

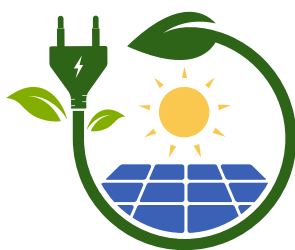


AGRIPHOTOVOLTAICS

Agriculture + Solar Power = Stable Income

Transforming Farmers from

ANNADATA to URJADATA



THE NEED FOR INTERVENTION

India is pursuing 500 GW of non-fossil fuel capacity by 2030, with solar as the primary driver. Yet solar expansion must not come at the cost of farmland, food security, or rural livelihoods. Simultaneously, over 86% of India's farmers are smallholders dependent on rain-fed agriculture and exposed to climate shocks. Rising input costs and unpredictable markets keep rural incomes chronically low. An urgent, scalable innovation is needed one that serves both the energy transition and the farming community at once

WHY AGRIPHOTOVOLTAICS?



Dual land use, no trade-off



Diversified, stable income



Microclimate and water benefits



Grid-connected clean energy



Scalable rural infrastructure

Annadata



Urjadata

The same land. The same farmer. Two revenue streams.

500 GW

India's non-fossil fuel target by 2030

46%

Workforce in India's agricultural sector contributing to food security

~₹20,000

Average agricultural household income remaining low



“ Agri-PV enables the same land to produce both food and clean energy, transforming every acre into a source of dual value. By providing farmers with a stable and assured additional income stream while maintaining agricultural productivity, it represents a genuine breakthrough in sustainable rural development not merely an incremental improvement.

IMPLEMENTATION PARTNERS

Research Lead and Implementation	ICRIER, conceptualisation, design and monitoring
CSR Support	Kotak Mahindra Bank Ltd.
Finance	State Bank of India, project loan
Energy Buyer	JVVNL (DISCOM), electricity procurement and grid connectivity
Landowner	Participating farmer, land, crops and maintenance

WHAT MAKES THIS PILOT DISTINCT

- Among the early grid-tied Agri-PV system in India under PM-KUSUM Component A, establishing a replicable state template
- Full multi-stakeholder model: farmer, bank, DISCOM, EPC and research institution operating together from day one
- Generates rigorous agronomic, technical and financial data to guide national Agri-PV policy and scale-up
- Deployed in semi-arid Rajasthan, one of India's most solar-rich yet climate-stressed agricultural regions



LOCATION

Kundanpura Village,
Jaipur District, Rajasthan



SCHEME

PM-KUSUM
Component A

FROM VULNERABILITY TO OPPORTUNITY

BEFORE



Income: ₹40,000 per acre/year

- Climate risks
- Water scarcity
- Market uncertainty

AFTER



Income: ~₹4 Lakhs per acre/year

- Dual income streams
- Stable energy revenue
- Continued crop cultivation
- Enhanced resilience

“

ONE LAND. TWO INCOMES. DIVERSIFIED LIVELIHOODS

8 TO 10 TIMES INCOME INCREASE POTENTIAL

BUILDING CLIMATE-RESILIENT RURAL INFRASTRUCTURE

Enhancing



Farmer Incomes



Energy Security



Climate Resilience



Sustainable Rural Development