

- ❑ **Keep another handheld device ready with you.**
- OR**
- ❑ **Keep open another Tab of your browser**

❑ **Before we begin !!!**

**Be the Force  
for the Good**



# Exploring Bhuvan - Indian Geoportal

# Today's Session



## What is Bhuvan Geo-portal?

- **Getting Familiar with it.**
- **Hands on activities.**
- **Classroom applications & ideas?**

application  
geographic system seeing  
region **resolution** versatile  
software **allows** visualization local  
overlays **zoom** resources data scanning  
information surface hosting numerous **web** highest  
tailored **four** **view** maps crowd  
**content** its **satellite** rich  
sourcing platform **Bhuvan** natural  
government interest datasets **approach** collect  
Forest point users acts **ISRO** enrich roads  
**Interactive** **India** **browser** **aerial** providing  
Earth **tool** **imagery** **mapping** languages  
features **representation** using  
navigation **based** **locationspecific**  
specifically



# Advantages of BHUVAN

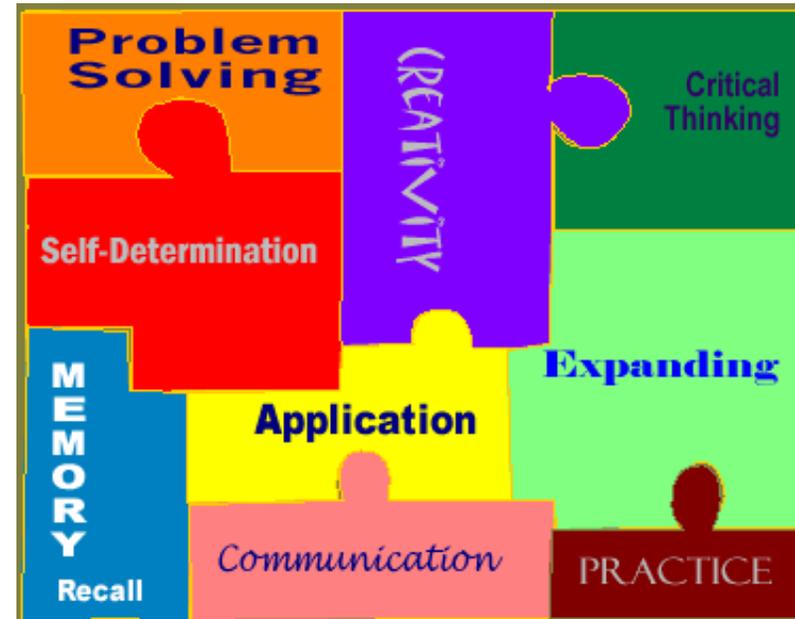


- 2D & 3D visualization interface.**
- Collaborative mapping**
- Thematic mapping**
- Mark Points & Lines**
- Measure Distance, Area**
- Interrogate and retrieve spatial features**
- Add your own layers**
- Terrain Profile**
- Comparative Analysis**
- Swipe visual information**

# Why Use them?

Allows for pedagogical strategies

- Cooperative learning
- Active learning
- Experiential Learning
- Inquiry
- Constructivism



- **What is Bhuvan Geo-portal**



**Getting Familiar with it.**

- **Hands on activities**
- **Classroom applications & ideas?**

# Getting Familiar with the Bhuvan bhuvan.nrsc.gov.in

The screenshot displays the Bhuvan website interface, which is the Indian Geo-Platform of ISRO. The header includes the Bhuvan logo, the text "Indian Geo-Platform of ISRO", and the National Remote Sensing Centre logo with the motto "इसरो डिवाच". A navigation bar contains links for "NRSC | Search | Bhuvan Store | Bhuvan Collaborators".

