

# How to Access Bhuvan

## Bhuvan – 3D

- Log on to [www.bhuvan.nrsc.gov.in](http://www.bhuvan.nrsc.gov.in) using any one of the following supported web browsers on Windows Platform. (1) Internet Explorer 6.0 or above, (2) Mozilla Firefox 3.5.1 or above, (3) Netscape 6.0 or above, (4) Google Chrome 6.0 or above,
- For all those who have accessed bhuvan earlier by installing the Bhuvan plug-in successfully, on the Bhuvan Homepage, just click the ‘ Enter Bhuvan – 3D’ button and you will be taken to the Bhuvan 3D Globe page.
- For first time users, on clicking the ‘ Enter Bhuvan – 3D ’ button on the Bhuvan homepage, you will be taken to the plug-in download page wherein you will be asked to download the Bhuvan plug-in . After successful download and installation of plug-in, Click Enter Bhuvan-3D link ( placed at the bottom of the plug-in download page) and It will take you to the Bhuvan 3D Globe page.

### Note For Firefox, Chrome and Netscape browser users

*While using the Firefox, Chrome and Netscape browsers for accessing Bhuvan, on the homepage after clicking ‘Enter Bhuvan- 3D’ a separate window will be launched. You can fully use Bhuvan and its functionalities inside this separate window.*

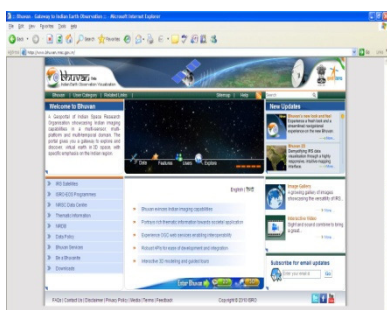
### Note For Non-Windows users

*Bhuvan 2D is compatible with Linux and Mac. Please use Bhuvan 2D to experience, explore and visualize Indian Earth Observation Capabilities.*

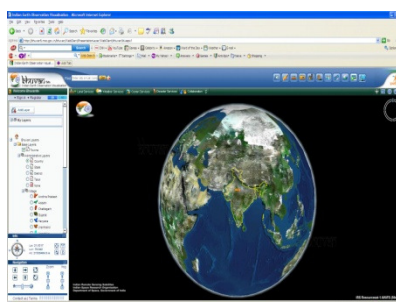
## Bhuvan – 2D

- Log on to [www.bhuvan.nrsc.gov.in](http://www.bhuvan.nrsc.gov.in) using any of the famous web browsers on any Operating System. Bhuvan 2D works on all platform and does not need any plug-in software.
- On the Bhuvan Homepage, just click the ‘ Enter Bhuvan – 2D’ button and you will be taken to the Bhuvan 2D page. For the moment, the 2D version is under testing and will be continuously enhanced. Take it for a test drive and let us know what you think.

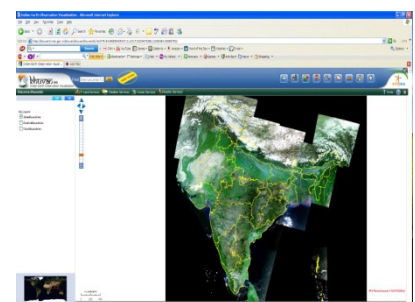
**Smooth navigation is enabled between these two applications having 2D and 3D switches.**



**Home**



**Bhuvan 3D**



**Bhuvan 2D**

# What is new in Bhuvan v 2.0

## Explore the new user interface

Bhuvan has been made easier to use and more prominently, easier to understand and navigate. The new Bhuvan comes along with a bundle of new and exciting functionalities that will keep you hooked to it. This Earth Observation and visualization system has been specially designed to help you explore the world with specific focus on India in 2D and 3D landscape. Its new, fresh and appealing look is more accessible in terms of its design, content and imagery, and will keep you coming back for more.

