

Host Utilities



Co - Host Utilities



ORGANIZER



India SMART UTILITY Week 2024

Supporting Ministries



Session 9: Long Duration Energy Storage Systems (LDES)

SCALING STORAGE FOR ISA MEMBER COUNTRIES

Presented By

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ISA'S GOVERNANCE STRUCTURE

ISA Assembly

India



President

France



Co-President

8 Vice Presidents representing 4 regions

Asia & Pacific Region



Tuvalu



Bangladesh

Africa Region



Somalia



Mali

Latin America & the Caribbean Region



Venezuela



Dominica

Europe & Other regions



Denmark



Sweden

ISA Committees

5 Committees (1 Standing Committee and 4 Regional Committees)

To provide strategic advice and guidance on functioning of the ISA and support in facilitating implementation of various ISA programmes, projects and activities

ISA Secretariat

Providing programmatic support to Member Countries for promotion of solar solutions

Support in strategic decision making and advocacy

Facilitate engagement with diverse stakeholders for conceptualization of programs and projects

Current Membership Status

193

Prospective Member
Countries

97

No. of countries who have signed and ratified ISA
framework agreement

21

No. of countries who have signed ISA framework agreement &
will ratify soon

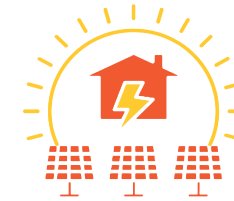
To attain SDG 7 (universal energy access) and SDG 13 (combating climate change) goals Current Programmes (9):



