

भुवन का अन्वेषण

Explore Bhuvan



# भुवन का वर्णन (About Bhuvan)



# भुवन

- **What** - भुवन ISRO द्वारा विकसित और होस्ट किया गया स्वदेशी भू-स्थानिक (Indigenous Geospatial) पोर्टल है
- **Who** – ISRO
- **When** – 2009
- **Where** – कृषि, वानिकी, जल पर्यटन, शहरी नियोजन, ग्रामीण विकास, ई शासन, आपदा प्रबंधन, जलवायु और पर्यावरण (Agriculture, Forestry, Water, Tourism, Urban Planning, Rural Development , E Governance, Disaster management, Climate and Environment)

# भुवन के बारे में (More about Bhuvan)



# भुवन

- **विकासक (Developer)**- ISRO (Indian Space Research Organization)
- **आरंभिक निस्तार (Initial Release)**- 12<sup>th</sup> August 2009
- **स्थिर निस्तार (Stable Release)**- 12<sup>th</sup> August 2015
- **भाषा (Languages)** - हिंदी, अंग्रेजी, तमिल, तेलुगु (Hindi, English, Tamil, Telugu)
- **अनुज्ञापत्र (Licence)**- Freeware/ Public domain
- **वेबसाइट (Website)**- <http://bhuvan.nrsc.gov.in>

# यह महत्वपूर्ण क्यों है (Why is It significant?)



# भूषण

- **सही नक्शे (True Maps)**- इसकी सेवाएं भारत सरकार से उपलब्ध जानकारी के अनुसार देश की वास्तविक सीमाओं को दर्शाएंगी
- **गोपनीयता की रक्षा करता है (Protects Privacy)**- मैपमाईइंडिया मैप्स (MapmyIndia Maps) और एप्लिकेशन का उपयोग करके विदेश मैप ऐप्स (Aaps) के बजाय, उपयोगकर्ता अपनी गोपनीयता की बेहतर सुरक्षा कर सकते हैं
- **आत्म निर्भर भारत (AtmaNirbhar Bharat)**- एक भारतीय मंच होने के नाते, यह सरकार के आत्म निर्भर भारत के मिशन के साथ अच्छी तरह से जुड़ा हुआ है

# भुवन की विशेषताएं (Features of Bhuvan)



# भुवन

- उपग्रह इमेजरी और मानचित्रों का विजुअलाइज़ेशन (Visualisation of Satellite imageries and maps)
- विश्लेषण (Analysis)
- मुफ्त डेटा डाउनलोड (Free Data Download)
- मल्टी-सेंसर, मल्टी-प्लेटफ़ॉर्म और मल्टी-टेम्पोरल इमेज (Multi-sensor, Multi-resolution, Multi-temporal)
- 2डी और 3डी मानचित्र (2D & 3D Maps)

Contd..



# भूषण

- इमेज रिज़ॉल्यूशन (Image Resolution) – 1m
- धीमे इंटरनेट कनेक्शन पर चलने के लिए डिज़ाइन किया गया (Designed to run on slow internet connection)
- लगभग 350 शहर 1m रिज़ॉल्यूशन के साथ कवर किए गए हैं (Almost 350 cities are covered with 1m resolution)
- उपग्रह (Satellites)- रिसोर्ससैट -1,2 (Resourcesat-1,2 कार्टोसैट-1 (Cartosat-1), कार्टोसैट-2 ( Cartosat-2)

# उपयोगिताओं और अनुप्रयोगों (Applications and Utilities)



# भुवन

- विजुअलाइज़ेशन से लेकर, भुवनवासी भी डाउनलोड कर सकते हैं आईआरएस डेटा उत्पाद (Ranging from visualization, Bhuvanites can also download IRS images)
- एक ऐसा स्थान जहां उपयोगकर्ता अपनी रुचि के बिंदु जोड़ सकते हैं और उन्हें दूसरों के साथ साझा कर सकते हैं (A Place where users can add their own points of interest and share them with other)
- शिक्षकों के लिए उपयोगी (Useful for Educators)
- वैज्ञानिकों के लिए उपयोगी (Useful for Researchers & Scientists)
- प्रशासकों, नीति निर्माताओं के लिए उपयोगी (Useful for Administrators and Policy makers)

# भुवन की उपयोगिता (Applications of Bhuvan)



# भूपर्यावरण

- सामाजिक उपयोगिता (Societal Applications)
- पर्यावरण की उपयोगिता (Environmental Applications)
- आर्थिक उपयोगिता (Economic Applications)





bhuvan

Demonstration

# भुवन का उपयोग कैसे करे



Search Google or type a URL



Inbox (968)



Web Store



Add shortcut



bhuvan.nrsc.gov.in



Inbox (968)



Welcome to ...



Web Store



Add shortcut

# भुवन पोर्टल का होम पेज



## Bhuvan

Indian Geo-Platform of ISRO

Explore Our New  
Bhuvan Home Page

National Remote Sensing Centre



Visualize COVID 19 Vaccination Centers

Tamil Nadu COVID Beds

Visualize Track of Cyclone Tauktae & Inundation Layers on Bhuvan Disaster portal

Ra

NRSC | Search | Bhuvan Store | Bhuvan Collaborators

----- Visualisation & Free Download -----



Bhuvan-2D



Bhuvan-3D



Open Data Archive

Free Download



Climate Environment &

EO derived Products

----- Maps & OGC services -----



Thematic Services



Disaster Management Support Services



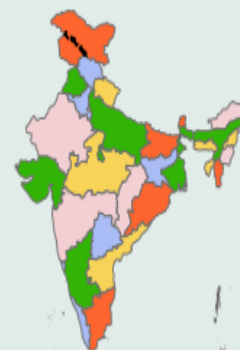
Ocean Services



Create a Map / GIS

My Map | My GIS

State Portals/Applications (Click on any State)



State

ANDHRA PRADESH



Andhra Pradesh



Asset Mapping

Visit State Portal of ANDHRA PRADESH

Governance/Central Ministries **g-Governance Dashboard**



E-Governance



Island Information



School Bhuvan



Toll Information



Ground Water



Pipeline Grid



Watersheds



Urban Survey

Application Sectors

Collaborative applications - Platform to share your data and create governance applications

Agriculture

Forestry

E-Governance

Water

Tourism

Urban

Rural



Urban



Municipal GIS



Urban Growth



Urban Information System

Special Applications



Data Discovery



Decision Support



Hydrological



Image Gallery

Updates

Download

- Bhuvan Training on Jun 08-09, 2021 **New**
- Visualize COVID 19 Vaccination Centers ; Tamil Nadu COVID Beds **New**
- Free Satellite Orthorectified data of AWiFS (acquired during Jan-Mar, 2019) and LISS-3 (acquired during Rabi, 2019) is updated in NOEDA
- Visualize Flood Hazard Atlas of Bihar state
- Uttarakhand Flash Floods: Satellite Data Findings, view Satellite Data in 2D & 3D
- Bhuvan applications for COVID-19 India -

# इसे 2 भागों में बांटा गया है



Bhuvan

Indian Geo-Platform of ISRO

Explore Our New  
Bhuvan Home Page



National Remote Sensing Centre

Visualize COVID 19 Vaccination Centers Tamil Nadu COVID Beds Visualize Track of Cyclone Tauktae & Inundation Layers on Bhuvan Disaster portal Rain / NRSC | Search | Bhuvan Store | Bhuvan Collaborators

Visualisation & Free Download

Bhuvan-2D Bhuvan-3D Open Data Archive Free Download Climate Environment & EO derived Products

Thematic Services Disaster Management Support Services Ocean Services Create a Map / GIS My Map | My GIS

Maps & OGC services

State Portals/Applications (Click on any State)

State: ANDHRA PRADESH

Andhra Pradesh Asset Mapping

Visit State Portal of ANDHRA PRADESH

Updates Download

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- Bhuvan applications for COVID-19 India**

Governance/Central Ministries g-Governance Dashboard

Flood Inerability Census data Deltas of India Environment & Forest ENVIS CRIS Flycatchers Distribution Island Information

Application Sectors

Collaborative applications - Platform to share your data and create governance applications

Agriculture Forestry E-Governance Water Tourism Urban Rural

Irrigation

Walamtari WBIS Sat-AIBP Maharashtra WRDS

Telangana WRIS

# भुवन 2डी क्या है

भुवन 2डी एक स्लीक, रोमांचक ऑनलाइन मैपिंग एप्लिकेशन है। यह विस्तृत इमेजरी और एम्बेडेड मैप डेटा के साथ एक अत्यधिक प्रतिक्रियाशील, सहज ज्ञान युक्त मानचित्रण इंटरफ़ेस प्रदान करता है।

