



World Hydrogen Summit 2024

Source: PIB

The **Indian Pavilion**, organised by the **Ministry of New and Renewable Energy**, stands as one of the largest at the esteemed **World Hydrogen Summit 2024 in Rotterdam, Netherlands**. It serves as a platform to showcase the nation's notable advancements in [green hydrogen](#).

- **India's Green Hydrogen Initiatives:** India launched the [National Green Hydrogen Mission \(NGHM\)](#) in **January 2023** with a budget of Rs. 19,744 crores.
 - The mission aims to achieve a green hydrogen production capacity of 5 MMT (Million Metric Tonnes) by 2030. Currently, tenders have been awarded for setting up 412,000 tonnes of Green Hydrogen production capacity and 1,500 MW of electrolyzer manufacturing capacity.
 - Under NGHM **a dedicated portal was launched to provide information on the mission** and steps for developing the green hydrogen ecosystem in India.
 - India has also released scheme guidelines for the use of [Green Hydrogen in steel, transport, and shipping sectors](#).
 - The **Department of Science and Technology** has initiated **Hydrogen Valley Innovation Clusters** to foster innovation and promote the green hydrogen ecosystem in India.

NATIONAL GREEN HYDROGEN MISSION

NODAL MINISTRY

- Ministry of New and Renewable Energy

OBJECTIVE

- Decarbonise energy/industrial/mobility sector
- Develop indigenous manufacturing capacities
- Create export opportunities for GH_2 and its derivative

COMPONENTS OF NGHM

- Strategic Interventions for Green Hydrogen Transition Programme (SIGHT)
- Strategic Hydrogen Innovation Partnership (SHIP) (PPP for R&D)

GH_2 is not commercially viable at present; current cost in India is around ₹350-400/kg.
The National Hydrogen Energy Mission aims to bring it down under ₹100/kg.

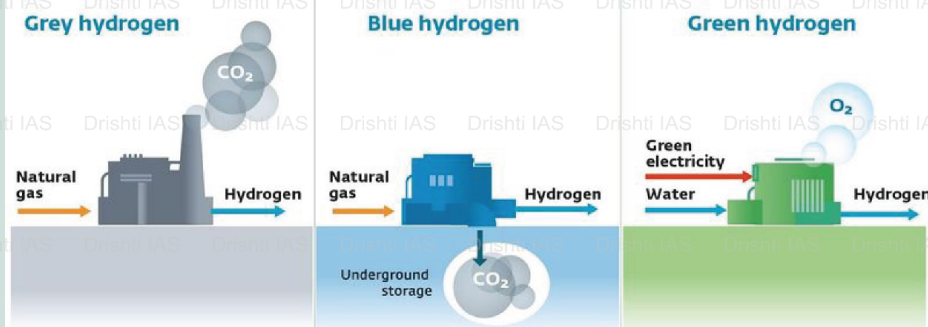
Expected Outcomes by 2030

- ◆ Atleast 5MMT GH_2 annual production
- ◆ Rs 1 lakh crore fossil fuel import savings
- ◆ 6 lakh jobs
- ◆ 50MMT CO_2 annual emissions averted
- ◆ ₹ 8 lakh crore investment

HYDROGEN AND GREEN HYDROGEN

Hydrogen is the most common element in nature but exists only in combination with other elements. It has to be extracted from naturally occurring compounds (like water).

Green Hydrogen (GH_2) is made by splitting water through an electrical process called electrolysis, using an electrolyser powered by renewable energy (RE).



Read more: [Green Hydrogen - Substitute to Fossil Fuel](#)

PDF Reference URL: <https://www.drishtiias.com/printpdf/world-hydrogen-summit-2024>