

# Status of NSDI node

## National Atlas and Thematic Mapping Organisation

NSDI 12  
December 2012  
New Delhi

Dr. C. M. Rao  
NATMO

# Introduction

## Major functions of Natmo in brief:

- ❖ **Compilation of the National Atlas of India**
- ❖ **Preparation of the National Atlas maps in regional languages.**
- ❖ **Preparation of thematic maps based on research studies on environmental and**
- ❖ **associated aspects and their impact on social and economic development**

- ❖ Any other work entrusted by the Central Government or its agencies to NATMO
- ❖ Installation of automated Mapping System for increasing speed and efficiency in mapping
- ❖ Division of Digital mapping System & Digitized and Scanning of existing maps on digital format
- ❖ Geographical Researches
- ❖ Remote Sensing & GIS, Digital Image processing
- ❖ Division on Cartography for the Visually Impaired
- ❖ Capacity and Infrastructure building of NATMO to convert / to upgrade in digital mode

# NSDI node progress:

- Node creation: [www.natmomap.in](http://www.natmomap.in)
- Operative from July 2008
- Preparing to launch new node dedicated for NSDI activities
- At present 664 scanned raster maps can be viewed from this site

# Basic requirements for node development in Natmo

## components:

- Infrastructure
- Hardware
- Software
- Database

## **Present status of Natmo node**

Presently Natmo has two servers, one is working as web server as well as database server. Another server is purchased but not started due to unavailability of supporting hardware and software. So It is planned to purchase the fallowing equipment to strengthen portal.

## Proposed infrastructure for node development at Natmo

1. security system
2. firewall
3. UPS
4. Leased line
5. OGC compliant software (proposed Erdas Apollo)
6. Internet security
7. Windows (Windows Server 2008 & 2008 R2 Standard and Enterprise Edition)
8. Supplementary Operating Systems for testing & development (Windows 7)

## Database development:

1. Metadata creation as per the standards of NSDI
2. Modification of existing vector data into standard format to upload from NSDI geoportal through Natmo node.



# Status of Digital Database:

**Basic categories are as follows:**

---

POPULATION  
ADMINISTRATIVE  
CLIMATE  
PHYSICAL  
FOREST  
WATER RESOURCES  
LAND RESOURCES  
AGRICULTURE  
SOCIAL  
INFRASTRUCTURE

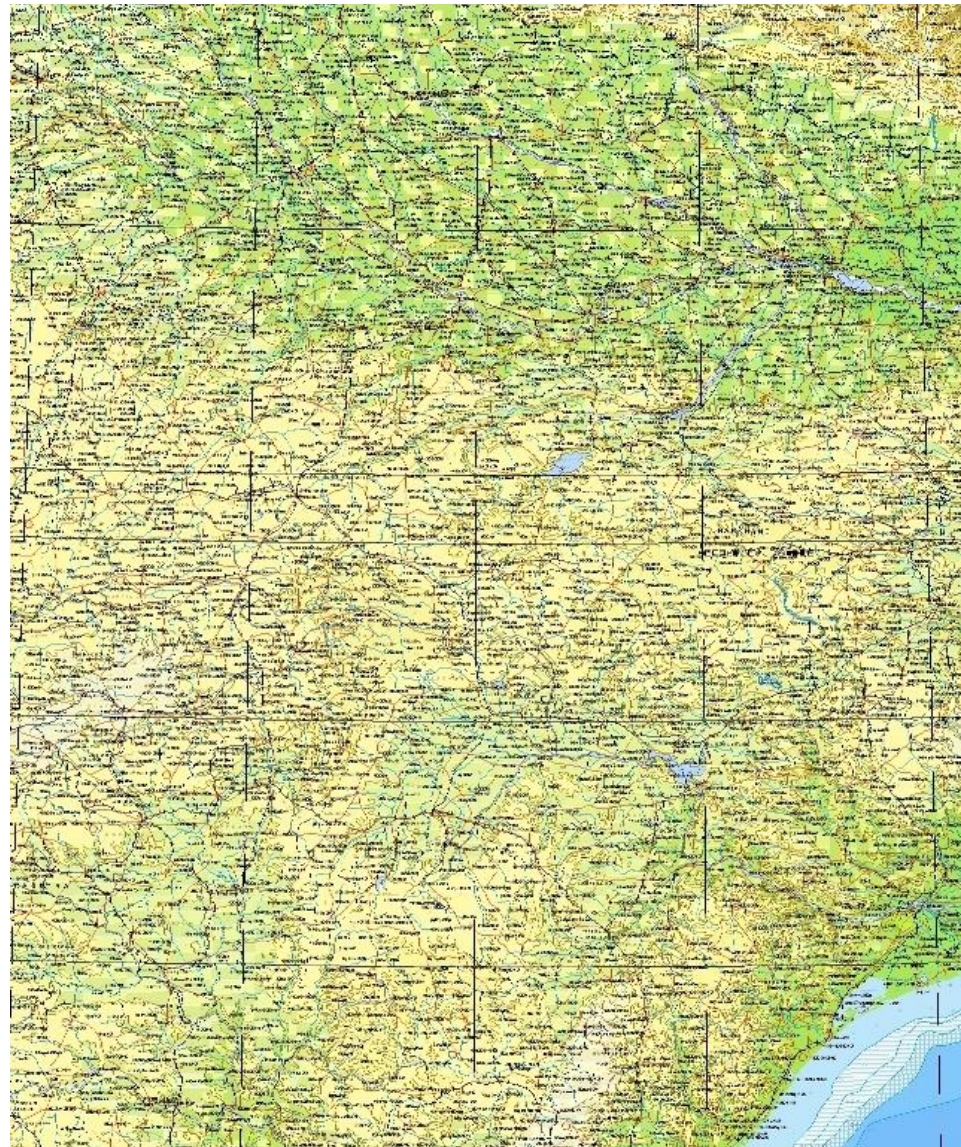
INDUSTRY  
STATE MAPS  
INDIAN OCEAN  
TOURISM  
HISTORICAL  
EDUCATION  
HEALTH  
ENVIRONMENT & POLLUTION  
BUSINESS & ECONIMICAL  
CULTURAL