Visualisation & Free Download

- Bhuvan-2D
- Bhuvan-3D
- Open Data Archive (Free Download)
- Climate Environment (EO derived Products)

Maps & OGC services

- Thematic Services
- Disaster Management Support Services
- Ocean Services
- Create a Map / GIS (My Map | My GIS)

Governance/Central Ministries g-Governance Dashboard

- Bioenergy
- GI
- Monuments
- Chaman
- Hailstorm
- PMKSY
- Clean Ganga
- Sat-

Application Sectors

Collaborative applications - Platform to share your data and create governance applications

- Agriculture
- Forestry
- E-Governance
- Water
- Tourism
- Urban
- Rural

E-Governance

- Decentralised Planning

Special Applications

- Data Discovery
- Decision Support
- Hydrological
- Image Gallery

State Portals/Applications (Click on any State)

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Andhra Pradesh Asset Mapping

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Updates Download

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Indian Geo-Platform of ISRO

National Remote Sensing Centre

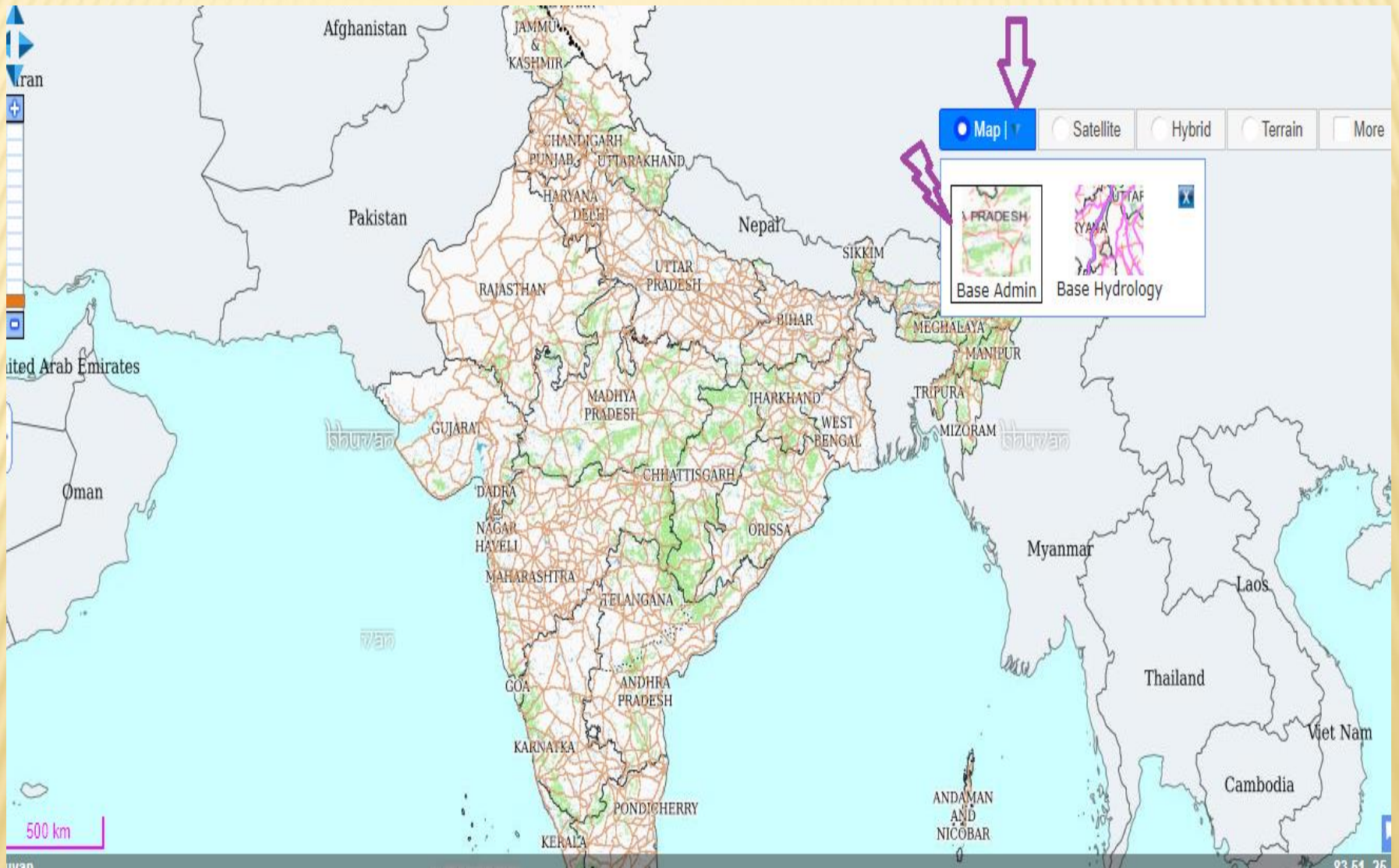
Bhuvan-2D Enter City or Lat, Lon (ex: chennai or 13

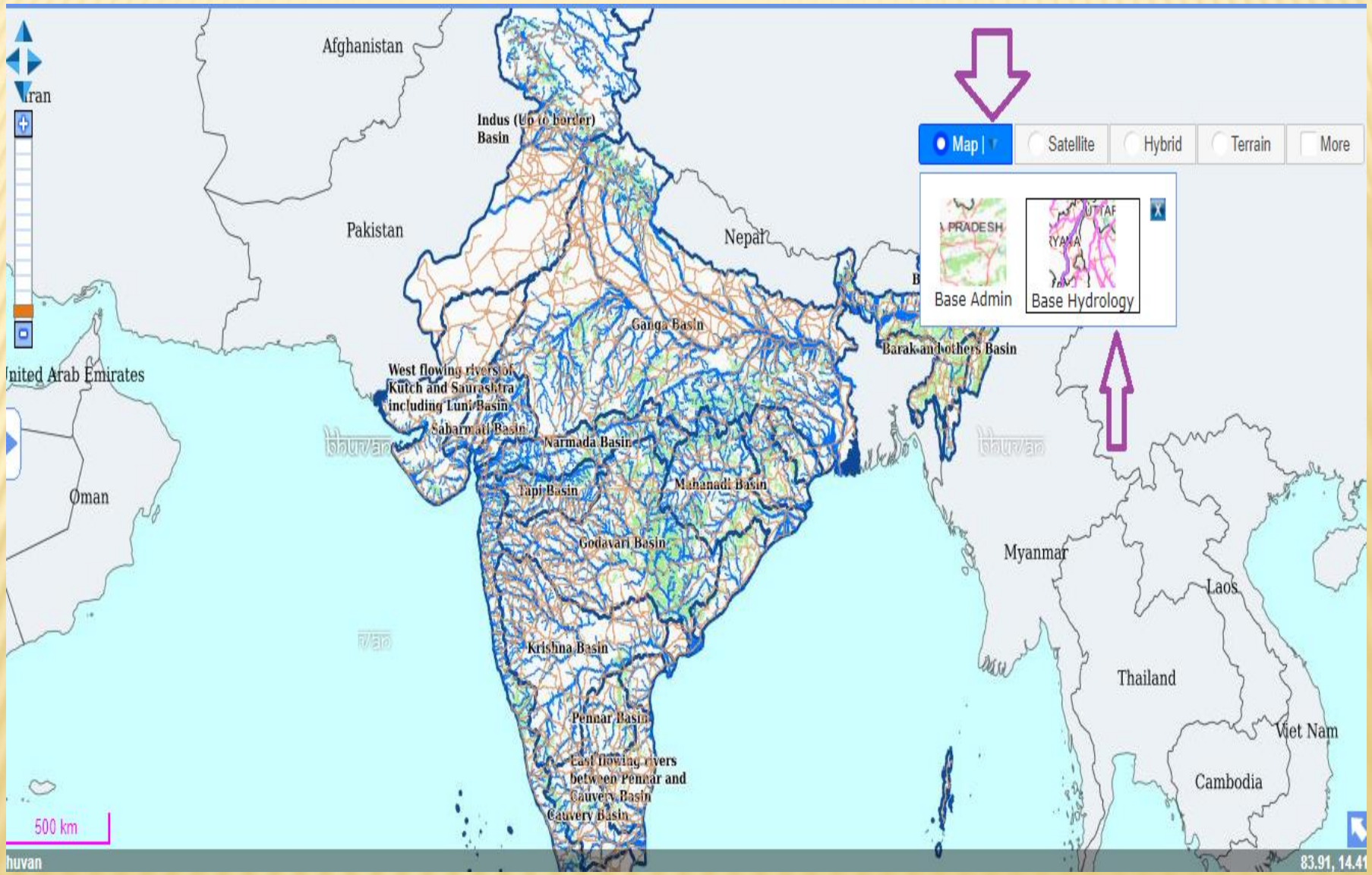
Tools | Updates | Bhuvan Store | Link | Help | Bhuvan Collaborators

