

# Climate Change and Constitutional Response

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*Ministry of New and Renewable Energy*  
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# Constitution & Climate Change

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- The Constitution of India serves as a comprehensive framework guiding the country's approach toward climate change
- Constitutional Provisions
  - **Article 47** of the Constitution underscores the State's obligation to elevate nutrition, living standards, and public health
  - **Article 51-A(g)** assigns citizens the duty to preserve and enhance natural elements.
  - **Articles 14, 19 and 21** of the Constitution guarantee certain fundamental rights, including the right to life, liberty, equality, and freedom of speech and expression

# Environment and Public Health: Contribution of Renewables

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Substituting fossil fuels in power generation with renewables

Reduced local pollution

Reduced GHG emissions

Prevents emissions of  
SO<sub>x</sub>, NO<sub>x</sub>, particulate  
matter

Prevents contamination  
of water sources

Combats climate  
change

Improved Health  
outcomes

India has taken leadership position in global climate policy, raising the concerns of global south and developing nations

# Renewables for Environment: Key Goals

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Enhance electrification of industry, transport, agriculture, household energy use

Increase share of Renewables in electricity generation

Replace fossil fuels with biomass and green hydrogen

Encourage decentralized RE solutions

# Measures to combat Green House Gas Emissions

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**Globally, the energy sector remains the largest contributor to GHG emissions over any other sector, representing about 76% of global emissions.**

- India is the World's 3rd largest GHG emitter, with a total share of 7.3%
- Emissions per Capita (tCO<sub>2</sub>e/person) in India is very low at about 2.79
- India's Energy Sector contributes about 75% of the GHG emissions

**Government has voluntarily implemented measures to curb greenhouse gas emissions:**

- Promotion of renewable energy projects/ applications through financial incentives
- Boosting investment in clean energy sector
- Boosting local supply chain by promoting ease of doing business
- Establishing institutions like IREDA, SECI and BEE to promote green growth

# Commitments to mitigate climate change

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**Government of India, formulated and released the National Action Plan on Climate Change (NAPCC) on 30th June, 2008.**

- National Solar Mission launched in January 2010, one of the eight missions under NAPCC with initial target of 20 GW by 2022
- Target increased to 100 GW in 2014

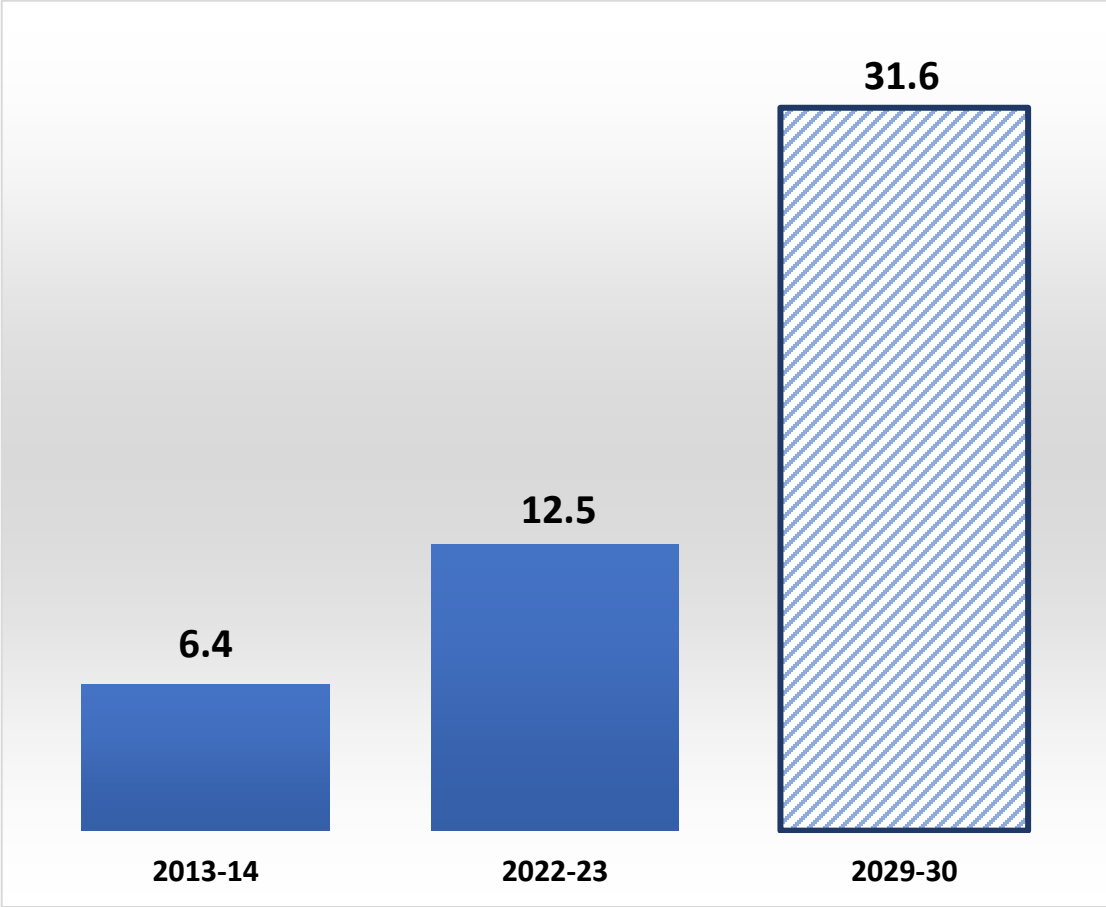
**Hon'ble Prime Minister announced *Panchamrit* pledges in COP26:**

