

## 7 PM COMPILATION

**1st to 15th November, 2021**

### Features of 7 PM compilation

- ❖ Comprehensive coverage of a given current topic
- ❖ Provide you all the information you need to frame a good answer
- ❖ Critical analysis, comparative analysis, legal/constitutional provisions, current issues and challenges and best practices around the world
- ❖ Written in lucid language and point format
- ❖ Wide use of charts, diagrams and info graphics
- ❖ Best-in class coverage, critically acclaimed by aspirants
- ❖ Out of the box thinking for value edition
- ❖ Best cost-benefit ratio according to successful aspirants

G20 grouping and its relevance – Explained, pointwise

**Topic:- International Relations**

**Sub Topic:- Group and Summit**

RBI's Payment Guidelines: Implications – Explained, Pointwise

**Topic:- Indian Economy**

**Sub Topic:- Reserve Bank of India**

India announces new climate targets at COP26 – Explained, pointwise

**Topic:- International Relations**

**Sub Topic:- Climate Targets at COP26**

DISCOM sector in India: Challenges & solutions – Explained, pointwise

**Topic:- DISCOM sector**

**Sub Topic:- Power supply**

Pre-poll surveys in India – Explained, pointwise

**Topic:- Polity and Governance**

**Sub Topic:- Pre-poll surveys**

What is Metaverse? – Explained, pointwise

**Topic:- Social Media**

**Sub Topic:- Metaverse**

UAPA and the recent judgments – Explained, pointwise

**Topic:- Bills & Acts**

**Sub Topic:- UAPA**

GGI-OSOWOG project – Explained, pointwise

**Topic:- International Relations**

**Sub Topic:- International Agreements**

The Issue of Withdrawal of General Consent to CBI – Explained, pointwise

**Topic:- Polity**

**Sub Topic:- General Consent to CBI**

Climate change and its impact on children – Explained, pointwise

**Topic:- Environment**

**Sub Topic:- Air Pollution**

Glasgow Climate Pact – Explained, pointwise

**Topic:- International Relations**

**Sub Topic:- Group and Summit**

**G20 grouping and its relevance – Explained, pointwise****Introduction**

The two day G20 summit 2021 was recently concluded in Rome, Italy. The meeting agenda included climate change, the Covid pandemic, a landmark tax deal and global economic scenario. The G20 Summit ended with the adoption of the **G20 Rome Leaders' Declaration**.

**Note:** **Indonesia** will host the next G20 in 2022, and **India** will host the meeting in 2023.

**The G20 Summit 2021 and G20 Rome Leaders' Declaration**

The Declaration covered the following domains.

**Climate change:** G20 members 1. Recommitted to providing \$100 billion a year to counter climate change, 2. Ending international financing for all new **coal plants** by the end of 2021, 3. Agreed to achieve a global net-zero emission target “by or around mid-century”.

**Note:** The declaration made no mention of domestic commitments on ending coal power generation.

**Must read:** [Net Zero Emissions Target for India – Explained, Pointwise](#)

**Vaccines:** Recognition of more vaccines by the World Health Organization under a “**One Health approach**” and providing finances and technology for vaccine production at “**mRNA Hubs**” in **South Africa, Brazil and Argentina**.

**Read more:** [One Health Approach – Significance and Steps Taken by India](#)

**Taxation:** Approved the 15% **Global Minimum Corporate Tax**.

**Global Economy:** Pledged to “remain vigilant to the global challenges such as disruptions in supply chains.

**Note:** India demanded a collation of a clean energy project pipeline financed by developed countries. But it never materialised.

**Read more:** [“Clean Energy Ministerial” and “Industrial Deep Decarbonization Initiative”](#)

**What is G20?**

The G20 (19 countries and the European Union) was born in 1999 as a consultation forum between finance ministers and central bank governors of the world's major economies.

Following the 2008 economic crisis, it became a forum between Heads of State and Governments, aimed at improving coordination on the main global issues.

At present, G20 nations represent 60% of the global population, 80% of global GDP and 75% of global exports.

The G20 does not have permanent offices or employees. The country that presides over the group (for the year) takes care of all the organization and the logistical coordination of the meetings.

The objectives of the G20 are:(a) Policy coordination between its members in order to achieve global economic stability, sustainable growth (b) To promote financial regulations that reduce risks and prevent future financial crises and (c)To create a new international financial architecture.

**Read more:** [About the functioning of G20 Grouping](#)

**What are the achievements of G20 groupings?**

The main achievements of the G20 include 1. Increased participation of emerging countries in global issues, 2. The reform of international financial institutions, 3. The monitoring of national financial institutions, 4. The improvement in the regulations of the economies whose problems led to the economic crisis and the creation of safety nets to prevent problems in the future.

A few examples of the crucial role of G20 include:

- Quick deployment of emergency funding during the 2008 global financial crisis,
- Its role in the ratification of the [Trade Facilitation Agreement](#),
- G20 driven reforms to the [international tax system](#),

In recent times, the ambit of issues under discussion has been expanded to include climate change, agriculture, health, education, water etc.

### What are the challenges associated with G20 Grouping?

The major criticisms include,

-The **informal structure** of G20: It has no permanent secretariat. The agenda changes every year according to the priorities of the presiding nation. So, critics say that G20 basically was an extension of the G7.

