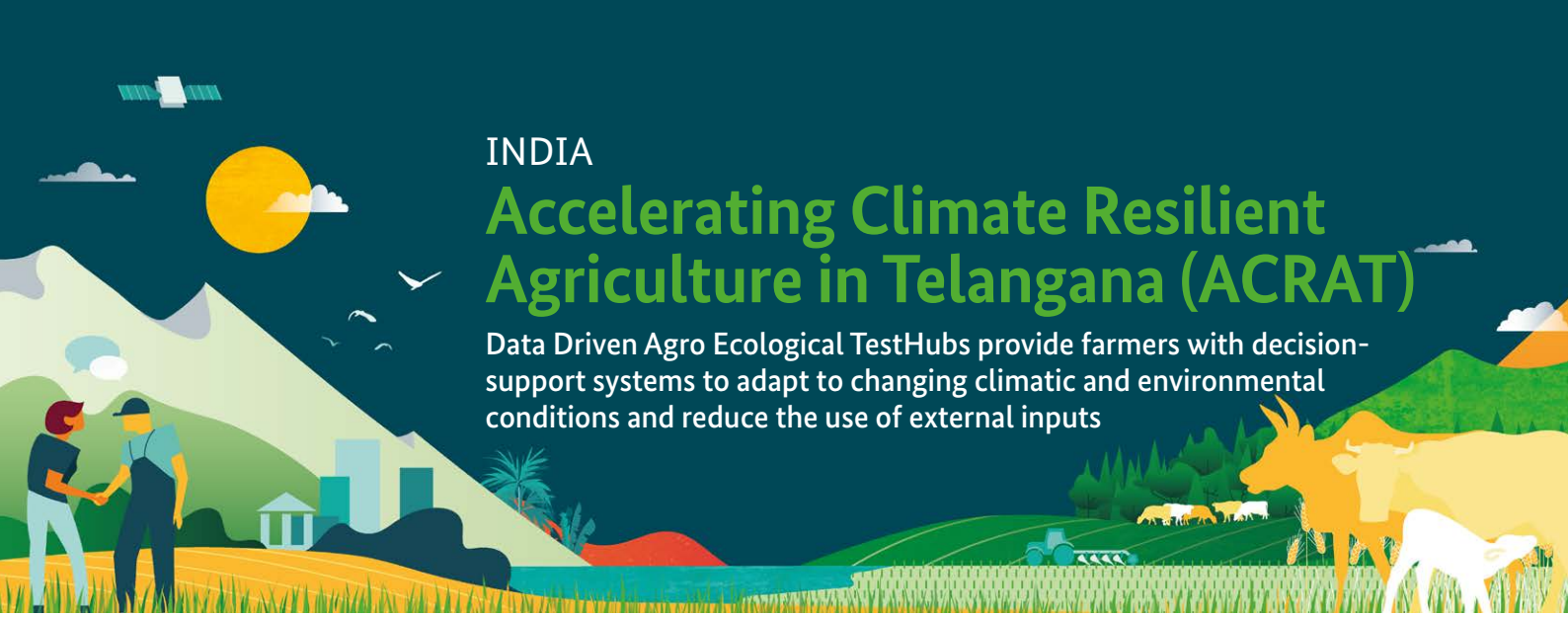

INDIA

Accelerating Climate Resilient Agriculture in Telangana (ACRAT)

Data Driven Agro Ecological TestHubs provide farmers with decision-support systems to adapt to changing climatic and environmental conditions and reduce the use of external inputs

PROJECT TITLE

Accelerating Climate Resilient Agriculture in Telangana, India through Data Driven Agro Ecological TestHubs (ACRAT)

TIMEFRAME

03/2024 to 12/2025

AS OF

November 2024

Rural Development

Climate Adaptation and Climate Protection

Inter-Farm Cooperation & Cooperative Sector Development

Education and Training in the Agricultural Sector

The Agriculture in India

India's agricultural sector is the backbone of its economy, supporting millions of especially small and marginal farmers. Climate change, environmental challenges, and widespread monocropping have reduced biodiversity, making farms more vulnerable to pests, diseases, and climate shifts. Tackling these issues demands an integrated approach. ACRAT adopts a unique approach, combining ecological principles with advanced technologies to enhance resilience and sustainability for India's farmers.

The Project

The ACRAT project adopts a multi-stakeholder approach to build a resilient and sustainable agricultural framework. By leveraging technologies like Artificial Intelligence (AI) and the Internet of Things (IoT), it develops data-driven solutions responding to the needs of small-scale farmers in Telangana. Through technology integration on the field, capacity building and ongoing collaboration with stakeholders, it helps to promote agroecological measures among the target group, taking into consideration international data standards in agriculture and contributing to data sovereignty of individual farmers.

Project Goals

- Build climate resilience for small-scale farmers.
- Promote sustainable farming practices for improved productivity and soil health.
- Empower farmers with tailored, data-driven solutions using AI and IoT.
- Foster multi-stakeholder collaboration for holistic development.
- Contribute to the validation of international agricultural data standards.

ACRAT aims to build a resilient agri-food ecosystem that redefines agriculture by merging low-cost digital technologies with agroecological principles. This approach is merging agroecological principles with low-cost digital technologies. The image shows an insect trap to recognise a pest infestation at an early stage.

With support from

Federal Ministry of Food and Agriculture

by decision of the German Bundestag

PORTRAIT INDIA

The Republic of India is a country in South Asia. It is the seventh largest country by area, with 3,287,263 km², and since 2023, the most populous country with a population of around 1.4 billion people.

Results and Successes

- Conducted studies and consultations to understand agroecological systems, challenges, and policies in Telangana and India.
- Onboarded 5 digital technologies among 55 farmers to collect data in the field.
- Held 2 tech-awareness workshops and 1 capacity-building program at farmer producer organisation level.
- Established a mentor program with local researchers, providing crop-specific agronomy guidelines for enhanced agroecological practices.

Project Partners

Project Building and Implementation on ground.

- Fraunhofer Heinrich Hertz Institute (HHI), Berlin, Germany
- AgHub Foundation, Prof. Jayashankar Telangana Agricultural University , India

Research & Ecosystem Partners

Research, Agricultural expertise and policy support

- Government of Telangana
- Prof. Jayashankar Telangana Agricultural University (PJTSAU)

Community Partner

Connect FPO, coordination and onboarding of farmers

- Self Employed Welfare Society (SEWS)
- Start-ups (CarbonMint, Krishitntra, DeltaThings, BharathRohan & Transisty)

Implementing Organisation

- Fraunhofer HHI - Heinrich Hertz Institute, Berlin, Germany
- AgHub Foundation, PJTSAU, Hyderabad, India

Fraunhofer HHI

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Accelerating Climate Resilient Agriculture in Telangana, India through Data Driven Agro Ecological TestHubs (ACRAT)

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