

## Reworking net-zero for climate justice

Global transformation is affecting the planet.

However, there is no uniform transformation across the world.

- The global temperature increased sharply only after 1981 with little contribution from the developing countries.
- Their industrialisation and urbanisation was yet to begin.

India's Concern:

- When the Sustainable Development Agenda 2030 was adopted at the Paris Conference, the Prime Minister of India stressed a reframing of climate change to climate justice.
- He argued that just when countries such as India were becoming major industrial and middle-class nations, they should not pay the price for the pollution caused by the West.
- The Paris Agreement, explicitly recognises that peaking will take longer for such countries and is to be achieved in the context of sustainable development and efforts to eradicate poverty.
- This balance is now being upset for a common target and timetable.

Treaty's inequity:

First, inequity is built into the Climate Treaty.

Annual emissions make India the fourth largest emitter, even though climate is impacted by cumulative emissions, with India contributing a mere 3% compared with 26% for the United States and 13% for China.

According to the United Nations, while the richest 1% of the global population emits more than two times the emissions of the bottom 50%, India has just half its population in the middle class and per capita emissions are an eighth of those in the U.S. and less than a third of those of China.

The diplomatic history of climate negotiations shows that longer-term goals without the strategy to achieve them solve a political problem and not the problem itself. Eg: As in the case of finance and technology transfer.

The current framework considers symptoms, emissions of carbon dioxide, and was forced onto developing countries to keep the discussion away from the causes of the problem - the earlier excessive use of energy for high levels of well-being.

Models on which global policy recommendations for developing countries are based consider achieving 'reasonable', not 'comparable' levels of well-being to show that early capping of energy use will not affect their growth ignoring costs on the poor.

The rising prosperity of the world's poor does not endanger the planet. The challenge is to change wasteful behaviour in the West.

Role of infrastructure:

- Infrastructure has a defining role because of the services it provides outside the market and the way it shapes demand distinct from production and consumption.
- The vaguely worded 'net zero' emissions, balancing emissions and removals, could be disastrous for development latecomers like India.
- It fails to recognise that more than half the global cumulative emissions arose from infrastructure, essential for urban well-being.
- For developed countries, the peaking of emissions came some 20 years after infrastructure saturation levels were reached and net-zero emissions are being considered some two decades

even later to take advantage of ageing populations and technology.

- Because of its young population and late development, much of the future emissions in India will come from infrastructure, buildings and industry, and the trajectory cannot be shifted to reach comparable levels of well-being with major economies.

Way Forward:

New framework:

- A global goal-shaping national strategy requires a new understanding.

- India must highlight unique national circumstances with respect to the food, energy and transportation systems that have to change.

  - Eg: consumption of meat contributes to a third of global emissions. Indians consume much less meat a year compared with European Union and the U.S.

- Transport emissions account for a quarter of global emissions, are the fastest-growing emissions worldwide and have surpassed emissions from the generation of electricity in the U.S., but are not on the global agenda.

## Coal use:

- Coal accounts for a quarter of global energy use.
- Rising Asia uses three-quarters of it as coal drives industry and supports the renewable energy push into cities.
- India with abundant reserves and per-capita electricity use that is a tenth that of the U.S. is under pressure to stop using coal, even though the U.S. currently uses more coal.
- India wants to eliminate the use of oil instead with renewable energy and hydrogen as a fuel for electrification, whose acceleration requires international cooperation around technology development and transfer.

## Conclusion:

- In the Paris Agreement, climate justice was downgraded to the preamble as a political, not policy, statement.
- There is a need for a reframing of the global concern in terms of sustainable development for countries with per capita emissions below the global average, in line with the Paris Agreement.

- The verifiable measure should be well-being within ecological limits.
- International cooperation should centre on sharing technology of electric vehicles and hydrogen as a fuel, as they are the most effective response to climate change.

## Deconstructing declarations of carbon-neutrality

There has been a growing international chorus, led by global civil society organisations urging all countries to make explicit declarations with respect to carbon neutrality.

- An increasing number of countries are declaring in some documented form or other, their proposed intention to achieve carbon-neutral status by around mid-century.