Map | Satellite Hybrid Terrain More

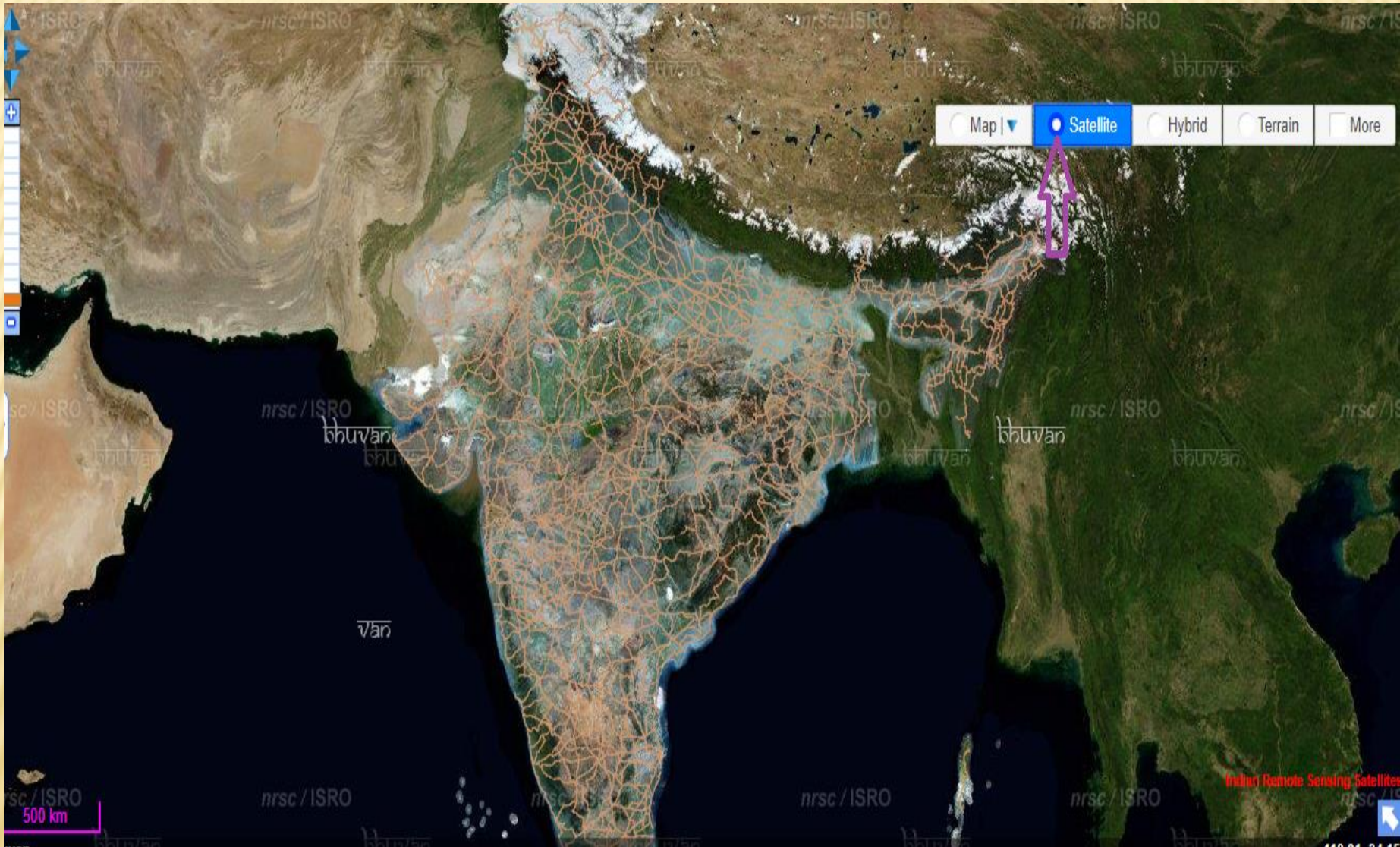
Map of India showing states and neighboring countries (Afghanistan, Pakistan, Nepal, Sri Lanka, Bangladesh, Myanmar, Thailand, Viet Nam, Cambodia, Laos, Oman, United Arab Emirates).