-**Influences decision-making of smaller countries:** The smaller countries, which are not a member of the G20 grouping, have to implement the declarations and commitments agreed by G20 nations for their growth and opportunity.

**For example**, the G20 nations agreed to end international financing for coal power plants. So, a small nation can not get any finance from G20 nations for a new coal power plant and has to use its own limited financial resources or phase out coal and look for other alternatives.

-**Not able to address challenges within member nations:** The G20 grouping is not able to solve the issues within its member nations like the US-China issue on trade, the US – Russia divide on nuclear weapons, etc.

-**No Enforcement mechanism:** The G20's toolkit ranges from simple exchanges of information and best practices to agree on common, measurable targets. None of this is achieved without consensus, nor is it enforceable, except for the incentive of peer review and public accountability.

-**Under-representation of the African continent:** Except for South Africa, none of the African nations is a member of the G20.

**Not legally binding:** The G20 declarations are not legally binding.

### What should be done to revive the G20 Grouping?

**Formalisation of G20:** The G20 has to include objectives, vision and mission statements, a permanent secretariat, and staff to oversee commitments and ensure continuity in the agenda.

**Focus more on domestic commitments:** The G20, instead of international commitments, can focus on domestic commitments and start implementing them. For instance, instead of ending international financing for coal power, the G20 Nations should phase out domestic coal consumption. This will create a significant impact as G20 nations represent more than three-quarters of the world's greenhouse gas emissions.

**Make it more representative:** A 2011 report had criticised the G20's exclusivity, so the G20 has to make itself more representative.

In conclusion, over the past decade, the G20 has been an important forum for international cooperation. But to remain the same in future, there must be some reforms in the G20, else, G20 cannot be a panacea for the world's problems.

**RBI's Payment Guidelines: Implications – Explained, Pointwise****Introduction**

The Reserve Bank of India's guidelines on recurring payments, payment aggregator/payment gateways, and card storage have left businesses, banks, and fintech in a dilemma.

**What are the new guidelines issued by RBI w.r.t recurring payments and Payment Aggregator/Gateways?**

– **Advanced notifications on payments of 5k or above:** The new rules mandate advanced notification by banks to customers for executing recurring payments which are of the value of ₹ 5,000 and above. It is meant for seeking the latter's approval for taking forward any such transaction.

Under this new system, for any transaction of more than ₹ 5,000, banks will send one-time passwords (OTPs) to customers. Currently, auto-debits are allowed under the new system without one-time passwords for payments under Rs 5,000.

– **Mandatory AFA:** In addition, RBI has also **made an additional factor of authentication, or AFA, mandatory** for all recurring transactions below ₹5,000 on debit cards, credit cards, unified payments interface (UPI), and other prepaid payment instruments or PPIs.

As per the guidelines, the banks are now required to take clear consent, while registering and sending notifications 24 hours prior to customers, giving them an option to opt-out.

RBI changed this entire model from **merchant-led to bank-led**. In the earlier era, consent was taken by the merchant and communication also took place with the merchant.

The new guidelines state that the registration has to be executed by a bank, which will also handle customer escalation and send the necessary messages.

**Guidelines that RBI introduced on Payment Gateways/Aggregators –**

– The payment aggregator/payment gateway guidelines (PA/PG) were introduced by RBI mandate that firms approved by the RBI can acquire and offer payment services to merchants.

– One condition that was particularly troubling for the industry was that no merchant will be allowed to store the **Card-on-File (CoF)**. It is the card information stored by the payment gateway and merchants to process future transactions.

**Guidelines on card storage:**

– Further, RBI had earlier this year mandated that e-commerce companies and payment aggregators will **no longer be allowed to store card details** of a customer online.

**What is the rationale behind the new guidelines?****On recurring payments:**

The broad purpose of the new rules is to ensure that holder of credit or debit cards are not constantly hit by recurring charges without their consent. Other reasons include:

– **Loose regulation:** Recurring payments were not allowed in India, but it was also never disallowed. It has been in the grey zone for long. There were no structured guidelines around it.

– **Customer protection:** In the past two-three years, a lot of banks started supporting recurring payments. RBI was worried that such a fast-paced growth would compromise customer protection, considering India's demographic. For example, many financially less-literate customers might be signing up for recurring payments mandate thinking it's a one-off payment. They wouldn't know whom to approach and how to approach to cancel such mandates.

– **Malpractices by Merchants:** Some merchants started abusing the system. They started taking standing instructions on their platforms and made it difficult for subscribers to stop auto-debits.

**On Payment Aggregators/Gateways:**

– The motive of the new PA/PG guidelines is to have better supervisory control over payment operations of internet and e-commerce firms in India.

**On Card storage:**

– The recent data breaches at Juspay and MobiKwik were also a trigger for the strict card storage rules. However, there is no guarantee that even with these changes, a data breach will not happen as this rule also brings in concentration risk to the ecosystem.

**What have been the implications of RBI's new regulations and guidelines?**

**On subscribers:** The ease of transaction they are used to have, disappeared. Some are annoyed because their Apple, or cloud storage, OTT (over-the-top) platform, music and newspaper subscriptions are getting rejected.

