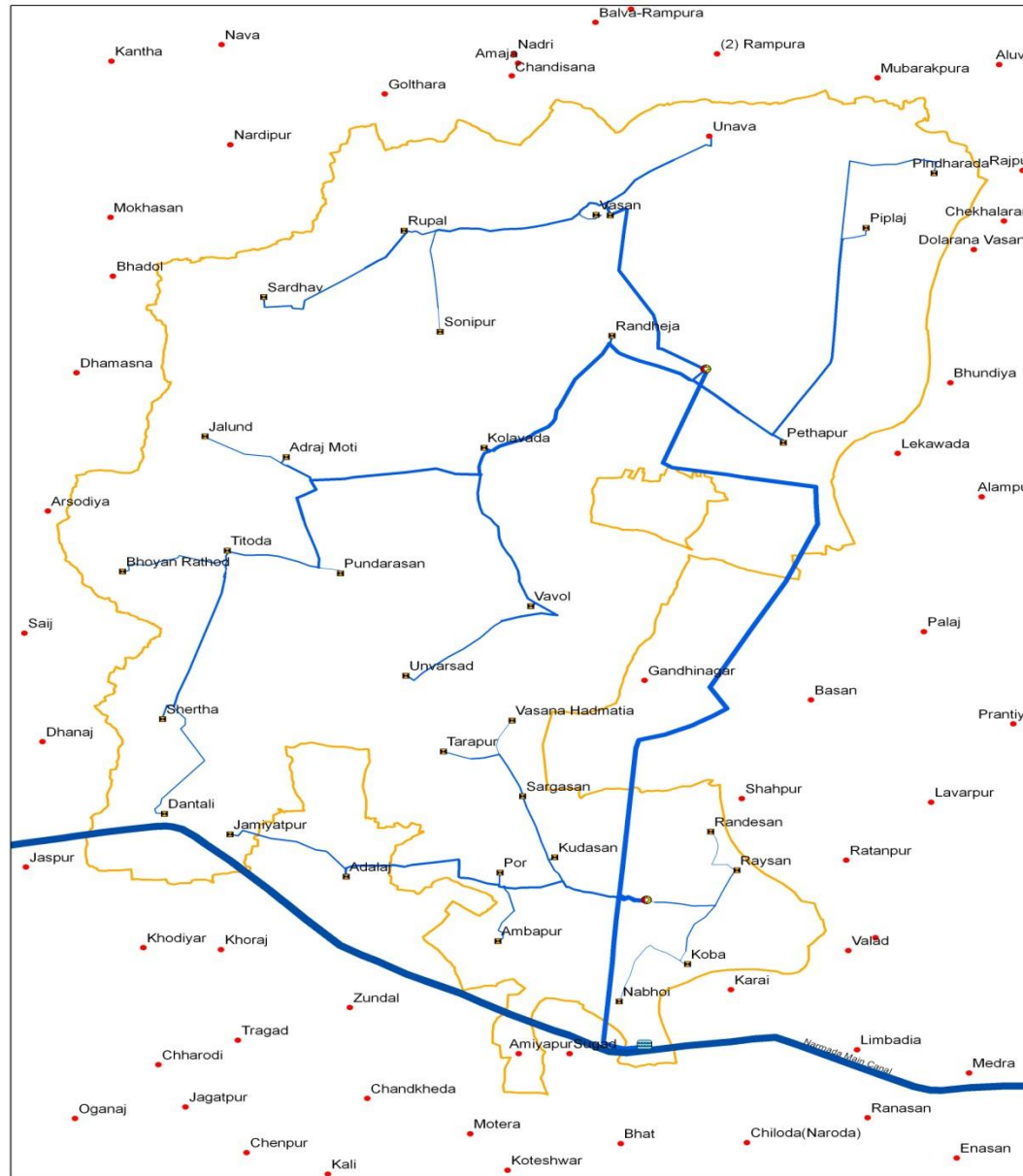
LEGEND :

SAURASHTRA BRANCH CANAL	
MALIYA BRANCH CANAL	
VALLABHIPUR BRANCH CANAL	
WELL (SOURCE)	
T.W./CANAL OFFTAKE (SOURCE)	
MAIN H.W.&TREATMENT PLANT	
SUB HEAD WORK	
RISING MAIN	
DISTRIBUTION PIPE LINE	
EXISTING REG.W.S.S.	
SUJALAM SUPHALAM S-1 (NCD-4)	
SUJALAM SUPHALAM S-2 & S-3	
UNDER PROGRESS PHASE-II	
GUJARAT WATER SUPPLY & SEWERAGE BOARD., GANDHINAGAR	

REGIONAL WATER SUPPLY SCHEME OF DIST. SURENDRANAGAR

THE CHIEF ENGINEER ZONE : 2 AHMEDABAD.	
THE SUPRINTENDING ENGINEER P.H.S. CIRCLE AHMEDABAD.	
THE EXECUTIVE ENGINEER P.H.W. DIVISION SURENDRANAGAR	

Gujarat GIS: Water Supply Network and DSS



Legend

- Sub Headworks
- Headworks
- ☰ Main Source
- Settlement
- Narmada Main Canal

Pipeline Diameter(mm)