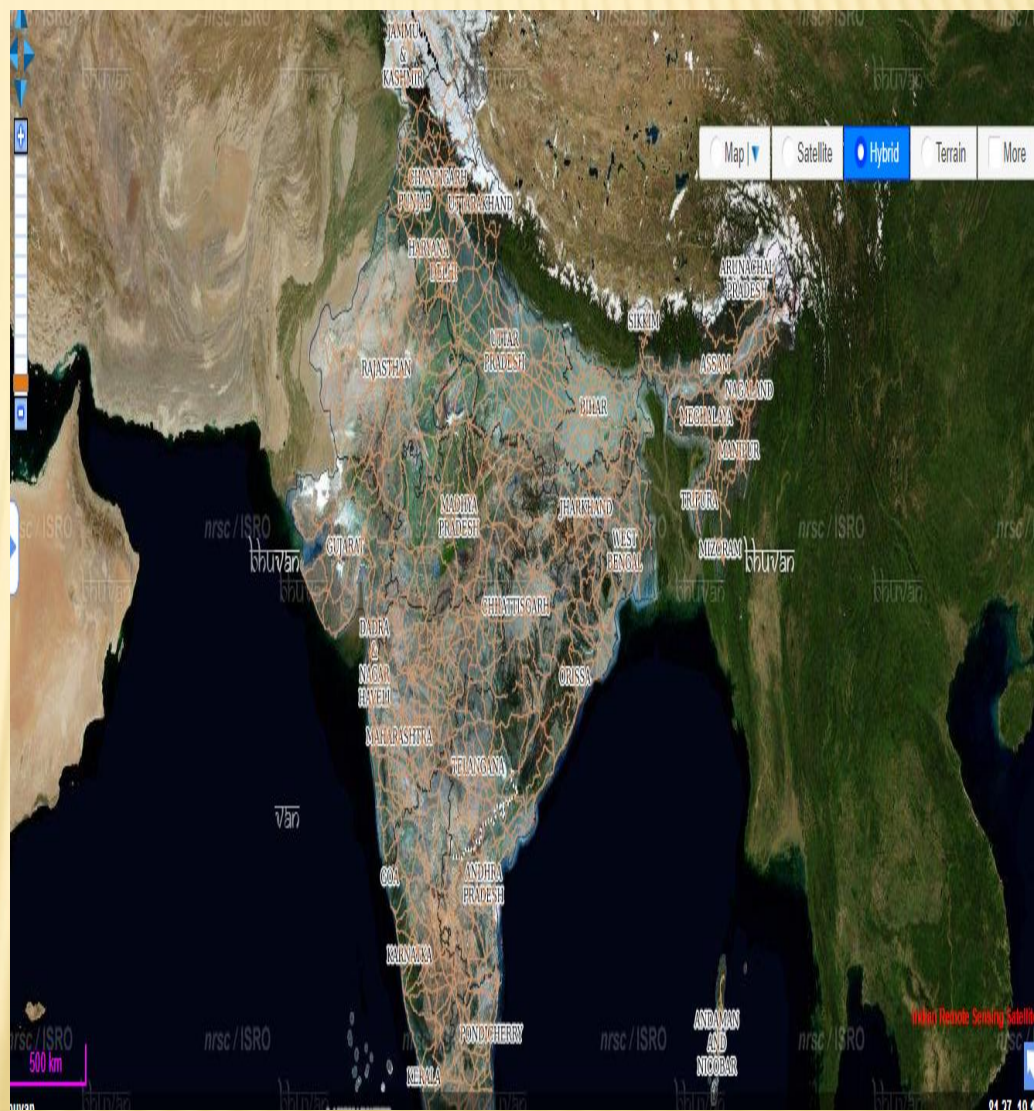
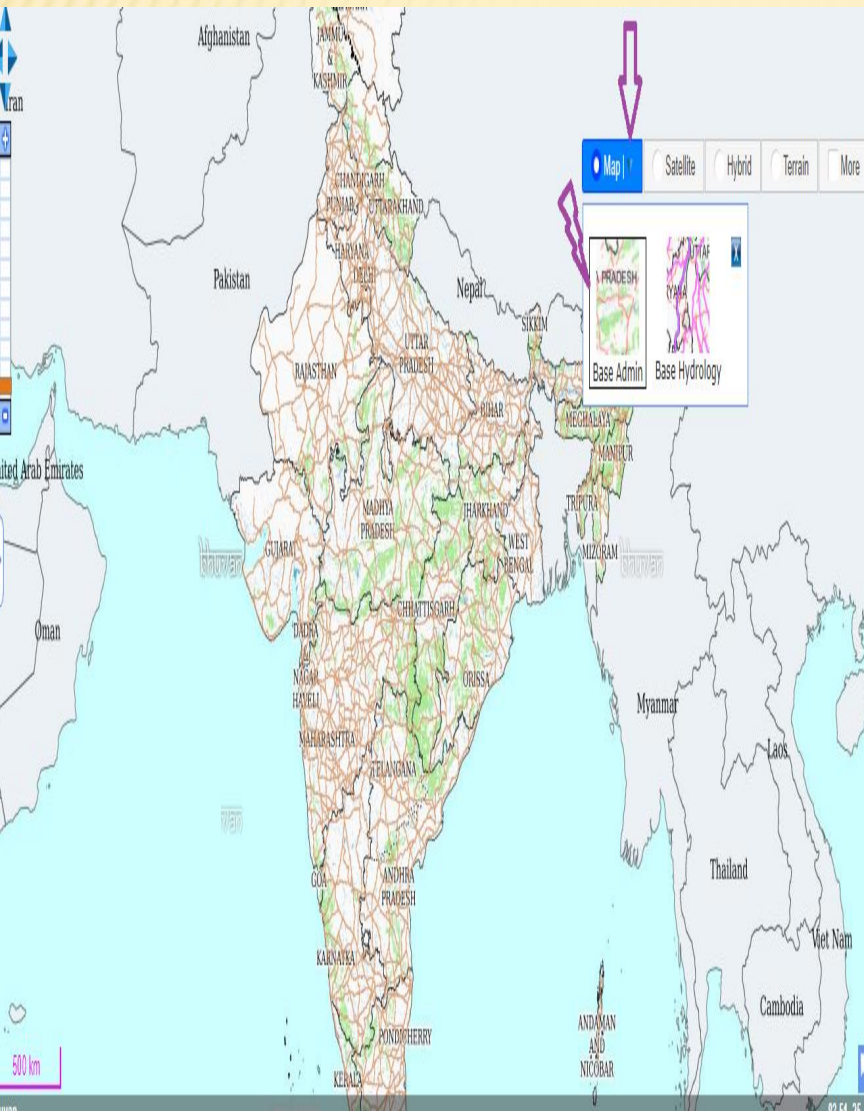
States labeled: LADAKH, JAMMU & KASHMIR, HIMACHAL PRADESH, PUNJAB, HARYANA, RAJASTHAN, GUJARAT, MADHYA PRADESH, UTTAR PRADESH, BIHAR, WEST BENGAL, JHARKHAND, CHHATTISGARH, ODISHA, KARNATAKA, ANDHRA PRADESH, TELANGANA, GOA, KERALA, PONDICHERY, NAGALAND, ASSAM, ARUNACHAL PRADESH, MIZORAM, TRIPURA, MANIPUR, MEGHALAYA, WEST BENGAL, BIHAR, JHARKHAND, CHHATTISGARH, ODISHA, KARNATAKA, ANDHRA PRADESH, TELANGANA, GOA, KERALA, PONDICHERY, NAGALAND, ASSAM, ARUNACHAL PRADESH, MIZORAM, TRIPURA, MANIPUR, MEGHALAYA.

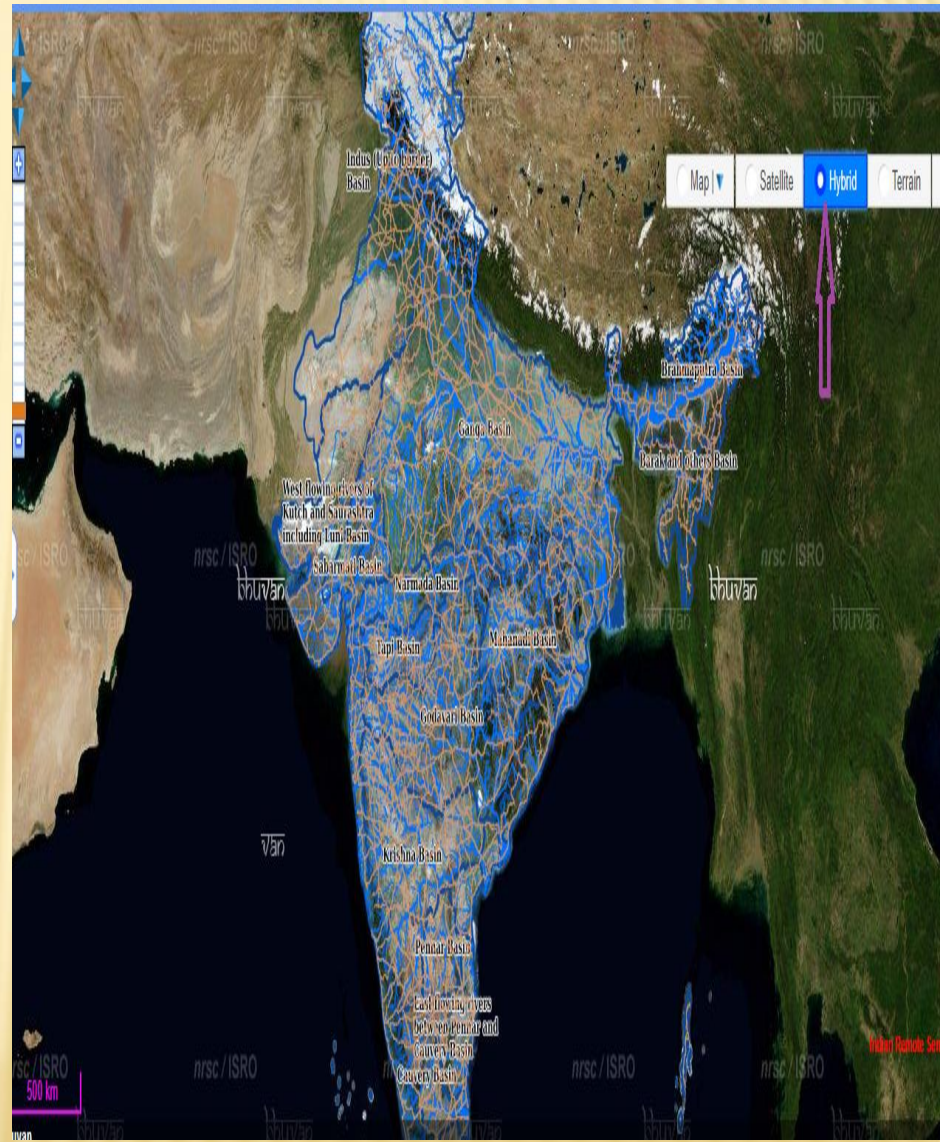
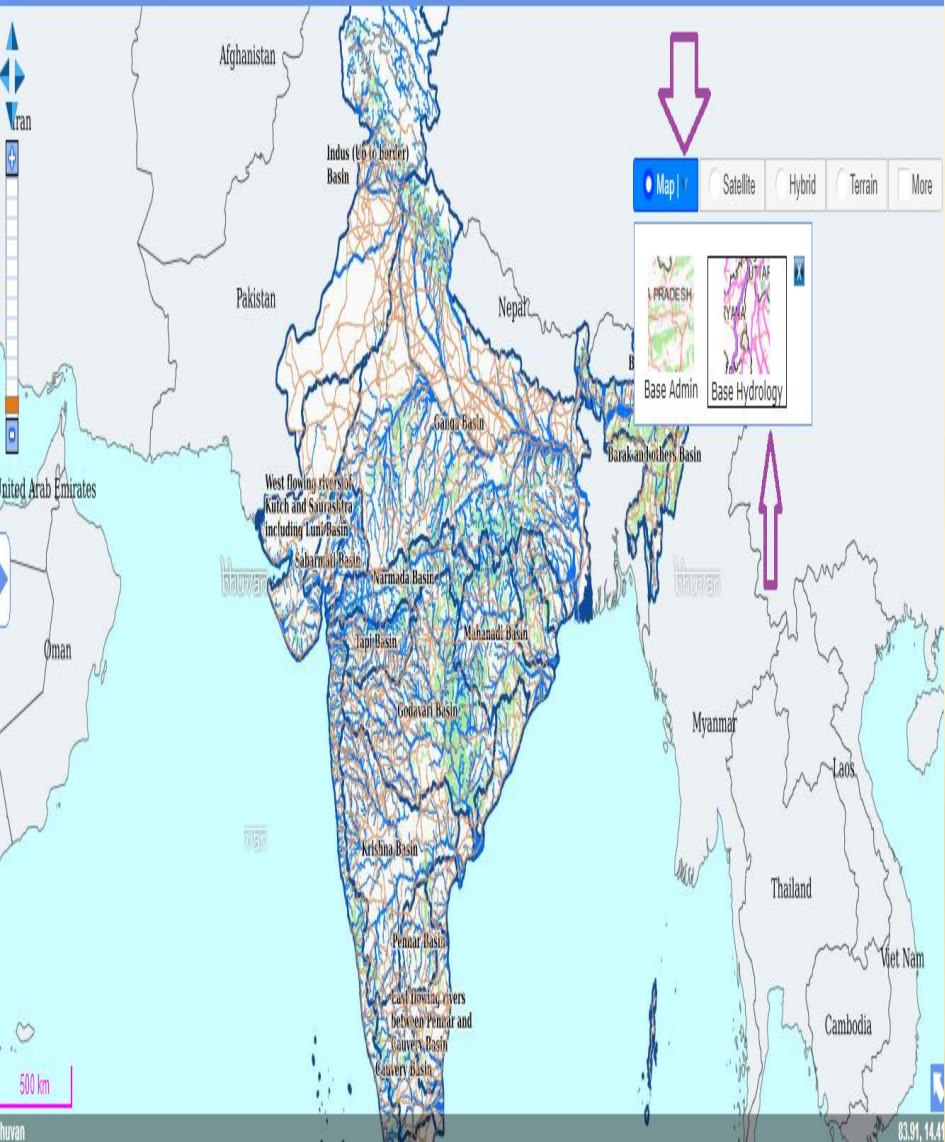