- As per Energy and Climate Intelligence Unit (ECIU), by April 2021, about 32 countries had declared their proposed intention to achieve carbon-neutral status. Of these, only eight have any firm status, the rest being in the form of proposed legislation or mentions in policy documents.

Temperature goal:

- The declaration of intent of the Paris Agreement, as stated in Article 2 of the Paris climate deal, aims to limit temperature rise to well below  $2^{\circ}\text{C}$  and further pursuing efforts to restrict it to  $1.5^{\circ}\text{C}$  above pre-industrial levels.

Carbon neutrality:

Article 4.1 of the Paris Agreement urges nations to reach global peaking of greenhouse gas emissions as soon as possible, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century.

Concerns with respect to carbon neutrality calls:

- The authors of the article argue against the increasing demand from developed countries and global civil society organizations urging all countries including developing countries like India to declare carbon neutrality goals.

Against principles of equity:

- Notably while urging the nations to seek carbon neutrality at the earliest, Article 4.1 of the Paris agreement also recognizes the fact that peaking will take longer for developing country Parties which are also required to work towards the eradication of poverty. It recognizes the principles of equity while emphasizing the importance of sustainable development.



Article 2.2 declares that the Paris Agreement "will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances".

Global and not individual goals:

As against the notion being created by the developed country governments and civil society outfits of carbon neutrality being an individual commitment by all countries, a correct understanding of the stated provisions of the Paris climate agreement makes it clear that the balance of emissions and removal of greenhouse gases is not sought on a country-wise basis but for the world as a whole.

The text of the Paris Agreement clearly indicates, based on considerations of equity and differentiation, that carbon neutrality is a global goal wherein the developed world will have to take higher responsibility based on considerations of equity and differentiation.

Insufficient climate action:

The growing popularity of carbon neutrality seems to ignore the fact that the achievement of

carbon neutrality is not compatible with achieving the 1.5°C goal.

- The mid-century carbon neutrality goals of developed countries will not be sufficient to meet the temperature goals set out by the Paris climate agreement.

- According to The Intergovernmental Panel on Climate Change Special Report on Global Warming, of 1.5° warming what remains of the global carbon budget from 2018 onwards, for a 50% probability of restricting temperature rise to less than 1.5°C, is 480 Giga-tonnes (billion tonnes) of carbon dioxide equivalent (GtCO<sub>2</sub>eq). At the current rate of emissions of about 42 GtCO<sub>2</sub>eq per year, this budget would be consumed in 12 years. To keep within the 480 Gt budget, at a steady linear rate of decline, global carbon neutrality must be reached by 2039.

- The global carbon budget indicates the limits on global cumulative emissions, from the pre-industrial era to the time when net emissions cease, that correspond to definite levels of global temperature rise.

## Emissions in the West:

- The hollowness of nation-level carbon neutrality declarations by developed countries is brought out by a detailed understanding of the emission data.
- Emissions in the U.S. (not considering land use and land use change and forest-related emissions) (LULUCF), peaked in 2005 and have declined at an average rate of 1.1% from then till 2017, with a maximum annual reduction of 6.3% in 2009.
- Even if it did reach net-zero by 2050 at a steady linear rate of reduction, which is unprecedented, its cumulative emissions between 2018 and 2050 would be 106 GtCO<sub>2</sub>, which is 22% of the total remaining carbon budget for the whole world.
- If the U.S. has to stay within its fair share of the remaining carbon budget, it would have to reach net-zero emissions (with linear reduction) by 2025.
- Similarly, the European Union, to keep to its fair share of the remaining carbon budget would have to reach net-zero by 2033, with a constant annual reduction in emissions.

• If the EU reaches net-zero only by 2050 it would consume at least 71 GtCO<sub>2</sub>, well above its fair share.

