2. Global Solar Initiatives

India launched a set of flagship global initiatives to accelerate the world's transition to clean, equitable, and circular solar energy systems at the Eighth session of the International Solar Alliance (ISA)

Initiatives Launched at ISA Platform

SUNRISE Platform (Solar Upcycling Network for Recycling)

Aims to build a global collaborative ecosystem to tackle the emerging challenge of solar PV waste from retiring panels and batteries. Links governments, industries, recyclers, R&D institutions, and startups to unlock value embedded in solar waste. Focuses on recycling, repurposing, and upcycling of solar materials such as silicon, glass, aluminium frames, and rare metals. Supports sustainable lifecycle management and promotes circular economy in solar value chains, ensuring green energy does not create future pollution burdens.

One Sun One World One Grid (OSOWOG)

A long-term plan to build a global interconnected solar energy grid, allowing countries to transfer surplus renewable power across borders. Identifies priority interconnection corridors across -

– East Asia → South Asia
– South Asia → Middle East
– Middle East → Europe
– Europe → Africa

Seeks to reduce dependence on fossil fuels, enhance energy security & climate resilience, and expand access to clean power. Over the next decade, expected to facilitate clean energy trade, storage sharing, and smart grid cooperation globally.

Global Capability Centre (GCC) & STAR-C Model

Operates on a hub-and-spoke architecture, linking national institutions under a central Solar Technology Application & Resource Centre (STAR-C).

Purpose - Capacity-building, technology deployment, R&D collaboration, and training across ISA countries. Drives digital skilling through ISA Academy and fosters innovation in solar manufacturing and deployment. Focuses on scaling solar R&D, digital tools, testing labs, and quality standards across the Global South.

SIDS Solar Procurement Platform

Joint initiative of International Solar Alliance (ISA) and World Bank Group. Signed by 16 Small Island Developing States (SIDS) to strengthen clean-energy resilience. Enables pooled solar procurement, cutting equipment costs through scale efficiencies. Enhances digital procurement, capacity-building, financing support and encourages resilience against climate threats like storms and sea-level rise.

Significance of These Initiatives

Mark a clear transition for ISA — from advocacy and vision-setting to large-scale execution and delivery. Reinforce ISA's mission to make solar accessible, reliable, affordable, and sustainable, especially for developing nations. Align with India's strategy to place the Global South at the forefront of energy transition, ahead of COP30 in Brazil. Help countries shift from pilot projects to large industrial scale, driving economic inclusion and climate resilience. Boost technology transfer, solar industry development, skill enhancement, and innovation-driven green growth.

About the International Solar Alliance (ISA)

Treaty-based intergovernmental organization, co-launched by India & France in 2015 at COP21 (Paris).

Mission - Accelerate solar adoption to ensure universal clean energy access and climate mitigation.

Goal - Mobilise USD 1 trillion for solar deployment by 2030.

Membership - 125+ countries (members + signatories) with projects in

1. Solar mini-grids,
2. Off-grid irrigation,

3. Solar street lighting,
4. Rural electrification.

2020 Amendment - Opened ISA membership to all UN member states, expanding global participation beyond tropics.

Headquarters - Gurugram, India — first global intergovernmental body headquartered in India.

Future Outlook & Key Projects of ISA

Ease of Doing Solar (EODS) - Provides annual global investment trends in renewable energy.

2024 data - USD 2,083 billion investment in energy transition; ISA countries contributed USD 861.2 billion. Solar attracted USD 521 billion, confirming its status as the largest clean-energy driver globally.

Solar Compass – BIPV Opportunities - Highlights opportunity for Building-Integrated Photovoltaics (BIPV) in developing countries. Nearly 70% of buildings in developing economies not yet constructed — enabling future cities to integrate solar in architecture (roofs, facades, windows). Supports urban energy efficiency, net-zero buildings, and smart infrastructure expansion.

Global Floating Solar Framework - Prepares countries to scale floating solar installations on reservoirs, lakes, and coastal zones. Asia-Pacific projected to lead in deployment due to large water reservoirs and land constraints. Creates country-specific guidance for technical standards, financing, ecological safeguards, and PPP models.

Solar Skills & Jobs in Africa Initiative - Africa's solar workforce projected to expand from 226,000 to 2.5–4.2 million by 2050. Focus on technicians, installers, and service professionals, with 1.3 million jobs in small-scale systems. Supports economic empowerment, rural electrification, and workforce formalisation in Africa's green economy.

Conclusion

ISA's new projects reflect operational maturity, deepened global participation, and green development leadership by India and partner nations. Accelerates the clean-energy transition, boosts intra-Global-South cooperation, and positions solar as a pillar of climate justice and equitable development. Strategic focus on circular economy (SUNRISE), global energy connectivity (OSOWOG), innovation capacity (GCC), and vulnerable nations (SIDS) enhances global impact.

Source - https - //www.downtoearth.org.in/energy/india-unveils-major-global-solar-initiatives-at-isa-assembly-president-murmu-calls-for-inclusive-energy-transition