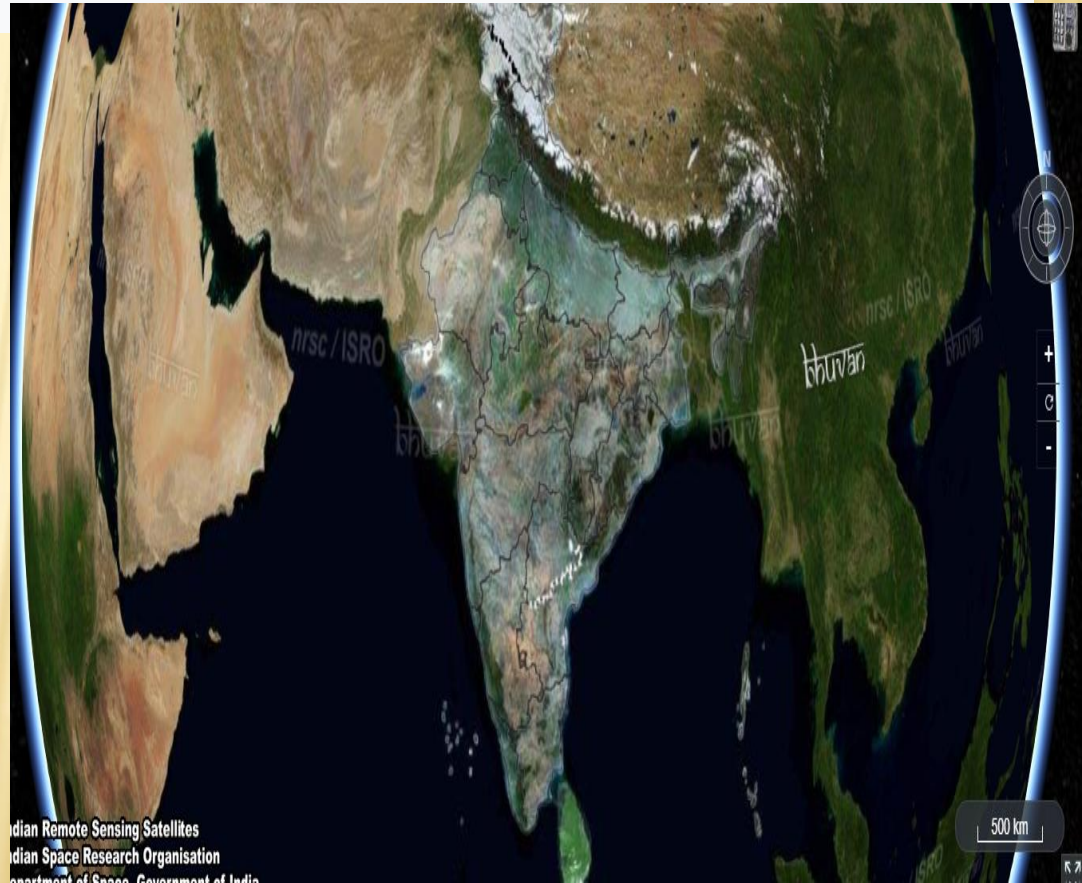




# भुवन ३डी क्या है

एक बहु-संवेदक, बहु-मंच और एक बहु-अस्थायी डोमेन में छवियों को प्रदर्शित करता है।

The screenshot shows the Bhuvan 3D web application interface. At the top, there is a navigation bar with the text "Visualisation & Free Download". Below this, there are several service tiles: "Bhuvan-2D", "Bhuvan-3D" (highlighted with a pink arrow), "Open Data Archive" (Free Download), "Climate Environment" (EO derived Products), "Thematic Services", "Disaster Management Support Services", "Ocean Services", and "Create a Map / GIS" (My Map | My GIS). Below the navigation bar, there is a section for "Governance/Central Ministries" with a "g-Governance Dashboard" and icons for "Hailstorm", "PMKSY", "Clean Ganga", "Sat-AIBP", "Flood Warning", "Flood Vulnerability Index, India", "Census data", and "Deltas of". The "Application Sectors" section includes "Agriculture", "Forestry", "E-Governance", "Water", "Tourism", "Urban", and "Rural". The "Irrigation" section lists "Walamtari", "WBIS", "Sat-AIBP", "Maharashtra WRDS", and "Telangana WRIS".



## 2D और 3D के बीच का अंतर

2D और 3D कंप्यूटर कार्यक्षेत्र में वास्तविक आयामों को संदर्भित करते हैं। 2D क्षैतिज और ऊर्ध्वाधर (x और y) आयामों का उपयोग करते हुए समतल है, छवि के केवल दो आयाम हैं और यदि इसे किनारे की ओर मोड़ दिया जाए तो यह एक रेखा बन जाती है। 3D गहराई (z) आयाम जोड़ता है। यह तीसरा आयाम कई दृष्टिकोणों से रोटेशन और विजुअलाइज़ेशन की अनुमति देता है।

----- Visualisation & Free Download -----



Bhuvan-2D



Bhuvan-3D



Open Data Archive

Free Download



Climate Environment

EO derived Products

----- Maps & OGC services -----



Thematic Services



Disaster Management Support Services



Ocean Services



Create a Map / GIS

My Map | My GIS

Governance/Central Ministries **g-Governance Dashboard**



CSY



Clean Ganga



Sat-AIBP



Flood Warning



Flood Vulnerability  
Index, India



Census data



Deltas of India



Environment & Forest

Application Sectors

Collaborative applications - Platform to share your data and create governance applications

Agriculture

Forestry

E-Governance

Water

Tourism

Urban

Rural



Urban



Municipal GIS



Urban Growth



Urban Information System

Special Applications



Data Discovery



Decision Support Dashboard

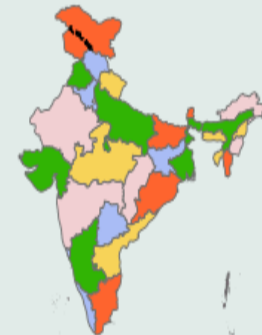


Hydrological Products



Image Gallery

State Portals/Applications (Click on any State)



State

ANDHRA PRADESH



Andhra Pradesh



Asset Mapping

Visit State Portal of ANDHRA PRADESH

Updates

Download

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- **Bhuvan applications for COVID-19 India** - Geo viz & Dashboard: Citizen Reporting and Officer