The main content area is organized into several sections:

- Visualisation & Free Download:** Includes "Bhuvan-2D", "Bhuvan-3D", "Open Data Archive (Free Download)", and "Climate Environment & EO derived Products".
- Maps & OGC services:** Includes "Thematic Services", "Disaster Management Support Services", "Ocean Services", and "Create a Map / GIS (My Map | My GIS)".
- Governance/Central Ministries g-Governance Dashboard:** Features icons for ISY, Clean Ganga, Sat-AIBP, Flood Warning, Flood Vulnerability, Census data, Deltas of India, and Environment & Forest.
- Application Sectors:** A collaborative platform for sharing data and creating governance applications, categorized into Agriculture, Forestry, E-Governance, Water, Tourism, Urban, and Rural. The Urban section includes "Municipal GIS", "Urban Growth", and "Urban Information System".
- Special Applications:** A section for specialized geographic information systems.
- State Portals/Applications:** A map of India with a dropdown menu set to "ANDHRA PRADESH". Below the map are links for "Andhra Pradesh" and "Asset Mapping", and a link to "Visit State Portal of ANDHRA PRADESH".
- Updates & Download:** A section for news and data releases, including "Update of Orthorectified AWiFS (Jan-May:2018) and LISS-3 (Rabi-2018) datasets in NOEDA Portal New" and "NISARGA Cyclone and Space Based Inputs: - Near Real Time Flood / Cyclone Mapping, Runoff (PAN India), Storm Surge New".

The footer contains copyright information: "© Bhuvan: ISRO/NRSC, 2019", links for "Discussion-Forum" and "Feedback", the date "Last Updated: 21-May-2020", "Icons powered by Flaticon.com", and links for "Contact us" and "Terms".

# Fly to your Birthday Coordinates

▶ Use the month for latitude and day for longitude. For example, if your birthday is November 26, your coordinates could be  $11^{\circ}\text{N}$ ,  $26^{\circ}\text{E}$ .

▶ Search for 11, 26 on **Bhuvan2D**

Which country did you land on?



