



# User Guide

## DiCRA

Data in Climate Resilient Agriculture

mistEO





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## Introduction

Data in Climate Resilient Agriculture (DiCRA) is a collaborative digital public good which provides open access to key geospatial datasets pertinent to climate resilient agriculture. These datasets are curated and validated through collaborative efforts of hundreds of data scientists and citizen scientists across the world. The pattern detection and data insights emerging from DiCRA are aimed towards strengthening evidence-driven policy making for climate resilient food systems. DiCRA is guided by the digital public good principles of open access, open software, open code, and open APIs.

The platform is facilitated by Government of Telangana and UNDP, in collaboration with Zero Huger Lab (Netherlands), JADS (Netherlands), ICRISAT, PJTSAU, and RICH. It is part of UNDP's 'Data for Policy' initiative supported by Rockefeller Foundation.

## Purpose of the document

This document is aimed at serving as a guide for users of the DiCRA Web Platform. The manual covers various modules which will help the user to use the application.

## For further information

To know more about this application, or for suggestions / feedback, please contact:

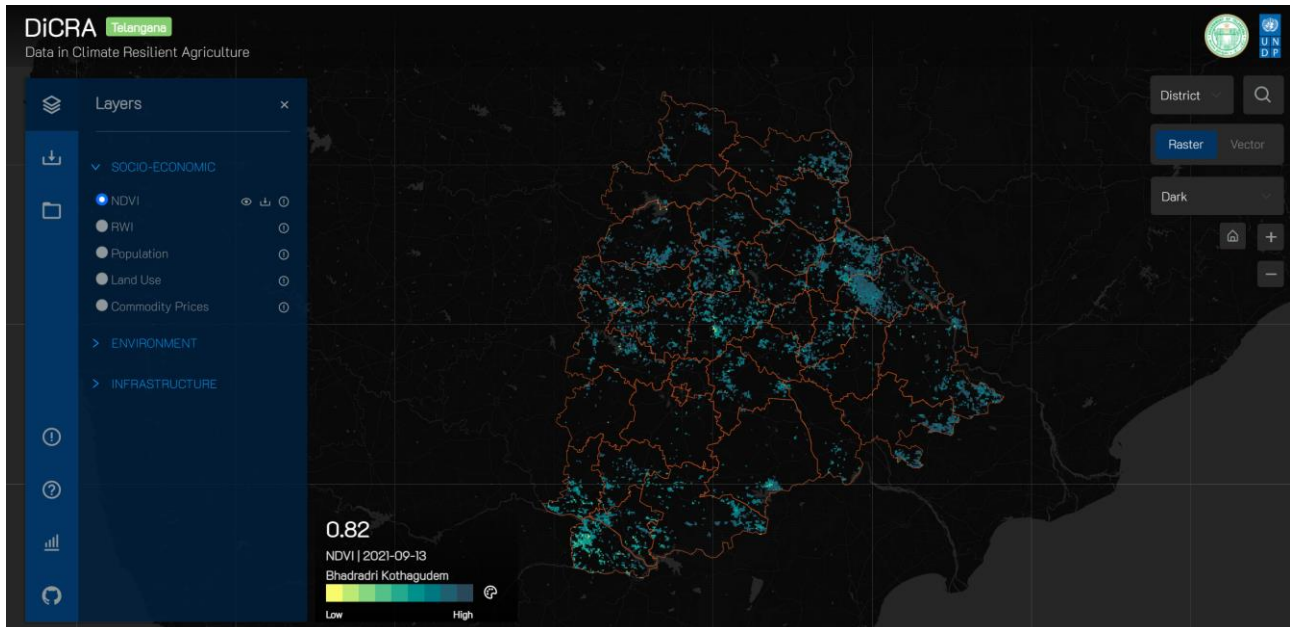
DiCRA Support Team, Accelerator Lab, UNDP India ([acceleratorlab.in@undp.org](mailto:acceleratorlab.in@undp.org))

## Disclaimer

Best effort has been put to ensure that the content of this document is in sync with the actual product, however, since software products can undergo multiple changes, hence it is not guaranteed that this document aligns with the latest product version. Certain administrative features can result in modification or deletion of the data permanently from the repository; hence the user / administrator of this product must exercise utmost care with required knowledge to execute such actions. The creator or owner of this document does not accept any liability of any untoward repercussions arising out of the product usage or information mentioned in this document. All the rights of this document lie with the owner of the above-mentioned digital product.