NRSC/ISRO Open data and product archive facilitates the user to select, browse and download data from this portal

Select Category :  Satellite/Sensor  Theme/Products  Program/Projects

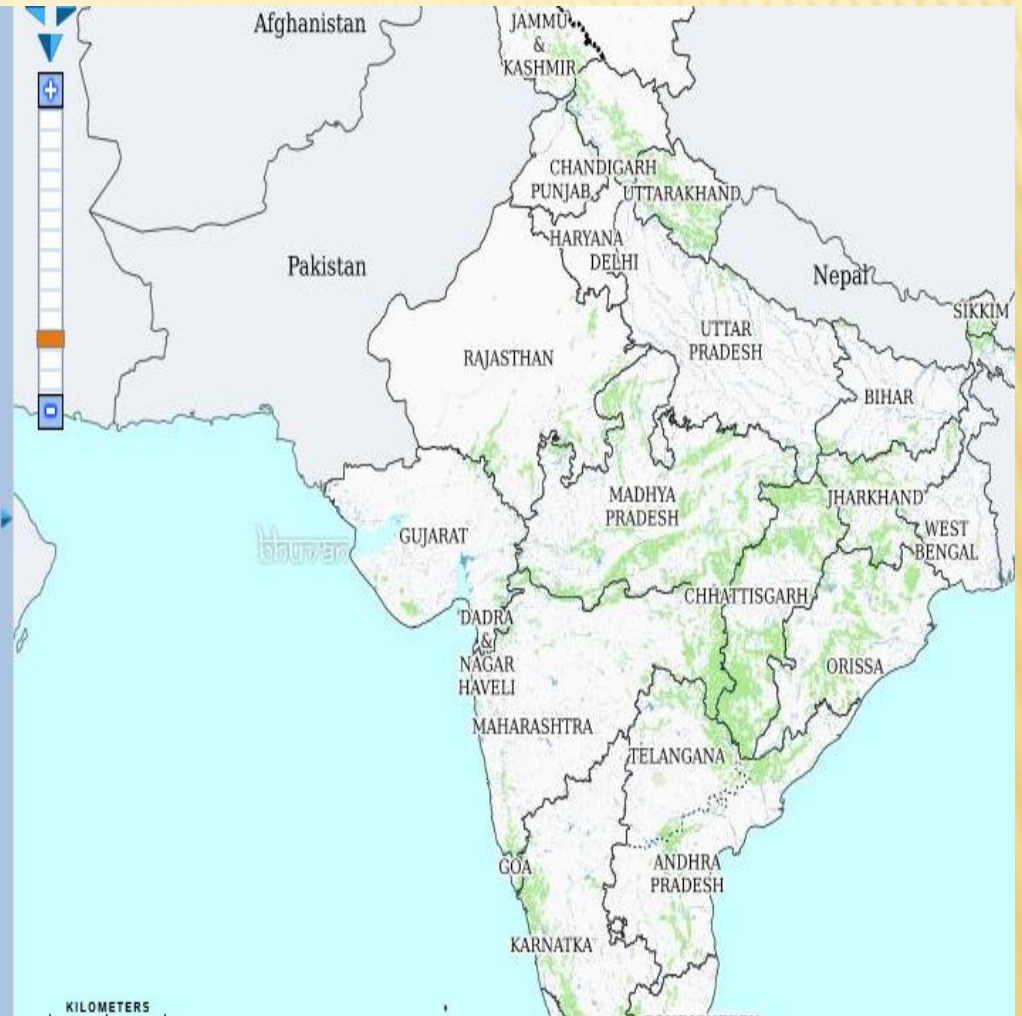
Select SubCategory :  ▼

#### Archives and Ordering Satellite Data

For other Archives and Online Satellite data ordering... [Please Click Here](#)

#### Super Site for Remote Sensing Analysis

Space based inputs for download from different sources... [Read More](#)



----- Visualisation & Free Download -----



**Bhuvan-2D**



**Bhuvan-3D**



**Open Data Archive**  
*Free Download*



**Climate Environment** &  
*EO derived Products*

----- Maps & OGC services -----



**Thematic Services**



**Disaster Management Support Services**



**Ocean Services**



**Create a Map / GIS**  
*My Map | My GIS*



**Governance/Central Ministries** **g-Governance Dashboard**



Monuments



Chaman



Hailstorm



PMKSY



Clean Ganga



Sat-AIBP



Flood Warning



Vulnerability

**Application Sectors**

*Collaborative applications - Platform to share your data and create governance applications*

**Agriculture**



**Forestry**



**E-Governance**



**Water**



**Tourism**



**Urban**



**Rural**



**Forestry**



**Uttarakhand**

MoEFCC



**Himachal Pradesh**

Punjab Forest



**Karnataka**

Tripura Forest



**Telangana**

**State Portals/A**

**State**

**Andhra Prac**

**Visit State Portal o**

**Updates**

- Bhuvan Tra
- Visualize C
- **Nadu COVID E**
- Free Sat
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- during Rabi, 20
- Visualize FI
- Uttarakha
- **Findings, view**
- **Bhuvan a**





## TECHNICAL DETAILS

+ Overview

+ Applications

› Ocean Sciences

› Atmosphere and Climate Studies

› Cryosphere Studies

› Terrestrial Studies

› Solar Energy

+ Atmospheric Instruments

+ Ocean Instruments

Applications » Earth and Climatic Studies

# Earth and Climate Studies

## Overview

Remote sensing applications in the domain of Earth and Climate Sciences emphasizes on studying earth as a coupled system involving Land–air–Ocean interactions through satellite, ground observations and modeling. Various research and operational projects that are being executed are categorized into, Terrestrial Sciences, and Atmospheric Sciences & Ocean Sciences.

NICES Program has a mandate to do research on various Ocean and Climate parameters using space inputs.

- [NICES Brochure](#)
- [NICES Booklet](#)

----- Visualisation & Free Download -----



**Bhuvan-2D**



**Bhuvan-3D**



**Open Data Archive**  
*Free Download*



**Climate Environment** &  
*EO derived Products*

----- Maps & OGC services -----



**Thematic Services**



**Disaster Management Support Services**



**Ocean Services**



**Create a Map / GIS**  
*My Map | My GIS*

**Governance/Central Ministries** **g-Governance Dashboard**



Pipeline Grid



Watersheds



Urban Survey



Postal



Bioenergy



GI



Monuments



Chama

**Application Sectors**

*Collaborative applications - Platform to share your data and create governance applications*

**Agriculture**



**Forestry**



**E-Governance**



**Water**



**Tourism**



**Urban**



**Rural**



**Forestry**



**Uttarakhand**

MoEFCC



**Himachal Pradesh**

Punjab Forest



**Karnataka**

Tripura Forest



**Telangana**

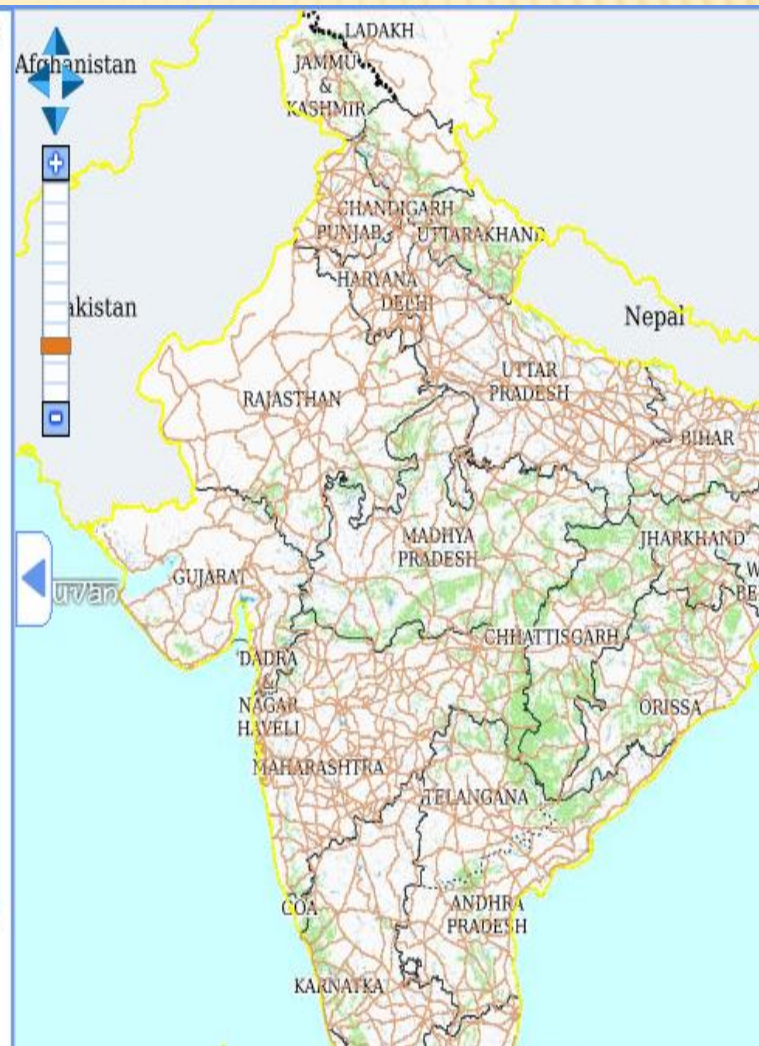
Bhuvan-Thematic Services facilitate the users to select, browse and query the Thematic Datasets from this portal. Users can consume these Thematic Datasets and integrate into their systems as OGC Web Services.

