

**BIODIVERSITY AND ENVIRONMENT**

**G-20 SUBMIT AND CLIMATE CHANGE**

Recently concluded G20 summit, the leaders made a commitment to reach carbon neutrality by or around mid-century. They have adopted the Rome Declaration (the current presidency of G20 countries is being held by Italy). Earlier, the G20 Climate Risk Atlas was released which provides climate scenarios, information, data and future changes in climate across the G20 countries.

**Important Points**

- **Highlights of the Declaration:** Roadmap for COP 26: It urged leaders of the world’s biggest economies to put their action plans to tackle the global climate change crisis. This is a significant step in the context of the upcoming UN climate conference (COP 26) in Glasgow, Scotland.
- **Restricting Aid to Coal Based Plants:** It included a pledge to halt financing of overseas coal-fired power generation by the end of this year (2021).
- **PPP Model of Finance Mobilisation:** Public-Private Partnerships (PPP) are the only way to achieve the trillions of dollars in annual investment needed to transition to clean, sustainable energy sources that will mitigate the warming of global temperatures.

**Declaration by India:**

- **Addressing Vaccine Inequality:** Underlining the need to address vaccine inequity across the world, India is ready to produce over 5 billion vaccine doses by the end of next year (2022). India also emphasised on vaccine research, manufacturing and innovation.
- **One Earth One Health:** The vision of “One Earth One Health”, or the need for a collaborative approach in the international domain in the fight against the pandemic.
- **Resilient Global Supply Chains:** India highlighted the need for resilient global supply chains and invited G-20 countries to make India their partner in economic recovery and supply chain diversification.
- **Support for Global Minimum Tax:** India also lauded the G-20’s decision to come up with a 15-percent minimum corporate tax to make the global financial architecture “more just and fair”.
- **Welcoming Indo-Pacific Strategy:** India welcomed the European Union’s Indo-Pacific strategy and French leadership in it.

**Associated Concerns:**

- **Half-Hearted Steps:** The statement contained few concrete actions and made no reference to a specific 2050 date to achieve net-zero carbon emission. Moreover, the statement removed references in a previous draft to the target to “reduce emissions significantly”.
- **No target for Phasing Out Coal:** It set no target for phasing out coal domestically, a clear nod to top carbon polluters China and India. For example, China has not set an end date for building domestic coal plants at home. Coal is still China’s main source of power generation, and both China and India have resisted attempts for a G-20 declaration on phasing out domestic coal consumption.
- **No resolution on Vaccine Patent Waiver:** It did not touch upon the dispute over vaccine patent waivers.
- **Pressing India’s developmental Imperative:** Climate negotiators from the US, EU and UK had made a number of visits to India over the past few months, pressing for India to update its Nationally Determined Contributions (NDCs) to include its target of 450 GW of renewable energy by 2030.

**CARBON NUTRALITY BY 2070 AND REDUING EMISSION 50% BY 2030**

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.

<p><b>PM MAKES FIVE PLEDGES</b></p> <ol style="list-style-type: none"> <li>1 India will increase its non-fossil energy capacity to 500GW by 2030</li> <li>2 India will meet 50% of its energy requirements from renewable energy by 2030</li> <li>3 India will reduce the total projected carbon emissions by one billion tonnes from now to 2030</li> <li>4 By 2030, India will reduce the carbon intensity of its economy by 45% (from a previous target of 35%)</li> <li>5 By 2070, India will achieve the target of net zero</li> </ol>	<p><b>WHAT IS NET ZERO?</b></p> <p>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</p>
<p><b>PLEDGES BY TOP THREE EMITTERS</b></p> <ul style="list-style-type: none"> <li> <b>CHINA:</b> Beijing announced no new pledges on Monday. It previously pledged net zero by 2060.</li> <li> <b>UNITED STATES:</b> The US touted domestic legislation to spend \$555bn to boost renewable power and electric vehicles. It has pledged net zero by 2050.</li> <li> <b>INDIA:</b> The country’s economy will become carbon neutral by the year 2070</li> </ul>	

**Key Points**

- 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.

**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.

**UN climate conference (COP 26) in Glasgow, Scotland.****INTERNATIONAL RELATION****18th India-ASEAN Summit at the Brunei**

Recently, India participated in the 18th India-ASEAN Summit at the invitation of Brunei, the current Chair of ASEAN. The Year 2022 has been highlighted as India-ASEAN Friendship by the leaders. India-ASEAN Summit is held every year and provides an opportunity for India and Asean to engage at the highest level.