Arguments against India declaring carbon neutrality goal:

- Given the high number of poor in the country, India has to stay focused on economic growth.
- India continues to have a low per capita carbon footprint.
- India does not owe a carbon debt to the world. India's emissions (non-LULUCF) are no more than 3.5% of global cumulative emissions prior to 1990 and about 5% since till 2018.
- India's mitigation efforts are quite compatible with a 2°C target.
- India's current annual emissions are low enough to not seriously dent the emissions gap between what the world needs and the current level of mitigation effort.
- Any self-sacrificial declaration of carbon neutrality today in the current international scenario would be a wasted gesture reducing the

burden of the developed world and transferring it to the backs of the Indian people.

Recommendations:

•The following aspects would require greater attention going forward to ensure effective climate action.

•Adoption of green growth strategy

•Low-carbon technologies and processes

•Adaptation to climate impacts

•Research into the science of carbon capture

## Modi announces climate partnership with U.S.

The Prime Minister of India announced that India and the U.S. were launching an energy and climate partnership during the Leaders' Summit on Climate.

• "India-U.S. climate and clean energy agenda 2030 partnership" will help mobilise investments, demonstrate clean technologies, and enable green collaborations.

• The partnership will proceed along two main tracks which will build on and subsume a range of existing processes:

- the strategic clean energy partnership and the climate action

- finance mobilisation dialogue

### India's Climate Targets:

• India is targeting a 2030 GDP emissions intensity (i.e., volume of emissions per unit of GDP) that is 33%-35% below 2005 levels.

• It also seeks to have 40% of power generated from non-fossil fuel sources by 2030.

## A green partnership

U.S.-India Climate and Clean Energy Agenda 2030 Partnership initiative to combat climate change.

A look at facts

- India ranks third in emissions, behind the U.S. and China, although its per capita CO<sub>2</sub> emissions are less than 60% of the global average.

The Partnership envisages bilateral cooperation on strong actions in the current decade to meet the goals of the Paris Agreement by cutting greenhouse gas emissions.

Under the Paris agreement, each country has to set its own emission-reduction targets, known as National Determined Contributions (NDCs) and the pact's goal is to limit global warming to well below two degrees Celsius.

- Both India and the United States have set ambitious 2030 targets for climate action and clean energy.

- In its new nationally determined contribution, the United States has set an economy-wide target of reducing its net greenhouse gas emissions by 50-52 percent below 2005 levels in 2030.

•As part of its climate mitigation efforts, India has set a target of installing 450 GW of renewable energy by 2030.

•Through the Partnership, India and the United States are firmly committed to working together in achieving their ambitious climate and clean energy targets and to strengthening bilateral collaboration across climate and clean energy.

## Significance

The Partnership will aim to:

•mobilize finance and speed clean energy deployment;

•Demonstrate and scale innovative clean technologies needed to decarbonize sectors including industry, transportation, power, and buildings; and

•Build capacity to measure, manage, and adapt to the risks of climate-related impacts.

## India's Climate Change Policy

•India has traditionally approached climate change as a diplomatic issue, insisting that the developed world - because of their disproportionate role in causing the problem -



should lead the way in reducing emissions, and provide the developing world with the finance and technology to do so.

- But many developed countries tend to view India's reluctance to commit to a net-zero emissions target as recalcitrance.

- India has however conveyed that the climate change crisis originated not here but in the industrialised world, which has used up much of the world's carbon space.

### Way forward

- A forward-looking policy, therefore, should envision a new green development plan, provide funding and green technologies as compensation for the emissions space lost by poorer countries.

- For the India-U.S. agreement to yield results, Mr. Biden would have to persuade industry and research institutions at home to share knowledge and subsidise the transfer of technologies.

## \* Climate Change, A catalyst for Arctic Cooperation

— Arctic Council (estd. 1996).

- Canada, Denmark (Greenland), Norway, Russia and the USA (Alaska) + Finland, Sweden and Iceland.



- India has an observer status along with 12 other nations, incl. China

## - US vs Russia at the Arctic

- Tensions forgotten after Cold War end
- 2007 → Russian explorers planted their flag below the North Pole to show Moscow's claims in the Arctic.
- Move was viewed as provocative by other Arctic State.
- Tension increased after the Russia-Ukraine conflict in 2014.

