ASIA CLEAN ENERGY FORUM 2025

Empowering the Future: Clean Energy Innovations, Regional Cooperation and Integration, and Financing Solutions

2–6 June | ADB Headquarters

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ADB

DEEP DIVE WORKSHOP

Towards a Cleaner Future: Accelerating Global Cooperation and Innovation for Sustainable Energy

4 June 2025 | 2:00p.m. – 5:30 p.m.

ADB ASIAN DEVELOPMENT BANK

KOREA ENERGY AGENCY

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A Korea – Sri Lanka Cooperation Model for Sustainable Energy Transition: A journey spanning 15 years

Harsha Wickramasinghe
Director General
Sri Lanka Sustainable Energy Authority

Korea – Sri Lanka Cooperation

- Sri Lanka has developed close technical ties with many Korean agencies
  - Not only in energy sector, but in many other fields

- It is the first country which came forward to work with the new agency, just after the establishment of it in 2007
  - First project was a ground breaking moment for the renewable energy sector
  - The Authority still operates it successfully

- Second project was not a cooperation project
  - A Korean firm won a competitive bid to erect a refrigeration test facilty
  - Financed by the ADB

- **Project title:**

Greenhouse Gas (GHG) reduction project for Supporting Establishment of Energy Efficiency Testing Laboratory for Air Conditioners in Sri Lanka

- **Project objectives:**
  - To assist implementation of the energy labelling programme for air conditioners in Sri Lanka;
  - To assist improving energy efficiency of air conditioner market in Sri Lanka;
  - To support GHG emissions reduction by reducing the electricity demand in Sri Lanka.

- **Project duration:** 2022 -2026

- **Project location:** Lanka Electricity Company(Pvt) Ltd., Training Centre at Ja-Ela.

Project scope

- Establishing the AC energy efficiency testing laboratory.
- Corporation on operating the lab, certification, standardization, etc.
- Training of the local parties involved in the project on operation and maintenance of the test lab, energy efficiency improvement systems and Korean major laws and policy trends regarding energy.
- Developing renewable energy and GHG reduction projects for implementing Nationally Determined Contributions (NDCs) of the Power Sector, Sri Lanka.
- Any other areas that may be jointly decided upon by the parties.

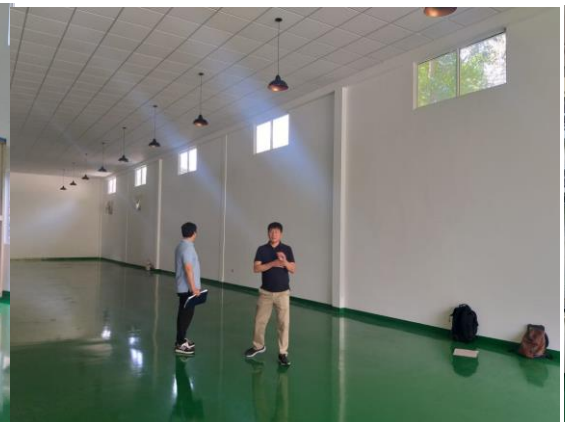
Project implementation

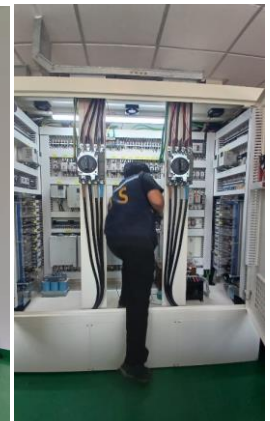
Agencies involved:

Role of the agency	South Korea	Sri Lanka
Managing/executing	Korea Energy Agency (KEA)	Ministry of Power & Energy (MoPE)
Implementation	Korea Research Institute on Climate Change (KRIC)	Sri Lanka Sustainable Energy Authority (SLSEA)
	Korea Testing Certification Institute (KTC)	Lanka Electricity Company (Pvt) Ltd. (LECO)

Project implementation

- Invitational Training programmes for Sri Lanka officials in Korea (2022 and 2025) on regulatory framework and technical material;
- Awareness workshop for stakeholder institutions and air conditioner suppliers;
- Selection of the site and construction of the building according to the guidance;
- Visits of the Korean team for site inspection, equipment inspection, provide guidance and progress monitoring
- Equipment came in three shipments;
- Onsite training to the Engineers and technical staff.