On the other hand, some customers are indeed happy this happened—they can easily get rid of subscriptions they no longer need.

**On companies:** Indian subscription renewals are failing due to the Issue of re-verification. They are at the risk of losing their businesses. More than 70% of all standing instructions failed on 1 October and they continue to fail.

**On small businesses:** There are plenty of small businesses, such as jewellers, who depend on subscriptions. For instance, some of them run gold kitty schemes allowing customers to deposit as little as ₹1,000 per month systematically for a tenure of 11-36 months after which they are entitled to purchase jewellery at a discount.

**On Banks:**

– **Lack of infrastructure.** Only the top 10 banks are ready with the required infrastructure today and many banks lag behind. For banks, the migration of old data is a tough task.

– **Huge Cost to banks.** According to industry sources, it would cost ₹12lakh and ₹15 lakh as one-time integration cost to the banks. Then, there are expenses banks would incur for onboarding a customer, customers opting out and on every transaction.

**On Ecosystem companies:** The issuer (banks) ecosystem being ready was not enough because next, the payment aggregators and merchants needed time to integrate. Ecosystem companies such as payment aggregators not only had to build the solution but also test it, get a sign-off from the banks and solution providers before they could go live.

**The Card storage guidelines** will be a major blow for businesses such as Cred, Flipkart, Swiggy, Zomato, Amazon and other e-commerce businesses. The business model of all these companies depends on “frictionless one-click” payments to consumers. Under the new rules, companies such as Cred will need to compel its users to type in their card details every single time a payment has to be made.

**What is the way forward?**

**First,** pre-authorisation of debits must be clear and transparent, users should be clear where their personal data is being held, and it should be easier to cancel subscriptions through payments operators.

**Second,** RBI as a consumer-facing regulator will have to work harder to expand its consultation process before introducing new rules.

**Third,** having observed the problems caused by the new rules, the RBI must swiftly respond, and work out how to make them more palatable for smaller enterprises and consumers.

**Fourth,** There are multiple other mechanisms that can be considered. For example, banks could be mandated to keep a record of recurring payments on a customer's net-banking portal, where they could access it and turn it on and off as desired.

Alternatively, the new protocols could be limited to recurring payments over a certain threshold.

**Fifth,** On one hand, while the business of cards will be impacted, the card storage guidelines open up a new revenue line for the card networks as the entire industry has been asked to move to 'tokenization'.

ForumIAS

**India announces new climate targets at COP26 – Explained, pointwise****Introduction**

India recently announced new climate targets at COP26 under its 'Panchamrit strategy'. It has taken a bold leap towards cementing its commitment to clean energy and letting the world know its future approach towards fighting climate change.

The five-fold strategy to fight climate change, termed as Panchamrit, was announced by Indian PM at the ongoing COP26 meeting at Glasgow. The strategy also includes a target year for reaching Net Zero.

Now the ball is in the developed world's court w.r.t climate finance wherein India has asked to enhance the climate finance to \$1 trillion.

Moreover, an already low-emitter (on a per capita basis), India's new commitments to fight climate change force the historically high emitters and China to commit to bolder emission-reduction pathways.

**What new climate targets have been pledged by India at COP26?**

India made five big-ticket announcements at the climate change meeting in Glasgow:

**First**– India will increase its non-fossil energy capacity to 500GW (*India had earlier extended its target to 450GW out of which 100GW is already installed*) by 2030.

**Second**– India will meet 50% of its energy requirements from renewable energy by 2030.

– Please note that renewable energy sources are different from non-fossil sources. Non-fossil sources also includes, scalable nuclear power and hydroelectricity.

**Third**– India will reduce the total projected carbon emissions by one billion tonnes from now onwards till 2030.

**Fourth**– By 2030, India will reduce the carbon intensity of its economy by 45%.

– India has achieved 25% of emission intensity reduction of GDP b/w 2005 -2016, and is on the path to achieve more than 40% by 2030.

**Fifth**– By the year 2070, India will achieve the target of Net Zero.

*'Panchamrit' is a traditional method of mixing five natural foods — milk, ghee, curd, honey and jaggery. These are used in Hindu and Jain worship rituals. It is also used as a technique in Ayurveda.*

India has also given the slogan of **One LIFE, One World**, at Glasgow.

LIFE is shorthand for **Lifestyle For Environment** Today which entails the need for all of us to come together with collective participation, to take Lifestyle For Environment (LIFE) forward as a campaign.

With the new Nationally Determined Contribution announcement, India will occupy 9% of the remaining IPCC 400 Gt carbon budget for 1.5°C by 2030

**Note:** *All new targets, except the 2070 net-zero commitment, would be put in India's updated NDC that is expected to be submitted to the UN Climate secretariat soon. Net-zero is not a part of the Paris Agreement and as such that commitment would be conveyed separately as part of India's long-term strategy*

**Must Read:** [India's near-term climate targets – Current performance and future expectations](#)

### What is the rationale behind India's announcement of new climate targets?

The run up to COP26 was characterized by reluctance on India's part to declare any new climate targets. Yet, it committed to new targets at Glasgow. This can be due to the following reasons:

**Vulnerability to climate change:** India's 7,000 km-long coastline, the Himalayan glaciers in the north, and its rich forest areas which house natural resources like coal and iron ore — make the country uniquely vulnerable to climate change. Large parts of the population also remain unprotected. An IMF study suggests that if emissions continue to rise this century, India's real GDP per capita could fall by 10% by 2100.

