



## Solarizing Sustainability: Catalyzing Clean Energy Collaborative Action in Asia and the Pacific

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# Solar Energy

FIGURE 5. Renewable Power Total Installed Capacity and Annual Additions, by Technology, 2022

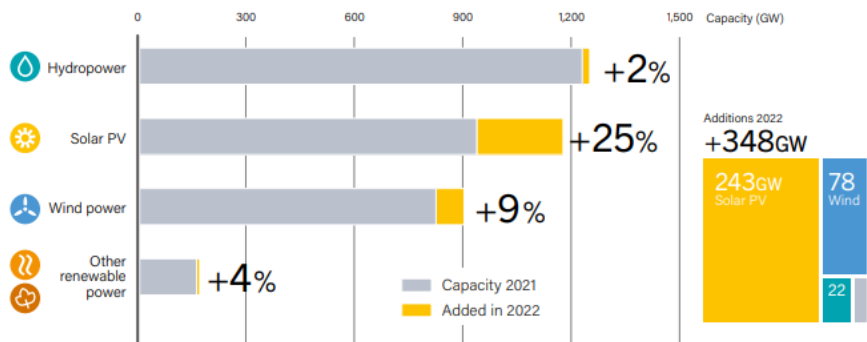
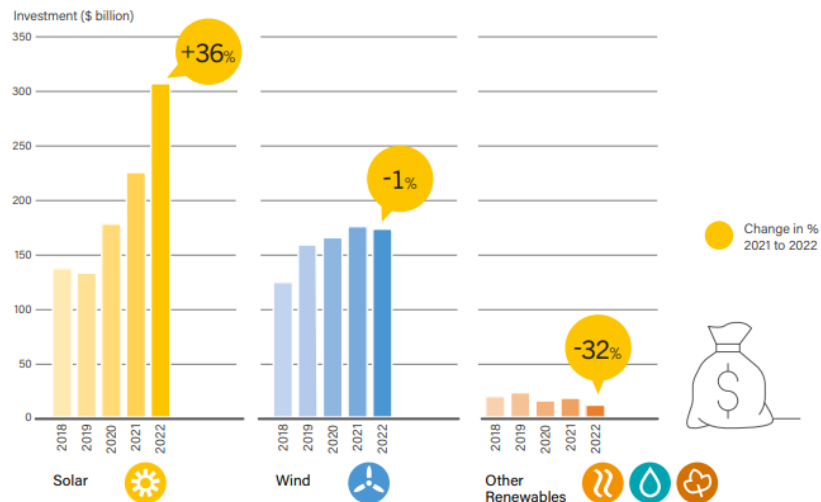
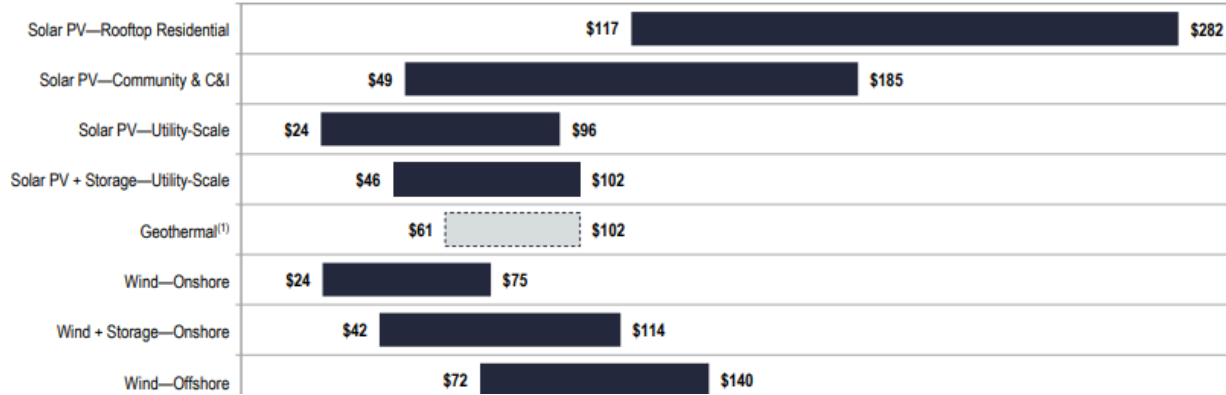


FIGURE 9. Global Investment in Renewable Power and Fuels by Technology, 2018-2022



