



Professor Jayashankar Telangana Agricultural University
Centre for Sustainable Agriculture and Development Studies (C-SAS)
Rajendranagar, Hyderabad - 500030, India

Telangana Specific Crop Insurance Scheme (T-CIS): **Relevance, Efficiency and Coverage**



1. Background and Rationale

Telangana agriculture remains largely paddy-centric followed by cotton, maize, pulses, oilseeds, and chilli. While assured procurement makes rice relatively less risky, surplus rice management has emerged as a policy challenge. Diversification into non-rice crops is essential for sustainable growth, yet these crops are more vulnerable to climatic and market risks, leading to income instability.

The State earlier implemented the Pradhan Mantri Fasal Bima Yojana (PMFBY) but exited in 2019–20 due to high fiscal burden, delayed claim settlements, administrative complexities, and low farmer satisfaction. Current support through Rythu Bharosa provides input assistance but does not compensate for actual crop losses.

This highlights the need for a credible, state-specific crop insurance model suited to Telangana's agrarian conditions. The proposed Telangana Specific Crop Insurance Scheme (T-CIS) aims to:

- Provide effective risk coverage for major crops
- Stabilize farm incomes against climate shocks
- Encourage crop diversification
- Complement MSP and procurement systems
- Ensure timely and transparent claim settlement
- Minimize administrative complexity and fiscal stress on state economy

Authors:

Dr. R. Vijaya Kumari, *Professor & Head, Department of Agricultural Economics, College of Agriculture
Professor Jayashankar Telangana Agricultural University, Hyderabad*

Prof. Aldas Janaiah, *Vice-Chancellor, Professor Jayashankar Telangana Agricultural University, Hyderabad*

Dr. Samarendu Mohanty, *Professor of Practice & Founding Director, C-SAS, PJTU, Hyderabad and
Former Program Leader, IRRI, Philippines*

PMFBY vs T-CIS

Feature	PMFBY	T-CIS
Funding	Farmer + Centre + State	100% Government of Telangana
Risk bearer	Insurance company	Government of Telangana+AIC
Farmer premium	Mandatory	Nil
Unit of coverage	Village / revenue circle	Village cluster
Yield estimation	CCE	Hybrid: CCE + satellite + models
Settlement timeline	6–12 months	30–45 days
Admin complexity	High	Moderate (single agency, AIC)
Transparency	Limited	Dashboard & public disclosure
MSP alignment	Indirect	Direct complementarity

Choice of Implementing Agency: AIC

- Agriculture Insurance Company of India (AIC) as a public sector, not-for-profit-oriented insurer.
- Strong institutional experience in area-yield insurance and CCE-based systems.
- Higher trust and acceptability among State departments and farmers.
- Better alignment with a cost-plus / service-provider model rather than profit maximisation.

Institutional Architecture

Role	Agency / Department
Policy Owner & Funder	Government of Telangana
Implementing Agency	Agriculture Insurance Company of India (AIC)
Key State Partners	- Revenue Dept.: land records, tenancy validation - PJTAU: crop modelling, yield estimation, CCE refinement (Knowledge Partner) - T-CDMIC: weather, risk zoning, remote sensing analytics - Banks / PACS / CSCs: enrolment facilitation

2. Coverage Design (Telangana-Specific)

Eligible Farmers:

- All landholding farmers automatically covered (opt-out model)
- Tenant/sharecroppers eligible through certification by local authorities

Crops (Phase-wise):

- Phase I: Paddy, Cotton
- Phase II: Maize, Redgram, Groundnut, Chilli, Greengram, Bengal Gram, Soybean

Insurance Unit: Village or village-cluster (smaller units preferred for relevance)

Financial Structure:

- Farmer premium: NIL
- Central Government share: NIL
- State Government share: 100%
- Premium paid by GoTG to AIC through a dedicated State Crop Insurance Fund

Fiscal Safeguards:

- Annual premium ceiling approved by Finance Dept.
- Multi-year actuarial smoothing to avoid sharp year-to-year spikes

Risk-sharing & Liability:

- AIC acts as risk manager and claims administrator
- Losses beyond actuarial thresholds borne by GoTG
- Performance-linked incentives for AIC based on accuracy, timeliness, service quality
- Surplus / unclaimed premium refund to State

3. Yield Estimation & Loss Assessment Framework

- Statutory CCE-based area-yield assessment as backbone.
- Augmented by:
 - o Satellite & remote sensing (YES-TECH-like system)
 - o PJTAU crop growth models
 - o T-CDMIC weather and stress indicators

Transparency

- Mandal-level public dashboards showing yield estimates and claim triggers.