[Search](#) [Statistics](#) [Analysis](#) [Metadata](#) [WebServices](#) [Overlay](#) [GetData](#)

Select Theme

Select Geography

[View](#)



----- Visualisation & Free Download -----



Bhuvan-2D



Bhuvan-3D



Open Data Archive  
*Free Download*



Climate Environment &  
*EO derived Products*

----- Maps & OGC services -----



Thematic Services



Disaster Management Support Services



Ocean Services



Create a Map / GIS  
*My Map | My GIS*

Governance/Central Ministries **g-Governance Dashboard**



Pipeline Grid



Watersheds



Urban Survey



Postal



Bioenergy



GI



Monuments



Chama

**Application Sectors**

*Collaborative applications - Platform to share your data and create governance applications*

**Agriculture**



**Forestry**



**E-Governance**



**Water**



**Tourism**



**Urban**



**Rural**



**Forestry**



Uttarakhand

MoEFCC



Himachal Pradesh

Punjab Forest



Karnataka

Tripura Forest



Telangana

FLOOD

CYCLONE

LANDSLIDE

EARTHQUAKE

FOREST FIRE

DROUGHT

## FLOOD



## CYCLONE



----- Visualisation & Free Download -----



**Bhuvan-2D**



**Bhuvan-3D**



**Open Data Archive**  
*Free Download*



**Climate Environment** &  
*EO derived Products*

----- Maps & OGC services -----



**Thematic Services**



**Disaster Management Support Services**



**Ocean Services**



**Create a Map / GIS**  
*My Map | My GIS*



**Governance/Central Ministries** **g-Governance Dashboard**



Pipeline Grid



Watersheds



Urban Survey



Postal



Bioenergy



GI



Monuments



Chama

**Application Sectors**

*Collaborative applications - Platform to share your data and create governance applications*

**Agriculture**



**Forestry**



**E-Governance**



**Water**



**Tourism**



**Urban**



**Rural**



**Forestry**



**Uttarakhand**

MoEFCC



**Himachal Pradesh**

Punjab Forest



**Karnataka**

Tripura Forest



**Telangana**

Add Layer
 Add Content

**User Added Content and Layers**

Potential Fishing Zones

Note: "No forecast data is available due to Marine Fishing Ban imposed by Govt. of India" upto June 14, 2021 and we will resume our services back by June 15, 2021.

**Potential Fishing Zones**

Choose Sector

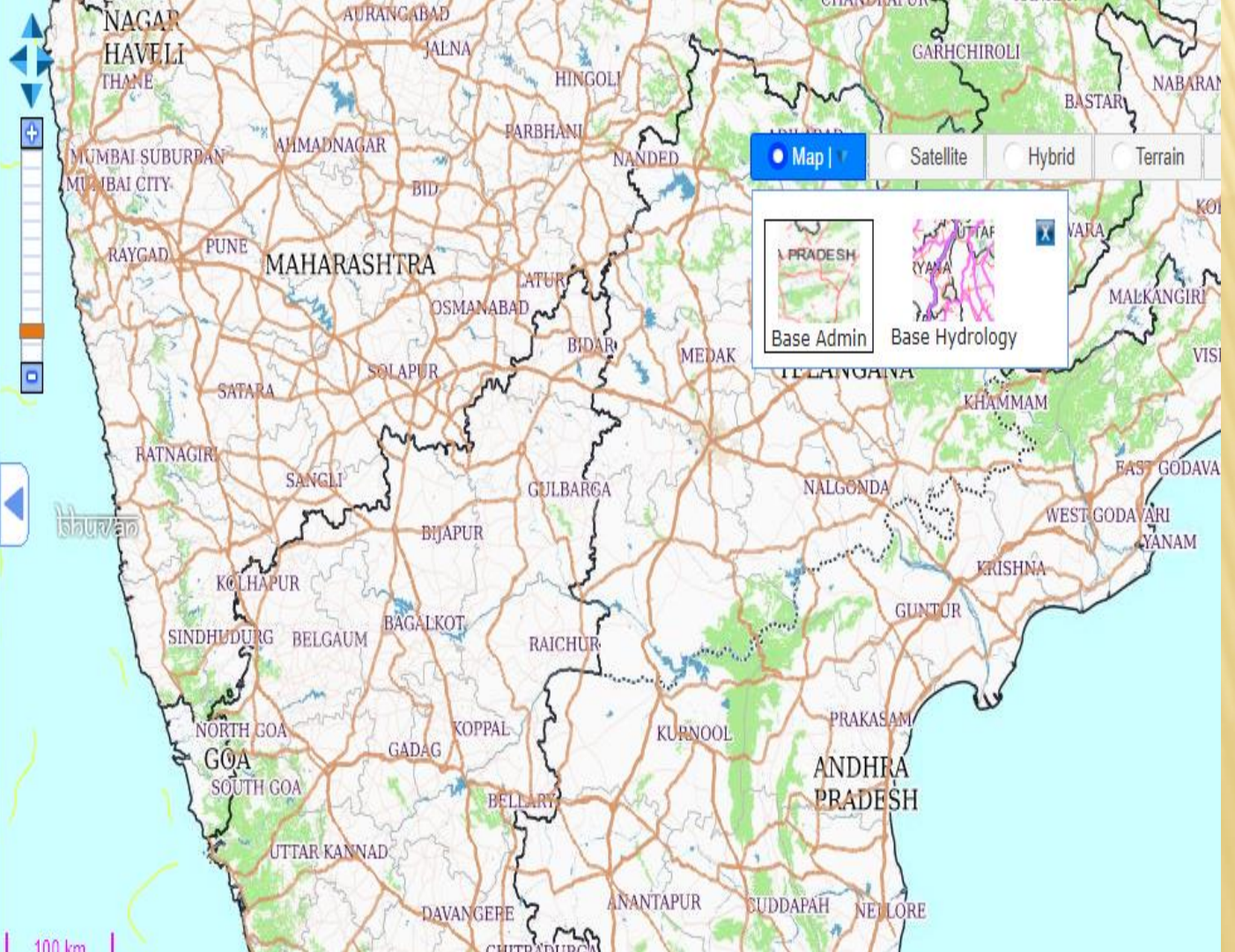
Choose Coast

CHL  SST

PFZ Lines

**Ocean Data and Information**

Potential Fishing Zone (PFZ) Advisories are generated using Sea Surface Temperature



----- Visualisation & Free Download -----



Bhuvan-2D



Bhuvan-3D



Open Data Archive  
*Free Download*



Climate Environment &  
*EO derived Products*

----- Maps & OGC services -----



Thematic Services



Disaster Management Support Services



Ocean Services



Create a Map / GIS  
*My Map | My GIS*

Governance/Central Ministries **g-Governance Dashboard**



Pipeline Grid



Watersheds



Urban Survey



Postal



Bioenergy



GI



Monuments



Chama

**Application Sectors**

*Collaborative applications - Platform to share your data and create governance applications*

**Agriculture**



**Forestry**



**E-Governance**



**Water**



**Tourism**



**Urban**



**Rural**



**Forestry**



Uttarakhand

MoEFCC



Himachal Pradesh

Punjab Forest



Karnataka

Tripura Forest



Telangana





**bhuvan**

Indian Geo-Platform of ISRO

National Remote Sensing Centre



## Bhuvan-Single Sign On

**Username:**

**Password:**

LOGIN

[Change Password?](#)

[Forgot Password?](#)

[New User?](#)

[Didn't receive the account activation link?](#)



Note:

Bhuvan is now using "Central Authentication Service(CAS)" to enable Single Sign-On(SSO), you can use the same log-in credential if you are already registered with Bhuvan.