---

# Basic level of mapping

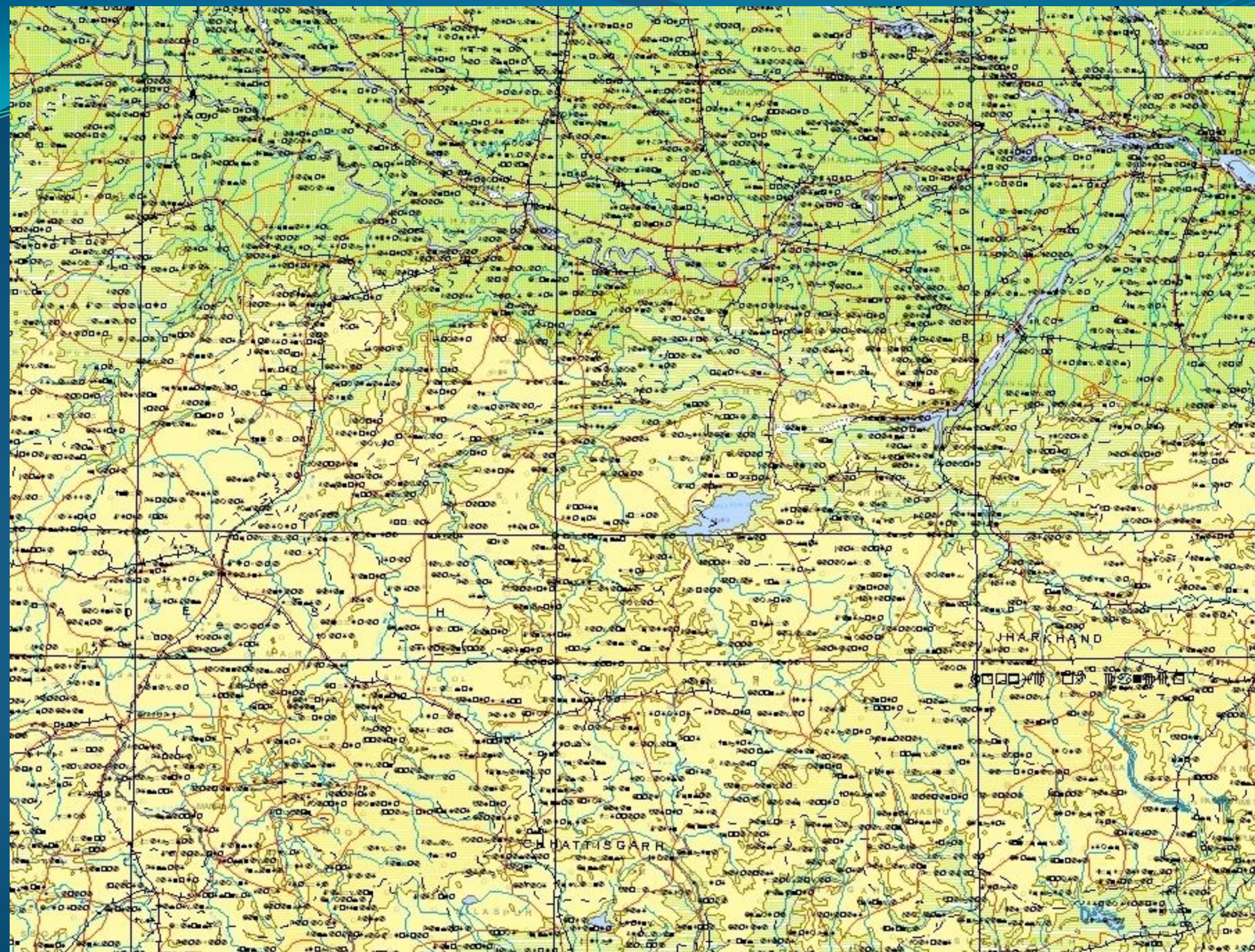
1. National
2. State
3. District
4. Town / city
5. Special map series