Scaling Solar
Applications for
Agriculture Use



Affordable
Financing
at Scale



Scaling Solar
Mini-Grids



Scaling Solar
Rooftop



Scaling Solar E-
Mobility
and Storage



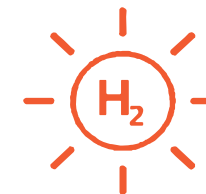
Solar
Parks



Solarizing Heating
and Cooling
Systems

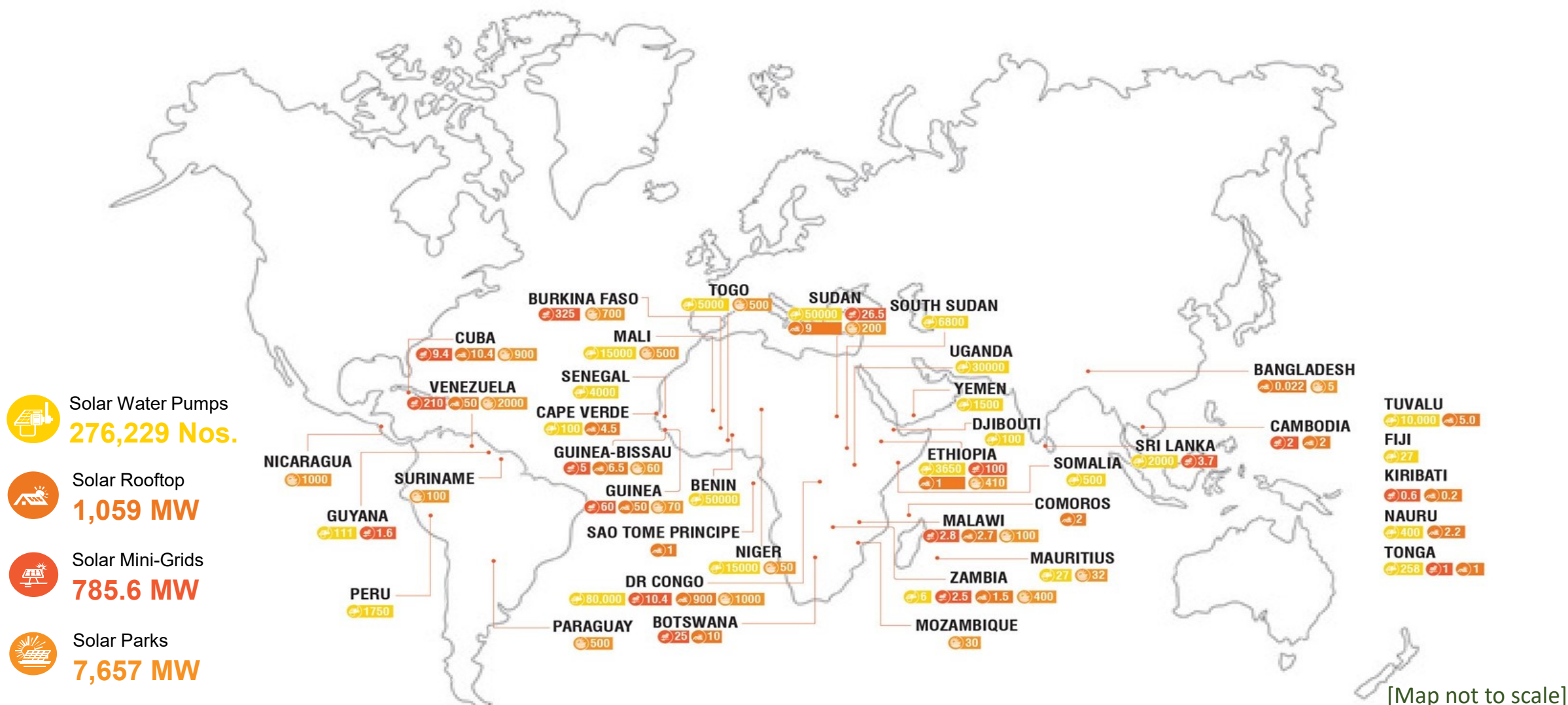


Solar PV and
Battery Waste
Management

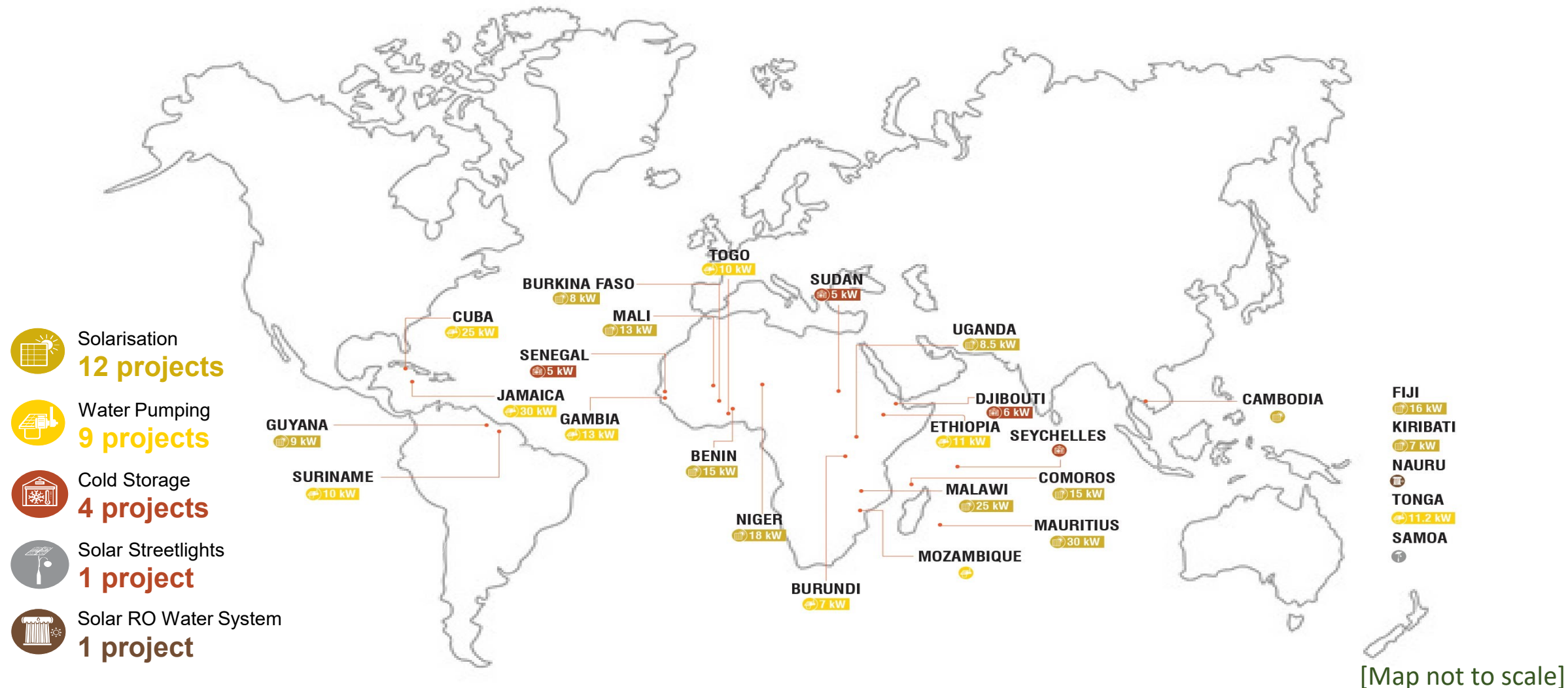


Solar for
Green
Hydrogen

Aggregated Projects Concept Proposals (9.5 GW+) Received from Member Countries



Demonstration projects in the pipeline in 27 LDC & SIDS Member Countries



❖ **Project Commissioned: 13 (Guyana, Mali, Niger, Jamaica, Togo, Kiribati, Comoros, Uganda, Malawi, Fiji, Seychelles, Tonga & Burkina Faso)**

To support in enabling ecosystem for large scale deployment of energy storage systems in ISA member countries

01

Facilitate member countries in policy, regulation, and the rapid deployment of energy storage.

02

Provide support for navigating the complex landscape of energy storage.

03

Identify and customize business models to meet the specific needs of member countries

04

Implement pilot projects within member countries

- ISA aims to deploy affordable, transformational solar energy solutions, promoting low-carbon growth in LDCs and SIDS.
- To achieve this goal, ISA plans to develop energy storage roadmaps and implementation strategies:

Energy Storage System (Short & Medium Duration)

- **Phase-1:** Developing Prioritization Framework for ESS for Accelerating Solar Project Deployment in LDCs and SIDS
- **Phase-2:** Deep Dive Report on Feasibility Studies and Impact Assessment
- **Phase-3:** Pilots Implementation

Energy Storage System (LDES)

- **Phase-1:** Scaling Solar integrated LDES: Prioritization and Developing Implementation Roadmap; Identification of project pipelines in Developing Nations
- **Phase-2:** Deep Dive Report on Feasibility Studies and Impact Assessment
- **Phase-3:** Pilots Implementation

Long Duration Energy Storage (LDES)

Phase-1

Scaling Solar integrated LDES: Developing Implementation Roadmap and Identification of project pipelines in Developing Nations

Understanding the global LDES status; Technology Landscape