**Key Points****ASEAN in Act East Policy:**

- The centrality of ASEAN in India's Act East Policy and in India's Vision for the wider Indo-Pacific Vision has been underlined.
- Welcomed the adoption of the India-ASEAN Joint Statement on cooperation for peace, stability and prosperity in the region, building upon the synergies between the ASEAN Outlook for the Indo-Pacific

(AOIP) and India's Indo-Pacific Oceans Initiative (IPOI). Recently, India also addressed the 16th East Asia Summit, where it reaffirmed India's focus on a free, open and inclusive Indo-Pacific and the principle of Asean Centrality in the region.

**India-ASEAN Connectivity:**

- Exchanged views on enhancing India-ASEAN connectivity in broadest terms including physical, digital and people to people.
- India announced its support for establishing the ASEAN Cultural Heritage List to further strengthen India-ASEAN cultural connectivity.

**Trade and Investment:**

- The importance of diversification and resilience of supply chains for post-Covid economic recovery and in this regard, the need to revamp the India-ASEAN Free Trade Agreement (FTA) has been underlined.

**Rule-Based Order:**

- Regional and international issues of common interest and concern, including South China Sea and terrorism.
- The importance of promoting a rules-based order in the region including through upholding adherence to international law, especially the UNCLOS.

**Covid-19:**

- Highlighted India's efforts in the fight against the pandemic in the region and also reiterated support for ASEAN's initiatives in this regard. India has contributed medical supplies worth USD 200,000 to ASEAN's humanitarian initiative for Myanmar and USD 1 million for ASEAN's Covid-19 Response Fund.

**India-ASEAN and China**

- Traditionally the basis of India-ASEAN ties has been trade and people-to-people ties due to shared historical and cultural roots, a more recent and urgent area of convergence has been balancing China's rise. Both India and ASEAN aim to establish a rules-based security architecture for peaceful development in the region, in contrast to China's aggressive policies.
- Like India, several ASEAN members such as Vietnam, the Philippines, Malaysia, and Brunei have territorial disputes with China, the China factor does form an important component of the relationship. India in 2014 reinvigorated the Look East policy into Act East, with a more strategic outlook than its previous incarnation, focusing on engagement not just with Southeast Asian countries but also those in the Pacific.

**INDIAN POLITY****Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities Act), 1989 (SC/ST Act).**

Recently, in a judgement, the Supreme Court has observed that the apex court and high courts have the power to quash criminal cases filed under various 'special statutes' including the SC/ST Act. The Supreme Court has inherent powers under Article 142 of the Constitution or that of the High Court under Section 482 of the Code of Criminal Procedure to quash proceedings under the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities Act), 1989 (SC/ST Act).

**Important Points****Situations on Quashing Cases under 'Special Statutes':**

- When the court is satisfied that the offence in question, although covered under the SC/ST Act, is primarily private or civil in nature or when this offence has not been committed on account of the victim's caste or where the continuation of legal proceedings would constitute an abuse of process of law.
- When considering a prayer for quashing on the basis of a compromise/settlement between the two parties, the court is satisfied that the underlying objective of the SC/ST Act would not be contravened if the crime goes unpunished.

**Article 142:**

**About:** It provides discretionary power to the Supreme Court as it states that the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it.

**Constructive Application:** In the early years of the evolution of Article 142, the general public and the lawyers both lauded the Supreme Court for its efforts to bring complete justice to various deprived sections of society or to protect the environment.

- In the Union Carbide case, relating to the victims of the Bhopal gas tragedy, the Supreme Court placed itself above the laws made by the Parliament or the legislatures of the States by saying that, to do complete justice, it could even override the laws made by Parliament.
- However, in the Supreme Court Bar Association v. Union of India, the Supreme Court stated that Article 142 could not be used to supplant the existing law, but only to supplement the law.

**Cases of Judicial Overreach:** In recent years, there have been several judgments of the Supreme Court wherein it has been foraying into areas which had long been forbidden to the judiciary by reason of the doctrine of 'separation of powers', which is part of the basic structure of the Constitution. One such example is:

- The ban on the sale of alcohol along national and state highways: While the notification by the central government prohibited liquor stores along National Highways only, the Supreme Court put in place a ban on a distance of 500 metres by invoking Article 142.

**Section 482 of the Code of Criminal Procedure:**

- The section allows the High Court to pass any order so as to ensure justice. It also gives the court power to quash the proceedings of lower court or to quash FIRs.

**SC/ST Act:**

- SC ST Act 1989 is an Act of Parliament enacted to prohibit discrimination against SC & ST communities members and prevent atrocities against them.
- The Act is also a recognition of the depressing reality that despite undertaking several measures, the Scheduled Castes/ Scheduled Tribes continue to be subjected to various atrocities at the hands of upper-castes.
- The Act has been enacted keeping in view the express constitutional safeguards enumerated in Articles 15 (Prohibition of Discrimination), 17 (Abolition of Untouchability) and 21 (Protection of Life and Personal Liberty) of the Constitution, with a twin-fold objective of protecting the members of these vulnerable communities as well as to provide relief and rehabilitation to the victims of caste-based atrocities.
- In the amended SC/ST Act (2018), preliminary inquiry is not a must and no prior approval is also required for appointing authorities for senior police officers to file FIRs in cases of atrocities on SC and ST..

