



## Net Zero

### Description

#### What is Net Zero:

- Net-zero means achieving a balance between greenhouse gas emissions and the removal of greenhouse gases from the atmosphere. When the entire man-made greenhouse gases are taken out of the atmosphere, then the net-zero goal will be achieved.
- In April 2021, United States conducted a virtual summit on climate change with 40 world leaders. At the summit, several countries including the US, UK, EU countries pledged that they are committed to achieving the net-zero goal by the year 2050.

#### Why the concept of Net Zero:

- The continuous greenhouse gas emissions through industries, transportation systems and livestock are resulting in global warming and a change in climate patterns because greenhouse gases tend to trap heat and prevents it from escaping the earth. Climate change will result in severe floods, droughts and thereby will lead to mass displacement of people and loss of lives.
- Many greenhouse gases such as carbon dioxide, methane etc. occur naturally in the atmosphere. So, the temperature is rising for the past million years. In the past, Earth took approximately 5000 years to warm 5 degrees Celsius. But in the past century alone, that means from the year 1900 to 2000, global temperature has climbed 0.7 degrees Celsius. And it is expected that there will be a 2 to 6 degree Celsius rise in the global temperature from the year 2000 to 2100, which is 20 times faster than the normal growth rate.
- If the global temperature rose to even 2 degrees Celsius, it will lead to dangerous consequences. So in COP21 (the 21st meeting of the United Nations Climate change conference) in December 2015, the world leaders decided to limit global warming to 1.5 degrees Celsius.
- To reach the goal, several countries pledged in the virtual summit of climate change in April 2021 to become carbon-neutral or Net-zero carbon-emitting countries by 2050. That means

they will balance the carbon emissions with the removal of carbon from the atmosphere.

### **How Net-zero can be achieved:**

- Reducing greenhouse gas emissions by taking several steps such as developing renewable energy resources instead of burning fossil fuels, replacing fuel-based vehicles with electric vehicles, developing efficient technologies etc. Energy, transportation and manufacturing sectors need to adopt net-zero targets.
- Creating carbon sinks to store carbon dioxide by removing it from the atmosphere. Plants and the ocean are natural carbon sinks as they absorb CO<sub>2</sub> from the air. So, by creating additional forest and tree cover, some amount of carbon dioxide can be removed from the atmosphere.
- By utilizing carbon capture technologies. Carbon capture technologies can help in removing carbon dioxide from the atmosphere and stores it in the deep underground, where it cannot be released back into the atmosphere.

### **Steps taken worldwide:**

- Several countries including the UK, the US, New Zealand, Brazil have pledged to reach net-zero emissions by the year 2050.
- Sweden kept the net-zero goal for the year 2045.
- India has not promised any deadline yet.
- Bhutan and Suriname are carbon negative countries, which means they absorb more carbon than they emit.

### **Criticism:**

- Many countries, especially developed countries did not reach the goals that were promised in previous climate summits. So, many are of the opinion that the net-zero promise may also be delayed.
- Historically, the US and EU countries caused most of the carbon emissions by rapid industrialization. So, they have to reach the net-zero goal much earlier instead of delaying it till 2050. Moreover, developing countries like India are yet to reach peak emissions and hence cannot afford to declare the target year. So, expecting all the countries to reach the goal by mid-century is unfair.
- Carbon capture technologies are still in the development stage. So, depending on these technologies to reach the net-zero goals is unrealistic. And this concept may also undermine the importance of reducing carbon emissions by the transition to greener economies.

### **Conclusion:**

Net-zero goal is highly challenging and very much needed. This should not be delayed like the previous climate goals. And all the countries should keep short term targets, without which reaching the bigger goal will be nearly impossible. Developed countries, which caused most of

the carbon emissions historically should help developing countries to transition to zero carbon-emitting countries by helping them financially and also through technology transfer.

### **Your Turn...**

What are your thoughts on Net Zero? Express your point of view through the comment section below. And subscribe to our blog to read answers to the trending GD topics.

### **References:**

- [Climate scientists – concept of net zero is a dangerous trap](#)
- [What is net-zero, and what are India's objections?](#)
- [Reworking net-zero for climate justice](#)
- [What Is A Net Zero Emissions Pledge & Does India Benefit From It?](#)

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