# National level digital data on 1:1 million and 1:2 million



**Central part of India**

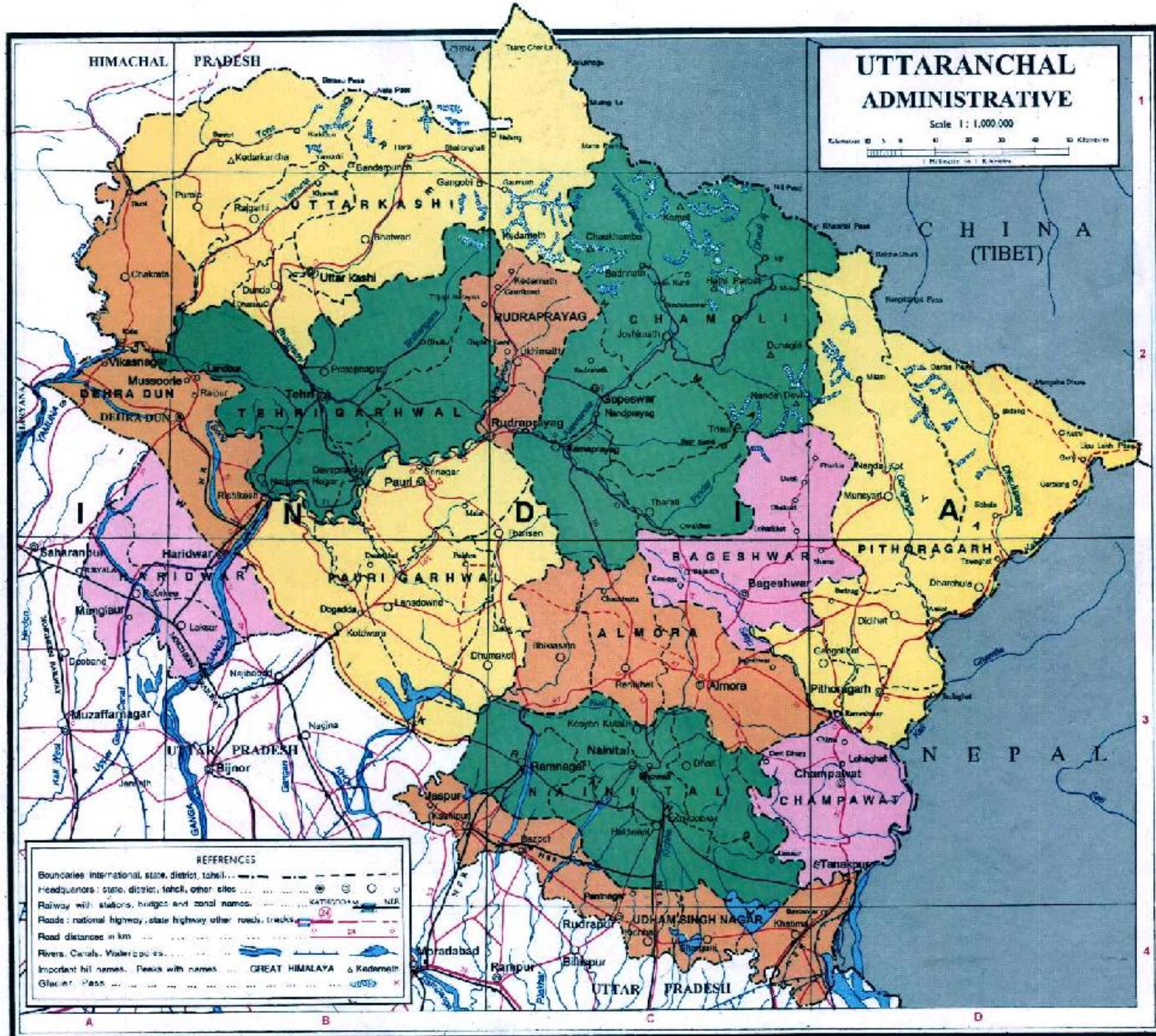






# State atlases

**Contain more than 33 different themes**



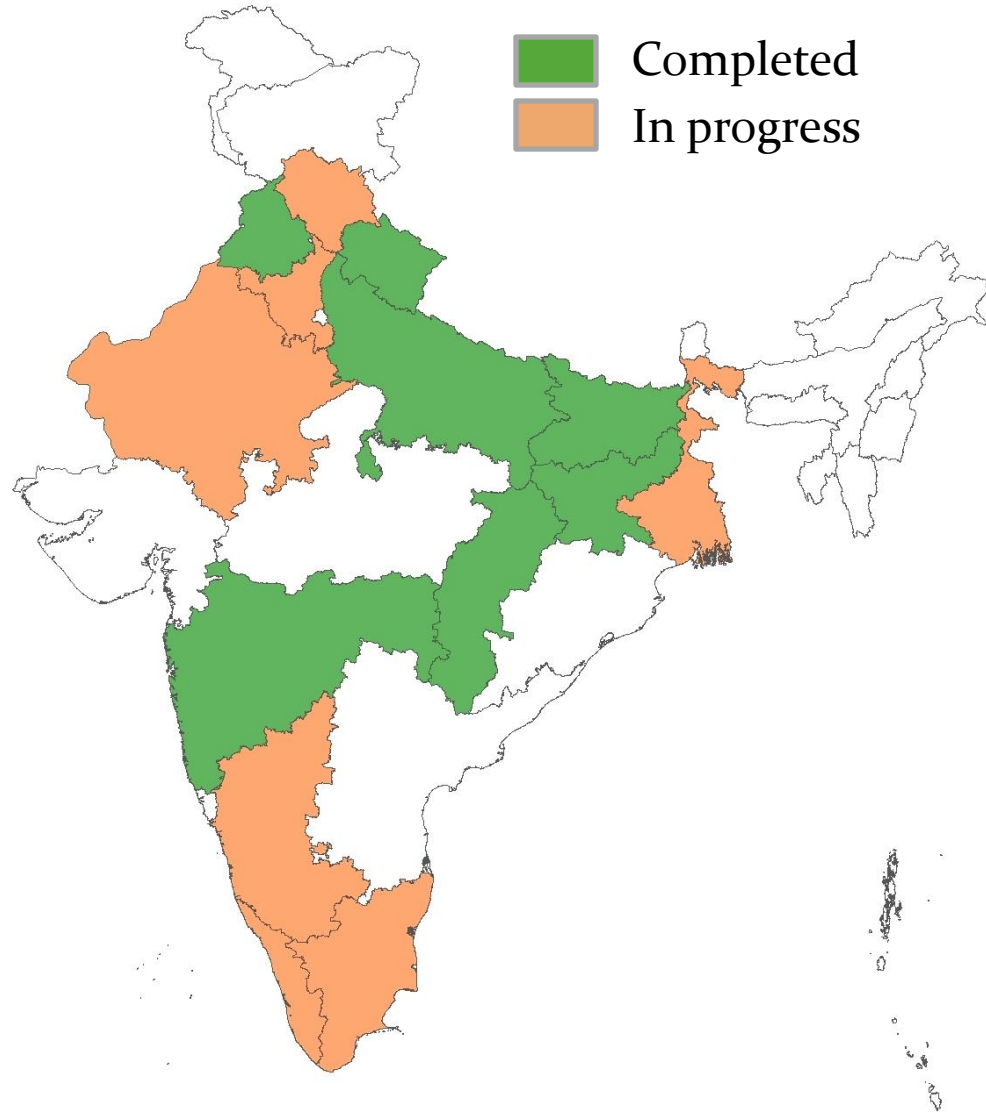


# Status of mapping

Completed 7 states

In progress 7 states

Map showing status of State atlas



# District Planning Map Series

**Main map at 1:250,000 scale showing all settlements, roads, rivers with names and block level administrative setup**

## **Inset maps:**

- ❖ **Physiography**
- ❖ **Rocks and Minerals**
- ❖ **Population**
- ❖ **Climate**
- ❖ **Industry**
- ❖ **General Land Use and Cropping Pattern**