**bhuvan**

Indian Geo-Platform of ISRO

Bhuvan-2D

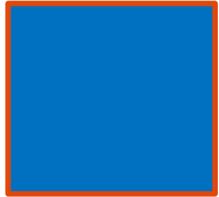
11, 26



Tools | U



- **What is Bhuvan Geo-portal**
- **Getting Familiar with it.**



**Hands on activities**

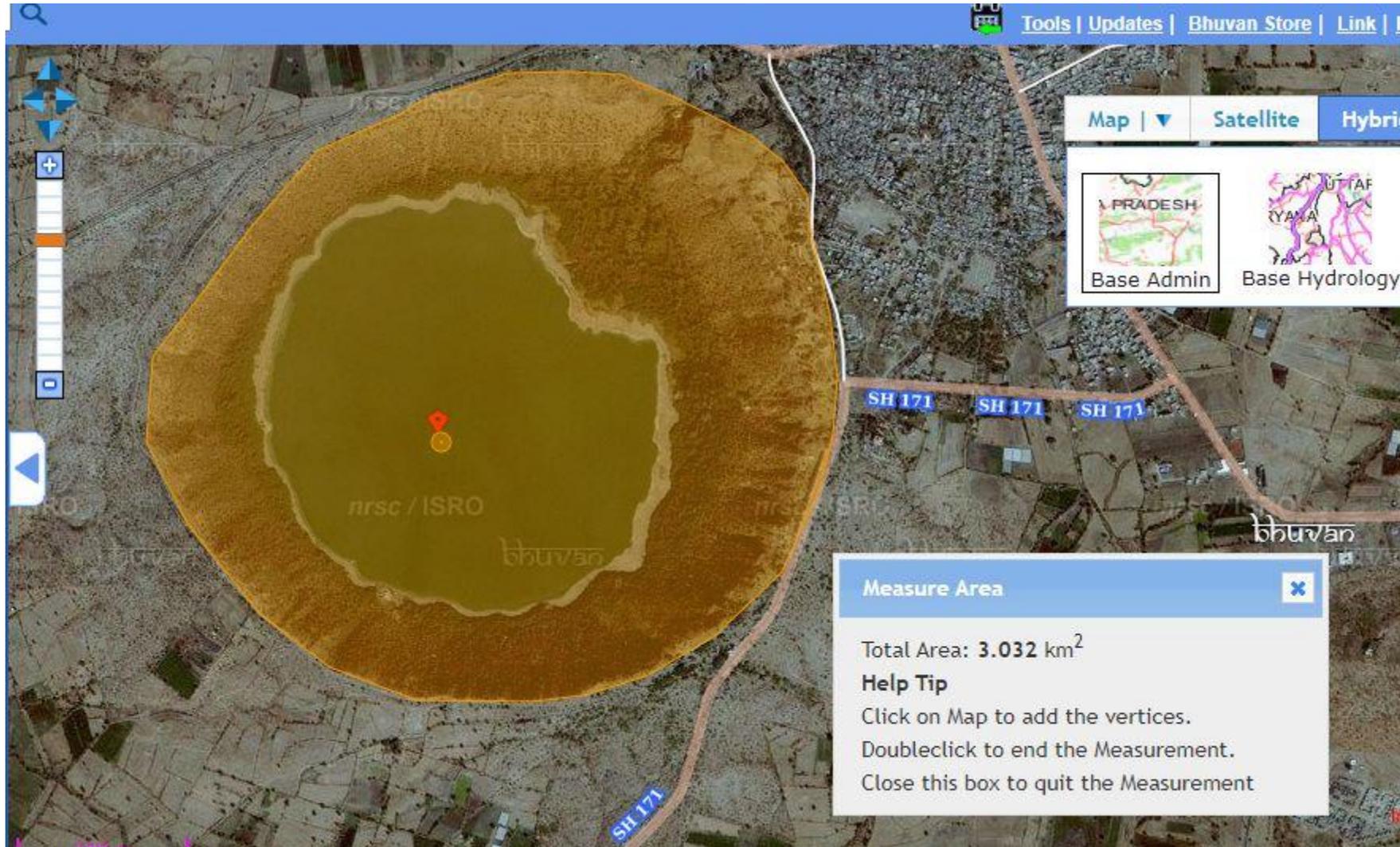
- **Classroom applications & ideas?**

# Passport Activity

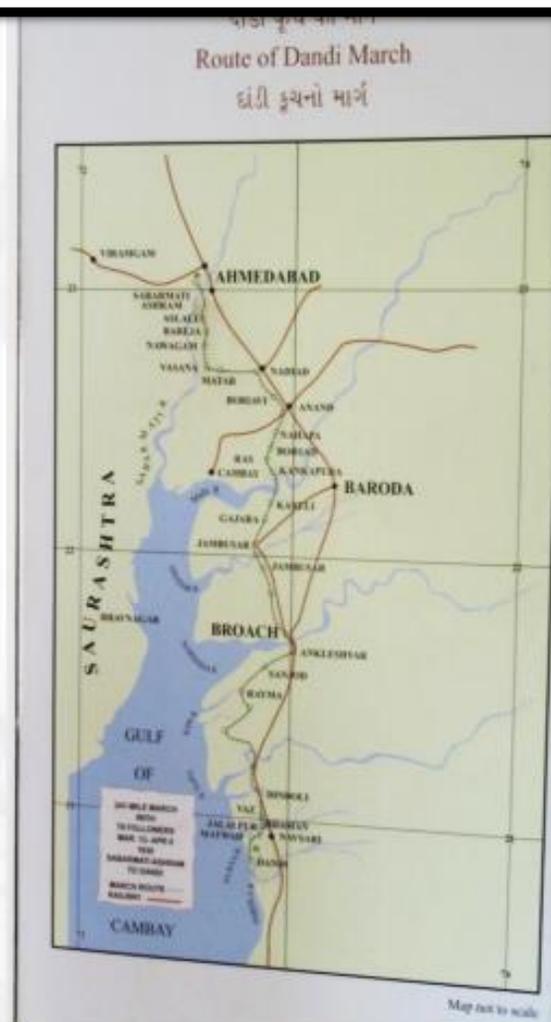
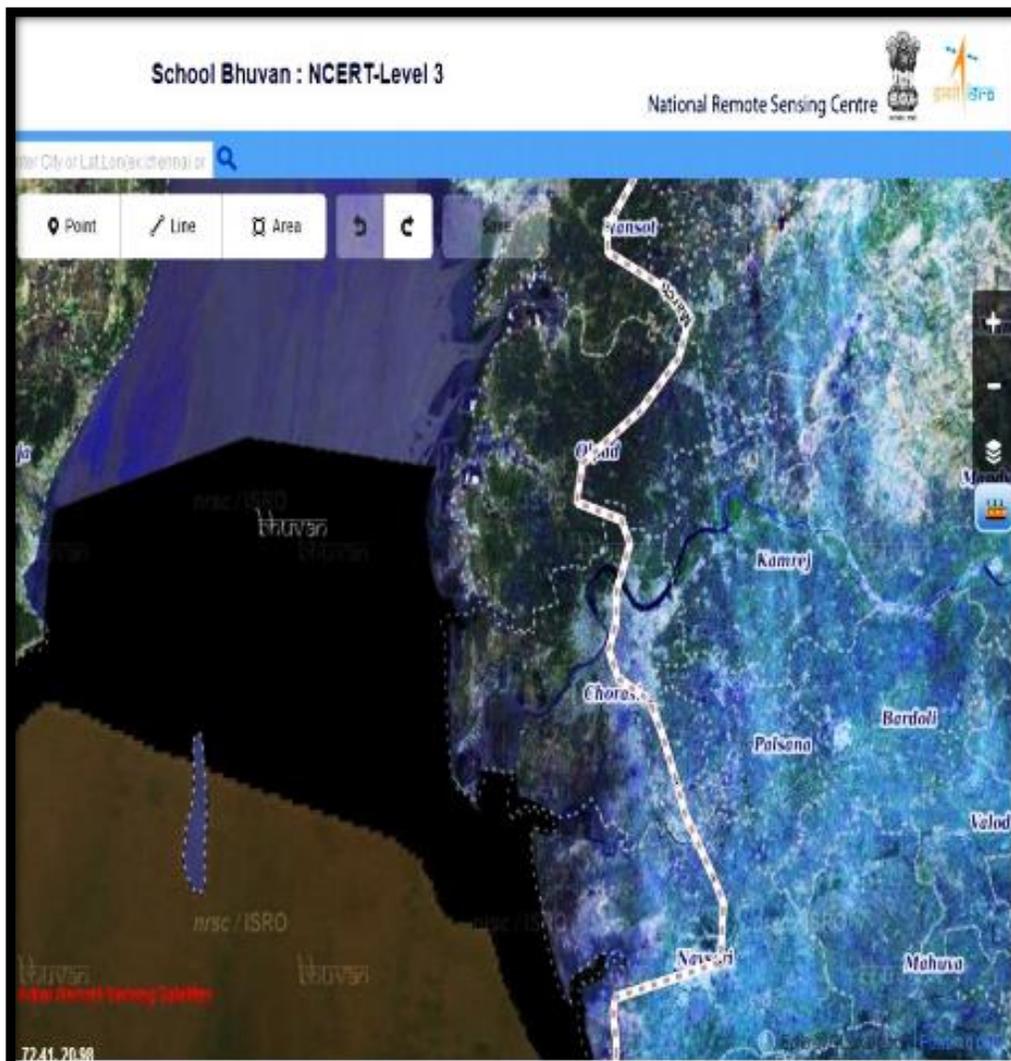