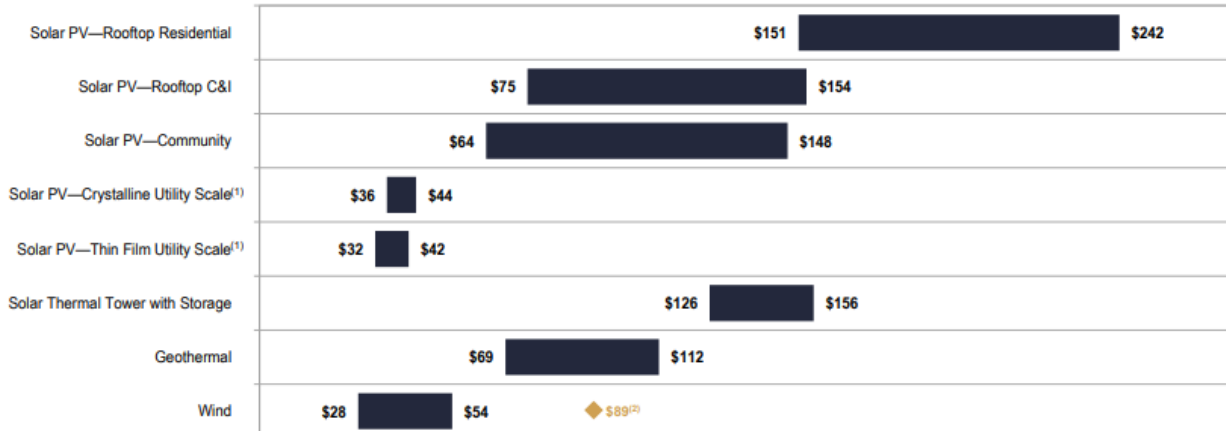
# LAZARD Levelized Cost of Energy Comparison—Unsubsidized Analysis

Renewable Energy



2022

Renewable Energy



2019

◆ \$89<sup>(2)</sup>



## Distributed Renewable Energy

- Opportunity to go beyond electricity access for consumptive loads
- Productive loads can enhance livelihoods, generate employment and increase incomes
- Affordable technology for energy security and independence
- Social protection and economic development
- Democratize climate mitigation – demand driven participatory approach

Good Energy  
Governance

- To create responsive, accountable, and inclusive institutions, that ensure civic engagement and necessary oversight

Social Action  
for Energy

- To adapt policy systems to address the social vulnerabilities and economic opportunities, stemming from the energy transition

Gender  
Equality

- To identify and reduce gender inequalities as part of the energy transition, generating benefits and opportunities on gender-responsive services

# Background

- ISA released call for Expression of Interest (Eoi) to its Member Countries.
- EOI received a combined demand of **~272,000 solar water pumps (SWPs) from 22 Member Countries**
- In response, ISA developed the programme on **Scaling Solar Applications for Agricultural Use (SSAAU)**
- ISA and UNDP **developed a concept note for multi-country project.**
- **“Top 10” countries** with demand for solar water pumps were selected for a **pilot phase.**
- Supported by the India, Brazil and South Africa Facility for Poverty and Hunger Alleviation (IBSA Fund) at the UNOSSC