**Boosting economic growth**– There is no longer a trade-off between reducing emissions and economic growth. The U.K. has reduced emissions by over 40% and grown its economy by over 70% since 1990.

**Gaining advantage in new technologies**– The transition of the global economy to net zero emissions is the biggest commercial opportunity in history. Investing heavily helps to gain an advantage in the technologies of the new economy, like renewable energy & storage, electric and hydrogen transport, low emissions industry, green cities or sustainable agriculture. Lastly, India might have been unwilling to be seen globally as a hurdle to a broader agreement on action against climate change.

### India's climate targets: Paris vs Glasgow

Sector	Paris (COP21)	Glasgow (COP26)
<b>Emission intensity of GDP</b>	Reduction by <b>33%–35%</b> by 2030 below 2005 levels	Reduction by <b>45%</b> by 2030 below 2005 levels
<b>Share of renewable energy in India's total energy generation</b>	Increasing the share of renewable energy to <b>40%</b> by 2030.	Increasing the share of renewable energy to <b>50%</b> by 2030.
<b>Carbon sink</b>	To create an additional (cumulative) carbon sink of 2.5–3 GtCO <sub>2</sub> e through additional forest and tree cover by 2030.	No new announcement.

### Why India's announcement of new climate targets holds significance?

The latest announcements assume significance because of the following reasons:

- **This is the first time India has taken any climate target in terms of absolute emissions.** Before this, the closest reference to altering its emissions trajectory used to be in the form of emissions intensity. This is because under the international climate change architecture, only developed countries are mandated, and expected, to make reductions in their absolute emissions.
- **Low historical contribution to emissions:** India has not been a historical contributor to the greenhouse gas emissions. From 1870 to 2019, its emissions have been merely 4% of the global total. And, there is a huge need to grow the economy and to meet the energy needs of millions of Indians. Despite this, India has still gone ahead and committed to challenging climate targets, which is laudable.

### What are some concerns/challenges associated with India's new climate targets?

One big issue that must concern Indian policymakers going ahead will be to ensure that growth is equitable and that the poor in the country are not denied their right to development in this new energy future. Other challenges include:

**Issues with renewable sector:** The renewable energy sector in India had many years of excellent growth since the Paris Agreement in 2015, but there are growing problems of scale. For instance: Increasing storage capacity to ensure that State discoms honor their agreements, to managing grid integration on favorable terms.

**Problems with the discom sector:** India's power distribution system is broken. The core issue is that state governments run a complex cross-subsidy regime in the backdrop of fiscal constraints that results in overdues. Discoms today have overdues of about Rs 66,000 crore.

**Better infrastructure:** A RE-driven regime will require better efficiencies from the distribution infrastructure — it cannot do with the current system in which about a fifth of the electricity goes waste.

**Phasing out of coal:** Phasing out coal will be another challenge for India. Usage of coal, especially for power generation, would need to drop by 99% by 2060, for India to achieve net-zero by 2070.

### What are some implications of India's announcement of new targets?

**Inflation** could be volatile till renewables reached their full potential. The central bank will have to work hard to manage it.

**Fiscal revenues** from oil and coal will fall gradually

The **trade deficit** could rise if the transition to electric vehicles is faster than the increase in domestic battery production.

### What is the way forward?

– **Reducing emissions from transport sector & industry:** India will have to take up enhanced measures to reduce emissions from the transport sector, the energy-intensive industrial sector, especially cement, iron and steel, non-metallic minerals and chemicals.

– **A robust public transport:** It would also need to strengthen its public transport in the cities and improve thermal efficiency of the housing.

– **Private sector investment:** Excluding hydro projects, India's installed renewable capacity is about 100 GW. The private sector today owns about 48% of the capacity. For India to meet its 2030 targets, private investors will need an incentive to keep adding to this capacity.

– **Reforming the power sector:** Higher expectations for future capacity in the renewable energy sector will need greater efforts at reforming the broader power sector in co-operation with State governments. Further, an all-party consensus is needed to ensure a competitive tariff level. India's political class needs to find common ground.

– **Investment in RE sector:** A five-fold addition in renewable capacity needs to be accompanied by greater R&D investments by all stakeholders. IP needs to be held by Indian entities as the dominant player China can't be relied upon.

– **No dependence on West:** India should not depend on the West for clean tech. It needs to set up a fund for incubating ideas in this field. Vaccine inequity has shown global help is uncertain at best.

– **Nuclear energy:** India must not ignore nuclear energy, where India has done much work. Just focusing on renewables may push up costs of electricity. Nuclear energy deserves as much of a push as wind and solar.