- 1850
- 610
- 400
- 350
- 300
- 250
- 200
- 160
- 140
- 110
- 90

- Water Supply Scheme

Supports Planning and Management

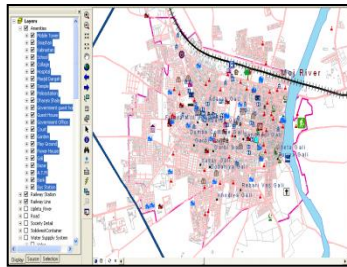
Major GIS Applications in Gujarat



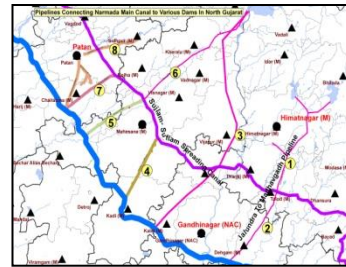
Agriculture GIS



Irrigation GIS



Municipal GIS



Water supply GIS



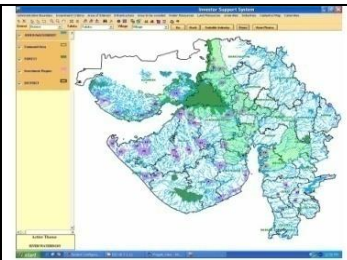
Panchayat GIS



Coastal GIS



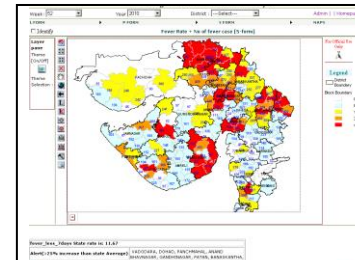
MGNREGA GIS



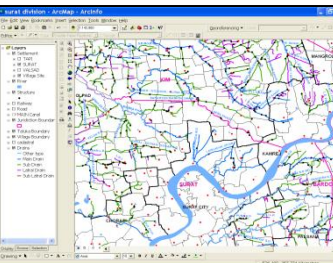
Investor Support System



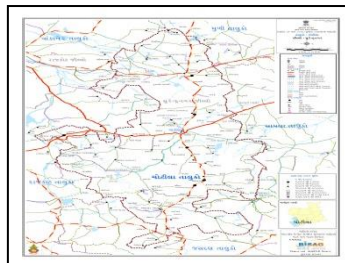
School GIS



Health GIS



Check dam GIS



Road GIS



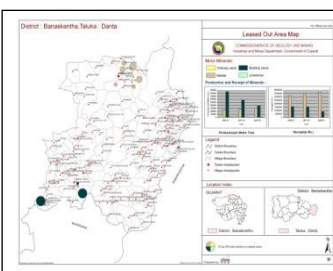
Watershed GIS



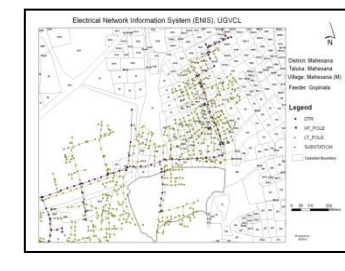
Animal Husbandary GIS



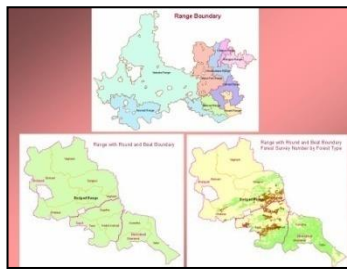
Village GIS



DsiMineral GIS



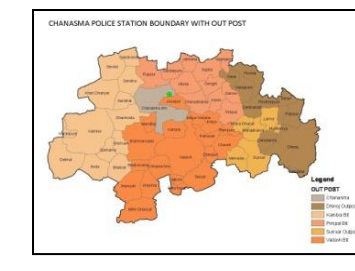
Electricity GIS



Forest GIS

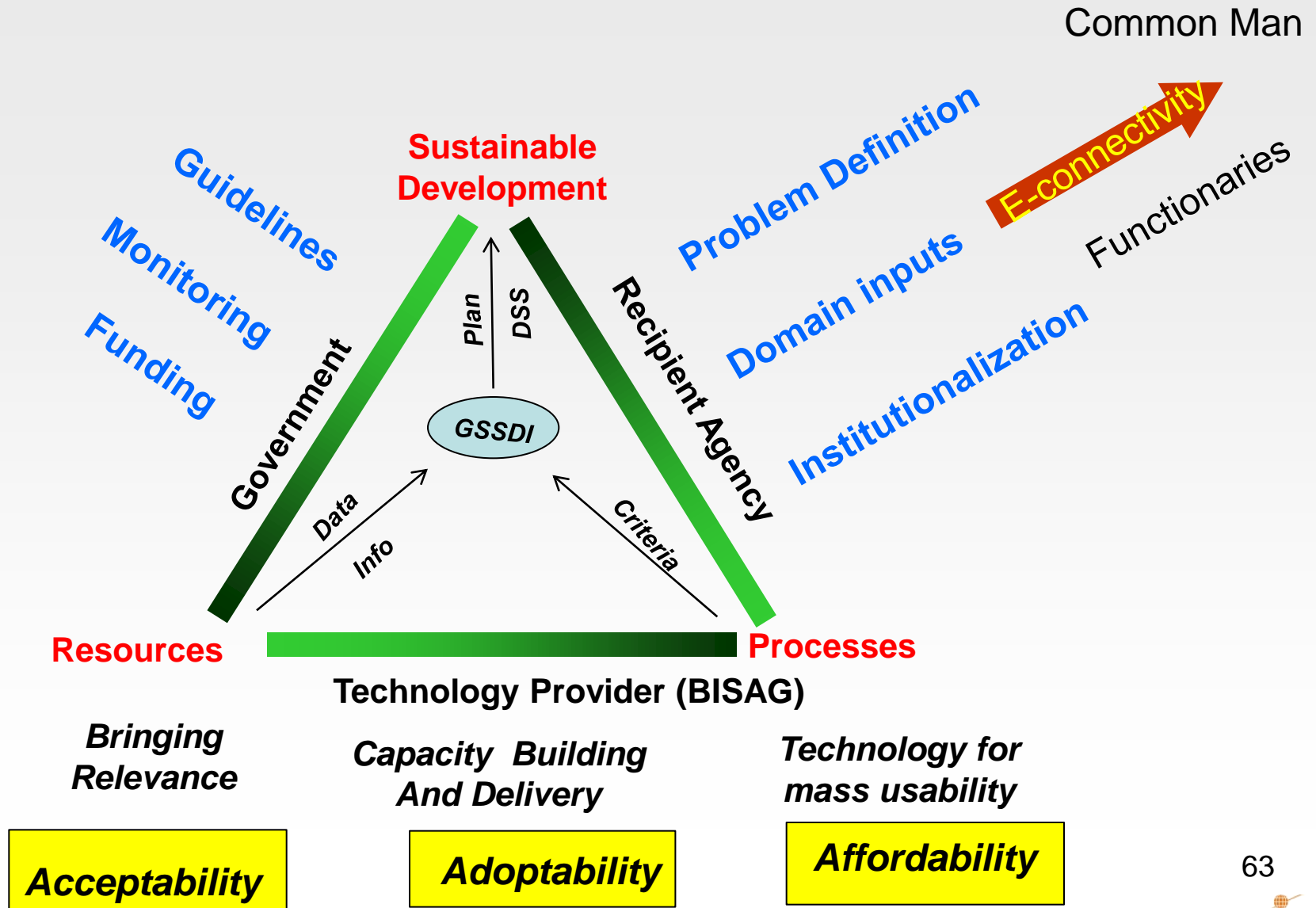


Industrial GIS



Police GIS

Institutionalisation : Realization Mechanism



2003-04



Thank You

Centre for Geo-informatics Applications

2007-08



Academy and Informatics Centre

2010-11



2012-13



Departmental Map Village Census

Indrapura Village, Taluka : Mansa

સ્થળસ્થિતિ દર્શાવતો નકશો

ક્ર.માં. (સામ)-૧૩૭૦-૧,૦૭,૨૨૫-૧૧-૨૦૧૦

ભારતની વસતિ ગણતરી 2011

આ એક મહત્વનો વસતિ ગણતરી દસ્તાવેજ છે. કૃપા કરી આ નકશાને સ્વચ્છ અને સાચો ધોરે.

વસતિની ગણતરી

રાજ્ય/સંઘ પ્રદેશનું નામ ગુજરાત

સંકેત નં. 24

જિલ્લાનું નામ ગાંધીધામ

સંકેત નં. 06

તાલુકાનું નામ ગાંધીધામ

સંકેત નં. 002

શહેર/ગામનું નામ ઇન્દ્રપુરા

સંકેત નં. 0042

વોર્ડ નંબર

સંકેત નં.

ગણતરીનો બ્લોક નંબર અને પેટા-બ્લોક નંબર : 0306-1

પ્રતીક :

બ્લોકની છા

નોંધ: કૃપા કરી જોડેનો વસતિ ગણતરી બ્લોક નંબર અથવા ગામનું નામ બ્લોકની ચારે દિશામાં (ઉત્તર, પૂર્વ, દક્ષિણ અને પશ્ચિમ) સ્થળ સ્થિતિ દર્શાવતા નકશામાં દર્શાવો.