# Scaling Solar Applications for Agricultural Use

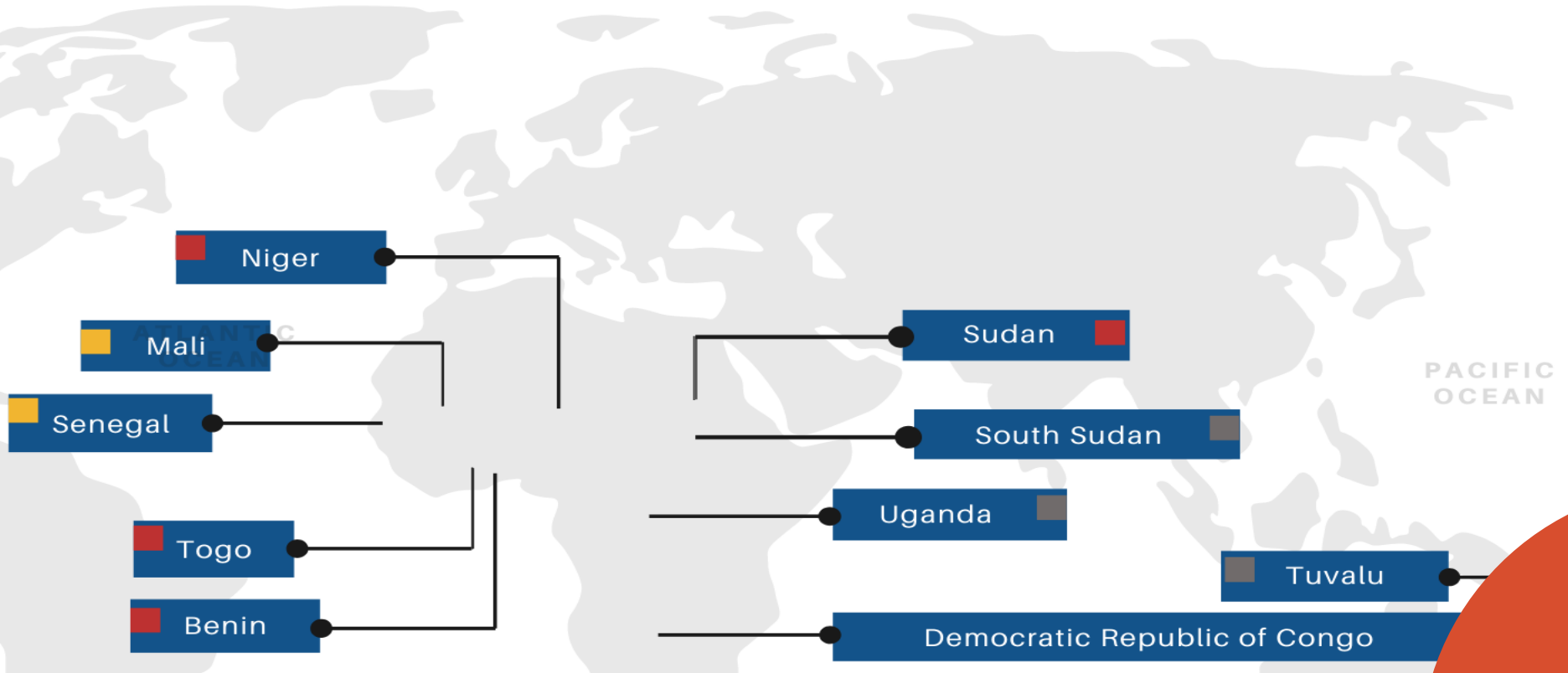
## Pilot Phase: 10 Countries

- across **10 countries**,
- over **2 years**,
- with **\$ 2 million**
- deploy ~ **200 solar water pumps**
- **Strengthen South-South Cooperation modality** for energy projects
- to prepare the inclusive institutions and conducive markets.
- to counter increased vulnerabilities in agricultural communities.
- to ensure sustainability and long-term resilience

Country with Demand	SWP units
Democratic Republic of Congo	80,000
Republic of Benin	50,000
Republic of Sudan	50,000
Uganda	30,000
Mali	15,000
Niger	15,000
Tuvalu	10,000
South Sudan	6,800
Togo	5,000
Senegal	4,000
Total Demand for SWPs	<b>265,800</b>

# Pilot Programme: Scaling Solar Applications for Agricultural Use

10 countries with combined total demand for 265,800 solar based irrigation systems





# Project Components



## Feasibility study

Assessment of demonstration sites & local context, incl. policies, financial & technical capacities, irrigation patterns and ability to pay.



## Demonstration Projects

Procure, install, & provide O&M contracts (incl trained local manpower) for SWPs, benefitting 200 direct farmers.



## Capacity Building

Skilling programmes and trainings for technical staff & financiers to support efforts to scale by the local industry



## Knowledge Management

Develop IEC material detailing best practices and learnings from the demonstration projects.

# Project Stakeholders

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Innovation and Coordination

**UNDP Sustainable Energy Hub and India CO**

Fund Management and Quality Assurance:

**UNDP India & ISA Secretariat**

Implementation and Monitoring:

**UNDP Country Office and ISA Focal Points**

Feasibility Assessment:

**International Experts & National Consultants**

Procurement:

**UNDP Global Procurement Unit (GPU)**

Training Agency:

**ISA, local organizations and technology vendor**

Evaluation:

**Third-party Expert Evaluator**



# Opportunities



## In Pilot Countries:

- Provide **clean energy for sustainable irrigation and increased income generation.**
- Translate international experience to **innovative and localized solutions.**
- Strengthen **local ecosystems to replicate & scale solar applications.**
  - ❖ Establish linkages with international vendors and encourage a **local market ecosystem**
  - ❖ Trainings to develop **skilled manpower & institutional capacity** to support the industry
  - ❖ Provide suggestions to develop **conducive policy and regulations** in the countries
  - ❖ Equip Governments to devise & implement **national plans on clean energy & climate**

## Globally:

- Enhance model for **South-South Cooperation & Multi-Country Projects**
- Enable **climate change mitigation & sustainable development in the global south**



# 2030 Agenda for Sustainable Development Goals

## Solar Water Pumps for Irrigation

- **SDG #1:** End poverty in all its forms everywhere
- **SDG #2:** End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- **SDG #7:** Ensure access to affordable, reliable, sustainable and modern energy for all.
- **SDG #8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- **SDG #12:** Ensure sustainable consumption and production patterns
- **SDG #13:** Take urgent action to combat climate change and its impact



# Thanks!



 **SUSTAINABLE DEVELOPMENT GOALS**

- |   |  |   |  |  |   |  |   |   |   |   |   |
|---|--|---|--|--|---|--|---|---|---|---|---|
| <b>1</b> NO POVERTY<br>       | <b>2</b> ZERO HUNGER<br>         | <b>3</b> GOOD HEALTH AND WELL-BEING<br> | <b>4</b> QUALITY EDUCATION<br>                         | <b>5</b> GENDER EQUALITY<br>               | <b>6</b> CLEAN WATER AND SANITATION<br> | <b>7</b> AFFORDABLE AND CLEAN ENERGY<br> | <b>8</b> DECENT WORK AND ECONOMIC GROWTH<br> | <b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE<br> | <b>10</b> REDUCED INEQUALITIES<br> | <b>11</b> SUSTAINABLE CITIES AND COMMUNITIES<br> | <b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION<br> |
| <b>13</b> CLIMATE ACTION<br> | <b>14</b> LIFE BELOW WATER<br> | <b>15</b> LIFE ON LAND<br>            | <b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS<br> | <b>17</b> PARTNERSHIPS FOR THE GOALS<br> |                                       |  |   |   |   |   |   |