## - China's emergence

- Self-proclaimed status of a 'near Arctic state'

- Arctic is important for China due to its energy security issues and the need to diversify shipping lanes.
- Shorter shipping routes from China to Europe.
- Routes are not contested by other states unlike the Malacca Strait or the South China Sea.

### — Climate Change in Arctic

- The Arctic is warming nearly twice as fast as the rest of the planet a/q to The World Climate and Security Report 2020
- Ice-free summers within the next decade is also a possibility.

## — Way Forward:

- Climate Change causing the Arctic meltdown must be a catalyst for Arctic cooperation.
- Long-term vision and strategic goals
- Cold War like battleground at the Arctic should be avoided.

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## \* India must commit to net zero emissions (NZE)

### - Global commitments

- Over 50% of the global economy has already committed to NZE by 2050.
- Over 100 countries have already committed to net zero emissions by 2050, with more expected at COP26.
- China has also committed it by 2060.
- India is still not committed to NZE

### - Why should India commit to NZE?

- India is among the most vulnerable countries to climate change.
- Given the negative impacts, addressing climate change is now central to success in India's economic development.
- India is already the 3<sup>rd</sup> -largest emitter in the world, and is set to be the largest

as the US, China, and the EU are all now signed up to net zero.

- This will become a significant drag on India's international diplomacy.

- Group of 77 (G77) states, who are increasingly concerned to see climate action.

- In multilateral groupings such as the United Nations and ASEAN-APEC.

### -India's take on Net Zero emissions:

- India is purposely not committing to net zero by 2050

- Due to its development needs

- Also India wants to see significant support from developed countries for climate action before making any such commitment.

## - Shifting to NZE is biggest commercial opportunity for India

- Solar energy costs have fallen 90% , providing the cheapest electricity in India.
- In just the energy sector alone, an estimated \$1.6 - \$3.8 trillion of investment is required every year until 2050.
- In 2020, investors injected over \$500 billion into climate transition.

## - India's Impressive commitments

- Reducing the emissions intensity of its GDP by 33-35% below 2005 levels by 2030.
- Renewable energy target 450GW by 2030.
- International Solar Alliance and recent national hydrogen strategy.
- Indian corporates are also stepping up, with the Tata Group winning awards on



sustainability, Mahindra committing to net zero by 2040 and Reliance by 2035.

### Way Forward:

- Rolling out renewable energy and integrating it with the national grid
- Zero emissions transport.
- Decarbonising sectors like steel, cement and chemicals and decarbonising agriculture
- Innovative green financing for decarbonising investments, including
  - using donor support to mobilise private sector finance
  - green bonds
  - climate transition funds.

## \* India, U.S. to tie up on green energy

### - U.S.-India Agenda 2030 Partnership

- Announced at the Leaders Summit on Climate in April 2021.
- Climate Action and Finance Mobilization Dialogue (CAFMD) is one of the main tracks of this partnership.

### - Three Pillars of (CAFMD) :

#### 1. Climate action:

- Ways to reduce greenhouse gases emissions in the next decade.

#### 2. Renewable energy:

- It would set out a roadmap to achieve the 450GW renewable energy target in transportation, buildings and industry.

#### 3. Finance:

- Collaborating on attracting finance for renewable energy projects.

- Focus on delivering climate finances primarily as grants and concessional finance as envisaged under the Paris Agreement.

## - Significance of CAFMD:

### 1. Clean energy transition:

- The United States will collaborate with India to instal 450 GW of renewable energy by 2030 .

### 2. Raise global climate action:

- India's visit by the U.S. Special Presidential Envoy for Climate is to build global support for 'Net Zero' or carbon neutrality by 2050.

- Over 120 countries have committed to reaching carbon neutrality by 2050.

- India however has not committed to a 2050 plan for Carbon Neutrality.

## \* Climate change could cause 216 mn to migrate: World Bank

### - Findings from the Groundswell report.

.Impact of slow-onset climate change, such as water scarcity, decreasing crop productivity and rising sea levels.

.Could lead to millions of "climate migrants" by 2050.

.It forecasts up to 216 million people to leave their homes in the next three decades.

