

## Green Hydrogen Certification Scheme

**Prelims** - *Current events of national and international importance, Sustainable Development.*

**Mains (GS-I)** - *Conservation*

### Why in news?

Recently Union Minister of New and Renewable Energy launched a scheme to measure, monitor, report, verify on-site, and certify green hydrogen based on a standard introduced by the Ministry in 2023.

- **Green hydrogen certification** - It is a process that verifies the sustainability of hydrogen production, ensuring it's made using renewable energy and has low greenhouse gas emissions.
- **Nodal agency** - The Bureau of Energy Efficiency (BEE).
- **Certification standards** - The standard emissions capped at 2 kg of CO<sub>2</sub> emitted per kg of hydrogen produced in 12-month average.
- It is applied only to green hydrogen ***production from electrolysis*** or conversion of biomass.
- **Carbon Credit Trading Scheme (CCTS)** - BEE also announced an offset mechanism for hard-to-abate sectors using green hydrogen under CCTS on.

*Hard-to-abate sectors are those where reducing emissions is particularly challenging due to the nature of their industrial processes and their dependence on fossil fuels.*

*These sectors include iron and steel production, cement manufacturing, non-ferrous metals, and chemicals.*

- This offset mechanism allows these sectors to use green hydrogen to earn and trade carbon credits.
- Current CCTS mechanism does not include sectors like steel, refineries, and shipping.

### Significance

- It will boost India's green hydrogen exports and encourage energy-intensive sectors to adopt the emerging fuel.
- It will help to ensure that the hydrogen produced in India truly qualifies as green.
- It prevents greenwashing and ensure quality and credibility, making it globally

desirable and export-ready.

*Government has identified Kandla, Paradip, and Tuticorin international ports as key hubs for green hydrogen production.*

### Quick facts

#### **National Green Hydrogen Mission**

- **Nodal ministry** - Ministry of New and Renewable Energy (MNRE)
- Backed by an outlay of nearly Rs 20,000 crore.
- Supports domestic electrolyser manufacturing, green hydrogen production, and sector-specific pilot projects.
- Encourages sustainable water use and R&D for technologies using seawater or wastewater.

To know more about this, click [here](#)

### Reference

[The Indian Express| Green Hydrogen Certification Scheme](#)

