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GREEN HYDROGEN FOR RAPID DECARBONIZATION

HYDROGEN | METHANOL | AMMONIA

Transition fuel for the future



Fertilizers



Mobility



Shipping



Space Heating



Fuel Cells

CONTEXT



Green hydrogen serves as a crucial tool for decarbonizing challenging industries like chemicals, agriculture, steel, and mobility which are historically hard to decarbonize, presenting a transformative opportunity for South Asian countries.

National Green Hydrogen Mission Outline

The Government of India has launched the Green Hydrogen Mission. The mission's objective is to make India the global hub for production, usage and export of Green Hydrogen and its derivatives. It will contribute to India's aim to become Aatmanirbhar through clean energy and serve as an inspiration for the global Clean Energy Transition. The Mission will lead to significant decarbonization of the economy, reduced dependence on fossil fuel imports, and enable India to assume technology and market leadership in Green Hydrogen.



5 MMT
per annum green
hydrogen
production
capacity

125GW
renewable
energy capacity
addition



50 MMT
per annum CO2
emissions are
expected to be
averted

6 lakh
new job
opportunities



Key Interventions



Policy Development and Implementation Support

- Designed & launched the Green Hydrogen Roadmap for Sri Lanka
- Designed a scheme for providing subsidies & incentives for the upcoming Gujarat Green Hydrogen Policy
- Developed a critical GoO (Guarantee of Origin) mechanism for certification of Hydrogen as Green



Techno-Commercial Studies

- Feasibility studies for production of green ammonia for decarbonizing the fertilizer industry
- Utilizing biogenic & electrolysis pathways to estimate production cost of Green Methanol for the shipping industry
- Green Hydrogen production for Leh using rooftop solar power and utilizing waste-water



Outreach and Awareness

- Building knowledge of South Asian countries through South Asia Clean Energy Forum (SACEF) 2023 – A regional energy forum
- South Asia master class on Green Hydrogen with Skill Council for Green Jobs (SCGJ)



Job Creation

- Skill Gap Assessment of priority jobs roles in Green Hydrogen for Skill Council for Green Jobs (SCGJ)



Access to Finance

- Launched a Green Hydrogen Investment Landscape Report
- Awareness Workshop on Green Hydrogen for Financial Institutions with 97 participants from 18 banks/Financial Institutions

Partners

Government of India :

- Ministry of New & Renewable Energy (MNRE)
- National Thermal Power Corporation (NTPC)
- Bureau of Energy Efficiency (BEE)
- Skill Council for Green Jobs

Government of Sri Lanka:

- Petroleum Development Authority (PDA)
- Greenstat

About SAREP

The South Asia Regional Energy Partnership (SAREP), a flagship program to advance objectives of the U.S. Government's Clean Asia Enhancing Development and Growth through Energy (Clean EDGE), is a five-year initiative (2021-26) that aims to improve access to affordable, secure, reliable, and sustainable energy across six South Asian countries—Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka—in line with these countries' climate and clean energy priorities.



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Disclaimer: This document was produced for review by the United States Agency for International Development. It was prepared by RTI International for the South Asia Regional Energy Partnership (SAREP) activity, task order number 72038621F00002.

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