# 1. Getting Started

- Open any installed browser on your desktop
- Go to <https://dicra.undp.org.in/>
- You will enter the Portal and dashboard will appear.



## 2. Menu

The portal has menu options as listed below.

- Layers
- Downloads
- Use cases
- About project
- Help
- Analytics

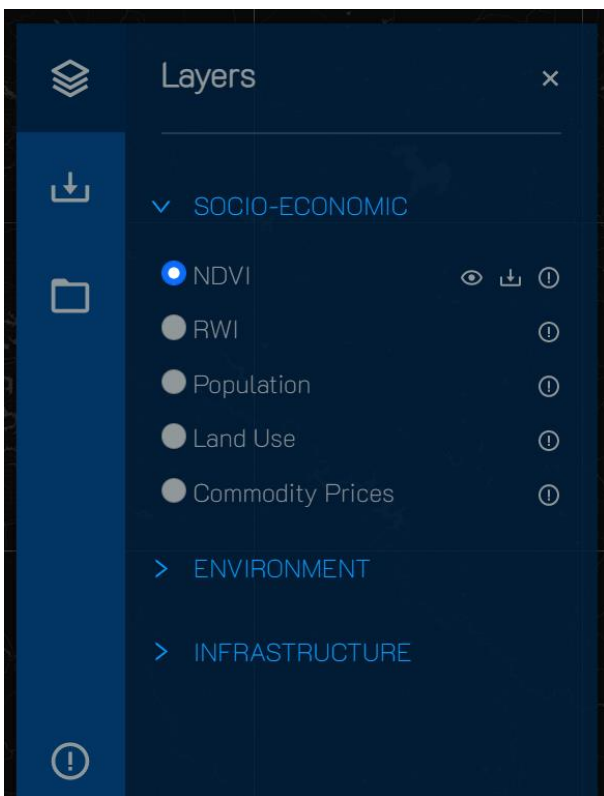
## 3. Layers

The main landing page has the option to select layers. Based on the selection you will be able to see visualisation of the spatial layer on top of the map. The layers are listed under the categories it belongs to.

There are 3 icons provided against each layer name.

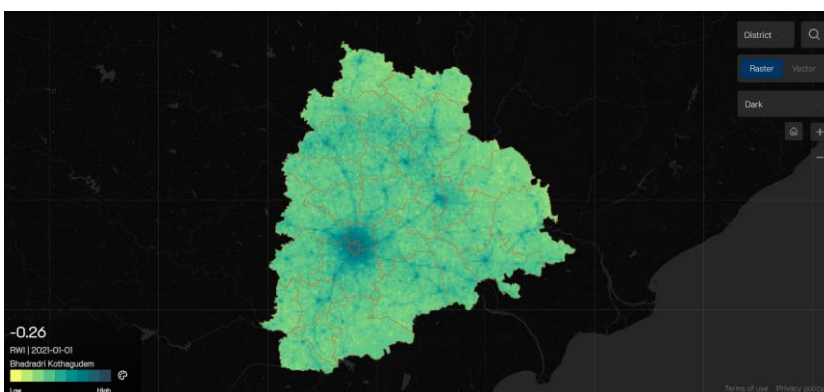


1. Visibility icon – Turn on/off the layer visibility
2. Download icon – This will take you to the download page directly for the selected layer.
3. Info icon – Brief description on the layer



## Map

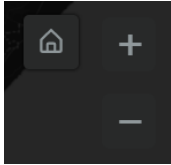
This is the major module where the data visualisation happens. Depends on the data layer, raster and vector visualisation is available.



## Map Controls

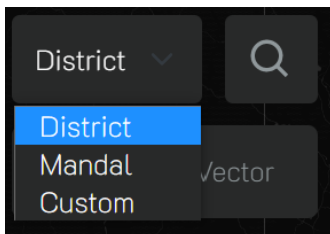
There are four major map controls

a) Zoom-in, Zoom-out & Home



b) Admin boundary selection

District, Mandal & Custom boundary selections are available. Based on the selection you will be able to see the change in boundary on the map.



‘Custom’ option can be selected for drawing custom shape. It can be a farm boundary. You can search the location using the search bar.