પાકું મકાન(નંબર સાથે)
રહેઠાણ ...

બીન રહેઠાણ ...

કાચું મકાન(નંબર સાથે)
રહેઠાણ ...

બીન રહેઠાણ ...

પાકો રસ્તો ...

કાચો રસ્તો ...

પગ રસ્તો ...

રેલ્વે લાઈન ...

નદી ...

નહેર ...

તળાવ ...

કૂતો/નબ/હન્ડ પંપ(કેડી) ...

મંદીર, મસ્જીદ, દેવળ, ગુફાવારા વગેરે

શાળા, દવાખાનું, પંચાયત ઘર, પોસ્ટ ઓફિસ વગેરે

પોસ્ટ ઓફિસ વગેરે ...

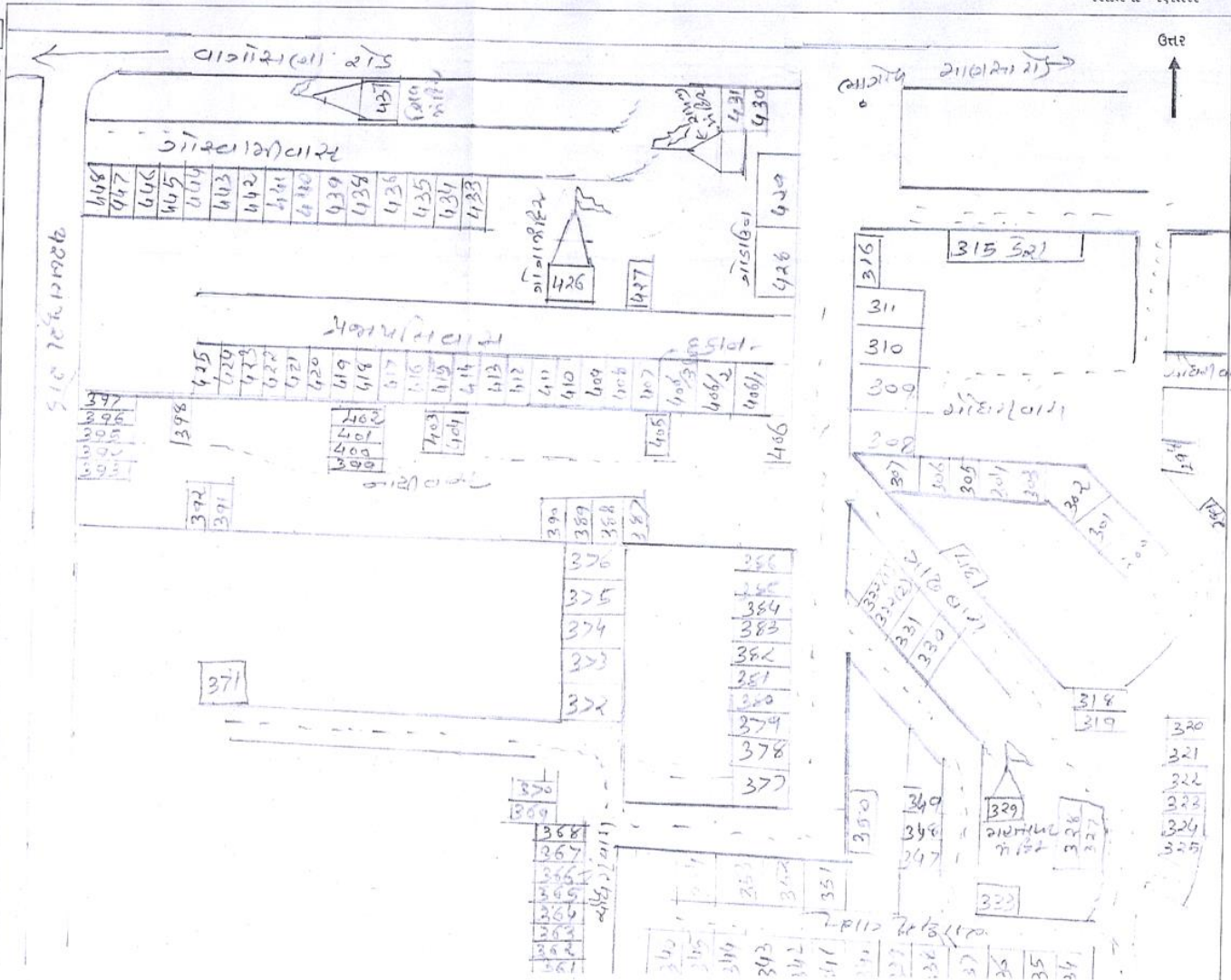
નોંધ: (1) કૃપા કરી બ્લોકમાં આવતા જાહેર રસ્તા, શેરીઓ અને મહેલલા વગેરેના નામ લખો(મંદીર, શાળા, દવાખાનું, પંચાયત ઘર, પોસ્ટ ઓફિસ વગેરે સંસ્થાઓના નામ પણ લખો.)

(2) કૃપા કરી બ્લોકમાં નંબર કઈ દિશા તરફ આપેલા છે તેને તીરની વિશાનીથી દર્શાવો.