Importance of introducing energy label to air conditioners

Sri Lanka Sustainable Energy Authority

Supply Side Management

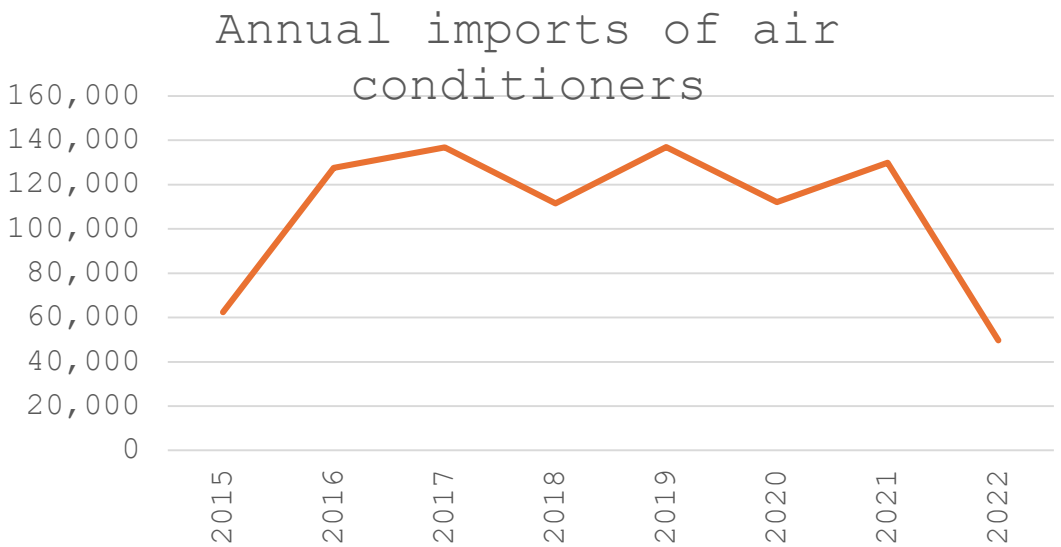
Demand Side Management

Appliance Energy Labelling Programme in Sri Lanka

Mandatory labelling programmes are in operation

Compact Fluorescent Lamps (CFLs), Ceiling fans, LED Lamps, Refrigerators

Computers, **Split air conditioners**, LED panel lights, pedestal, table and wall fans rice cookers, water pumps, televisions are already addressed.



Lack of test facility to test energy efficiency of air conditioners

Air conditioner test facility – complete construction

- The test facility facilitates testing air conditioners under the indoor air enthalpy test method;
- The test facility has the capacity of testing split air conditioners up to the capacity of 17 kW;

Opening ceremony of the test facility

- The test facility was opened in November 2024;
- The ceremony was honoured by the Ambassador of the Republic of Korea to Sri Lanka;

Post supervision and onsite training

- The first mission of the Korean team after the establishment of the test facility took place during the third week of March 2025;
- Onsite training for the Engineers and the technical staff was conducted during this mission;
- The plans ahead were discussed and identification of the ODA/NDC projects discussed;

Expectations - as outcome of the programme

- Introduce energy label for air conditioners:
  Standards are already published and with the new lab facility mandatory labelling programme is expected to be initiated;
- Create awareness among general public on importance of using energy efficient air conditioners and hoe to identify energy efficient products;
- Annual energy saving of 1,400 GWh/annum and an annual CO_2 emission reduction of 966 ktonnes of CO_2/ annum.

Ground mounted Solar Pilot Project in Sri Lanka

- **Donor Agency -** Government of the Republic of Korea
- **Project location –** Hambantota
- **Project Capacity -** 500 kW
- **Connection to National grid –** 2011
  - Serves as a **National Research & Training Center** for:
  - Project Developers, Researchers, University Students,
  - Technical College Students & School Students

