

UN CLIMATE CHANGE CONFERENCE – UNITED ARAB EMIRATES

30 NOVEMBER – 12 DECEMBER 2023

THE SOLAR HUB



SOLAR ENERGY FOR AGRICULTURE AND RURAL LIVELIHOODS: OPPORTUNITIES FOR SOUTH-SOUTH LEARNING AND COOPERATION

In Collaboration with

IWMI International Water Management Institute



Thematic Arena 3, TA3-190, Opportunity District, Expo City, Dubai

9 DECEMBER, 2023 | 12:30 PM – 14:00 PM

Background & Rationale

The last decade has seen rapid expansion in uptake of solar technologies in rural areas. Solar-powered pumps to deliver water for drinking and irrigation, solar lighting, solar dryers and solar cold chains, all have matured to varying degrees in different regions. Data from IRENA (2022) suggests that South Asia has taken an early lead in off-grid solar capacity deployed for use in agriculture. In contrast, solar deployment in agriculture has been relatively slower in Sub-Saharan Africa, MENA, SEA and Latin America. However, what this data fails to capture is the enormous diversity in technical, financial, and institutional innovations in business models and deployment strategies that can be found around the world.

The surge in South Asia is driven, at least in part, by ambitious government campaigns in countries like India with significant subsidy support for solar pumps. For instance, the government of India has set an ambitious target of supporting deployment of more than 3.5 million solar irrigation pumps with a installed capacity of 30 GWp; likewise, Bangladesh has vowed to replace its 1.34 million diesel pumps with solar irrigation pumps. Nepal – a country with abundant renewable energy – is also realizing the importance of investing in solar capacity, especially with reliability of hydropower declining as a result of climate change. In Pakistan too, despite little government support, IWMI/IFPRI surveys suggest a much larger, privately financed, deployment of solar pumps than apparent in formal records. This is not surprising since the region is home to more than 30 million muscle, diesel or electricity powered irrigation pumps, adding more than a million new ones each year. One IWMI estimate suggests that solarizing just India’s minor irrigation economy can account for 1/3rd of her ambitious RE target of 500 GWp.

	<p>In West Africa, IWMI works closely with private sector partners to develop solar value chains. In East Africa, Ethiopia – a founding member of the International Solar Alliance – is investing heavily in solarization of agriculture. Uganda has encouraged private enterprises – backed with donor and private funding – to set up solar systems that deliver irrigation as a service to small farmers. In Southern Africa, solar pumps are a part of CGIAR's work on building systematic resilience against climate-induced uncertainties. There's also growing interest in and proliferation of solar applications in agriculture in the MENA region, in Central Asia as well as in Latin America. ISA's member countries, particularly those in Africa and Latin America, have shown tremendous interest in harnessing the potential of solar technologies for rural and agrarian transformation.</p> <p>IWMI's work across Asia and Africa has focused on catalyzing the development of solar value chains, and through this, transformation of food systems and just energy transition. Through the IBSA-supported multi-country project and other initiatives, UNDP is also piloting solar irrigation in ISA member countries in Africa. Time is now ripe to undertake a systematic global stock take of experiences with solar deployment in agriculture. Doing so would also nurture south-south learning, knowledge exchange and cooperation across IWMI's geographies and ISA's member countries. This IWMI-ISA-UNDP session is being organized to kick-off this important campaign.</p>
Session Objectives	The objective of this session is to initiate a global synthesis of the growing body of work around 'solar applications in agriculture' and their potential impact on rural life and livelihoods, especially in Africa and Asia.
Agenda	
12:30 - 12:40 PM	<p>Welcome & Introduction Joshua Wycliffe, ISA</p>
12:40 - 13:00 PM	<p>Keynote Address Solarization of Agriculture: A global stock-take Shilp Verma (IWMI)</p>
13:00 - 13:10 PM	<p>Presentation IBSA-supported multi-country pilot project on solar irrigation UNDP</p>
13:10 - 13:50 PM	<p>Panel Discussion Sharing Experiences from Africa and Asia Moderator ▪ Darshini Ravindranath, (IWMI) Panellists ▪ Lance W. Gore, ADB ▪ Amanda Cody, IKEA Foundation ▪ IBSA-UNDP</p>
13:50 - 14:00 PM	<p>Concluding Remarks Mark Smith, IWMI</p>