DATA FOR POLICY

UNDP

Building Climate Resilience in Agriculture

Climate change continues to be a real and potent threat to the agriculture sector.

The IPCC report, Climate Change 2022, has stated that the biggest impact of climate crisis will be on agricultural systems, undermining food security and nutrition worldwide. In India, the Economic Survey (2017-18) estimates that climate change could reduce the annual agricultural incomes in India by 15-18 per cent. This will impact everything from productivity to livelihoods across food and farm systems.

The Government of Telangana and UNDP initiated 'Data for Policy'

It is a policy experimentation journey towards strengthening resilience in food systems in Telangana. The aim is to incorporate data-driven approaches, indigenous knowledge and policy research to tackle shocks and strengthen policymaking towards climate resilient food systems.

APPROACHES

A multi stakeholder workshop on 'Food Systems Innovations' was conducted in July 2021 to receive inputs from diverse practitioners from government, academia, research, civil society, community and private sector in the state.

Priorities emerging from multi stake holder conferences

COLLABORATE WITH STAKEHOLDERS

Collaborate with diverse stakeholders including farmers to build digital public goods (DPGs) to unlock the potential of local digital innovation ecosystem in food systems.

EXPERIMENT WITH SCALABLE INTERVENTIONS

Experiment with low-cost but scalable interventions with the help of technical collaborations to match the scale and future needs of Telangana.

STRENGTHEN DEVELOPMENT PATHWAYS

Strengthen development pathways from innovative solutions to policy effects to mainstream innovations into agriculture programming

DESIGN A PORTFOLIO OF SOLUTIONS

Design a portfolio of solutions that leverage both digital + community innovations to make the food systems more resilient and sustainable.

APPLY CITIZEN SCIENCE

Apply citizen engagement and citizens science to democratise decision making, build trust, and leverage the vast societal intelligence to conduct innovation

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DICRA :
Data in Climate Resilient Agriculture

CITIZEN SCIENCE:
Field Insights and validation

ETHNOGRAPHY:
Grassroot knowledge on what's working

POLICY RESEARCH
Public investments and policy options

POLICY EXPERIMENTATION
Portfolio of options

Curating Data for Policy

DiCRA

Data in Climate Resilient Agriculture

DiCRA provides data and evidence on Climate Resilient Agriculture to support strategic decision-making & policy making

The datasets are curated and validated through collaborative efforts of 9 organizations and a large community of 100+ volunteering data scientists and citizen scientists across the world.

DiCRA is a collaborative geospatial platform which provides open access to key geospatial datasets pertinent to climate resilient agriculture.

UTILITY

Open data analytics platform for climate resilient agriculture.
Aids strategic decision making and policy making.
Pattern detection and historical trends from satellite data to understand - what has been working
Positive stories from positive deviance.

DATA GOVERNANCE

Open data availability
Data accessibility, transparency and open APIs
Data relevance to climate resilient agriculture
Data validity, reliability, data standards
Data security, privacy and source code.

DATA AND ANALYTICS

Environmental : Climate exposure, soil moisture, soil organic carbon, vegetation, crop fires, extreme weather incidents, disasters, crop types.
Socioeconomic :
Relative wealth, population, land use, land coverage, crop productivity, commodity prices, farm boundaries.
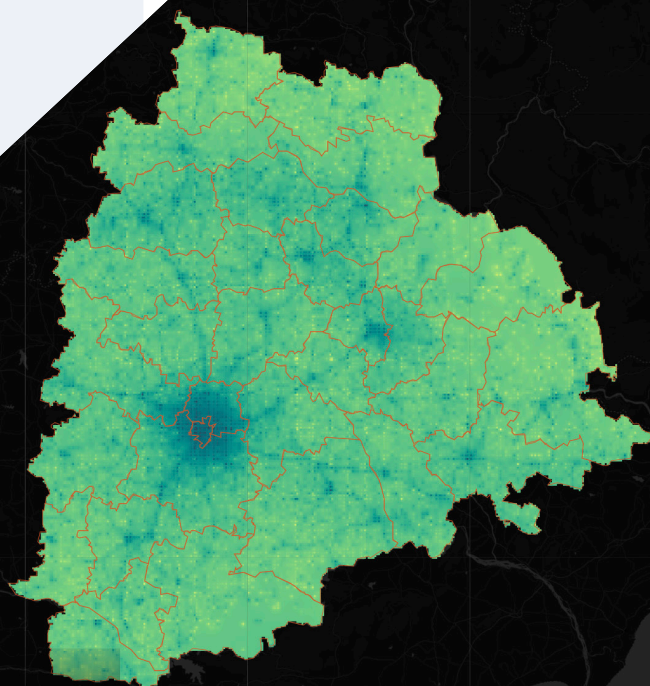**Infrastructure :**
Warehouses, cold storages, polyhouses.

DIGITAL PUBLIC GOODS

Open source software
Open data
Open AI
Open standards
Open contents.

DiCRA AND RICH

Data-driven evidence from DiCRA platform is complemented by field validation and ethnography conducted by RICH and partner organizations. This helps in tapping into indigenous knowledge of farmers in climate resilient agriculture.

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LET'S COLLABORATE

High resolution open data and evidence for climate resilient agriculture

Embed data driven practices in agriculture programming.

Ethnography of farmer's practices on climate resilient agriculture

Training and capacity building ecosystem on climate resilient agriculture

Financing for evidence driven climate resilient agriculture

Policy advocacy for climate resilient agriculture

In Partnership with:

GOVERNMENT OF TELANGANA

UN DP

The ROCKEFELLER FOUNDATION

ICRISAT
INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS

JADS
Jheronimus Academy of Data Science

RICH
RESEARCH AND INNOVATION CIRCLE OF HYDERABAD

PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY 2014

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