Using the Search bar in Bhuvan web **randomly select a location or choose to preselect a location in India/your State and relate it to multiple content areas.**

# Lonar Lake in Buldhana of Maharashtra



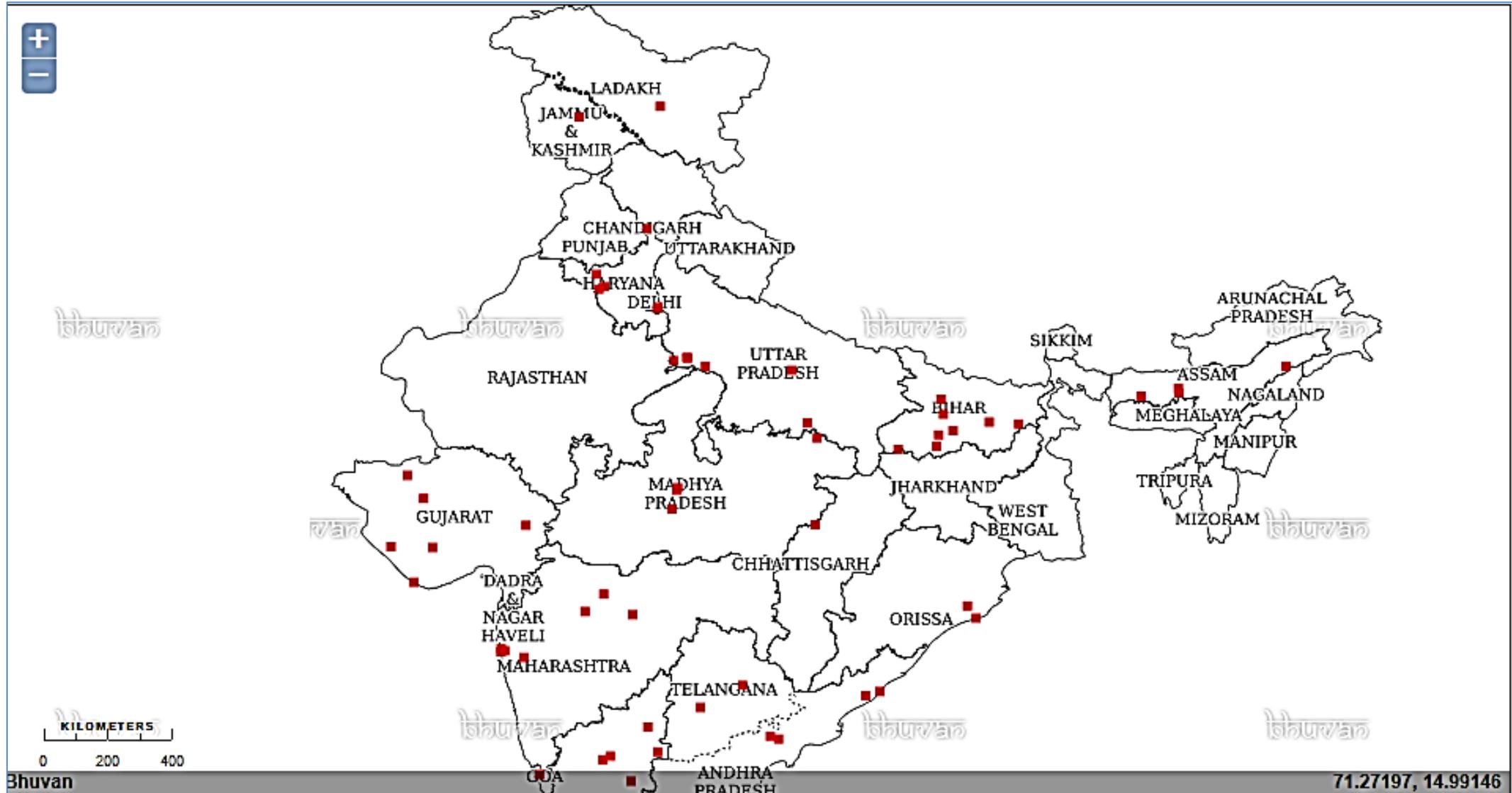
# Dandi March: Salt Satyagraha



Source: Sabarmati Ashram, Ahmadabad

Source:  
Dr. Aparna Pandey  
Professor of Geography  
NCERT, New Delhi

# Selected Archaeological Sites - India



# Thematic Mapping



**bhuvan**

Indian Geo-Platform of ISRO

**GIS VIEWER**

National Remote Sensing Centre



[Legend](#) | [Clear Map](#) | [Sample-files](#) | [Help](#)

Generate Maps From Text - Select following  
Choropleth Maps  
Point Map

Layers List

- Base Layer
- Choropleth Map layers
- School\_electricity\_1:all\_schools\_2012\_13