Registration is optional in Bhuvan. However, some features require registration. Registered users are having privilege to share the data, collaborate with other bhuvanites, Forum etc. If not registered, it only takes a few moments to register so it is recommended you do so.



## Account

User Name \*

Email \*

Country \*

Telephone

Organization \*

Organization details

## Subscribe

Bhuvan NewsLetters

## Profile

First Name \*

LastName \*

Gender

Pincode

Purpose

\* Mandatory Fields

Submit



[Click here to Login](#)

# यूजर नम और पासवर्ड आपके मेल पे आ जाएगा

## Bhuvan-Single Sign On

Username:

Password:

LOGIN

[Change Password?](#)

[Forgot Password?](#)

[New User?](#)

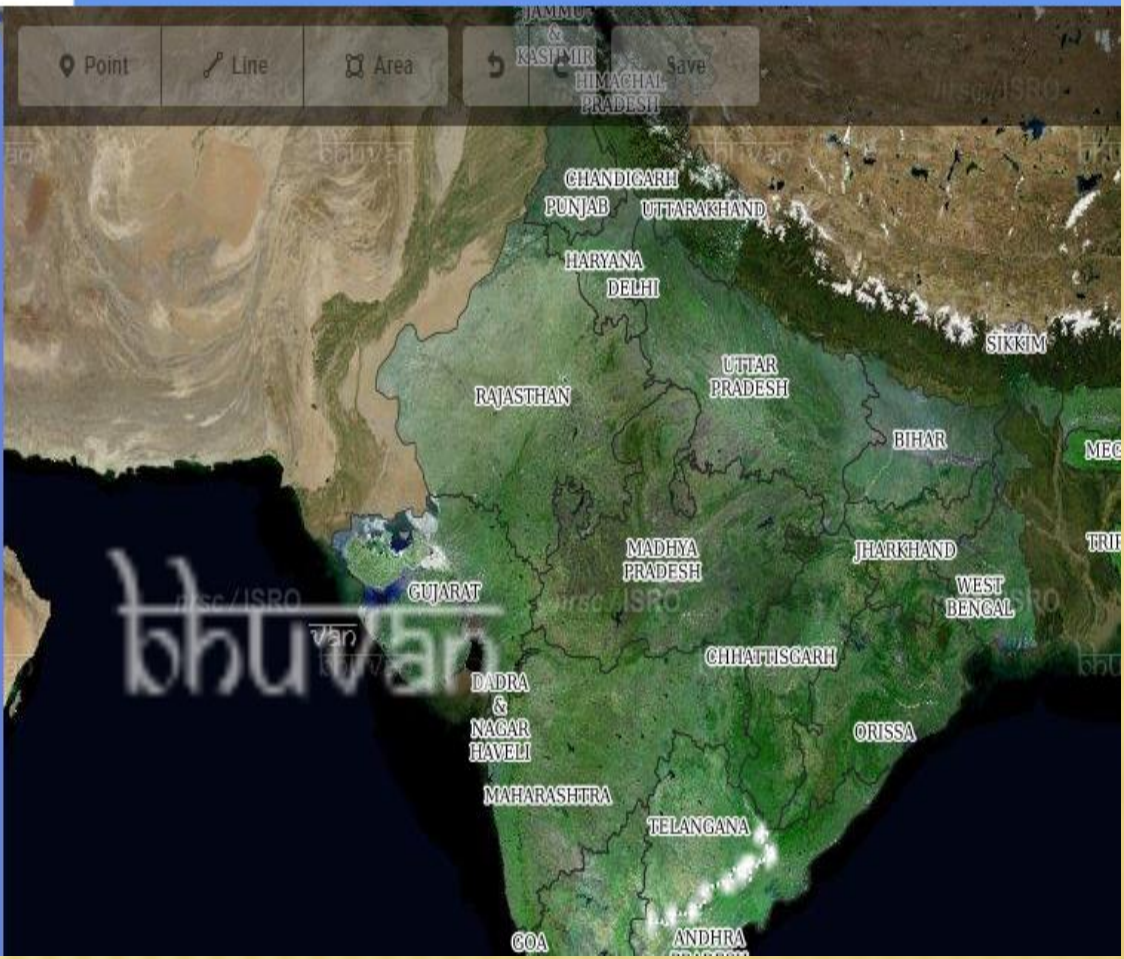
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Welcome to ARPITApanda, | Logout |

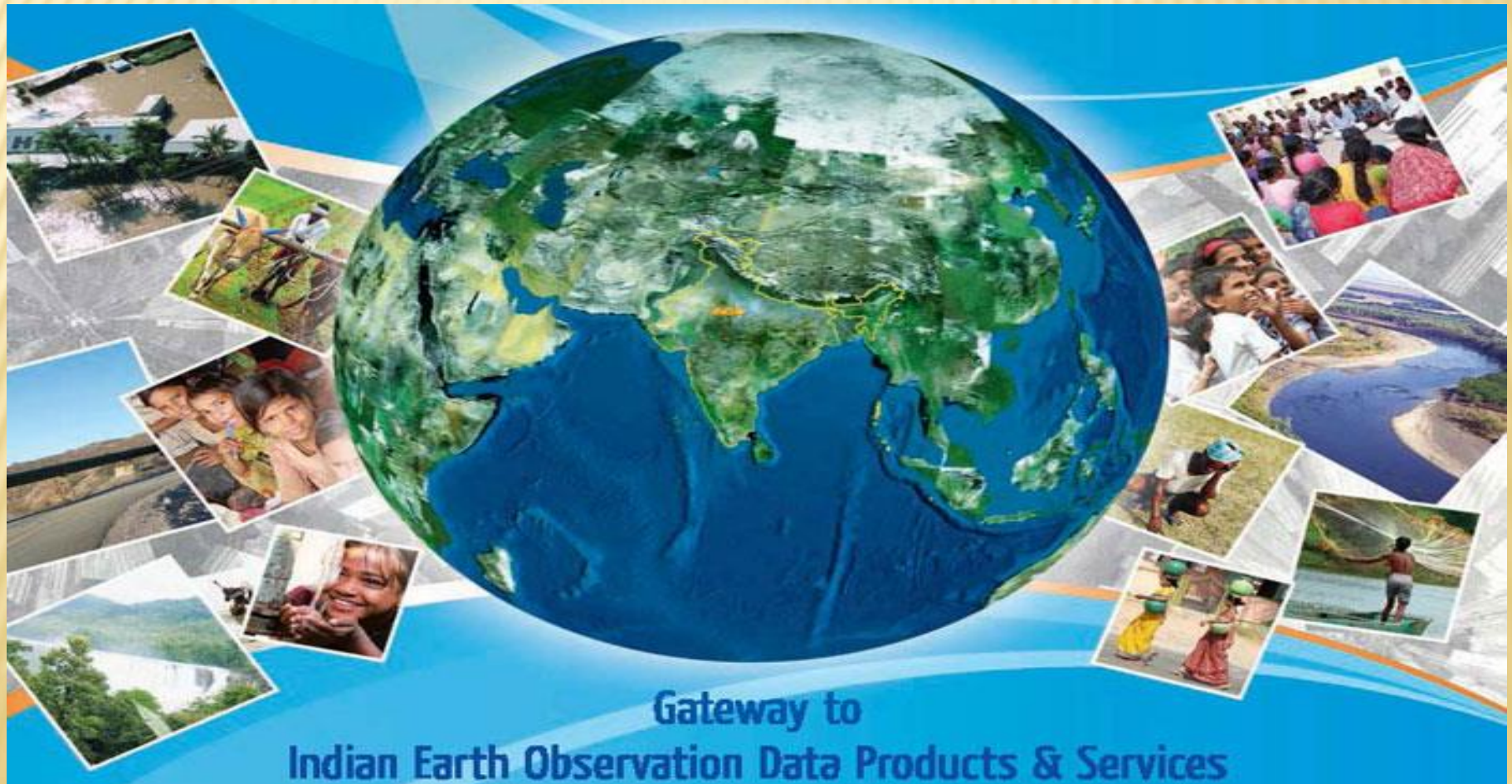


Point Line Area Save

+ Zoom in to Edit

*Stay Safe, Stay Healthy*

*Thank you*



**Gateway to  
Indian Earth Observation Data Products & Services**