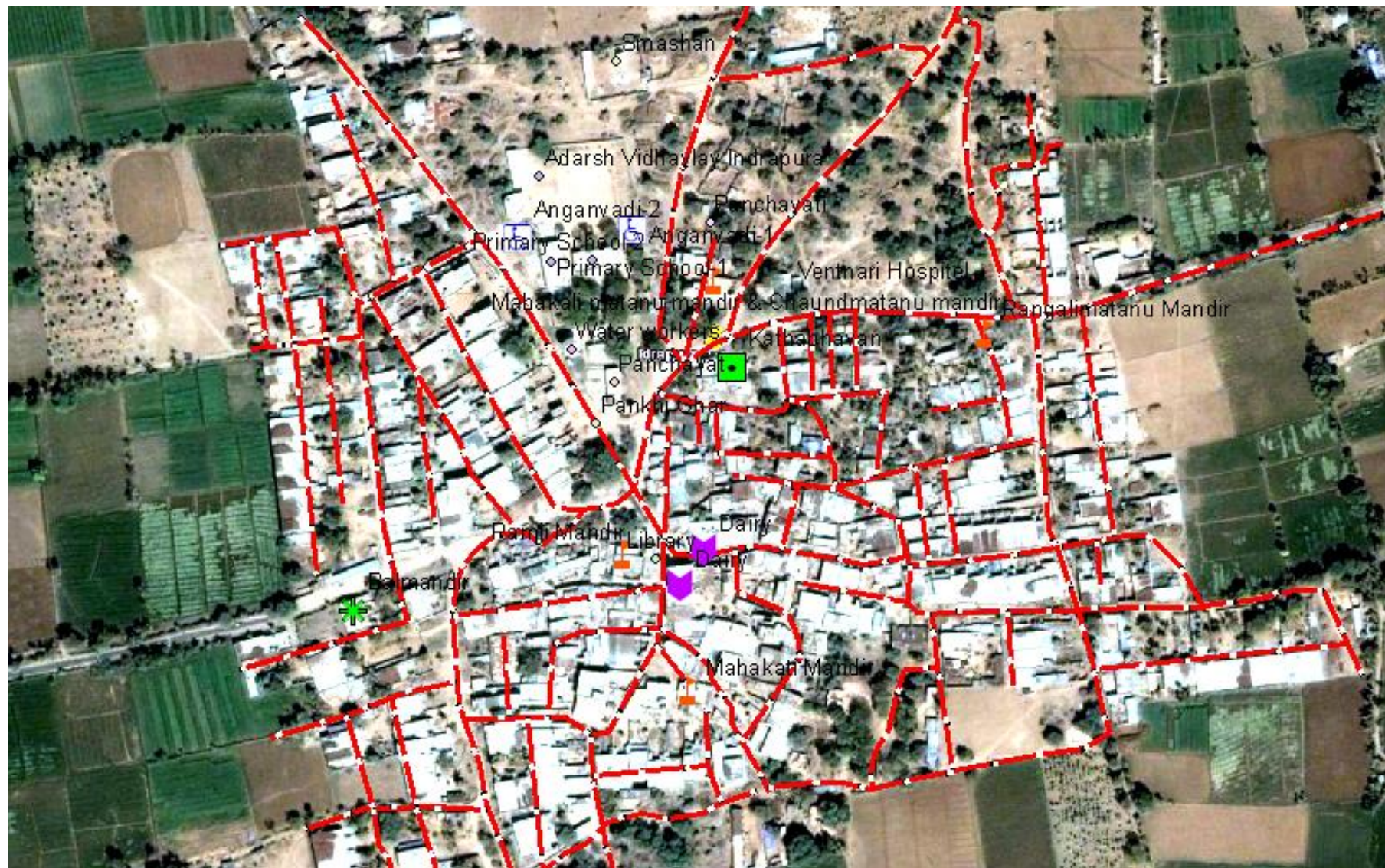
ગણતરીકારનું નામ સુરેશભાઈભાઈ આર્યો

તારીખ સાથે સહી સુરેશભાઈ

ગણતરીકારનું નામ પરિણામજીભાઈ આર્યો



Road detail on Satellite Image Indrapura Village, Taluka : Mansa



VILLAGE GIS

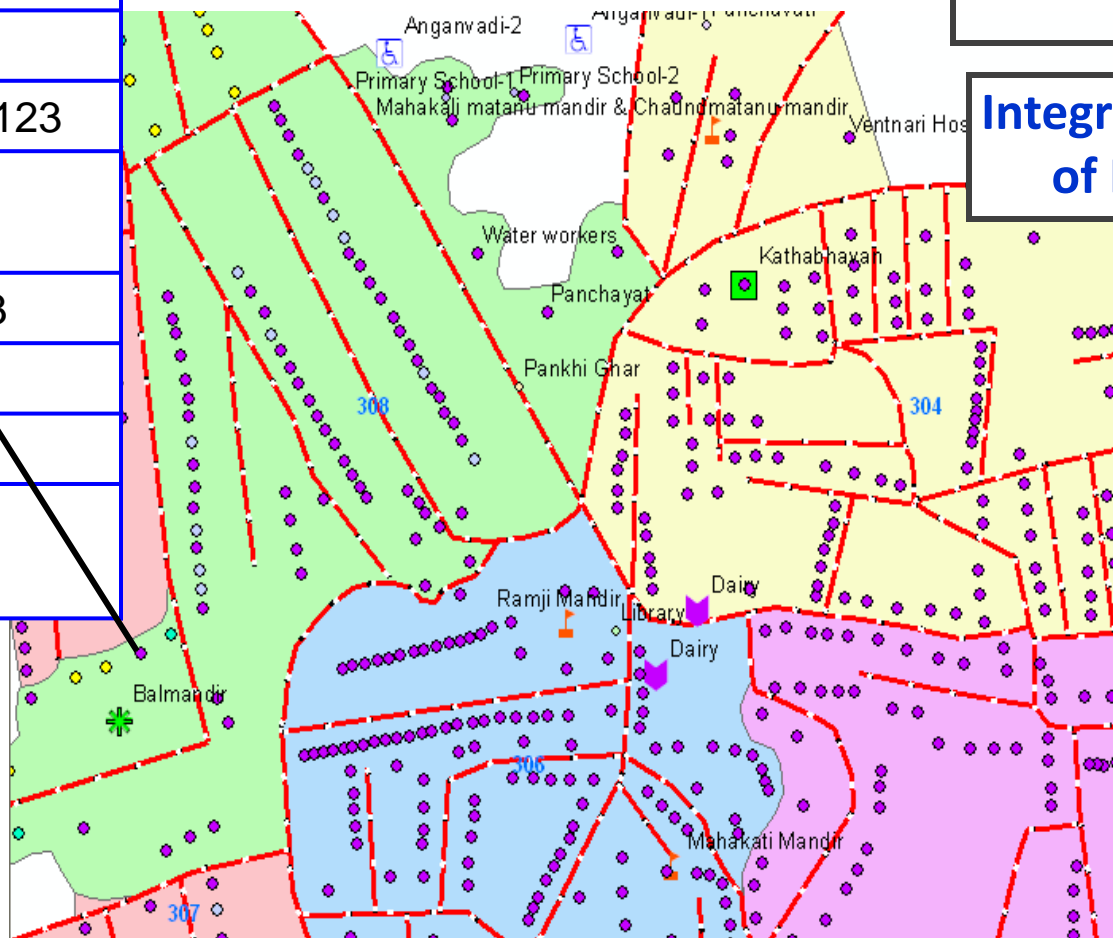
Applications of Geo-informatics in Gujarat

Location Code:	DDDTTTVVV AAA
House No:	ABCDEF
Family Id:	FAMID123
Owner:	Mr. XYZ
EPIC Id:	ABCDE123
Electricity Id:	XYZ890
LPG No:	PQR123
PDS	1121
BPL	4357
...	...

Linking Family & Individual databases with House identity

Individual data sets
(EPIC,PDS, Adhar,...)