Challenges for Solar-Integrated LDES projects

Investment/Opportunity Assessment for LDES in the Evolving Energy Market

Development of Prioritization Framework for Solar-Integrated LDES Deployment

Shortlisting Potential ISA Countries and identification of LDES Project Opportunities

Roadmap for Promoting LDES in Developing Nations

- Ecosystem Readiness Assessment framework for solar integrated LDES
- Shortlisting ISA MCs and identification of potential LDES projects

Long Duration Energy Storage (LDES)

Phase-2

Deep Dive Report on Feasibility Studies and Impact Assessment

Feasibility Assessment and Tools – Deep dive Analysis

Impact Assessment of Solar PV Integrated LDES

Deep dive report on shortlisted countries; Project pipeline identification

Stakeholder Consultation and Technical Workshop

Recommendations for scaling of solar integrated LDES in Developing Countries

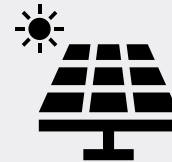
- Project Pipeline identification
- Pilot design

Expected Outcomes



Country Insights

(Country Prioritization, Country-level deep-dive studies, and project pipelines)



Feasibility Studies

(Techno-Economic analysis, cost benefit analysis, impact assessment and business models)



Capacity Building

(Toolkits, Guidelines, Webinars, Training Workshops)

STAR-C

Capacity building and
skill development

Testing and certification

Research &
Development

Standards

Consultancy

Solar resource
assessment

Start-up incubation

- ***Establishing technical facilities undertaking testing/ standardisation, demonstrate and upscale replicable solar energy applications.***
- ***Undertaking training and skills development for a better-qualified workforce***
- ***Creating a global network for exchange of knowledge and expertise***

- ***2 Countries- Commissioned (Ethiopia and Somalia)***
- ***3 countries are at an advanced stage (Cuba, Kiribati, and Cote d' Ivoire)***
- ***6 Countries MoUs Signed (Ghana, Venezuela, Bangladesh, Uganda, Benin, and Cameroon)***
- ***Eols received from 7 more countries.***
- ***368 Govt. officials have been trained on developing new schemes and programs on solar energy***

THANK YOU!

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