- **Better coordination between the state electricity boards** would be needed so that utilities with surplus power can make up for the deficits of others. They would also need to keep a cushion of traditional power to cope with the fluctuations in RE supply. All this would require technological and administrative changes in the way the grid and the traditional power plants are managed.
- **China** which will occupy 33% of the remaining carbon budget, it **must be asked to reduce its emissions** drastically in this decade.
- A look at some of the radical solutions like **solar geoengineering** also merits attention. India might well be able to play a major role in the aerosol-spraying missions or reflector installations needed for such a collective project. Rich nations, though, might have to put in most of the money.
- Governments and multilateral organisations must ensure that private investment flows from the global north to the south, and into the relevant sectors. This must be the focus of **India's climate diplomacy**, now that the pledges have been made.
- India would do well to have **legislative backing for long-term targets**. Performance and progress towards net-zero by each successive government should be monitored by the Parliament. Developing near-term and mid-term sectoral roadmaps would give businesses policy and regulatory clarity.
- **A National Commission on Climate Change**, as a constitutional body, should be formed to deal with climate change as a strategic risk and an overarching development priority, and improve inter-ministerial and Centre-state coordination.

### Conclusion

With its new climate targets, India has silenced critics who suggested it had no bold vision for the planet.

India is on the right track but needs to redouble its efforts to remove the obstacles.

## DISCOM sector in India: Challenges & solutions – Explained, pointwise

### Introduction

Power generation, transmission, and distribution are the three main processes involved in the power sector.

Distribution is done by the Distribution Companies (DISCOMs) which connect power producers to the households. They are the interface between utilities and the consumers.

Under the Indian Constitution, power is a concurrent subject and the responsibility for distribution and supply of power to rural and urban consumers rests with the states.

Hence, DISCOMs are predominantly owned by the state governments. Private DISCOMs are also operational in India but are limited to a few cities like Delhi and Mumbai. Government of India provides assistance to states through various Central Sector / centrally sponsored schemes for improving the distribution sector.

Since many years, most power distribution companies in India are incurring losses every year.

Due to these accumulated losses and various other reasons the condition of DISCOMS in India is quite fragile.

### What are the challenges being faced by the DISCOMs in India?

**High AT&C losses:** The precarious financial position of DISCOMs is due to the **high level of aggregate technical and commercial (AT&C) losses**, the levy of **inadequate or lesser tariffs** when compared to the cost of power supply, and **insufficient subsidy support from state governments**.

Their annual losses are estimated to be around 45,000 to 50,000 crore and the overall debt is around 6 lakh crore.

The figure for AT&C loss in India, as per Min. of Power, was **18-19%** in 2019. In countries such as UK and US, it is about **6-7%**.

**Note:** AT&C loss reflects the loss due to energy loss during transmission and distribution (technical reasons), theft, and inefficiency in billing and commercial loss such as inefficiency in collection, and default in payment.

**Determination of tariffs:** One major factor impacting the health of DISCOMs is the **determination of the tariffs**. There are frequent delays in the tariff determination process.

**Poor financial health:** Power distribution companies collect payments from consumers against their energy supplies (purchased from generators) to provide necessary cash flows to the generation and transmission sectors to operate. Due to the perennial cash collection shortfall, often due to payment delays from consumers, Discoms are unable to make timely payments for their energy purchases from the generators.

According to the most recent government data, **discoms' payment arrears** are now nearly **\$14 billion**. A fifth of this are claims of renewable energy producers.

This overhang limits their ability to pay on time, forcing them to run up operational debt to electricity suppliers and transmission firms.

Further, this gap/shortfall is met by borrowings (debt), government subsidies, and possibly, through reduced expenditure. This increases the Discoms' cost of borrowing (interest), which is inevitably borne by the consumer.

**Lack of metering:** Minimizing the AT&C losses is critical to improve the operational efficiency of Discoms. However, even six years after UDAY was launched, various levels in the distribution chain (the feeder, the distribution transformer (DT) and the consumer) have not

been fully metered. As a result, it difficult to isolate and identify loss-making areas and take corrective action.

**Decrease in revenue generation owing to the Pandemic:** Revenue from industrial and commercial users is used to cross-subsidize other consumers. However, owing to the Pandemic the demands from industrial and commercial users is falling. This has led to stress on discom finances.

**Absence of political consensus at the state level to raise tariffs:** Many states report losses as they could not eliminate the gap between power costs and revenue. For instance, recently, Opposition parties in Karnataka recently protested against a tariff hike of 30 paise.

The Centre's "**Electricity for all**" programme have contributed to greater inefficiency. Because, to support higher levels of electrification, cost structures need to be reworked. Similarly, the distribution network (transformers, wires, etc) need to be augmented. In the absence of such measures, losses are bound to rise.

**Emergence of alternative sources of energy and resultant decline in cross-subsidy tariff:** DISCOMs were able to charge higher tariffs from commercial and industrial consumers to cross-subsidize agricultural and low-income households. However, high-tariff paying consumers are migrating to alternative sources of energy like solar. This is happening due to two reasons: an increase in funding at national and global level towards cleaner options and secondly, the average cost per unit for commercial and industrial consumers has dropped considerably.

This reduced reliance of high tariff paying consumers on DISCOMs will only worsen their already weak financial position.

#### **What are the implications of a weak DISCOM sector in India?**

A fragile state of DISCOMs in India will lead to various other problems:

**Difficulty in achieving the new climate targets:** India will struggle to meet its bold target of raising non-fossil-fuel generation capacity—including hydroelectric and nuclear power—to 500 gigawatts by 2030, up from roughly 150 gigawatts now. At COP26 meeting, India had recently committed to use non-fossil-fuel sources for half of its energy needs by 2030.