Integrated data sets
of Individuals



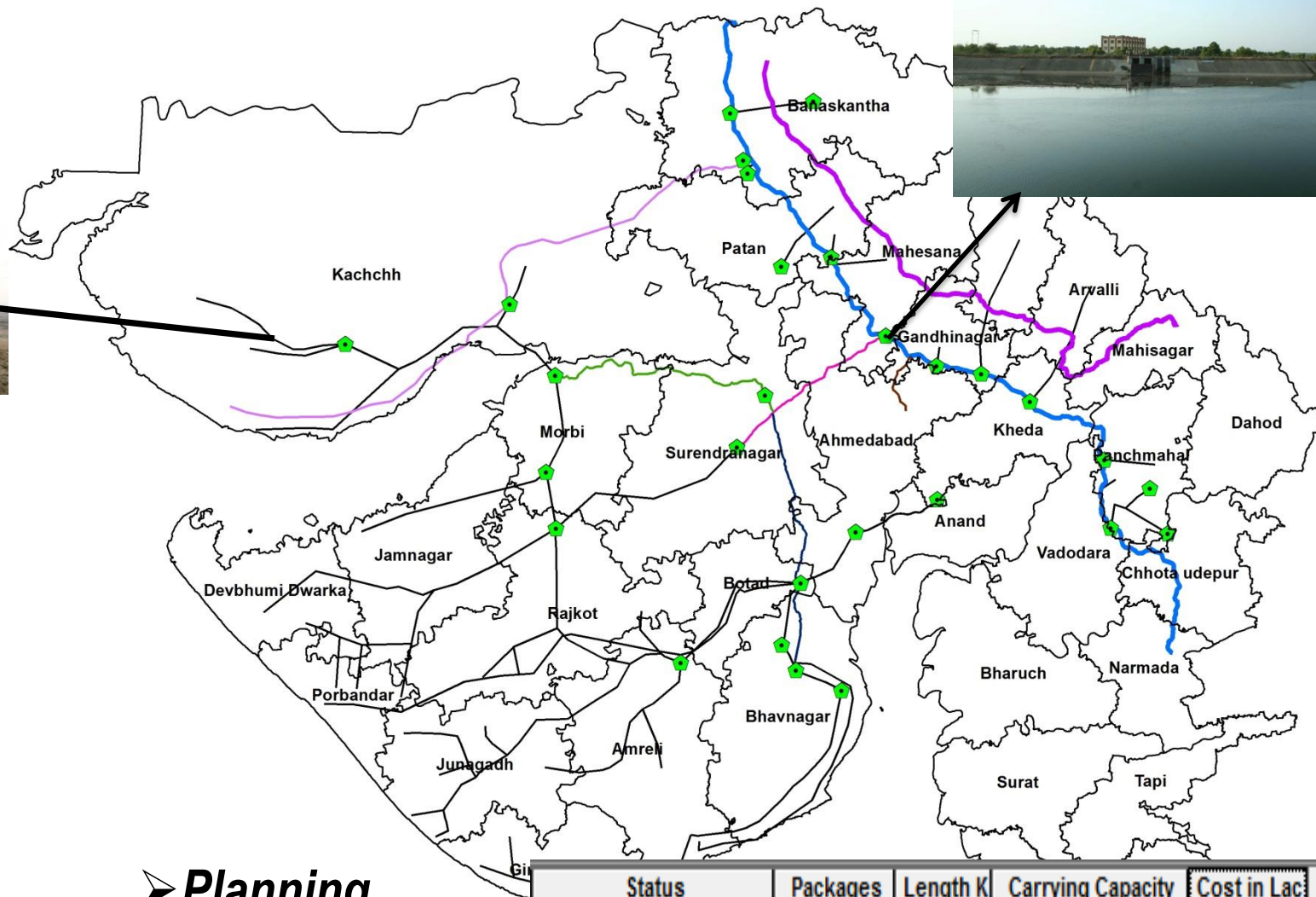
Legend

House_Location Type

- Kachchh non Residential
- Kachchha residential
- Pakka Non residential
- Pakka Residential
- S Anganvadi
- K Balmandir
- U Dairy
- G Hospital
- / Kathabhayan
- n Temple
- n School
- H Smashan
- Road

Village GIS

Gujarat GIS : Water Supply Network



Legend

- District Boundary
- Offtake Point
- Narmada Main Canal
- Sujlam Suflam Canal
- Saurashtra Branch Canal
- Maliya Branch Canal
- Vallbhipur Branch Canal
- Dholka Branch Canal
- Kachchh Branch Canal
- Bulk Water Pipeline

➤ **Planning**

➤ **Governance**

Status	Packages	Length Km	Carrying Capacity	Cost in Lac
Completed Pipeline	NC-11	82Km	41.30 MLD	46.83
Completed Pipeline	NC-12	51Km	244.50 MLD	120.22
Completed Pipeline	NC-12	51Km	244.50 MLD	120.22
Completed Pipeline	NC-13	41Km	15.78 MLD	19.60
Completed Pipeline	NC-14	20.6Km	230.00 MLD	50.97