Legend Edit-Range

School\_electricity

Select Attribute

Numeric Type Attributes

Attribute	MIN	Max
primary_schools_2010_11	2.55	100
all schools 2010 11	4.33	100

Color-Ramp/Legend/Edit-Range

File Name:School\_electricity\_1

Attribute Name:all\_schools\_2012\_13

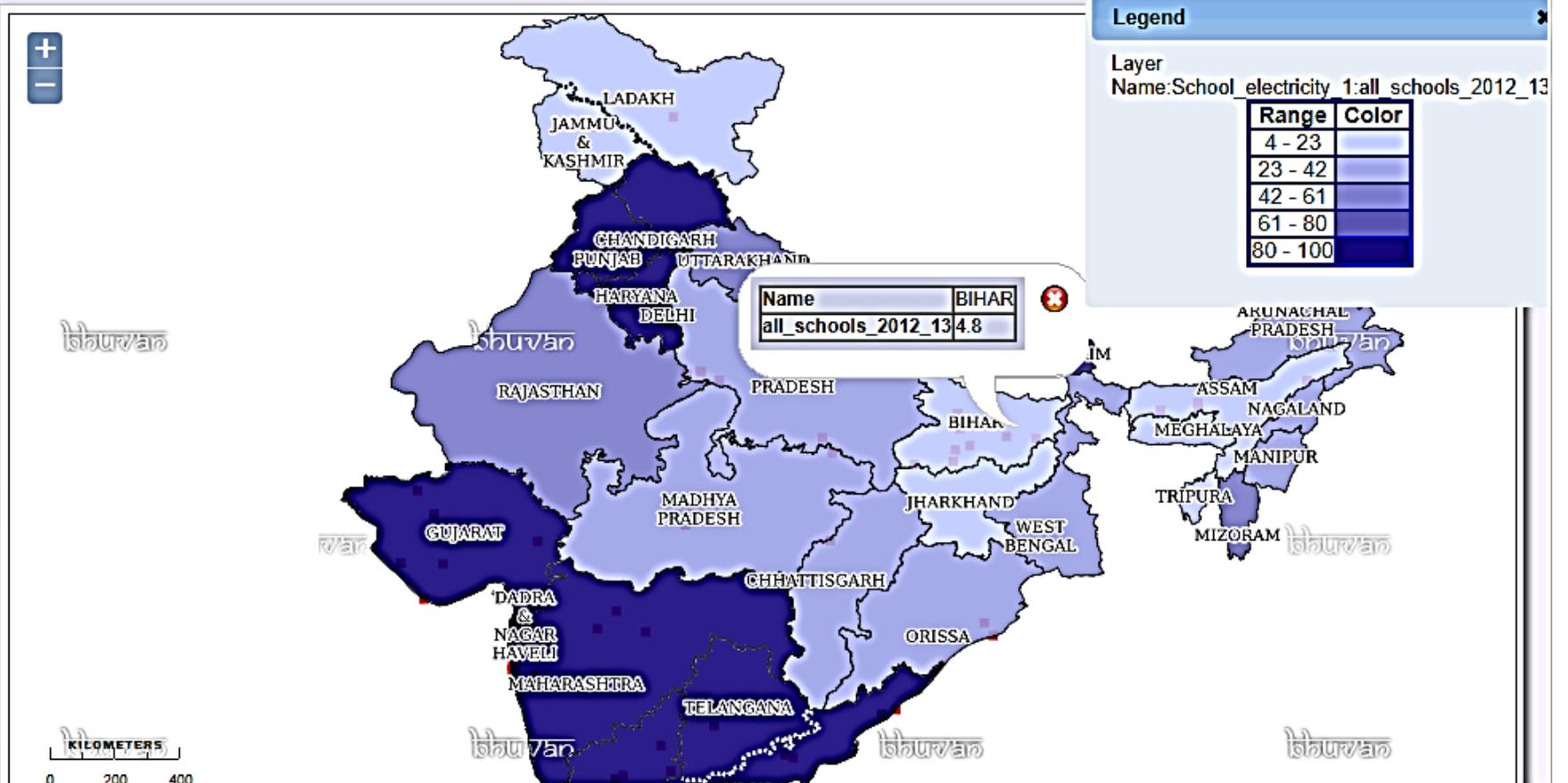
Legend

Range	Color
4 - 23	
23 - 42	
42 - 61	

Legend

Layer  
Name:School\_electricity\_1:all\_schools\_2012\_13

Range	Color
4 - 23	
23 - 42	
42 - 61	
61 - 80	
80 - 100	



# Bhuvan in Social Science

- What is Bhuvan Geo-portal
- Getting Familiar with it.
- Hands on activities



**Classroom applications & ideas?**

# Our Home – Intra-Class or Inter school Collaborative activity

- ▶ Use the Bhuvan 3D to foster student exploration of the ways that people around the country are living and compare and contrast others lifestyles to their own.
- ▶ Finally, students will apply their understanding of a different lifestyle by creating a journal entry written from the perspective of a student living in that community.

# Other Suggestive activities

- ▶ Measure distances between two different destinations (e.g. school and home).