Claim Settlement Process

- Automatic claim triggering based on notified yield thresholds.
- Claims credited directly to farmer bank accounts (DBT).
- Strict timelines enforced through Service Level Agreement (SLA) with AIC.
- Interest penalty payable by AIC for avoidable delays.

The below table illustrates Telangana Specific crop insurance model with 100% premium borne by the State and implementation through AIC, covering about 194.86 lakh acres with a total sum insured of ₹85,096 crore. The State's total premium outgo is ₹2,126.14 crore, calculated on actuarial premium rates (APR) ranging from 1.5% for paddy to 5% for crops like cotton and chilli. Paddy dominates coverage, accounting for nearly 61% of insured area and ₹802.17 crore premium, reflecting its systemic importance. Assuming claim levels of 30% for paddy and 50-70% for most other crops, the estimated claim would be ₹1,160.79 crore; after adding AIC administrative costs at 5% of premium (₹106.31 crore), the total claims outgo comes to ₹1,267.10 crore. Consequently, about ₹859.04 crore (≈40% of premium) remains as unclaimed premium, can be refund to the state government, indicating that even with generous indemnity assumptions and zero farmer premium, the model is fiscally manageable in a normal year. High-value, high-risk crops like cotton and chilli show larger absolute payouts but still generate surplus premium, underscoring the importance of crop-wise APR differentiation and portfolio diversification in maintaining fiscal sustainability for the State.

This proposed Telangana Specific Crop Insurance Scheme, implemented through AIC, avoids private insurer tendering and allows the State to negotiate lower premium rates and administrative costs than PMFBY. Since the scheme is fully State-funded, any unclaimed premium after claims and administrative expenses is refunded to the State and credited to a revolving crop insurance fund, enabling rollover to subsequent seasons. This mechanism allows good years to offset bad years and progressively reduces the State's net fiscal burden after the initial year. Overall, the State may need to allocate approximately ₹1,200–1,500 crore annually towards claim settlements, depending on the magnitude of risk exposure and seasonal conditions.

Therefore, compared to PMFBY, the T-CIS is expected to be more financially efficient and operationally transparent, as illustrated in the one-year comparison below.

Feature	PMFBY	T-CIS
Total crop area insured	194.86 lakh acres	194.86 lakh acres
Total sum insured	₹ 85,096 crore	₹85,096 crore
APRs of crops	2 – 18%	1 – 5%
Total premium	₹4,379.45 crore	₹ 2,126.14 crore
Premium contribution	Farmer + State + Centre	State
Farmer	₹2,250.44 crore	Nil
State	₹1,064.50 crore	₹2,126.14 crore
Centre	₹1,064.50 crore	Nil
Implementing agencies	Private companies	Public sector (AIC)
Total claims	₹2,618.85 crore	₹1,267.10 crore
Surplus/Unclaimed premium	₹1,760.60 crore Basic model - retained by the insurer Cup and cap approach – shared between centre, state and insurer	₹859.04 crore Refunded to State

Governance, Oversight & Accountability

- State-level Steering Committee chaired by Chief Secretary / Agriculture Secretary.
- Independent actuarial and technical audits every season.
- Social audits in high-claim mandals.
- Grievance redressal through unified State agriculture portal.

Expected Outcomes for Telangana

- Universal farmer coverage with zero premium burden
- Improved trust due to PSU implementation and State ownership
- Faster claim settlement and reduced political conflict
- Predictable fiscal management compared to ad-hoc disaster relief

4. Conclusion

T-CIS represents a state-led, fully funded alternative to PMFBY, designed to:

- Stabilize farm incomes across major row crops and pulses
- Deliver timely payouts with minimal administrative friction
- Leverage AIC's technical expertise while retaining state risk and budgetary control

This program strengthens Telangana's agricultural resilience and complements existing MSP/procurement policies and promotes crop diversification.



Professor Jayashankar Telangana Agricultural University

Rajendranagar, Hyderabad - 500030, Telangana, India

www.pjtau.edu.in

Email: director.csas@pjtau.edu.in