- Reach 500 GW non-fossil energy capacity by 2030.
- 50 per cent of its energy capacity from renewable energy by 2030.
- Reduction of total projected carbon emissions by one billion tonnes till 2030.
- Reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels.
- Achieving the target of net zero emissions by 2070

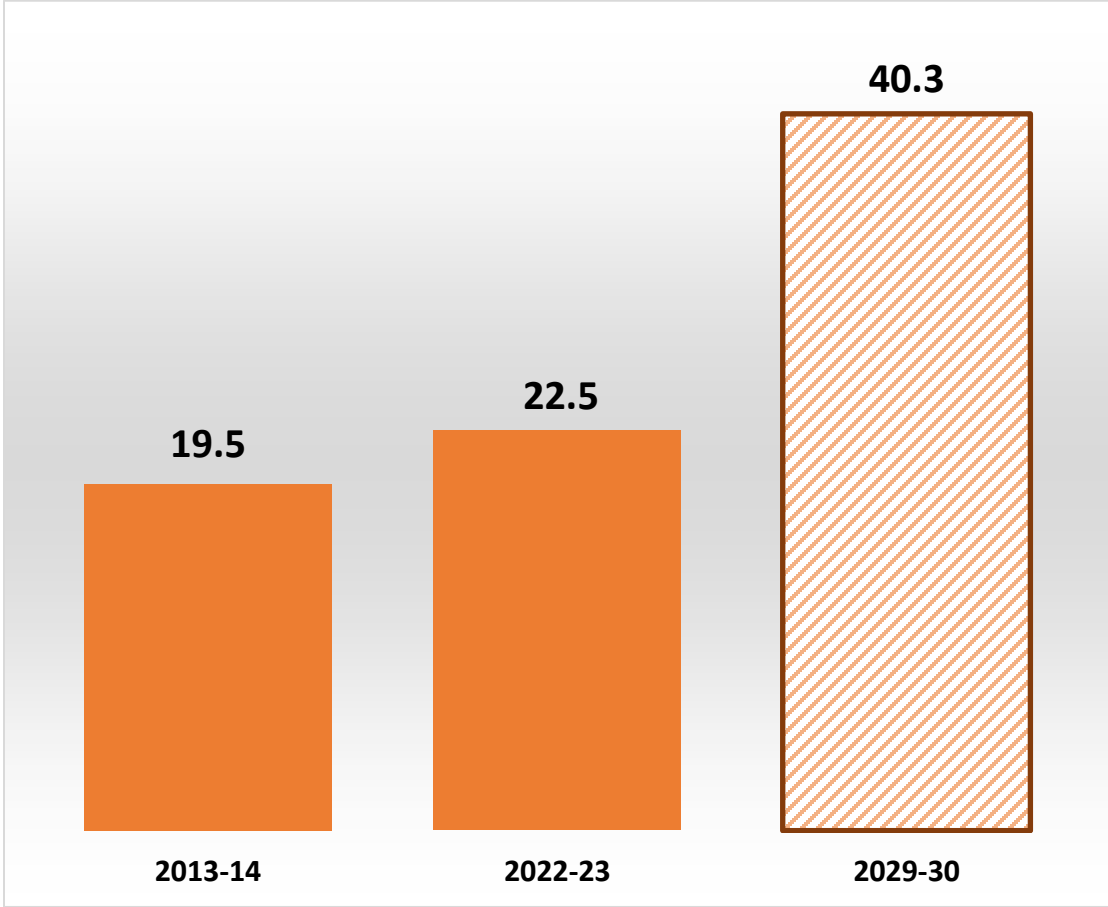
# Overview of RE Deployment

Sector	Installed Capacity	Projects in Pipeline	Total	Targeted Capacity 2030
 Solar Power	72.02	94.47	166.49	<b>292</b>
 Wind Power	44.29	14.97	59.26	<b>100</b>
 Hydro Power	51.84	18.56	70.4	<b>78</b>