#### **What key schemes have been launched by the Govt to address the DISCOM problem?**

Various steps have been taken by the govt to resolve the problems being faced by the DISCOMs:

**UDAY Scheme:** Launched in November 2015, the Ujjwal DISCOM Assurance Yojana (UDAY) was designed to turn around the financial position of state distribution companies (DISCOMs). The state governments took over 75 % of the debt of their DISCOMs, issuing lower-interest bonds to service the rest of the debt. In return, DISCOMs were given target dates (2017-19) to meet efficiency parameters like reduction in power lost through transmission, theft and faulty metering. The scheme was not successful in fulfilling its objective.

**Reforms-Linked, Result-Based Scheme for Distribution (RLRBSD):** In budget 2021-22, the Union government had announced the launch of a "reforms-based and results-linked" scheme for improving the financial health and operational efficiency of discoms. Under the scheme, AT&C losses will be brought down to 12-15% by 2025-26, from 21-22%. Operational efficiencies of discoms will be improved through smart metering and upgradation of the distribution infrastructure, including the segregation of agriculture feeders and strengthening the system.

**What is the way forward?**

**DISCOM Restructuring:** Only 10% of India's population is served by private distribution licensees. Hence, **good Corporate Governance and higher private participation in distribution** hold out the possibility of greater efficiency.

**Regulatory Reforms:** The state governments should promote **autonomy, competence and transparency** of the State Electricity Regulatory Commission (SERC). Depoliticisation of DISCOMs is a must.

**Operational Reforms:** The overall AT&C loss figure in India is high. Many discoms need to improve their billing efficiency through better and smart metering.

**Renewable Energy Integration Reforms:** DISCOMs need to prepare to accommodate an increasing amount of renewable energy (RE), from generators as well as prosumers.

**Managerial Reforms:** Effective reforms such as easily accessible call centres, convenient bill payment facilities can help reduce customer dissatisfaction and increase revenue. Moreover, Performance incentives can also help align discom employees to the interests of the organisation.

The creation of a **national power distribution company** to ensure procurement of electricity at competitive prices.

While errant billing and collection, the other aspect of high cost can be partially solved by renewable power, especially solar. **A low-cost robust solar panel manufacturing industry** in India will lead to lower cost of power for DISCOMs. As the share of solar power increases, the cost for DISCOMs will come down.

**Privatisation of DISCOMs:** It is an experiment that has yielded positive results in many cities, including Delhi, Mumbai, Kolkata and Ahmedabad. Before it was privatised in 2002, AT&C losses in the national capital were at a high 53% and the government was subsidising discoms to the extent of Rs 12,000 crore every year. After privatisation losses came down, and today Delhi has one of the lowest AT&C losses among DISCOMs in the country at just 8 per cent.

**Electricity Amendment Bill 2021:** The bill seeks to delicense power distribution to reduce entry barriers for private players for creating competition in the segment, which would ultimately enable consumers to choose from multiple service providers. This will result in a stiff competition to existing DISCOMs thereby forcing them to clean up their act and become operationally efficient.

## Pre-poll surveys in India – Explained, pointwise

### Introduction

With the State Legislative Assembly elections approaching in several states, Pre-poll surveys have become a matter of debate once again.

In October, the Chancellor of Austria, Sebastian Kurz, was forced to resign. He was charged with orchestrating fake surveys and bribing the news media to show them as genuine opinion polls.

Back home in Uttar Pradesh, one of the political parties has appealed to the Election Commission of India to ban Pre-poll surveys by media outlets six months before State and General elections.

With actual results often at variance with the predicted results, is it time that Election Commission should finally take a call on these pre-poll surveys?

Let's find out.

### What are Pre-poll surveys?

These polls typically ask respondents how they will vote in the upcoming election, along with other measures of voter knowledge, attitudes, and likely voting behavior.

Overall they reflect public preference before an election.

The validity of pre-poll surveys can be assessed by comparing them with the outcomes of the actual election.

**Psephology** is the statistical study of elections and trends in voting.

Opinion polls to study Indian national elections emerged in the 1950s. The proliferation of electronic media and the rapid monetisation in the 1990s provided momentum to polling agencies to venture into opinion polling on national electoral politics and state election contests.

The survey data provide for crucial social science insights, validation of theoretical research and academic knowledge production.

Psephology continues to provide the best telescopic view of elections based on the feedback of citizens.

### Why pre-poll surveys hold influence over elections in India?

Out of every 100 Indians who voted in the 2019 national elections, only 35 were committed voters, who were sure of their voting preference before the campaigns began. The remaining 65 voters made their voting decision in the last few days or weeks before the election day (Lokniti National Election Study).

So, 65% of Indian voters make their voting decisions quite late in an election.

And, nearly 30% of these non-committed voters make their choice based on who they think is likely to win. When winning margins in India's multi-party elections are small, the decision of these non-committed voters can make a big impact on the electoral outcome.

Hence, a rigged pre-poll survey can easily sway voter share, and hence outcomes of elections in India.