- ❖ **Irrigation and Hydrology**
- ❖ **Soil**
- ❖ **Town map**



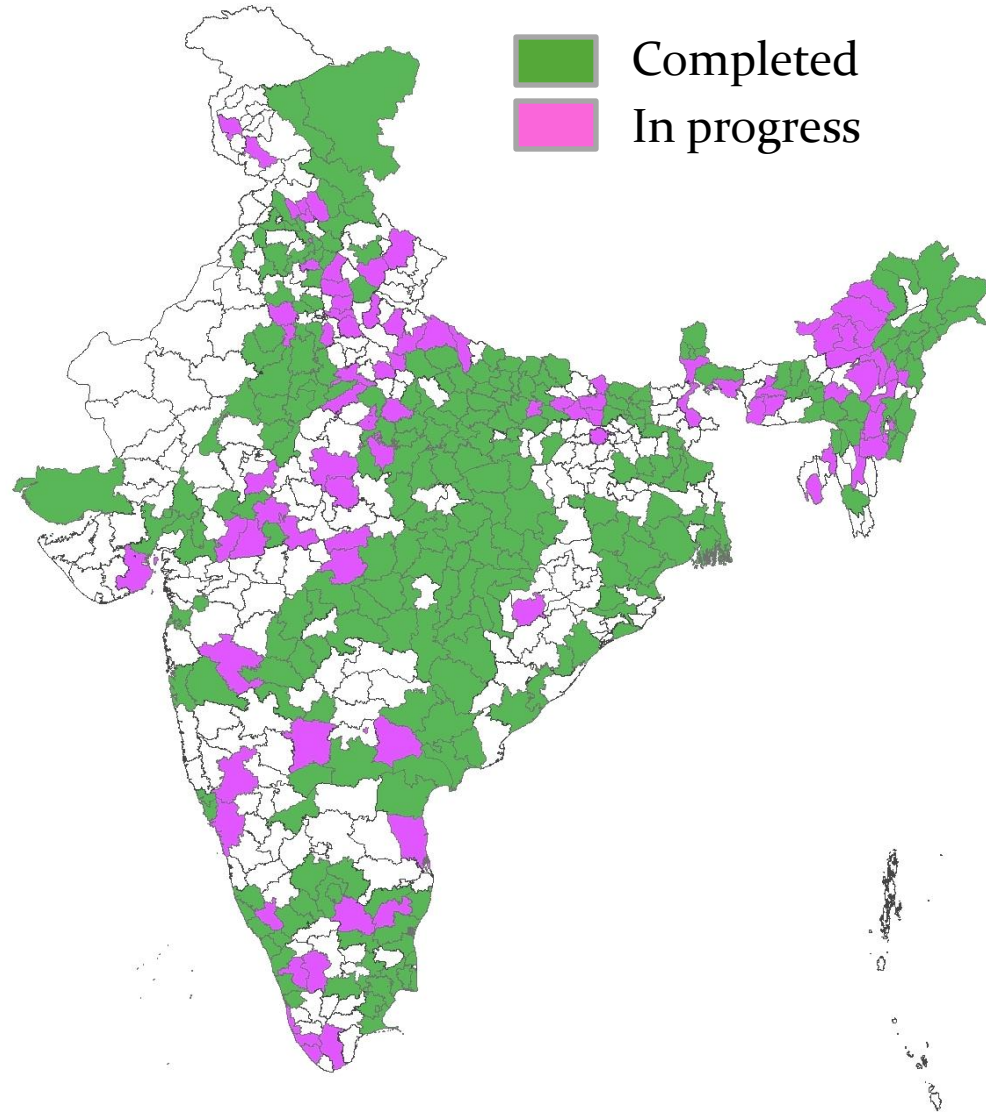


## Status of mapping

Completed 250 districts

In progress 90 districts

Map showing status of DPMS



# Golden map service (GMS)

**Detailed mapping at 1:5000 scale of major cities and towns**

# Vision

**Using the latest developments in IT, the National Atlas and Thematic Mapping Organisation (NATMO) would map the entire country down to the village level using spatial technology through its Golden Map Service**

**The service will involve all thrust areas of geospatial technologies along with web, internet and communication technologies**

