



India to Reach Carbon Neutrality by 2070

Why in News

Recently, India announced that it will **reach [carbon neutrality](#) by 2070** as part of a **five-point action plan** that included reducing emissions to 50% by 2030.

- India made this pledge at the **[Conference of the Parties \(COP\) 26 climate summit in Glasgow](#)**, where it also urged developed countries to deliver on their promise of **[climate financing](#)**.
- However, India hasn't submitted an updated **[Nationally Determined Contribution \(NDCs\)](#)** with these commitments to the **[United Nations Framework Convention on Climate Change \(UNFCCC\)](#)** yet.

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PM MAKES FIVE PLEDGES

- 1 India will increase its non-fossil energy capacity to 500GW by 2030
- 2 India will meet 50% of its energy requirements from renewable energy by 2030
- 3 India will reduce the total projected carbon emissions by one billion tonnes from now to 2030
- 4 By 2030, India will reduce the carbon intensity of its economy by 45% (from a previous target of 35%)
- 5 By 2070, India will achieve the target of net zero

WHAT IS NET ZERO?

Net zero refers to a balance where emissions of greenhouse gases are offset by the absorption of an equivalent amount from the atmosphere. Experts see net zero targets as a critical measure to successfully tackle climate change and its devastating consequences

PLEDGES BY TOP THREE EMITTERS

-  CHINA: Beijing announced no new pledges on Monday. It previously pledged net zero by 2060.
-  UNITED STATES: The US touted domestic legislation to spend \$555bn to boost renewable power and electric vehicles. It has pledged net zero by 2050.
-  INDIA: The country's economy will become carbon neutral by the year 2070

Key Points

- **About:**
 - Net Zero is a **state in which a country's total emissions are offset by absorptions of carbon dioxide** from the atmosphere, like that done by trees and forests, and physical removal of carbon dioxide through futuristic technologies.
 - More than **70 countries have promised to become Net Zero by the middle of the century**, and this is being considered vital for meeting the Paris Agreement goal of keeping global temperatures within 2 degrees Celsius from pre-industrial times.
 - India's Net Zero target of 2070 silences its critics but it is along expected lines.
- The big thing here is not the target itself but the fact that **India finally relented and decided to take up a target**, something it had been holding back on for

quite some time.

- In its climate action plan submitted under the [Paris Agreement](#), India had promised to reduce its emissions intensity, or emissions per unit of [Gross Domestic Product](#), by 33 to 35% by the year 2030 compared to 2005 levels.

▪ Reducing India's Emissions:

- India **has the lowest per capita emissions** of the world's major economies -- emitting **5% of the total**, despite accounting for **17% of the world's population**.
- According to the [World Resources Institute](#), India's total [greenhouse gas](#) emissions were about 3.3 billion tonnes in 2018.
 - It's **projected to rise above 4 billion tonnes per year by 2030**.
- That would mean between now and 2030, **India could be emitting anywhere between 35 to 40 billion tonnes** at the current rates of growth.
- Cutting 1 billion tonnes would, therefore, represent a reduction of **2.5 to 3% in its absolute emissions** in the business-as-usual scenario in the next nine years.

▪ India's New Renewables Target:

- In 2019 India announced that it would take up its installed capacity of [renewable energy to 450 GW by 2030](#).
 - At that time, India's publicly stated target was [175 GW by the year 2022](#).
- The installed renewable capacity has been growing rapidly in the last few years, and the **enhancement as per its pledge from 450 GW to 500 GW is not likely to be very challenging**.
- The **increase in the proportion of non-fossil fuel energy** in the energy mix, to 50% is a natural corollary of this.
- Most of the new capacity additions in the energy sector are being done in the renewable and non-fossil fuel space.
 - In fact, India has already said **it does not plan to start any new coal power plants after 2022**.
 - As of now, India was already targeting 40% electricity production through non-fossil fuel sources by 2030.

▪ Climate Finance:

- India's efforts though will have to be supported by the **availability of climate finance from developed countries**. Without foreign capital, on concessional terms, this transition will prove to be difficult.
- India **demands USD 1 trillion of climate finance as soon as possible** and will monitor not just climate action, but deliver climate finance.
- Most importantly, India has called, once again, for a **change in lifestyles**.

▪ Steps Needed to Achieve Net Zero:

- According to the [Council on Energy, Environment and Waters](#) implications of a Net-zero Target for India's Sectoral Energy Transitions and Climate Policy' study, **India's total installed solar power capacity would need to increase to over 5,600 gigawatts to achieve net-zero by 2070**.
- The **usage of coal, especially for power generation, would need to drop by 99% by 2060**, for India to achieve net-zero by 2070.
- Consumption of **crude oil, across sectors**, would need to peak by 2050 and **fall substantially by 90% between 2050 and 2070**.
 - [Green hydrogen](#) could contribute 19% of the total energy needs of the industrial sector.

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