### What are the issues/concerns associated with pre-poll surveys?

**i). Growing weaponization of opinion polls:** In the last few years, political leaders and parties have weaponized opinion polling to shape and influence, rather than just reflect, public preferences. Election outcomes are impacted by fake pre-poll surveys.

**ii). Effective at misleading public:** Since these polls carry a facade of objectivity, voters are more easily misled.

**iii). Unclear survey methodology:** Most polls published by the Indian media, barring a few, do not disclose basic details of their survey methods, and do not make their data public.

**iv). Most people judge a survey purely on their sample size** with the assumption that a large sample size signifies a good survey. The notion of a sample size is highly misunderstood. The selection of the sample is far more important than the size.

**v).** The 255<sup>th</sup> report of the Law Commission has also called for regulation of opinion poll for three reasons- **a).** to ensure that credentials of the organizations conducting the poll is made known to the public, **b)** public has a chance to assess the validity of the methods used in conducting the poll, **c)** public is adequately aware that the poll is in the nature of forecasts or predictions.

### How is an exit poll different from a pre-poll survey?

The “exit-poll” means an opinion survey inspecting how electors have voted at an election. Exit polls generally involve asking citizens about their voting preferences on Election Day itself.

The ‘exit’ refers to polling done on people who have just exited voting booths. They are different from pre-poll surveys or opinion polls, which are conducted before the elections.

In 2008, Parliament amended the Representation of the People Act and inserted Sec 126A and 126B to **explicitly ban the conducting and dissemination of exit polls during the period laid out by the EC**, usually until the very last day of voting for any elections taking place simultaneously. The results of exit polls can’t be released mid-way during a multi-phase election and are released once all the phases are over.

### Can EC ban opinion polls?

Law Ministry had suggested that EC can restrict opinion polls using its powers under Article 324.

– **Art 324:** It gives EC the power of superintendence, direction and control of conducting the elections.

But, EC was of the opinion that, that banning opinion polls under Art 324, may not be possible due to Article 77.

– **Art 77:** Under Article 77 of the Constitution, all executive actions of the Centre are taken in the name of the President.

The Parliament in 2008 had restricted only the publishing of the exit polls (before completion of all phases of elections) and had put no restrictions on the Opinion Polls. Hence a ban on the Opinion Polls by an Executive organ, when the Legislature had already considered the issue, may not be “legally sustainable”.

**Present situation:** Currently, opinion polls are barred from being published in electronic media for **48 hours prior** to an election in that polling area under Section 126(1)(b) of the RP Act, 1951. The contravention of Section 126(1)(b) is punishable under Section 126(2) with imprisonment for a term which may extend to two years or with fine, or with both.

### What is the way forward?

– **Election Commission (EC) should set standards:** The EC can help voters detect fake opinion polls by defining the standards and guidelines. Any opinion poll that does not reveal its survey methodology, sample selection technique, sample size and exact questionnaire should be considered suspect.

– **A robust sampling methodology:** As mentioned earlier, selection of a correct sample size is supremely important for a vastly diverse, multi-party, first-past-the-post democracy like India.

To survey a state election in India, a robust sampling methodology should choose people from every assembly constituency, identity, age group and gender. A survey of a well-represented 2,000 people is far superior to a survey of 20,000 people chosen from just a few assembly constituencies or a specific religion or age group.

– **Disclosure of survey methods:** The Election Commission can mandate disclosure of detailed survey methods, raw data and prescribe minimum stratified sampling standards for pre-poll surveys.

**Conclusion**

Opinion polls do not just reflect the opinions of people but have a potential to influence the results as well. If 30 per cent of India's voters are vulnerable to such influence, then there is an urgent need to regulate this exercise and protect the sanctity of India's democracy.

ForumIAS

## What is Metaverse? – Explained, pointwise

### Introduction

The race between technology companies to build the 'metaverse' has officially started. On October 28, 2021, Facebook Inc. announced that it was restructuring and assuming the corporate name, Meta Platforms Inc.

Technology industry is envisioning Metaverse as the successor to today's internet where people shall be able to do anything like go shopping, study, attend meetings etc.

Let's take a look at various other aspects of this burning topic.

### What is "Metaverse"?

It is a network of **always-on virtual environments** in which many people can interact with one another and digital objects through virtual representations of themselves.

The term may also refer to digital spaces which are made more lifelike by the use of virtual reality (VR) or augmented reality (AR).

There is also a specific type of metaverse which uses blockchain technology. In these, users can buy virtual land and other digital assets using cryptocurrencies.

### What are the key aspects of a Metaverse?

There are three key aspects of a metaverse:

– **Presence** is the feeling of actually being in a virtual space, with virtual others. This sense of presence is achieved through virtual reality (VR) technologies such as head-mounted displays. It improves the quality of online interactions.

– **Interoperability** means being able to seamlessly travel between virtual spaces with the same virtual assets. That is, one virtual representation created, can be used in different virtual worlds.

– **Standardization**- These are common technological standards that are essential for widespread adoption. This **enables interoperability** of platforms and services across the metaverse.

International organizations such as the "**Open Metaverse Interoperability Group**" define these standards.

Sci-fi novelist **Neal Stephenson** coined the term in his 1992 novel "**Snow Crash**" to describe the virtual world in which the protagonist, Hiro Protagonist, socializes, shops and vanquishes real-world enemies through his avatar. The concept predates "Snow Crash" and was popularized as "**cyberspace**" in William Gibson's groundbreaking 1984 novel "**Neuromancer**."