# FOLLOWING ATTRIBUTES ARE BEING ATTACHED IN DATABASE

		<u>Layers</u>			
1	<u>Religion</u>	2	<u>Landuse</u>	3	<u>Health</u>
i	Temple	i	Bult up Area	i	Hospital & Nursing Home
ii	Church	ii	Park/Garden/Green Field	ii	Blood Bank
iii	Mosque	iii	Water Body & Tank	iii	Clinic/Dispensary/Medical Centre
iv	Gurdwara	iv	Drain	iv	Pathological Laboratory/Diagonostic
v	Jain & Buddhist Shrine	v	Cultivated Land	v	Eye Bank
vi	Other Religious Centres	vi	Locality Name		
vii	Idgah	vii	Important Landmark		
viii	Graveyard				
5	<u>Telecom</u>	6	<u>Education</u>	7	<u>Entertainment</u>
i	Post Office	i	School	i	Shop & Business Establishment/Agency
ii	Post & Telegraph Office	ii	College	ii	Cinema Hall
iii	Telegraph Office	iii	University	iii	Theatre & Public Hall
		iv	Other Educational & Training Institute	iv	Club
11	<u>Public Utilities</u>	v	Library	v	Hotel/Guest House
i	Bus Terminal	vi	Computer Training Centre	vi	Restaurent
ii	Railway Reservation Counter			vii	Marriage House/Auditorium
iii	Air Line Office				
iv	Newspaper Office				
v	Fire Station	12	<u>Communication</u>	13	<u>Railway</u>
vi	Police Station	i	Television Office	i	Any Railway Name
vii	Bank	ii	Radio Office	ii	Railway Station Name
viii	Market	iii	Mobile Tower		
ix	Milk Booth				
x	Public Call Office				




Select a Category to Search

SEARCH


 Transport


 Public Facility

 Entertainment

 Financial Institutes

 Tourist

 Emergency

 Saltlake

Kolkata City Map





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Buildings

Locality

Kolkata

Building/Office Type

Monument

Building/Office

Sahid Minar

View in Map

View List

SHAHID MINAR



Help



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Buildings

Locality

Kolkata

Building/Office Type

Office/Establishment

Building/Office

Kolkata Municipal Corporation

View in Map

View List

Kolkata Municipal Corporation



# SALT LAKE



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Select a Category to Search

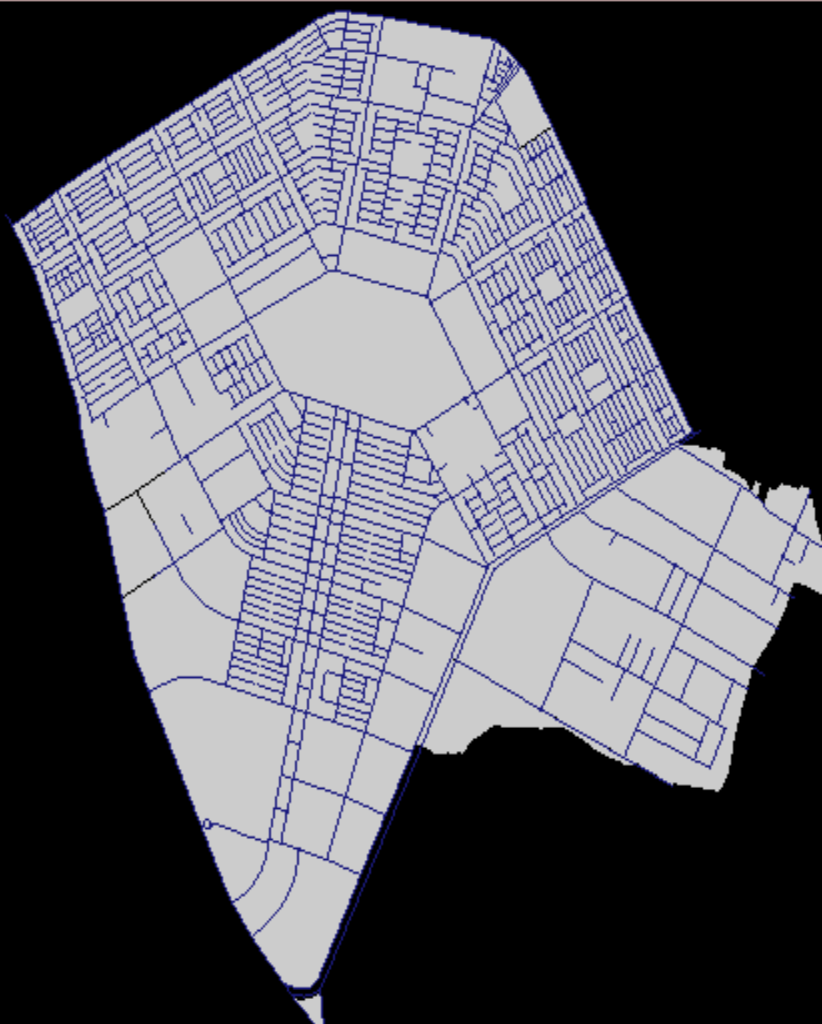
## SEARCH

[Public Facility](#)[Health](#)

## NATMO HEADQUARTERS

[Emergency](#)[IT Establishment](#)[Plots](#)[Kolkata](#)