## Bhuvan 2D

Bhuvan 2D is a web mapping service application, which aims to provide a highly responsive, intuitive mapping interface with detailed imagery and embedded map data. Some of its functional capabilities are map navigation, map panning, its ability to add shapes and drawings on the maps and freely navigate using a variety of tools. Bhuvan 2D is designed to be used by users of different categories and age groups, making it a fun filled learning place for everybody!

## New Services

Bhuvan range of services include provision of information on various themes like land resources, Agriculture, Soil, Water, Ocean sciences, Ground water potential, Eco systems, Bio diversity etc . This information is extracted from multi-resolution remote sensing images, which are taken by the various ISRO Satellites.

For example, when it comes to land services, over a period of time, remote sensing technology has improved and is being operationally used in extracting valuable information on various aspects of soils, wastelands, ground water prospects, land degradation, etc. This contributes in planning and towards developmental activities for the betterment and development of the Indian agrarian economy.

The key to improved weather forecast and services is the information derived by observation. This increasing observation network is essential for providing weather and related information at local level. Information derived from the satellite imagery helps in the creation of digital data base for facilitating hazard zonation, damage assessment, monitoring of major natural disasters and R&D towards early warning of disasters.

## Collaborate Tool

The community tool connects the Bhuvan users on one collaborative network. Connecting over the internet / intranet, users can chat, annotate the terrain with text labels and free hand drawing, point using a virtual cursor, and synchronize their flight. Bhuvan also allows the user to lead, follow, and share in real-time, interactive fly-through sessions, chat with other users, mark up areas on the terrain, and toggle information layers for further analysis. They can also invite the other Bhuvan users to share guided tours along with loads of fun!

## Add Content

The 'Add Content' tool makes it easy for users to add their own information also known as VGI (Volunteered Geographic Information), on Bhuvan. It enables to create, assemble, and disseminate geographic data provided voluntarily by individuals. It allows users to create their own content, by marking locations (adding placemarks) on the base map information, where certain features exist, but aren't already shown on the base map.

This tool also helps the user to view already existing Volunteered Geographic Information in Bhuvan server.

## **Developers Tool**

Bhuvan provides an assortment of functional code for developers that can be changed and used for different purposes. Developer's guide gives a detailed list of functions that can be applied.

The Bhuvan Application Program Interface (API) lets you embed a true 3D digital globe, into your web pages. Using the API you can draw markers and lines, drape images over the terrain, allowing you to build sophisticated 3D map applications.

This functionality provides the Bhuvan Application Program Interface (API) for the users and allows them to build and visualize new functionalities. Bhuvan API describes the classes and objects required to integrate Bhuvan Globe or develop a client application. All users get a chance to work on various API's and also test their functionalities.

## **User Data Sharing**

It enables users to add/share any desired thematic/geographic information (upon registration only) and helps in analyzing and predicting any result.

## **Interoperability**

Now users can load OGC WMS/WFS data on Bhuvan.

## **Navigation Map**

Live Map (Rediff maps) data is integrated with Bhuvan to help users navigate, locate and search the India Map.

## **Help Tool**

'Help' is the user's guide to Bhuvan. It provides detailed information about navigation on Bhuvan and its new and unique functionalities. With step by step, detailed instructions, 'Help' aims at providing solutions to all possible questions a user might have.

The 'Help' is designed in such a way that it becomes easy for everybody to find things they are looking for and is easy to understand. All functionalities are explained with screenshots and proper description, to guide the users through the geo-portal and have a stress free navigational experience on Bhuvan.

## **High Resolutions data**

The Indian Remote Sensing satellite system has one of the largest constellations of remote sensing satellites in operation in the world today. The Indian EO system is expected to continue to provide products and services enabling applications in several areas spanning from cartography to climate. To view the images of high resolution, please visit <http://bhuvan.nrsc.gov.in/image.aspx> and click the quick links provided there , it will take you to the High Resolution images of Bhuvan 3D Globe page.

## **Towards Multi Lingual Bhuvan**

The new version of Bhuvan is also available in Hindi to enhance the outreach of its capability among the Indian User community.

[www.bhuvan.nrsc.gov.in](http://www.bhuvan.nrsc.gov.in)

**Knowledge – Insight – Awareness - Action**