The custom drawing toolbox will be visible when you select ‘Custom’ option.



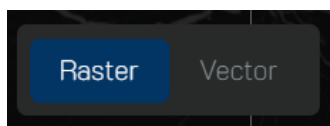
- Select ‘Draw a polygon’ or ‘Draw a rectangle’.
- Draw a polygon on the map



- A Detail section will get opened with relevant information about the layer & the shape selected.

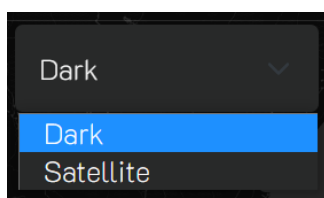
#### c) Layer type selection

Layer type toggle option is available between Raster & Vector (depends on the layers)



#### d) Base map style selection

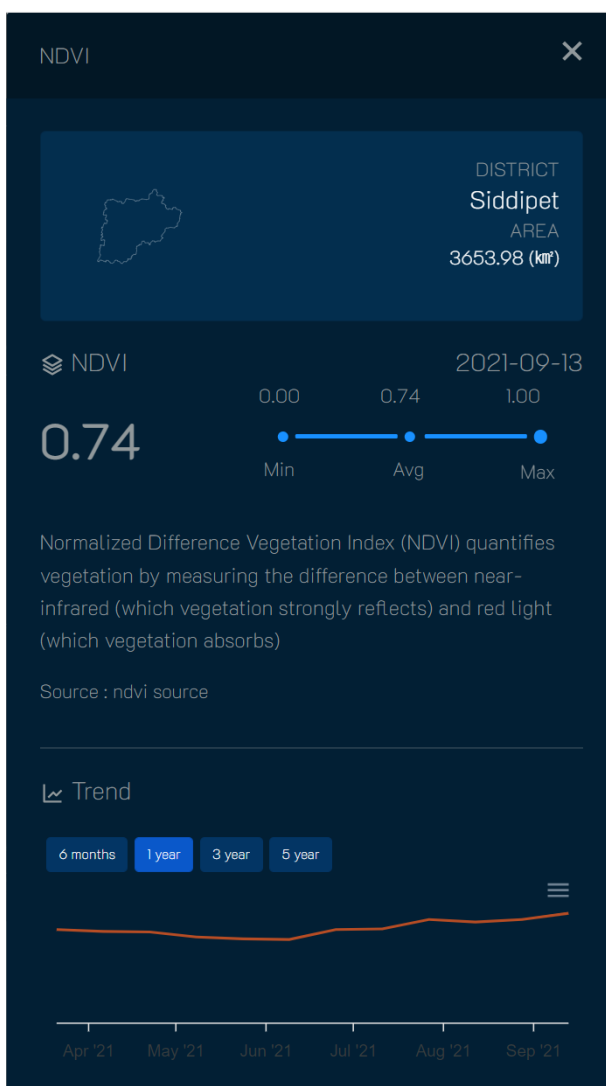
You can select the base map as Dark or Satellite



## Details Section

When you click on any shape on the map, a ‘Detail’ section will get opened. It contains the information such as

- Shape of the boundary
- District / Mandal name
- Area
- Value of a selected layer
- Description
- Source
- Trend (not applicable for all the layers)
- Etc.





## Downloads

You will be able to download all the layers used in the portal.

The image displays two sequential screenshots of the 'Downloads' form in the DiCRA portal.

**Left Screenshot (Initial Form):**

- Layer:** NDVI (selected from a dropdown)
- Description:** Normalized Difference Vegetation Index (NDVI) quantifies vegetation by measuring the difference between near-infrared (which vegetation strongly reflects) and red light (which vegetation absorbs)
- Source:** GLAM NDVIDB
- Date:** 2021-09-13 (selected from a calendar)
- TYPE:** Raster (unchecked), Vector (checked)
- VECTOR BOUNDARY:** District (selected from a dropdown)
- Navigation:** 'Next' button at the bottom right.

**Right Screenshot (Form with User Input):**

- Name:** (empty text field)
- Email ID:** (empty text field)
- USAGE TYPE:** Commercial (selected), Non-Commercial (unselected)
- PURPOSE:** Purpose (selected from a dropdown)
- Captcha:** A captcha image showing the text '7h63y0' with a red 'X' over it, and a text input field labeled 'Enter captcha'.
- Navigation:** 'Download' button at the bottom right, and 'Prev' button at the bottom left.