Salt Lake Map





## Buildings

### Select Locality

Salt Lake

### Building/Office Type

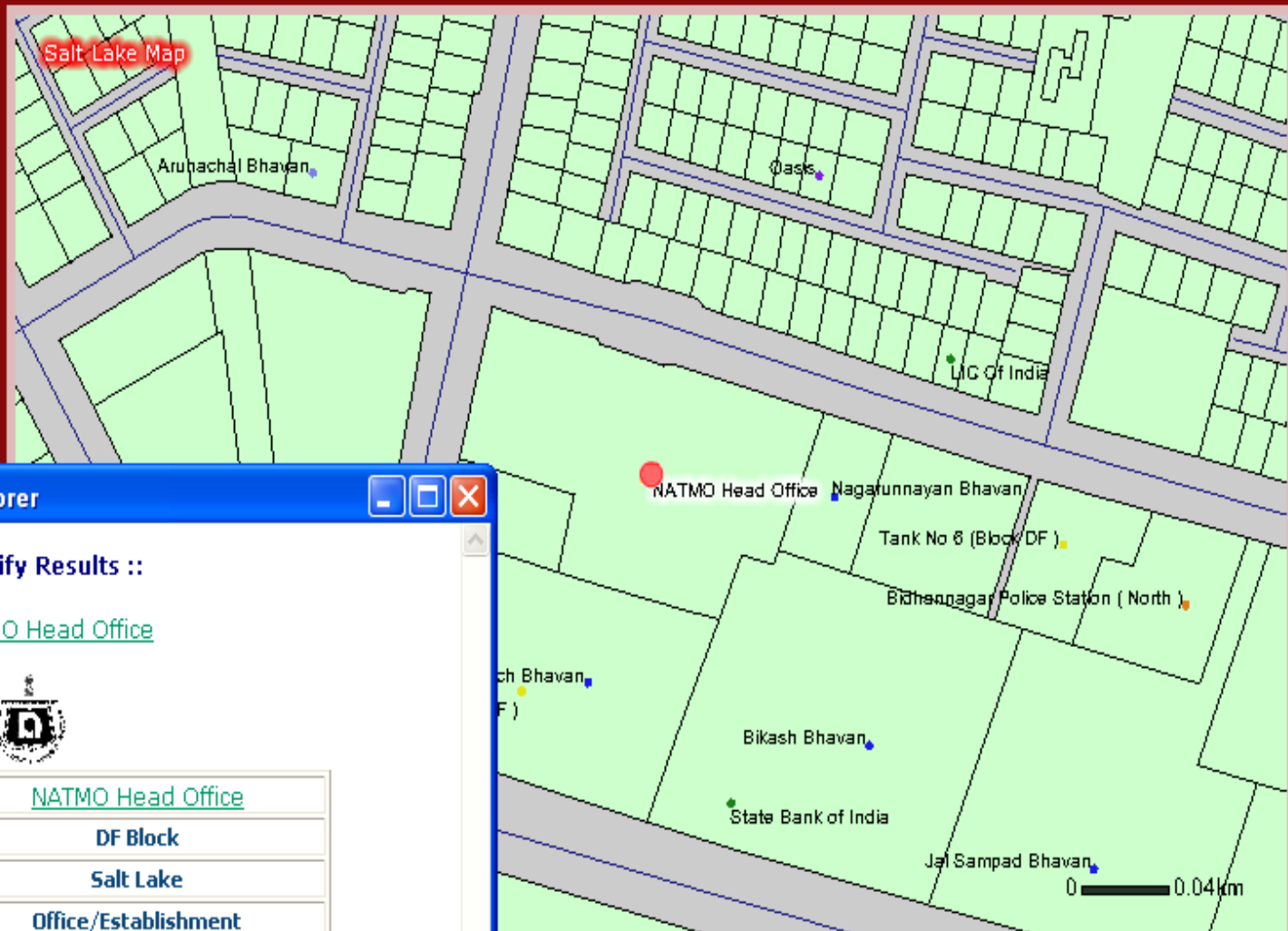
Office/Establishment

### Building/Office

NATMO Head Office

View in Map

View List



## Identify - Microsoft Internet Explorer

### :: Identify Results ::

 [NATMO Head Office](#)



NAME	<a href="#">NATMO Head Office</a>
LOCALITY	DF Block
CITY	Salt Lake
BUILD_TYPE	Office/Establishment

Close

Buffer - Microsoft Internet Explorer

your active layer is Important\_Buildings

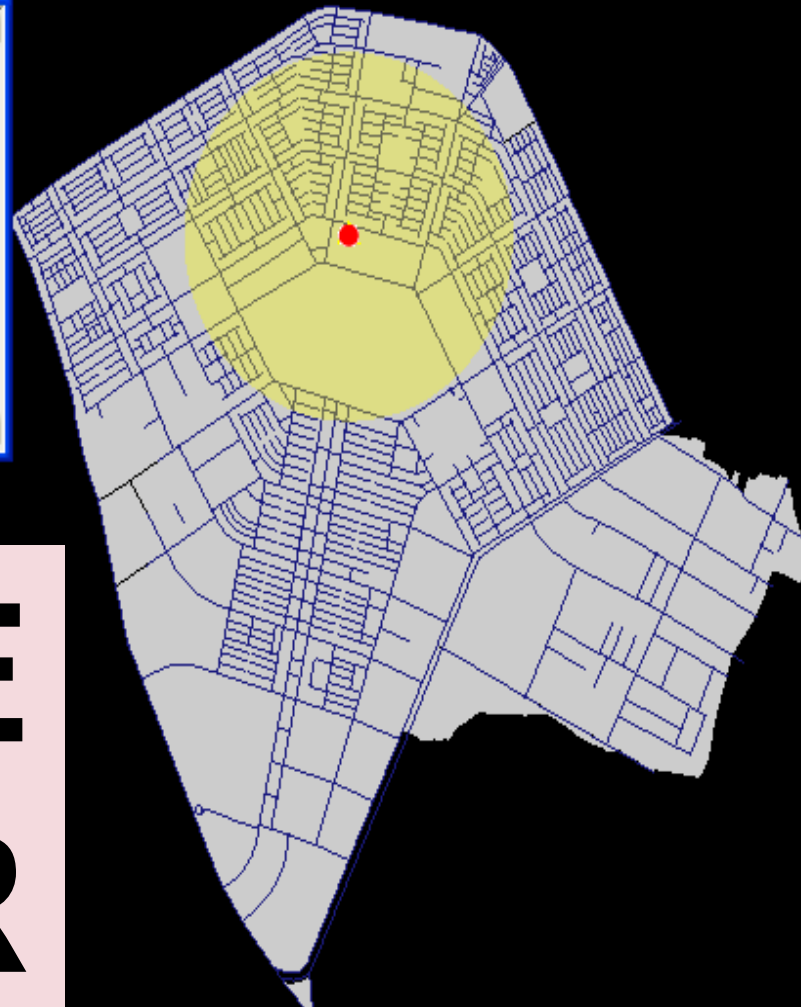
Select Target Layer :

