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International Solar Alliance

Overview of International Solar Alliance

Who we are

- **Inter-governmental treaty-based international organization** with a global mandate to catalyse global solar growth **with United Nation observer status**
- Launched by **Hon'ble Prime Minister of India**, and former **French President in 2015**
- Till date, **116 countries** have signed the ISA Framework Agreement
- ISA is helping to attain **SDG 7** (Universal Energy Access) and **SDG 13** (Combating Climate Change)

ISA Mission

- Enabling Energy Transition of **1,000 GW** of Solar Capacity
- Reducing Carbon Emissions by **1,000 Million Tonnes**
- Ensuring Energy Access for **1,000 Million People** using Clean Energy Solutions
- Mobilizing **USD 1,000 Billion** in Solar Investments



Energy Access



Energy Security



Energy Transition



Analytics & Advocacy

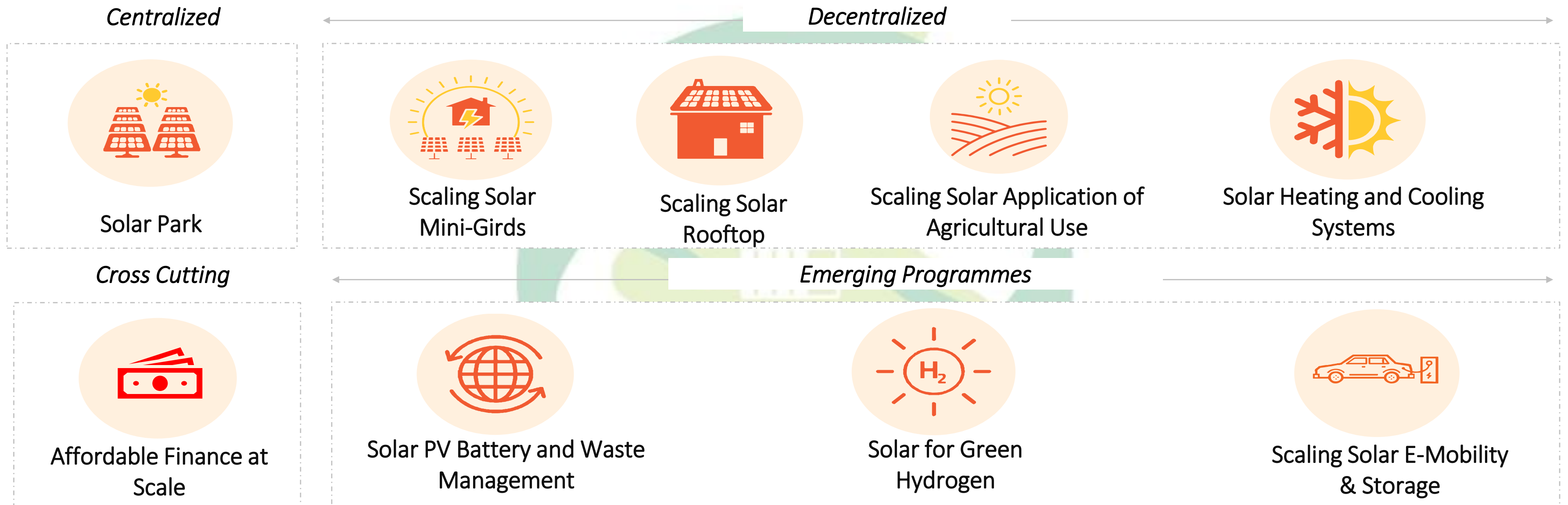


Capacity Building



Programmatic Support

9 Programmatic Support Areas of the ISA



1. ISA is supporting different member countries for scaling up adoption of solar technologies through different programmatic support in *health, education, agriculture, residential, food processing sectors*.
2. Now ISA is looking forward to **target aviation sector in collaborative manner** with ICAO, ACI and other necessary stakeholders by developing solar energy projects to **minimize carbon emissions in aviation sector**

Energy Scenario in Aviation Sector

Energy usage in the aviation sector can be divided into two main categories: **Aircraft operations** which include the energy consumed during flights, primarily from the fuel while **Airport operations** encompass various activities related to airport infrastructure and services.

As per the recent survey, **Energy is the second largest expense** at airports and **energy consumption at airports operations** encompasses various aspects, including **substantial energy usage** for lighting within airport buildings, heating and cooling systems, and information technology infrastructure.

To better understand and manage energy consumption, airport operators should undertake the **energy audits** to identify the specific areas of energy usage and enable strategic investments in **energy-efficient technologies**.

It is beneficial for airports to align their efforts with established standards **such as ISO 14001** for environmental management systems **and ISO 50001** for energy management, as these standards are already widespread in the airport community.

ICAO actively supports its member states to reduce emissions from international aviation through various initiatives like development of Standards and Recommended Practices & guidance material to provide a framework for emission reduction

Optimisation of Energy Consumption through Solar Technologies in Aviation Sector

Why Solar for Airport Operations

- Development of **solar energy projects** can play a significant role in **minimizing emissions** from airport operations.
- Solar technologies are lower capital expenditures and operational costs, very fast implementation, high safety and autonomy, independency from 3rd party suppliers, significantly less environmental impact.
- By utilising the solar energy, airports can power aircraft while on the ground and also **provide clean and emissions-free electricity** for other functions as well.
- **Solar projects for airports are highly appealing** due to several factors mentioned below:-
 - *Airports often have **land that is unsuitable for other purposes***
 - *Located in areas where the **prevailing electrical rates and surcharges are notably higher** than the average.*
 - *Large airports situated near major cities with **high energy demand**, as well as smaller airfields situated in remote areas with limited infrastructure.*

Success Stories

- Solar technologies have been successfully deployed on terminal buildings or utilized on unused or unproductive airport property in over **100 airports worldwide**.
- Some airports have even utilized the harnessed **solar energy to power ground vehicles and establish charging stations for electric cars** in parking areas.
- India's **Cochin International Airport** sets a remarkable precedent as the **World's first airport to operate solely on solar power**, presently boasting a capacity of 50 MW.
- **Delhi International airport** also has 7.84 MW on Airside and 5.3 MW on Cargo terminal.
- Other recent examples include **Solar at the Gate Project at Douala International Airport** in Cameroon and **Mombasa International Airport** in Kenya.



ICAO

ENVIRONMENT



2023 ICAO STOCKTAKING AND PRE-CAAF/3 POLICY AND FINANCE CONSULTATION



11 to 13 July 2023
Montréal, ICAO Headquarters