### - The report analysed six regions

- Sub-Saharan Africa → most vulnerable region due to desertification, fragile coastlines and the population's dependence on agri.
- North Africa is predicted to have the largest proportion of climate migrants
- In South Asia, Bangladesh remains the most vulnerable.

- The findings of the report indicate the potency of climate to induce migration within countries.

– Conclusion:

Need for urgent action to reduce global emissions and bridge the development gap to reduce the vulnerability of the poor.

## \* Positive climate

### - Climate Action and Finance Mobilization

#### Dialogue (CAFMD):

- CAFMD will provide both countries with an opportunity to renew collaborations on climate change.

- It will strengthen **India-US bilateral cooperation on climate and environment.**

- It will help in delivering climate finance primarily as grants and concessional finance, as envisaged under Paris Agreement

- Engagement with the U.S. would help India expand mitigation, adaptation action.

### - Why US focus on India?

- India is the **3<sup>rd</sup> highest emitter** of greenhouse gases.

- Though India has low historical emissions and so can claim immunity but the world

is facing record temp. and calamitous weather events.

•As Net Zero goals have been set by the U.S. and the EU for mid-century, and 2060 by China, there is an increasing pressure on India to commit itself.

- Why India has not committed?

•It would impose expensive choices for India, particularly in energy production.

•But now US has promised finances and technology to make renewable energy the core of future development in India.

- Way Forward:

1. Cooperation in India-U.S. Climate and Clean Energy Agenda 2030 Partnership in

- Bring down emissions in transport, buildings and industry

- Funding for 450 GW of renewable energy by 2030

## 2. Cooperation with States

- To mitigate emissions and
- Help them adapt to climate-linked extreme weather and atmospheric pollution

## 3. Immediate challenge

- Need for an adaptation framework to help those at highest risk due to climate change
- Like (cyclone-prone areas, coastal areas, heat stress have been causing higher mortality among the vulnerable elderly).

## 4. Other areas

- Low-cost insurance for houses against climate-related losses.
- The Paris Agreement can easily fund much-needed urban retrofitting and boost employment.



## \* World leaders pledge to save forests, etc

- COP26 summit @ Glasgow -

### • Deforestation issue

↳ World lost 2.58 lac km<sup>2</sup> of forest a/q to Global Forest Watch in 2020

↳ So, pledge to stop deforestation by 2030

↳ \$19 bn in public & prt funds to invest for this.

↳ Expansion of commitment by 40 countries in the 2014 New York Declaration of Forests

### • Global Methane Pledge

↳ announced in Sept 2021 by US & EU

↳ to slash CH<sub>4</sub> (methane) emissions by 30% from 2020 levels by 2030

↳ Now, covers emissions from  $\frac{2}{3}$ <sup>rd</sup> of global economy.

↳ Brazil (5<sup>th</sup> largest emitter) is a signatory

↳ RIC → have not signed up.

↳ Australia refused it.

### • Funding

↳ 12 countries pledged to provide \$12bn

b/w 2021-25 for developing countries  
↳ to restore degraded land & tackle  
wildfires.

- Methane emissions' sources -

- Cows' digestive systems
- Landfill waste
- Oil & Gas Production.


# \* India to help countries prone to Climate Change

## Infrastructure for Resilient Island States (IRIS)














- Launched by India as part of the CDRI
- Focus on building projects, esp. in small island developing states (SIDS) - 58 countries
- Supported by UK & Australia
- Not just about infrastructure
- SIDS will get faster access to tech., finance & necessary information
- SIDS includes Pacific Island, Caricom countries & IOR countries, like Fiji, Jamaica, Mauritius etc.