### **IMPORTANT FACTS FOR PRELIM**

**Ek Bharat Shreshtha Bharat (EBSB) to commemorate Rashtriya Ekta Diwas**

Recently, the Ministry of Education launched various initiatives under Ek Bharat Shreshtha Bharat (EBSB) to commemorate Rashtriya Ekta Diwas. The Ek Bharat Shreshtha Bharat was announced by the Prime Minister in 2015 on the occasion of the 140th birth anniversary of Sardar Vallabhbhai Patel. The Rashtriya Ekta Diwas is celebrated to mark the birth anniversary of Shri Sardar Vallabhbhai Patel.

**Important Points**

**About the Initiatives:**

**Bhasha Sangam:**

- It is an initiative of the Ministry of Education under Ek Bharat Shreshtha Bharat, to teach basic sentences of everyday usage in 22 Indian languages (Eighth Schedule languages). It is developed by the National Council of Educational Research and Training (NCERT).
- The idea is that people should acquire basic conversational skills in an Indian language other than their mother tongue. It is available on DIKSHA, ePathshala and through 22 booklets. Other initiatives launched include Bhasha Sangam Mobile App and the Ek Bharat Shreshtha Bharat (EBSB) Quiz App.

**Ek Bharat Shreshtha Bharat:**

- It was launched in 2015 to promote engagement amongst the people of different States/UTs so as to enhance mutual understanding and bonding between people of diverse cultures, thereby securing stronger unity and integrity of India. It is an initiative of the Ministry of Education.
- Every State and UT in the country would be paired with another State/UT for a time period, during which they would carry out a structured engagement with one another in the spheres of language, literature, cuisine, festivals, cultural events, tourism etc.

**Sardar Vallabhbhai Patel**

- He was born on 31st October 1875 in Nadiad, Gujarat. The National Unity Day (Rashtriya Ekta Diwas) is celebrated on 31st October to commemorate the birth anniversary of Sardar Vallabhbhai Patel. He was the first Home Minister and Deputy Prime Minister of India.
- Headed various Committees of the Constituent Assembly of India, namely:
  - ❖ Advisory Committee on Fundamental Rights.
  - ❖ Committee on Minorities and Tribal and Excluded Areas.
  - ❖ Provincial Constitution Committee
- Integrated the farmer's cause in Kheda Satyagraha (1918) and Bardoli Satyagraha (1928) with the national freedom movement. Women of Bardoli bestowed the title 'Sardar' on Vallabhbhai Patel, which means 'a Chief or a Leader'.
- Known as the "Iron Man of India" for playing an important role in unification and integration of Indian princely states into the Indian federation and for convincing princely states to align with the Indian Union.

- Requested the people of India to live together by uniting (Ek Bharat) in order to create a foremost India (Shresth Bharat). This ideology still reflects in the Atmanirbhar Bharat initiative which seeks to make India self-reliant. Remembered as the 'Patron Saint of India's Civil Servants' as he established the modern all-India services system. In 2018, the Government unveiled the Statue of Unity in Gujarat in Patel's honour.

**DAILY ANSWER WRITING PRACTICE**

**Qns. Energy cooperation is one of the foundations of India and Russia relationship's special and privileged strategic partnership but there is much more potential left to be harnessed by both sides in this aspect. Analyse. (250 words)**

**Introduction**

India has been at the forefront of the transformation of global energy and striving to diversify its trade relations. With its abundant energy sources and appetite for trade diversification, Russia could be an ultimate long-term partner. In September, at the 6th Eastern Economic Forum (EEF) in Russia's Vladivostok, Indian Prime Minister in a virtual address said, "India-Russia energy partnership can help bring stability to the global energy market."

With Russia China axis growing stronger, there have been some political apprehensions from Indian side for stronger ties with our long weather friend. This needs to be overcome to reinvigorate better coordination.

**Body****Energy cooperation between India-Russia**

**Joint-ventures:** One of the examples of cooperation between the two countries in energy transformation is the joint venture between India's Reliance Industries Ltd. and Russia's Sibur, the country's largest petrochemicals producer.

- Set up in Jamnagar, Gujarat, the venture now leads the first butyl and halogenated butyl rubber production facility in South Asia. Russia's Gazprom and India's ONGC Videsh Ltd. (OVL) and the Indian Oil Corporation signed separate memorandums of understanding at Vladivostok.