- ▶ Measure and compare the roof area of houses (students compare their roof area with a friend).

# Other Suggestive activities

- ▶ Exploring location and general mapping skills including compass directions (north, south, east and west).
- ▶ Consolidate positional language with younger students.
- ▶ Explore various layers and discuss causes and effects.



- ❑ **Maps can help us and our communities stay safe**
- ❑ **Map city hand-washing and hygiene stations.**
- ❑ **Map the spread of coronavirus cases in the City**
- ❑ **Map where to get tested for coronavirus in the City**
- ❑ **Live Polls: Crowd source information**
- ❑ **Engaging: Everybody is heard**

**More Ideas for the Classroom**

**Happy Geo-Porting !**

**THANK YOU**



**MHRD**

# National ICT Award to Teachers

Ministry of Human Resource Development, Government of India

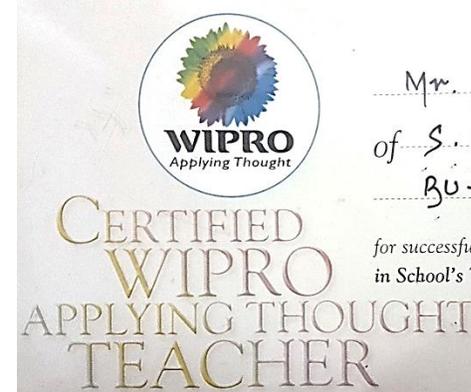


**CERTIFIED  
EDUCATOR**



United Nations  
Educational, Scientific and  
Cultural Organization

UNESCO Bangkok  
Asia-Pacific Programme of  
Educational Innovation for Development



# Suryaveer Singh

**S. D. Public School,  
BU, Pitampura, Delhi – 88**