



Background Note

Title of the Thematic Track: Accelerating AgriPV in India: From Pilots to Policy-Led Scale-Up

Date: Wednesday, 25th February 2026

Time: IST 2:00pm – 3:30pm

Venue: Roshanara Hall, Taj Palace.

India is advancing rapidly toward its clean energy and decarbonisation goals, with a commitment to achieve net-zero emissions by 2070 and an interim target of installing 500 GW of non-fossil fuel capacity by 2030. Electricity consumption crossed 1,532 TWh in 2024 and is growing at nearly 7% annually, with future demand expected to rise sharply due to electric vehicles, data centres, and green hydrogen, which together could contribute 20–25% of incremental demand. Meeting this growth while conserving land and water resources highlights growing pressures across the Water–Energy–Food (W–E–F) nexus.

Agriculture lies at the centre of this challenge. The sector supports 46% of India's workforce, contributes 15–18% of Gross Value Added, accounts for nearly 80% of freshwater withdrawals, and consumes 17–18% of national electricity, largely for irrigation, while contributing about 18% of greenhouse gas emissions. Agriculture also dominates land use, occupying nearly 59 % of India's total geographical area, while limited barren land is available for utility-scale solar deployment. In this context, Agri-Photovoltaics (Agri-PV), which enables the co-location of solar power generation and crop cultivation, offers a pathway to expand renewable energy without displacing farmland. As of August 2025, India has 36 operational Agri-PV projects with a combined capacity of about 54 MW and 10 additional pilot projects under development, indicating growing interest but limited scale. Unlocking Agri-PV's potential will require crop-specific assessment, careful system design, and targeted policies to ensure that agricultural productivity, food security, and farmer livelihoods are not compromised.

Against this backdrop, The Energy and Resources Institute (TERI) is organising a dedicated thematic track on Agri-Photovoltaics during World Sustainable Development Summit (WSDS) to deliberate on Agri-PV as a land-efficient renewable energy solution aligned with India's energy transition and agricultural sustainability goals. The thematic track seeks to assess the current state of Agri-PV deployment, understand its realistic and potential, and identify policy, technical, and business approaches needed to scale Agri-PV in a manner that enhances farm resilience, resource efficiency, and income diversification for farmers.

Five reports on Agri-Photovoltaics (Agri-PV) are planned for release during the session:

1. Agri-PV Potential in India
This report assesses the national potential of Agri-PV, examining its role in enabling land-efficient renewable energy deployment while sustaining agricultural productivity.
2. Addressing Land Constraints for India's Energy Transition
This report analyses land-related challenges facing India's energy transition and explores how Agri-PV can help address competing land-use demands.
3. Responsible Agri-PV Baseline Assessment Report: Khare Energy Plant, Madhya Pradesh
This baseline assessment documents the existing environmental, agricultural, energy, and socio-economic conditions at the project site and evaluates how the co-location of solar power generation and agriculture is being implemented in practice.
4. Responsible Agri-PV Baseline Assessment Report: Renkube Plant, Telangana
Similar to the Madhya Pradesh case, this report provides a detailed baseline assessment of site conditions and examines operational models for integrating solar energy systems with ongoing agricultural activities in Telangana.
5. Agri-PV Detailed Project Report (DPR) Framework
This report presents a model DPR framework covering multiple Agri-PV business models. The framework is intended to support project developers, and policymakers, in planning, evaluating, and scaling Agri-PV projects in a structured and replicable manner.

The thematic tracks aim to address following questions.

1. Defining Agri-PV for Farmer Incentivization: What constitutes Agri-PV in the Indian context, and how can a clear definition enable appropriate incentives for farmers?
2. Taxation of Agri-PV: Challenges and Solutions: What are the current tax implications for Agri-PV projects, and what reforms are needed to reduce barriers for farmer participation?
3. Enabling Frameworks for Farmer-Centric Agri-PV: What policy, regulatory, and business models are required to make Agri-PV viable and attractive for farmers—especially small and marginal landholders?
4. From Pilots to Scale: How can insights and lessons from existing Agri-PV pilot projects be translated into scalable, replicable deployment pathways across Indian states?
5. DISCOM Integration: What role can DISCOMs, and procurement mechanisms play in enabling Agri-PV scale-up at the state level?

About the World Sustainable Development Summit (WSDS)

The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making 'sustainable development' a globally shared goal. The only independently convened international Summit on sustainable development and environment, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform. The 25th edition of the annual flagship event of The Energy and Resources Institute (TERI)—the World Sustainable Development Summit (WSDS)—will be held from 25-27 February 2026 in New Delhi. The deliberations of the **Silver Jubilee** edition of the Summit will focus on the umbrella theme of *Parivartan: Transformations: Vision, Voices and Values for Sustainable Development*.