Floating Solar Pilot Projects in Sri Lanka

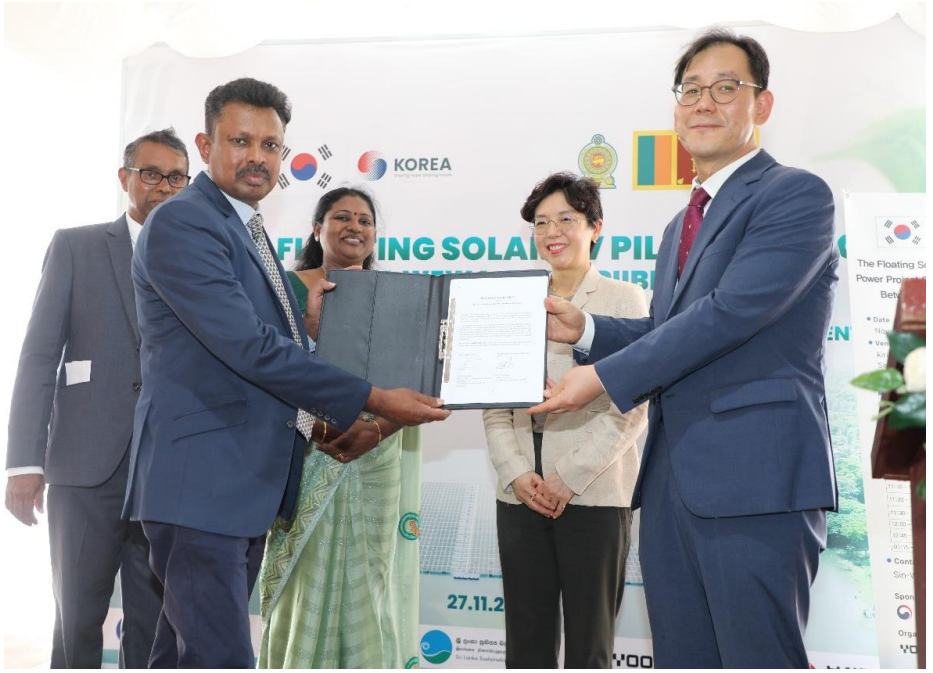
- **Donor Agency**
- Korean Institute of Advance Technology, Republic of Korea

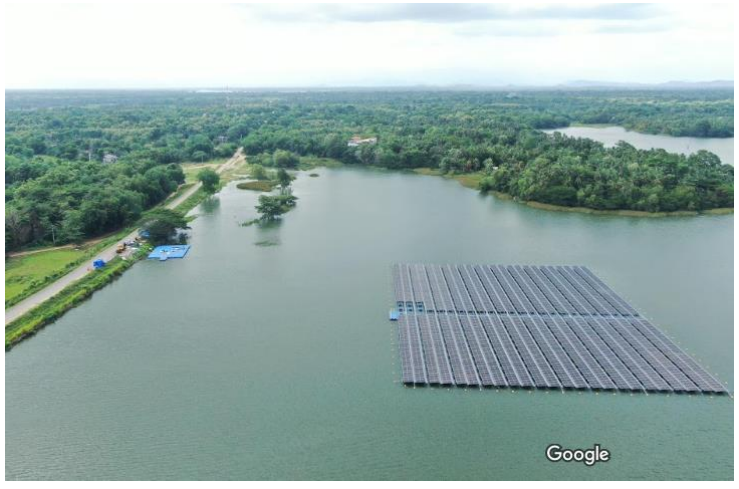
- **Technical Service provider and Project Management Consultant**
- Yooshin Engineering Corporation, Korea

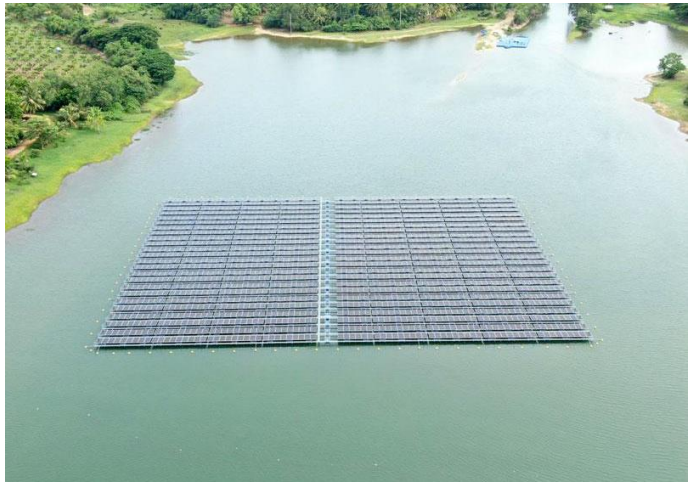
- **Project location**
- Chandrika wewa -Rathnapura
- Kiriibban wewa – Monaragala

- **Project Capacity**
- 1 MW at each reservoir

- **Connection to National grid**
- November 2024







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இலங்கை நிலைபெறுதகு சக்தி அதிகாரசபை
Sri Lanka Sustainable Energy Authority