**Technology transfer:** Sibur, is bringing to India unique technology, which is not commercially available in the market and the most advanced in terms of ecological footprint. The project will tremendously support the growth of India's auto industry by securing uninterrupted critical raw material supply.

**Nuclear cooperation:** Russian companies have been involved in the construction of six nuclear reactors in the Kudankulam nuclear power project at Tamil Nadu. Of these, unit 1 and unit 2 have been operating at total capacity. Furthermore, India and Russia secure the potential of designing a nuclear reactor specifically for developing countries, which is a promising area of cooperation. Eg: Roopur nuclear plant in Bangladesh.

**Reasons for limited growth**

The current bilateral exchange rate needs to accelerate for India to grasp its potential from energy transformation.

**India's growing proximity to the United States:** Rapidly expanding ties and growing defence relationship between India and US and, India joining quadrilateral group led by the US has led to a strategic shift in Russia's foreign policy. For Russia it has been a period of great hostility with West, thus pushing it to align with China.

**One-dimensional trade:** Trade has been one-dimensional i.e. defence based. The trade in 2017-18 was \$10.7 billion, which is far below potential in comparison to India's trade with China (\$89.7 billion), the United States (\$74.5 billion).

**Leaning with China:** Increasing strategic military relations between Russia China also impacted India Russia relations. Russia has sold advanced military technology to Beijing, endorsed China's One Belt One Road. There has also been concern about Moscow leaning toward Beijing in forums like the BRICS.

**Distance and language barriers:** With Afghanistan turmoil, the future of INSTC is in limbo. Easier routes to Russia can elevate energy cooperation. There is also language barrier that exists which hinders better partnership in energy and renewables.

**Steps for deeper engagement beyond**

**Improving trade relations:** In 2017 trade between both countries increased by 20%. Two countries decided to reach USD 30 billion investment goal by 2025. In this direction, India Russia Strategic Economic Dialogue was started in 2018.

**India participated in Eastern Economic Forum (2020)** which aims to support the economic development of Russia's resource rich Far East. Also, India has extended a \$1 billion line of credit for the development of this region. Also, proposal for maritime route between Chennai and Vladivostok has been made.

**FTA:** There are talks of the signing of an FTA between Indian and the Eurasian Economic Union (EEU).

**Strengthening Energy and science & technology cooperation:** Cooperation in development of oil in Russia including its arctic shelf and joint development of projects on the shelf of the Pechora and Okhotsk

Seas. Vankorneft and Taas-Yuryakh in Russia and the participation of the PJSC Rosneft oil company in the Essar Oil capital.

**Indispensable partner:** Unknowns of climate change and threats of a new pandemic suggest that the country should accelerate its energy transition. Russia, one of the key global players across the energy market, could emerge as an indispensable partner for such a transition.

**Conclusion**

To meet its growing energy demand and succeed in green transformation, India needs approximately U.S.\$500 billion of investments in wind and solar infrastructure, grid expansion, and storage to reach the 450 GW capacity target by 2030. Therefore, more efforts are needed to expand cooperation with such partners as Russia.

**DAILY QUIZ**

Q1. With reference to “Pegasus”, sometimes mentioned in the news, consider the following statements:

- 1.It is a spyware tool developed by an Israeli firm, the NSO Group.
- 2.It can exploit all recent iOS versions up to iOS 14.6.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) **Both 1 and 2**
- (d) Neither 1 nor 2

Q2. ‘Knock every door’ campaign was in news recently, is related to:

- (a) Alcohol awareness for youth
- (b) Public safety for women and girls in rural areas
- (c) Raising awareness on open defecation
- (d) **Covid-19 vaccination drive**

Q3. Consider the following statements about Agni-V ballistic missile:

- 1.It has been developed by the Defence Research & Development Organisation (DRDO) and Bharat Dynamics Limited.
- 2.It is 1.75 meters tall with a diameter of ten metres.
- 3.It can range the whole of Asia, Europe and parts of Africa.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) **1 and 3 only**
- (d) 1, 2 and 3

Q4. What is/are the consequence/consequences of a country becoming the member of the ‘Nuclear Suppliers Group’?

- 1.It will have access to the latest and most efficient nuclear technologies.
  - 2.It automatically becomes a member of “The Treaty on the Non-Proliferation of Nuclear Weapons (NPT)”.
- Which of the statements given above is/are correct?

- (a) **1 only**
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q5. Consider the following statements about the Asian Development Bank (ADB):

- 1.It is a regional development bank established on 19 December 1975.
- 2.It is modeled closely on the World Bank, and has a similar weighted voting system where votes are distributed in proportion with members’ capital subscriptions.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) **2 only**
- (c) Both 1 and 2
- (c) Both 1 and 2