Buffer distance (in meters) :

Create Buffer

View List

# CREATE BUFFER



# Mapping status



# Web interface



← → www.nationalatlas.gov.in ★ ↻ ↺ gmail 🔍 🏠 ☆

**National Atlas and Thematic Mapping Organisation**  
Department of Science and Technology  
Government of India

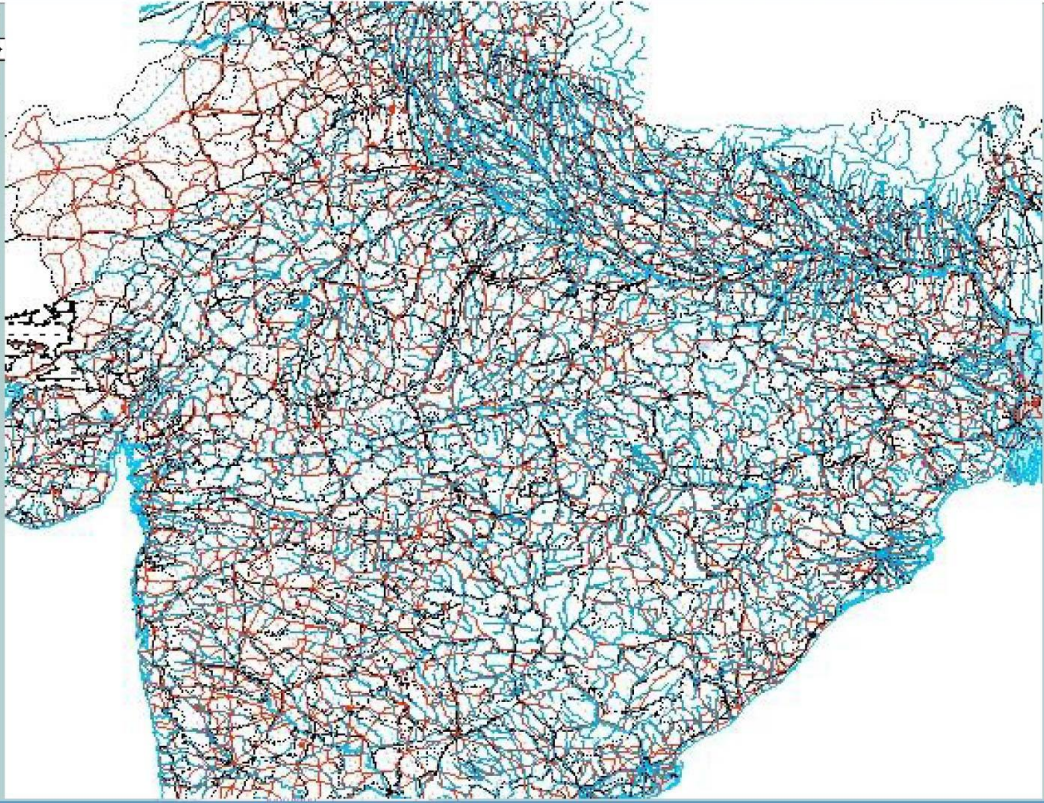
Home Layers Tables Files Groups

Categories  🔍

- Maps and Atlases
  - International
  - National
  - State
  - District
  - City
  - Historical
  - Travel
  - Environmental
  - DPMS
  - GMS

⏏ Your Map Crop Download or Order

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# National Atlas and Thematic Mapping Organisation