### Steps to download a layer

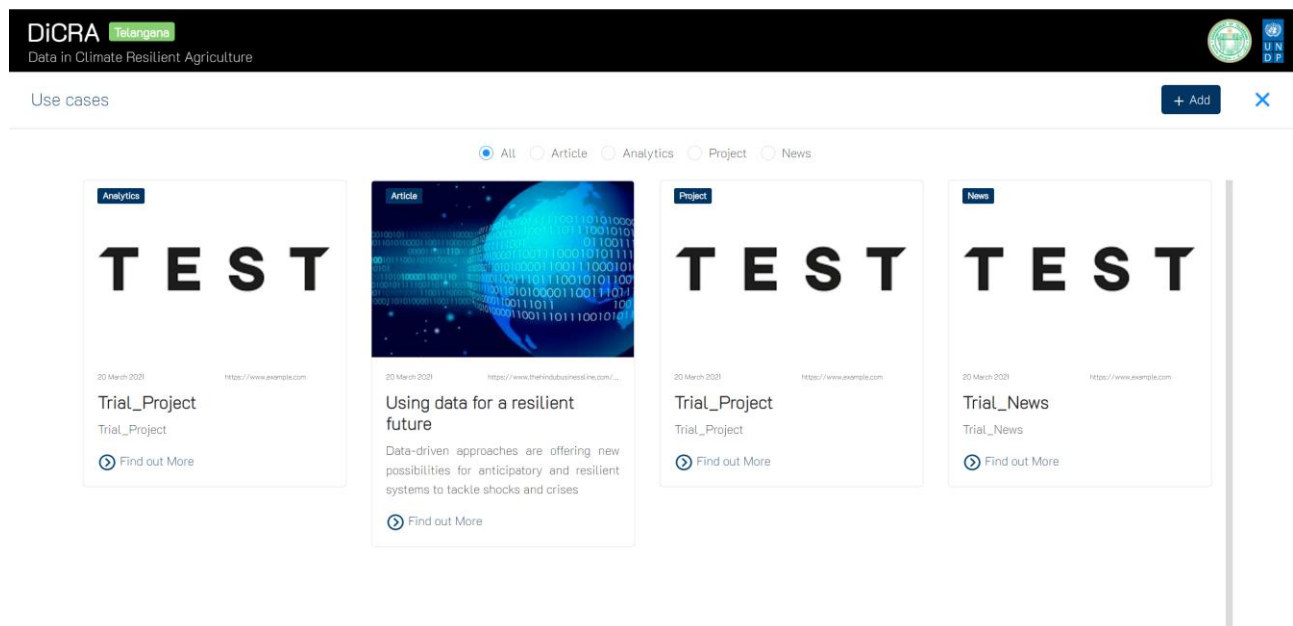
1. Select the layer
2. Select the date – applicable only if the layer has temporal data
3. Select type - Raster / Vector
4. Select boundary – applicable only if the user selects vector as the layer type.
5. Enter Name – User who downloads the data
6. Enter Email ID
7. Select Usage Type – Commercial / Non-Commercial

8. Select Purpose – Academia, Business, Government use, R&D, Journalistic and Others
9. Enter Captcha
10. Click Download

## Use cases

The application has an option to crowdsource use cases and projects that are actively using datasets curated in the platform.

### Use Case View



You can filter the use cases by category. The categories are Article, Analytics, Project & News. Click on the thumbnail & the you will be able to view the content in detail.

Use Cases ×



### Using data for a resilient future

Data-driven approaches are offering new possibilities for anticipatory and resilient systems to tackle shocks and crises

Uploaded By : Ambarish Narayanan

URL : <https://www.thehindubusinessline.com/opinion/using-data-for-a-resilient-future/article38060596.ece>