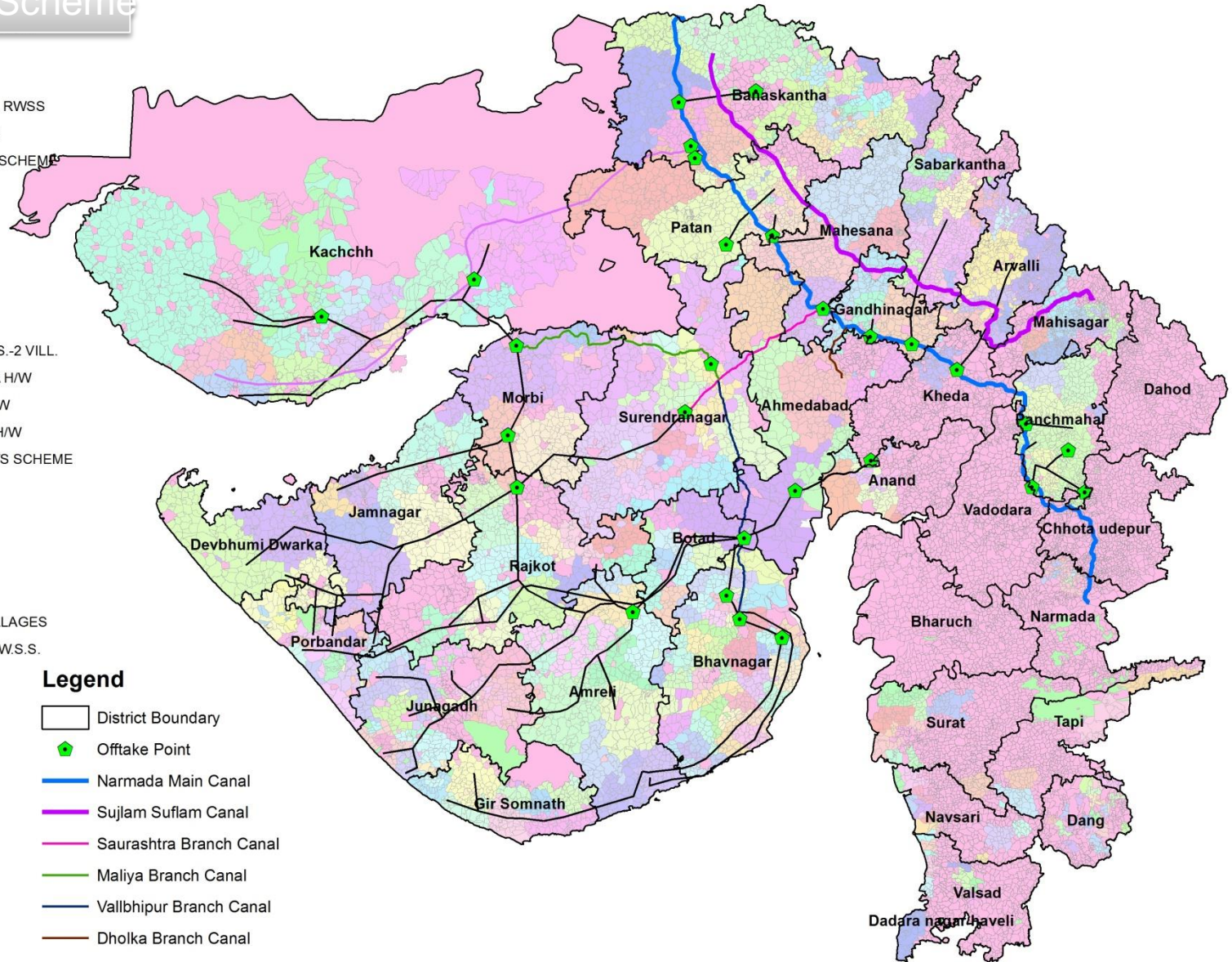
Gujarat GIS: Water Supply Network

Water Supply Scheme

- Ozat-II_Group
- PADARGADH GROUP
- PALANPUR TALUKA-41 VILL RWSS
- PALANPUR-VADGAM RWSS
- PALASMAL REGIONAL W/S SCHEME
- PANDERIYA GROUP
- PANDOLI R.W.S.S.
- PANESARA
- PANSINA R.W.S.S.
- PARAVADI GROUP
- PARDI COASTAL R.W.S.S.
- PATI-DUTTWADA REG.W/S S.-2 VILL.
- PHASE 2-A(BK-4) DEVPURA H/W
- PHASE 2-B(BK-4) BHAPL H/W
- PHASE 3 - B (BK-4) BHAPL H/W
- PIPALDAHAD REGIONAL W/S SCHEME
- PIPARALI GROUP
- PM-3 (NAME OF GROUPS)
- PM-4 (NAME OF GROUPS)
- PORBANDAR GROUP
- PORTA-MALVAN R.W.S.S.
- PRANCHI REG. WSS 5/1 VILLAGES
- PRATAPGADH-DHALANA R.W.S.S.
- PROP. VATRAK R.W.S.S.
- Paddhari_Group
- Panam Reg. w/s Scheme
- Panna_Rwss
- Pasvi_Group
- Pavagadh Reg. w/s Scheme
- Porbander_Group
- RAJASTHALI GROUP
- RAJPARA GROUP
- RAJPIPALA GROUP 1
- RAJPIPALA GROUP 3
- RAJPIPALA GROUP-2
- RAJPUR NATHAPURA RWSS

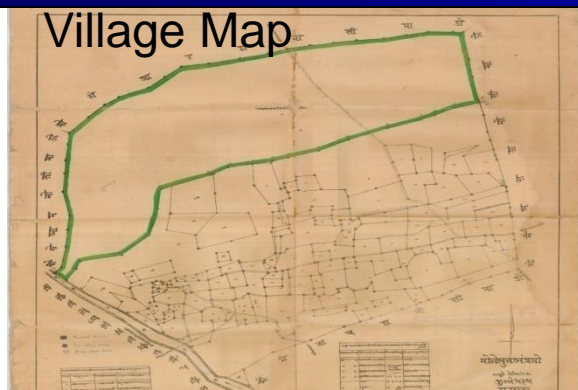
Legend

- District Boundary
- Offtake Point
- Narmada Main Canal
- Sujlam Suflam Canal
- Saurashtra Branch Canal
- Maliya Branch Canal
- Vallbhipur Branch Canal
- Dholka Branch Canal
- Kachchh Branch Canal
- Bulk Water Pipeline