 Bio Energy	10.84	---	10.8	<b>15</b>
Total	178.98	154.21	333.19	<b>485</b>
 Nuclear	7.5	15.0	22.5	<b>15</b>
Total Non-Fossils	186.46	169.21	355.67	<b>500</b>

# Greening Electricity: Share of RE in Electricity Mix



*Excluding Large Hydro*



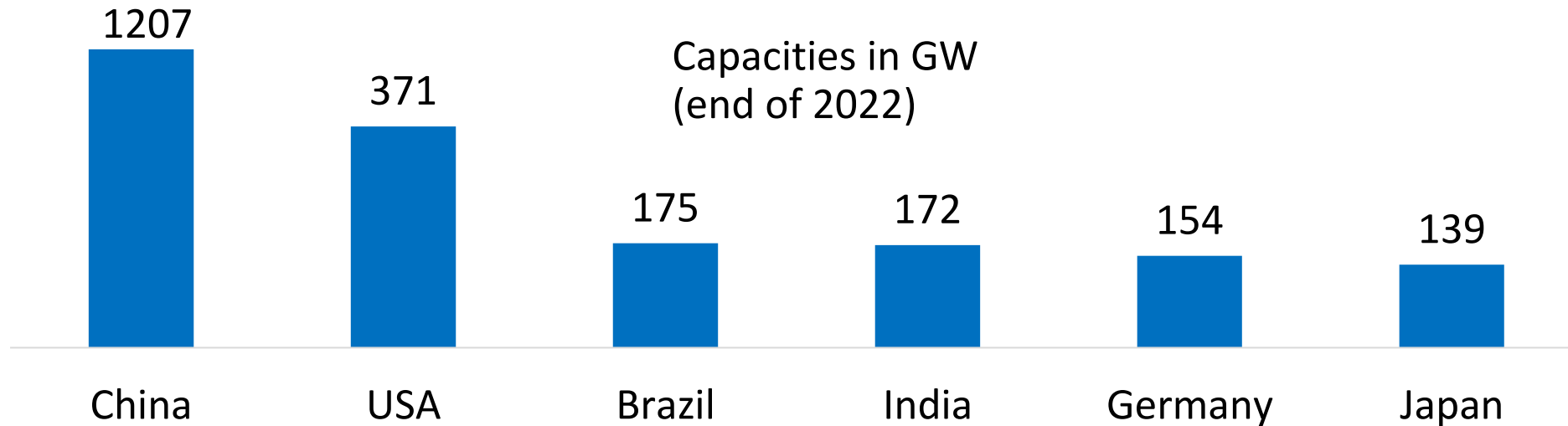
*Including Large Hydro*

**% Renewable Energy in India's Energy Mix**



# Global Status & Achievements

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- India stands **4th** globally in Renewable Energy Installed Capacity,
- **4th** in Wind Power capacity & **5th** in Solar Power capacity