Department of Science and Technology  
Government of India

Home Layers Tables Files Groups

Categories

search 🔍

National Atlas of India

Political

Northern India

+ Add

scale 1: 2m

views : 56

downloads : 21

updated Nov 1998

Physical

Southern India

+ Add

scale 1: 2m

views : 56

downloads : 21

updated Nov 1998

Landuse

Eastern India

+ Add

scale 1: 2m

views : 56

downloads : 21

updated Nov 1998

Population

Western India

+ Add

scale 1: 2m

views : 56

downloads : 21

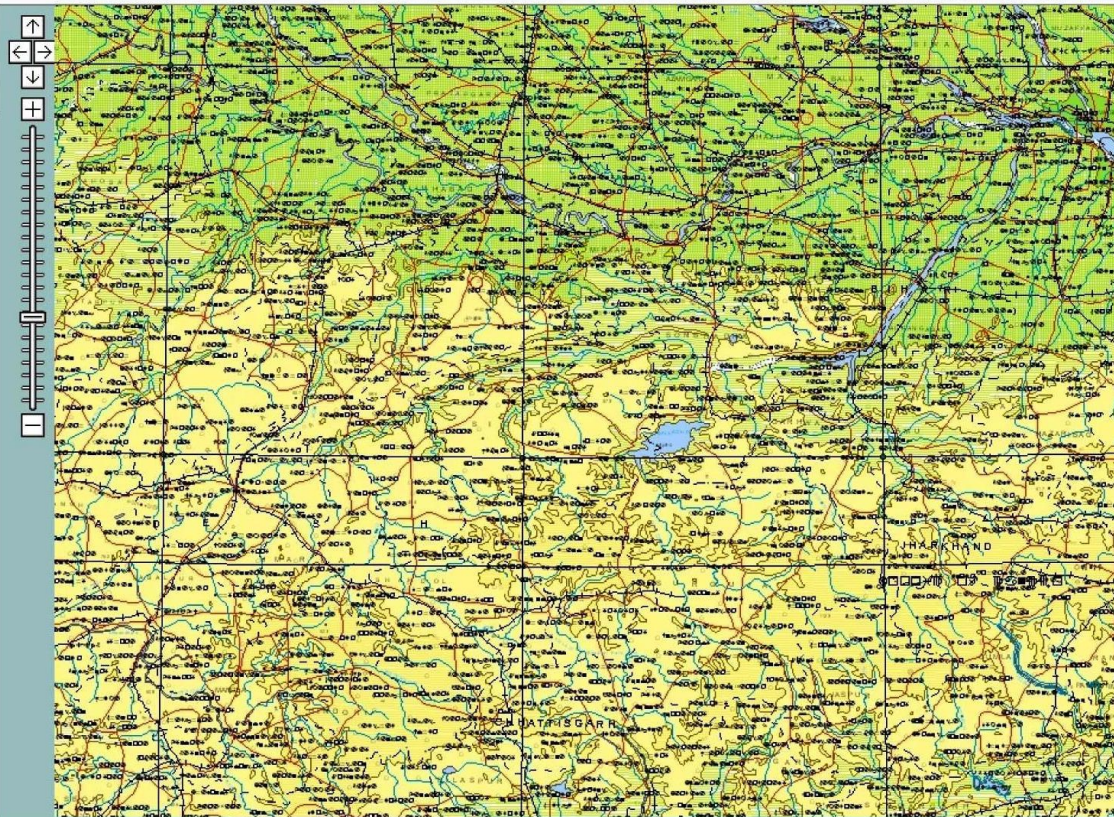
updated Nov 1998

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# National Atlas and Thematic Mapping Organisation

www.nationalatlas.gov.in

National Atlas and Thematic Mapping Organisation  
Department of Science and Technology  
Government of India

Home Layers Tables Files Groups

Northern India (physical)  
NSDI / National Atlas and Thematic Mapping Organisation

Description Metadata Spatial Attributes History

PDF XML

Metadata

File Identifier  
C6BCE1F1-AFA7-42DB-B9CF-29C59333A173

Language  
eng

Character Set  
Character Set Code  
utf8

Hierarchy Level  
Scope Code  
dataset

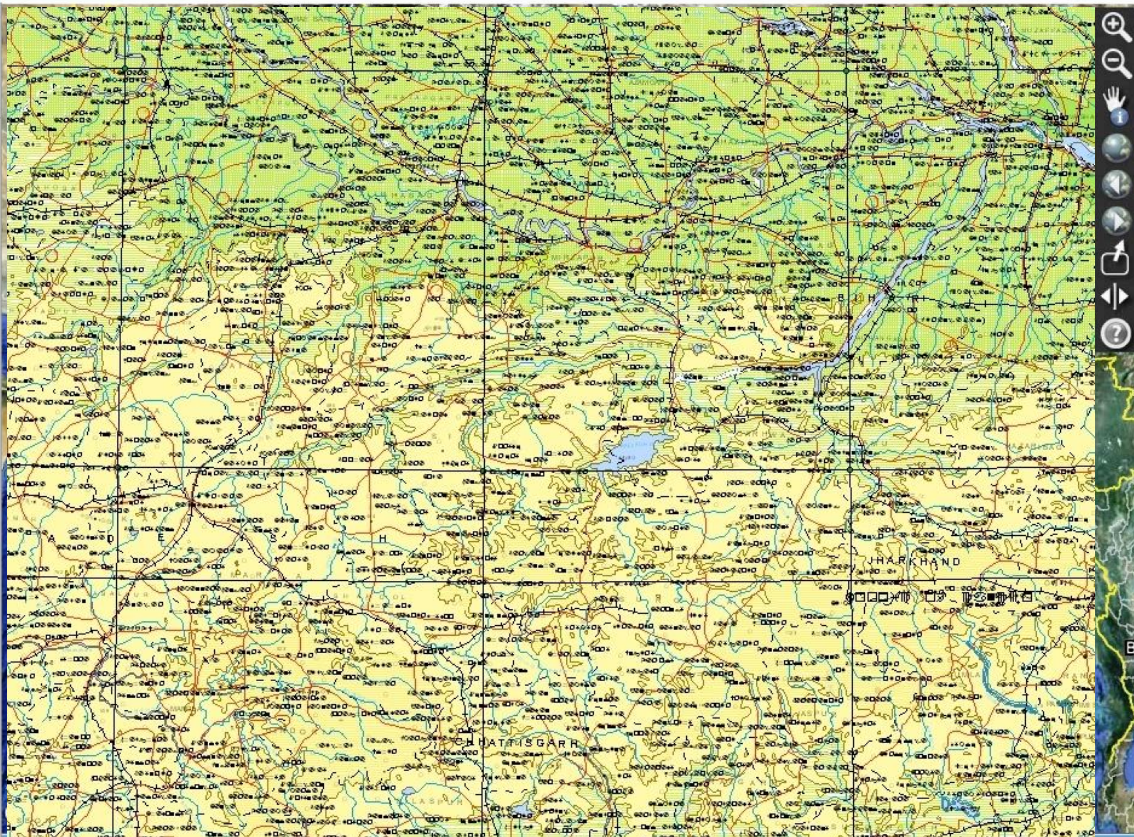
Hierarchy Level Name  
dataset

Contact  
Responsible Party  
Individual Name

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National Spatial Data Infrastructure  
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# Major challenge ahead.....

1. CREATION OF METADATA AS PER ISO 19119 STANDARDS COMPATIBLE WITH INTERNATIONAL STANDARDS (OGC) .
2. TO PROVIDE METADATA OF ALL GEOINFORMATION CREATED BY NATMO TO NSDI.
3. TO PROVIDE A LINK OF NATMO GEOINFORMATION PORTAL TO NSDI.



Thank you