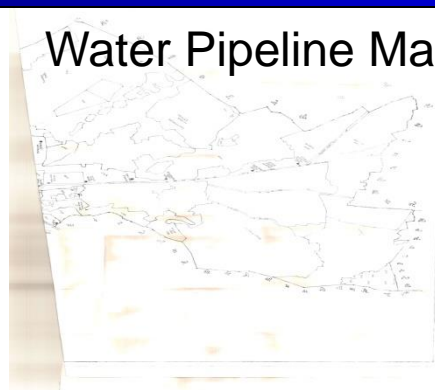


GIS database: Conceptualization, Creation & Applications

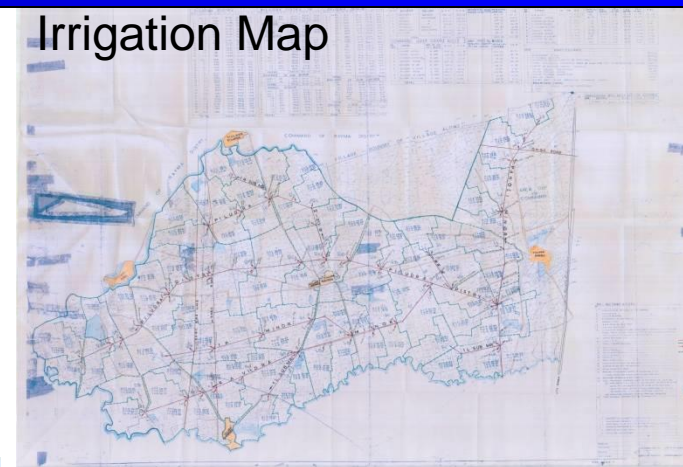
Village Map



Water Pipeline Map



Irrigation Map



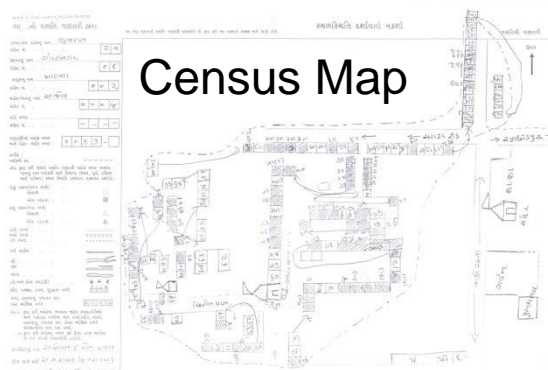
Development Map



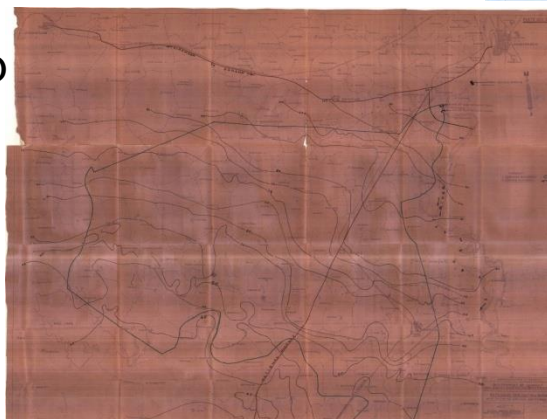
Forest Map



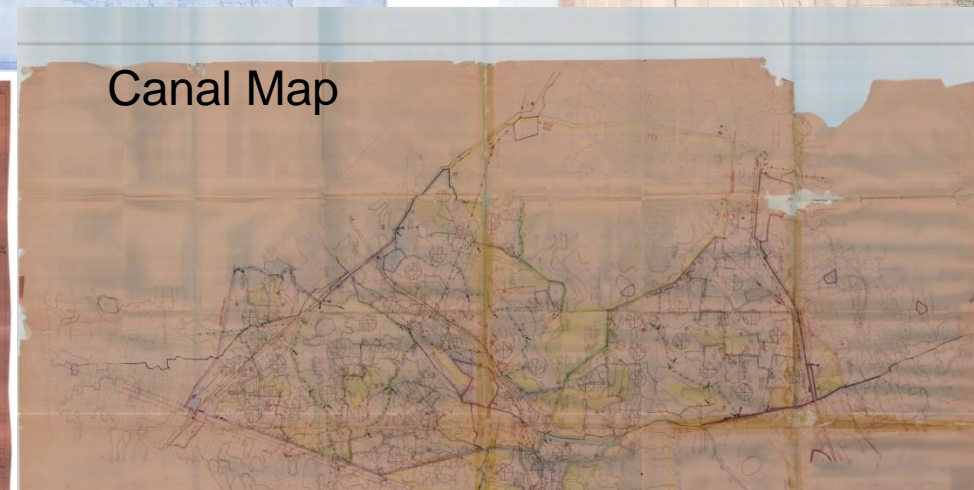
Census Map



Soil Map



Canal Map

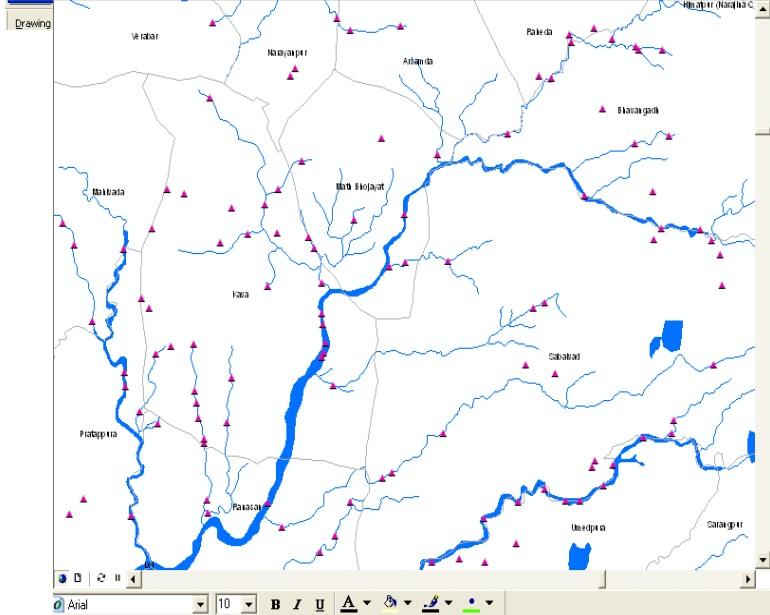
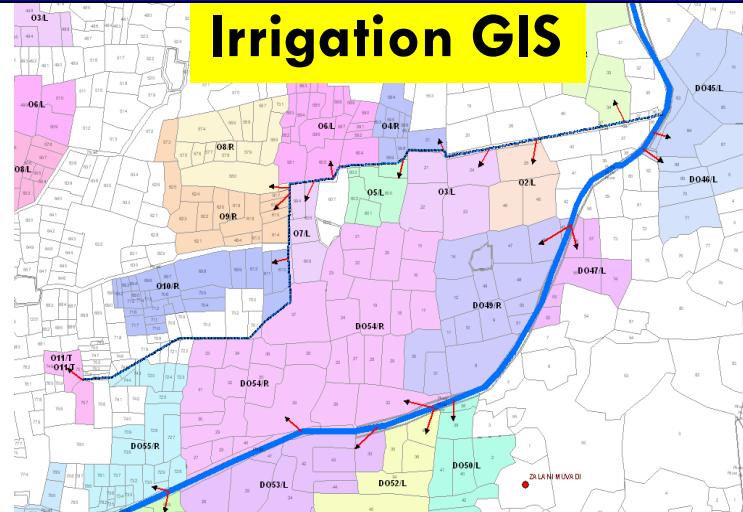


All the maps are superimposed on Geo-referenced Satellite Data

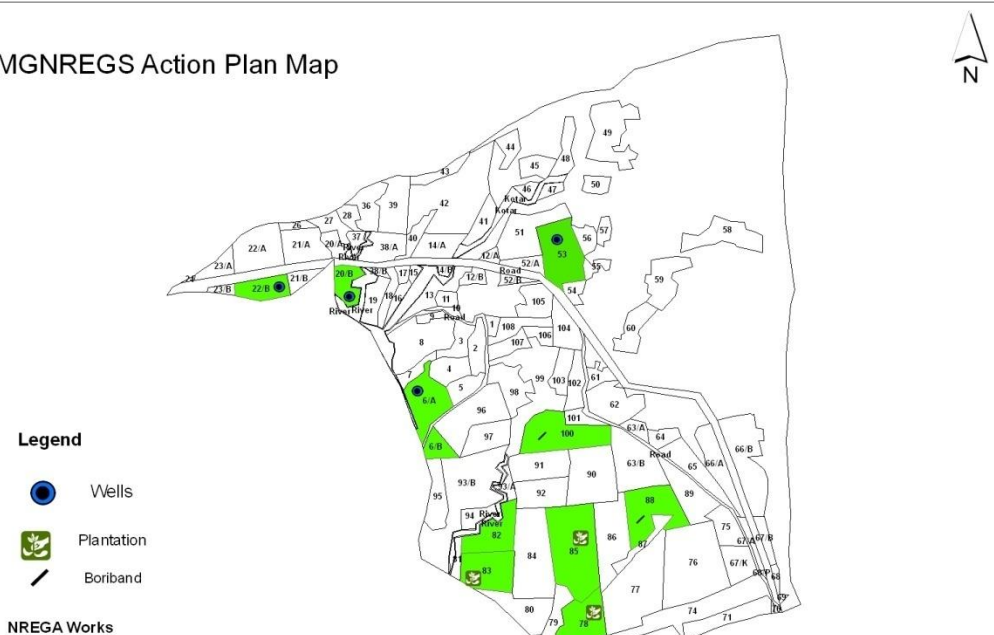
GIS database: Conceptualization, Creation & Applications

Road Information System

Field	Value
BSSLANE	0
CAR_WIDTH	7.65
CAT	SH
CAT_SP	SH 5
CAT_SURFAC	SH BT
FOR_WIDTH	9.75
FROM_KM	0
ID	9
INTER	0
LAND_WIDTH	24
LENGTH_ROA	29.2
NAME	Himmatnagar Ider Vadali Khedbrahm
S_P	5
SDLANE	25
SECTION	Himmatnagar To Ider
SH_ID	SH 5
SMILT	4.2
SSLANE	0
SUM_LENGTH	31982.859375
SURFACE	BT
TO_KM	29.2