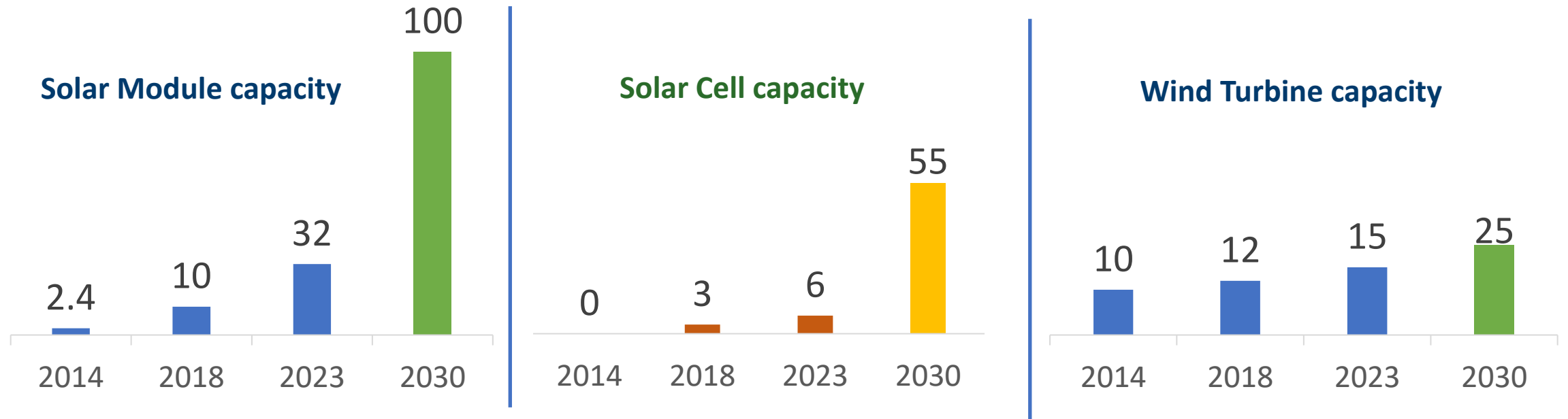
- India has witnessed the 3<sup>rd</sup> largest installations in the last 5 years
- Installed RE capacity increased from 76 GW in March 2014 to 179 GW in October 2023, an increase of 2.34 times
- RE generation has increased from 191 BU in 2014 -15 to 366 BU in 2022-23

# Initiatives and Achievements

- Installed Capacity (GW):

	2014	2018	2023
Solar	2.8	22	72
Wind	21	34	44

- *Atmanirbhar Bharat*: Manufacturing Capacity (GW)



# Major Policy Reforms

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## **Capacity Expansion:**

- 5 Year Bidding Trajectory
- Standard Bidding Guidelines
- RTC/Hybrid/ BESS/Floating Solar
- RE Generation Obligation
- Green Markets

## **RE Consumption:**

- RPO/ESO Trajectory
- RE Consumption norms for Discoms under EC Act
- Green Open Access
- RE Pooling Tariff

## **Transmission Planning:**

- Transmission Plan 2030
- ISTS Waiver (Incl. Offshore/ GH2)

## ***'Atmanirbhar'* Supply Chain:**

- Domestic Content Requirement
- BCD On Solar PV
- Solar PLI

# Achievements under Major Programmes of MNRE

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- **PLI Scheme for High Efficiency Solar PV Modules**

- Outlay Rs.24,000/- crore, LoAs issued for over 48.3 GW Solar manufacturing capacity

- **Solar Parks Scheme**

- 40 GW target; 37.5 GW sanctioned; 10.2 GW commissioned

- **Green Energy Corridor**

- Phase I: 8984 ckm, 21293 MVA S/S completed; end by Dec 2023

- Phase II: 10753 ckm, 27546 MVA S/S launched; completion by Mar 2026

- Inter-State Transmission System Project in Ladakh, - Setting up 13 GW RE along with 12000 MWh Battery Energy Storage System (BESS) at a total cost of Rs. 20,774 crore

# Achievements under Major Programmes of MNRE

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- National Green Hydrogen Mission

- Outlay Rs.19,744 crore, 5 MMT per annum Green Hydrogen Production target by 2030

- PM KUSUM

- 34.8 GW target; 24.2 GW sanctioned (4.7 GW comp-A, 47 lakh pumps comp-B,C)

- 1.5 GW commissioned

- Solar Rooftop

- 40 GW target; 10.2 GW Installed, including 2.5 GW Residential RTS

*Questions?*