he Covid-19 pandemic has once again reminded us of the fragility of our social, environmental and economic systems. It has dispelled any notions that a country can insulate itself from world crises. Meanwhile, the other global crisis, climate change is showing devastating impact on life on earth. Extreme weather conditions, loss of biodiversity, increasing frequencies of natural calamities, caused by climate change are very visible and offer glimpse of what could be rampant and imminent, if we fail to act today. Given that global temperatures have risen by 1.2 degrees as compared to pre-industrial levels, building resilience across sectors has become an even more impending development priority. Data-driven approaches are offering new possibilities for anticipatory and resilient systems to tackle shocks and crises. Data-driven strategies can identify vulnerable populations and hotspots at the intersection of socio-economic-environmental facets can help develop better multi-dimensional poverty measures at local level. Predictive power of emerging technologies like Artificial Intelligence (AI) can initiate early action and develop resilience in public systems. For example, Telangana has launched an actionable AI policy framework to guide major policy decisions on food production, healthcare, and other areas. The State has deployed an AI-based solution that provides early warning signals on pest attack to the cotton farmers, thereby, reducing crop loss. This technology was initially rolled out to 150 villages in Telangana, leading to more than 20 per cent increase in net profit for 7,000 farmers. This AI-powered pest management system is being scaled-up to improve resilience of smallholder farmers.

The URL (source link) and the uploader name will be available in this view.

## Add Use Cases

The public can list their use cases and projects on DiCRA. To list a use case, you should fill the below form with this information.

- Project Name
- Project Type
- Short Description
- Long Description
- URL
- Image
- Uploader Name
- Email ID
- Captcha

The listing is based on approval from the admin.

Add Use Cases

Project Name

Project name

Project Type

Project Type

Short Description

Short Description

Long Description

Long Description

URL

Url

https://www.example.com

Image Upload

Choose File

No file chosen

User Name

Username

Email ID


Email ID



Enter captcha

Add

## About project

This section has information about the project, partners, and datasets.


**DiCRA**








Data In Climate Resilient Agriculture

About DiCRA

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**Partners**

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**Data Source**

Name	Description	Source
NDVI	Normalized Difference Vegetation Index (NDVI) quantifies vegetation by measuring the difference between near-infrared (which vegetation strongly reflects) and red light (which vegetation absorbs)	GLAM NDVIB
RMI	The Relative Wealth Index reflects the relative standard of living within countries using relative participation in agricultural data	<a href="https://datafromnow.fanbook.com/">https://datafromnow.fanbook.com/</a>



## Help

The help section has all the project related information and user guides.

DiCRA

Type to search...

Data4Policy

Background

About Data for Policy in Food Systems Geospatial Platform

Data Flow

### Background

UNDP has partnered with the Government of Telangana to jointly initiate the NextGenGov 'Data for Policy' initiative on Food Systems. The aim is to incorporate anticipatory governance models for future-fit food systems in Telangana using data-driven policymaking tools and ecosystem-driven approaches. UNDP is keen on augmenting learning capabilities, increasing the predictive or anticipatory capacity to feed-in to evidence-driven policies in the state, and create radical traceability and transparency across the system from producers to consumers by building provenance documentation around food that can help build trust in the system at the same time nurture sustainable and healthy practices. The goal is to design, develop and demonstrate anticipatory governance models for food systems in Telangana using digital public goods and community-centric approaches to strengthen data-driven policy making in the state.

### About Data for Policy in Food Systems Geospatial Platform

The Food Systems Innovation platform for Telangana is envisioned as a Digital Public Good that will strategically feed into data-driven decision making in the state. The platform will have the capability to visualize and analyze high resolution geospatial data (both vector as well as raster layers). The digital platform will curate, integrate and visualise such critical datasets and assets to answer the basic question of - What is growing where? How much is there and the spatial and temporal changes within the state across various indicators relevant to Agriculture and Food Systems. The platform should be able to visualize over time the changes that have happened to the agriculture ecosystem in terms of crop diversity, changes in soil/ground water, tree cover, and other indicators at higher resolution to support policy decisions. Such a synthesis of data and analytics can help identify farms which are doing exceptionally well (Positive

## Analytics

In the Analytics page, the information related to website traffic like New Users, Sessions, View, Visitors Geography and Engagements etc. are available.

DiCRA

Telangana

Data in Climate Resilient Agriculture

DiCRA Summary

New users

58

↑ 5,700.0%

Sessions

167

↑ 2,683.3%

Views

530

↑ 2,844.4%

How are site sessions trending?

What a

Start date

End date

February 2022

March 2022

Sun

Mon

Tue

Wed

Thu

Fri

Sat

27

28

1

2

3

4

5

Sun

Mon

Tue

Wed

Thu

Fri

Sat

27

28

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9

CANCEL

APPLY