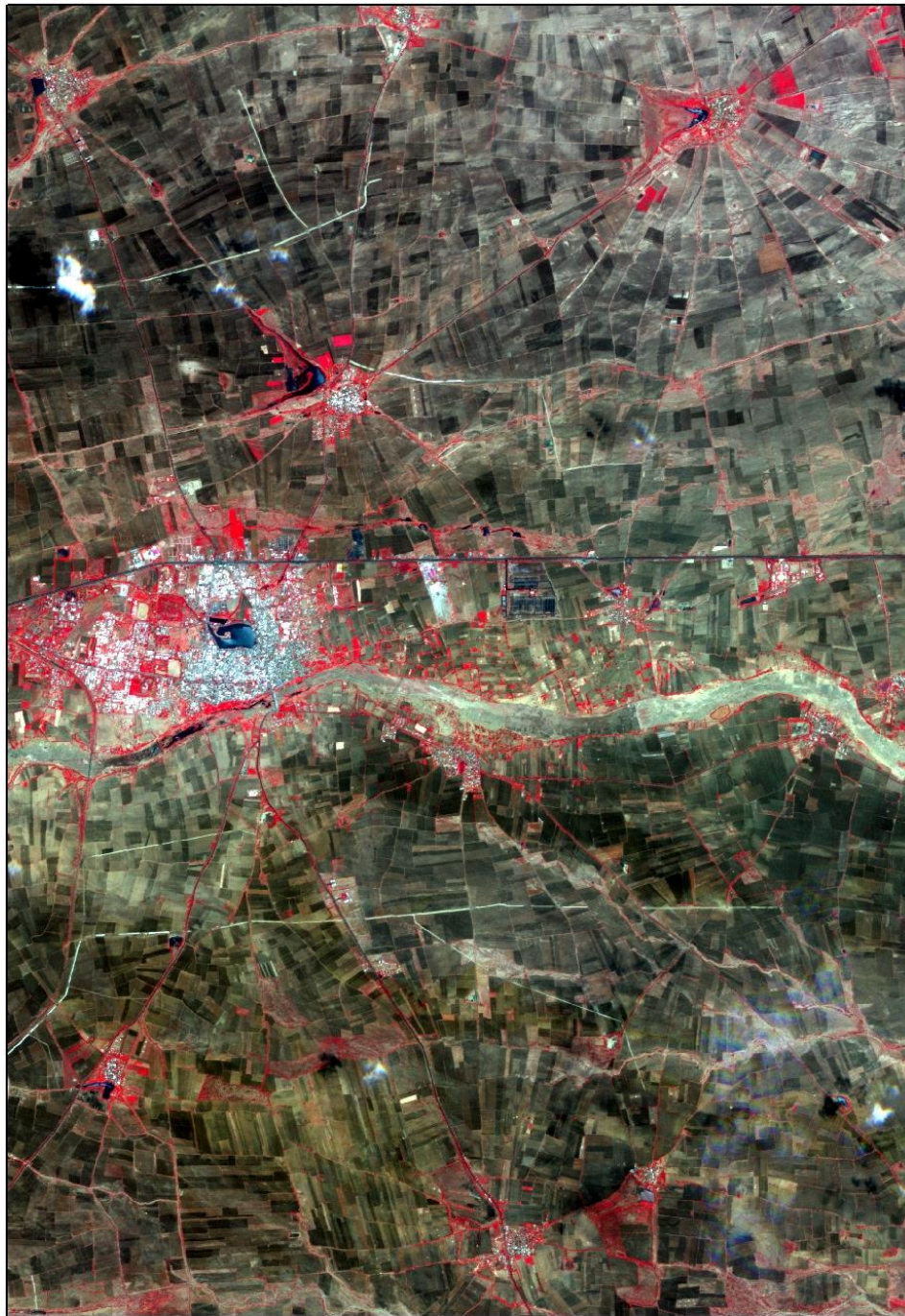
MGNREGS Action Plan Map



Check dam Information System

MGNREGA Information System

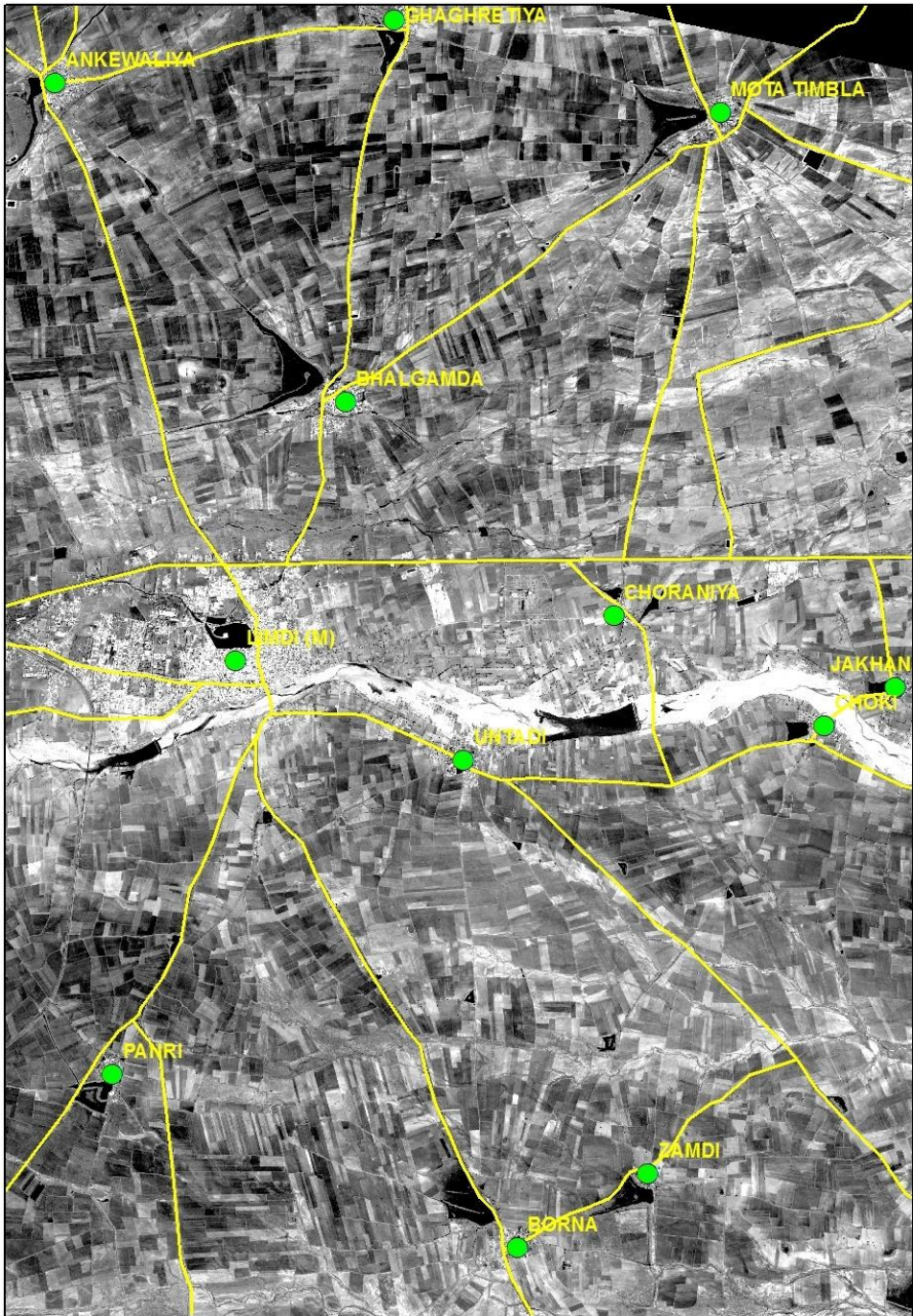
LISS-IV



CARTOSAT



Road
Connectivity



Road Connectivity