### UN Members (38)


#### Atlantic, Indian Ocean and South China Sea (AIS) (9)

-  Bahrain
-  Cabo Verde
-  Comoros
-  Guinea-Bissau
-  Maldives
-  Mauritius
-  Sao Tomé and Príncipe
-  Seychelles
-  Singapore

#### Pacific (13)

-  Fiji
-  Kiribati
-  Marshall Islands
-  Micronesia (Federated States of)
-  Nauru
-  Palau
-  Papua New Guinea
-  Samoa
-  Solomon Islands
-  Timor-Leste
-  Tonga
-  Tuvalu
-  Vanuatu

#### Caribbean (16)

-  Antigua and Barbuda
-  Bahamas
-  Barbados
-  Belize
-  Cuba
-  Dominica
-  Dominican Republic
-  Grenada
-  Guyana
-  Haiti
-  Jamaica
-  Saint Kitts and Nevis
-  Saint Lucia
-  Saint Vincent and the Grenadines
-  Suriname
-  Trinidad and Tobago

#### NON-UN MEMBERS/ASSOCIATE MEMBERS OF REGIONAL COMMISSIONS (20)

-  American Samoa
-  Anguilla
-  Aruba
-  Bermuda
-  British Virgin Islands
-  Cayman Islands
-  Commonwealth of Northern Mariana Islands
-  Cook Islands
-  Curacao
-  French Polynesia
-  Guadeloupe
-  Guam
-  Martinique
-  Montserrat
-  New Caledonia
-  Niue
-  Puerto Rico
-  Sint Maarten
-  Turks and Caicos Islands
-  U.S. Virgin Islands

- UN Programmes in support of SIDS -

• Barbados Prog. of Action (BPOA) - 1994

↳ To achieve sustainable dev.

↳ Commit to Agenda 21

↳ Barbados Declaration Adopted

• Mauritius Strategy - (2005)

↳ further implements of BPOA

• SAMOA Pathway - 2014

↳ 3<sup>rd</sup> Intl. Conference on SIDS @ Samoa

↳ Recognized impact of Climate Change & sea level rise

↳ New pathway to achieve Sustainable Dev. for eco. dev., food security, disaster risk reduction, ocean management.

- ISRO's support to IRIS

↳ ISRO to build a special data window to provide timely info about cyclones, coral reef monitoring, coastline monitoring through satellites.

## \* India calls for hike in climate finance

- India's statements at the like Minded Developing Countries (LMDC) meet at COP26
  - ↳ Climate finance cannot continue at levels decided in 2009
  - ↳ It should be at least \$1 trillion
  - ↳ India appreciated Third World Network (TWN) for its support to LMDC
- Significance of LMDCs
  - Unity of LMDCs necessary for negotiations to preserve the interests of the Global South.
  - Countries need multilateral cooperation & not global economic & geopolitical competition & trade wars
  - LMDCs should join India's initiatives like ISA, CDRI & LeadIT

## \* One Sun One World One Grid (OSOWOG)

### - OSOWOG

- ↳ Initiative by India & UK
- ↳ Endorsed by more than 80 countries
- ↳ Accelerating the making of large solar power stations & wind farms.
- ↳ Linking them together by continental scale grids crossing national borders.

### - Also called the Green Grids Initiative - OSOWOG group

- ↳ includes France, India, UK & US
- ↳ Representatives from Africa, Gulf, LAC, SE Asia.
- ↳ Germany & Australia as observers.
- ↳ Regional Working groups includes AfDB, ADB & World Bank

### - Research support by

- ↳ Climate Compatible Growth Consortium of universities.
- ↳ Includes Cambridge, Oxford etc.
- ↳ ISRO application for deciding suitability for solar energy installations.

## \* India's climate commitment

### - India at COP26

- declared to achieve net zero by 2070

### - Commitments declared by India

By 2030 → ensure 50% of its energy needs from renewable sources.

→ reduce C emissions by a billion tonnes

→ reduce Emissions Intensity per unit of GDP by less than 45%

→ install systems to generate 500 GW of renewable energy (↑ of 50 GW from existing target of 450 GW)

### - No peak year declared

↳ Peak year means the year from which emissions will start to reduce.

↳ To achieve Net zero by 2070, India needs to peak by 2040.

### - India's NDCs in 2015

↳ install 175 GW of renewable energy capacity by 2022

- Achievements till Feb 2021

Type	Capacity	% of total capacity
Renewables	94 GW	25%
Renewables + Large hydro projects	139 GW	38%

- India's conditionalities -

↳ India will reach net zero by 2070 only if other developed countries commit to net zero by 2050.



## The lowdown on India's Glasgow announcement

### Targets : Comparison of India's Commitments

Factors	Paris Agreement 2015	COP 26 Glasgow
Emissions Intensity	33-35 % reduction by 2030 below 2005 levels	Raised to 45 %
Non fossil based energy	Increase to 40 % by 2030	50%
Create Carbon sink	2.5-3 Gt CO <sub>2</sub> e by 2030	-
Projected C emissions	-	Reduce by 1 bt by 2030
Net-zero emissions	-	By 2070
Installed renewable generation capacity	175 GW by 2030	500 GW by 2030

## India's declarations at COP 26 Climate Summit

- Indian climate analysts have praised it
- International commentators have criticised India's **Net Zero emissions** trajectory by 2070 instead of 2050.

## India's Stand prior to COP 21

- India is a developing country and not responsible for the **historical emissions**.
- Thus it **was not obliged to cut emissions**.

## India's stand since the COP 21 in Paris.

- India needs to grow rapidly to meet the aspiration of a 1.25 billion population
- Out of this, 300 million people are without access to energy.
- Still India has **pledged to reduce emissions**, use renewable energy, enlarge forest cover

## Contradictory signals by Govt of India-

- Officials were proclaiming the unacceptability of net-zero and the unlikelihood of higher targets
- Some said commitments are contingent on financial assistance from developed countries.

## Progress & Achievables:

1. On Emissions Intensity (EI), or emissions per unit of GDP

• India's submissions of NDCs show a steady decline of EI of 2% p.a. from 2005 onwards which is achievable and on par with the capacity of an emerging country.

2. On Carbon emissions reduction

- India's current annual emissions are around 2.8 bt and are projected to reach about 4.5 bt in 2030.
- This needs a substantial 20% reduction.

### Recent steps taken by Govt:

- Railways' net-zero 2030 target cutting 60 mt annually & LED bulbs cutting another 40 mt a year over the next decade.
- India has already added around 101 GW of solar and wind energy.
- The Central Electricity Authority (CEA) in its 2020 Report on Energy Mix for 2029-30 has projected around 525 GW or 64.3% non-fossil fuel installed capacity.

### India's failures at COP 26

- India could have joined the Declaration to end deforestation by 2030.
- India's commitments also don't mention the NCD target for forest and tree covers.
- India did not join the Global Methane Pledge to reduce the effects of short-lived but potent GHG by 30% by 2030 from 2020 levels.

## Where does India stand on methane emissions?

Two of the most prominent outcomes so far of the ongoing COP26 in Glasgow.

### 1. Global Methane pledge:

- First announced in September by the US and EU
- One of the central aims of this agreement is to cut down methane emissions by up to 30 per cent from 2020 levels by the year 2030.
- At least 90 countries have signed the Global Methane Pledge.
- Methane is a potent greenhouse gas with Global Warming Potential (GWP) of around 20–25 (for a 100-year timeframe GWP).
- According to the latest IPCC Report, methane accounts for about half of the 1.0°C net rise in global avg temp since the pre-industrial era.
- Methane is the second-most abundant greenhouse gas in the atmosphere, after carbon dioxide, and accounting for about 20 percent of global emissions.

- Methane has a much shorter atmospheric lifetime (12 years as compared to centuries for CO<sub>2</sub>).
- Notably as per a report of the IEA, more than 75 per cent of methane emissions can be mitigated with the technology that exists today.
- Thus rapidly reducing methane emissions is regarded as the single most effective strategy to reduce global warming in the near term

## 2. Glasgow Leaders' Declaration on Forests & Land Use:

- Initiated by the **United Kingdom** aims to halt deforestation and land degradation by 2030.
- It is a successor to the **2014 New York Declaration for Forests** that sought to reduce emissions from deforestation by 15%-20% by 2020 and end it by 2030.
- The pledge includes \$19 bn of public and private funds to invest in protecting and restoring forests.
- The pledge aims to ensure that natural forests aren't cleared out for commercial plantations. It

also aims to halt industrial logging. The declaration also seeks to strengthen the rights of indigenous tribes and communities to forestland.

- The Glasgow Declaration has been signed by 133 countries, which represent 90% of the globe's forested land.

- Deforestation has increased over the years and is responsible for about 20% of the total carbon emissions.

### India's stance:

- Notably India has stayed away from both the methane pledge and the forest conservation declaration at Glasgow.

- India has independent plans to reduce methane emissions. It plans to adopt a national strategy to increase biogas production and reduce methane emissions.

- India has been unhappy with the wording of the Glasgow Leaders' Declaration that suggests not meeting the obligations under the pledge could also mean restrictions in international trade.

- India's line of argument has been that trade and climate action should not be related as trade falls under the ambit of the WTO
- India is also considering changes to its forest conservation laws that seek to encourage commercial tree plantation as well as infra dev in forestland to meet its development goals.
- These initiatives might seem contradictory to the proposed provisions of the forest declaration at Glasgow.



## Does India have a right to burn fossil fuels?

Recent UN COP26 - India has, for the first time, committed to achieving the net-zero emission target by 2070.

### The Pledges - Ambitious vs Ambiguous

1. Increase non-fossil energy capacity to 500 GWs by 2030.
2. Meet 50 percent of energy requirements from renewables by 2030.
3. Reduce the total projected carbon emissions by 1 BTs by 2030.
4. Reduce the carbon intensity of the economy by less than 45 percent.
5. Achieve net zero carbon by 2070.

But more clarity on these points before any declaring that these are a breakthrough.

## Historic burden and Right to Burn

- **Global north vs south arguments** in terms of owning the responsibility for reducing the emission now, often face an impasse due to different viewpoints.
- Historically developed nations have contributed more towards global warming, this should not mean that we shy away from the fact that it is a common goal.

## Focus on Alternatives

- The arguments for coal as affordable, reliable and domestically available nature are questionable.
- As we are geographically blessed with a huge amount of renewable resources from solar to hydro and wind energies, tapping them with tech development will reduce the burden.

- Blind faith in the models adopted by the west centuries ago like coal needs to be changed.
- The south-south cooperation and evolving our own growth parameters will help in achieving the overall development .

### Conclusion

- Blaming some for historic injustices and shunning the responsibilities is not going to lead us to a better future.
- We also need to realise the damage we will inflict on the poor, the flora and fauna etc if we repeat our mistakes.

## India votes against UN draft resolution on climate change

India voted against a draft resolution at the (UNSC) linking climate to security.

• Though India acknowledged the link between climate change and threat to international peace and security

### It argued against the proposal due to:

- The shift of climate talks from the (UNFCCC) to the Security Council would adversely affect collective action on the climate action issue.
- Bringing climate talks to the Security Council would allow climate decisions to be taken without consensus .
- Such a development would also go against the principle of "common but differentiated" responsibilities, a fundamental tenet of climate action.

## The UNSC Draft on Climate

### A draft proposal on climate change

- Intro in the UNSC by Niger and Ireland
- Backed by the 113 member countries including the US, UK and France
- To bring the climate related security risks within the purview of the UNSC.
- Strong opposition from India and Russia.

### Russia's Veto:

- Russia has vetoed the proposal to integrate climate related risks within the ambit of the UNSC.
- 12 in favour, 2 against and an abstention from China.

### Bring Climate Change within the UNSC mandate

- Impact of global warming with conflicts.
- Countries that are more susceptible to

climate change are most vulnerable to terror activities.

- The climate related conflicts include arable land, food security, desertification and forced migration.

- According to (SIPRI), 10 out of 21 peacekeeping operations of the UN are located in the countries that are highly influenced by climate change.

- The major and sole advantage is that the resolutions passed are mandatory and binding on the signatories.

### Why opposition by India & Russia:

- (UNFCCC) offers a dynamic platform of consensus to tackle the issues of climate change.

- It would be misleading to view conflicts through the prism of climate change .

- Predominance of the permanent members of UNSC taking an upper-hand on several issues over other members.
- Additional framework on climate change will add on to the complexities and invite clashes of opinion.

### Way Forward:

• India suggested to include limited draft that will focus on the **Sahel region of N Africa**

- It suffers due to desertification of arid areas resulting in water related conflict.