### Why there's an increased interest in Metaverse?

**A decentralised Web:** Web 3.0 is the name given to the next generation of Internet architecture. It will be free from the centralisation that is a part of today's Web 2.0 Internet systems, which are largely controlled by tech giants such as Google, Facebook and Amazon. Web 3.0 will entail the use of technologies such as blockchains and tokens to create a decentralised Internet for online interaction and online payments.

A hypothetical metaverse run on these platforms could be a good example of what an ideal future digital environment could look like.

**'Creator economy'** will become a reality in the metaverse thanks to the popularity of NFTs (non-fungible tokens). NFTs will allow proof of ownership of digital assets, for example, virtual goods, paintings and memorabilia.

**Multidimensional interactions:** Moreover, at the moment, people interact with each other online by going to websites such as social media platforms or using messaging applications. The idea of the metaverse is that it will create new online spaces in which people's interactions can be more multi-dimensional.

**The pandemic effect:** The accelerated interest in the metaverse can be seen as a result of the COVID-19 pandemic. As more people have started working and going to school remotely, there has been increased demand for ways to make online interaction more lifelike. Hence the push for an 'Open Metaverse' by some organisations.

### What are some issues/concerns associated with Metaverse?

**Psychological effects:** Virtual economies might also develop around the customisation of metaverse 'avatars'. Metaverse 'avatars' may become the new version of showing off glamorous social media profiles — hiding who the person really is behind-the-scenes and perpetuate narcissism, causing mental health issues and insecurities. Some experts believe that people might even begin to prefer virtual interactions while ignoring their real world needs.

**Privacy and security concerns:** Rampant health and biometric data collection are expected to continue in the metaverse, as real world identities will be more connected to the system than ever before. Data breaches and theft, thus, could prove even costlier. Cybercrimes could also take on new forms in these new virtual worlds.

**Lack of self-moderation:** Facebook's role in promoting violent and hateful content to drive user engagement has been well documented. If left unregulated, something similar could happen on an even larger scale in immersive virtual worlds, through targeted advertising and propaganda. The corporation cannot be trusted to moderate its platforms properly if it goes against their economic incentives, as has been proven time and time again.

**Emergence of virtual nation-states:** Metaverses will bring up challenging questions of jurisdiction and governance. In the distant future, virtual worlds could someday grow into alternatives to the nation state itself. Big Tech firms already have revenues and valuations higher than GDPs of several small countries. If they all get to operate full virtual worlds of their own, it could require a large-scale rethinking of the very foundations of technology law.

**Cost to the environment:** The metaverse, as it is promised, will combine the technologies of cloud computing, big data, advanced AI systems, AR/VR, blockchains, NFTs and much more. Each of these technologies requires tremendous processing power and, consequently, would lead to a great cost in terms of the environment. The level of resource extraction required to run such a huge system smoothly is too gigantic to comprehend. And that is not even taking into account the exploitation of millions of underpaid workers upon which a lot of the critical infrastructure and supply chains of Big Tech depend.

**Commodification of human interaction:** Metaverse indicates the **next level of commodification of human interaction**, where every single action, down to the tiniest levels, is tracked and surveilled for profits, and designed in a way to maximise data collection.

**Lack of awareness:** At present, people do not know much about the concept of Metaverse. In this light, Facebook's chosen name – Meta, can make millions of people believe that only one corporation is working towards the idea of a metaverse, which is not the case.

**Emergence of oligopolies and monopolies:** In response to Facebook's latest move, competitors are likely to emerge with their own versions of the technology, leading to a number

of 'Closed' metaverses, which would basically be the Web 2.0 system all over again. Oligopolies or monopolies in something as revolutionary as the metaverse space is a cause for concern.

#### **What is the way forward?**

**Regulators need to step in right from the start** when it comes to the metaverse, following a precautionary rather than a permissive approach. Problematic practices cannot be allowed to become a norm. This will make it difficult to deal with them later on.

**Stringent data policies:** Virtual Reality (VR) data is biometric, and all personal and behavioral characteristics of the people will be recorded and harvested, making them susceptible to cyber-crimes. Hence, there is need to place stringent data policies to keep their users safe.

#### **Conclusion**

Metaverses have great potential to revolutionise fields such as education and health care, but as long as they are run purely from a profit motive, the benefits would likely be lesser. With the metaverse, possibilities are plenty. But so are the dangers.

## UAPA and the recent judgments – Explained, pointwise

### Introduction

In the backdrop of the Tripura violence, the police used the provisions under the UAPA ([Unlawful Activities \(Prevention\) Act of 1967](#)) to charge journalists and 100-odd social media users for posts on communal violence.

### What are the other recent cases filed under UAPA?

**Kashmir:** Recently, students in Kashmir were booked under the UAPA for online expressions of support for India's opponents in a cricket match.

**A case of Father Stan Swamy:** He was arrested as a suspect under UAPA in the Bhima-Koregaon case. Despite his attempts, he was not released on bail.

**Kerala:** A case has been filed against the person (Thwaha Faisal) under UAPA for alleged association with the banned CPI (Maoist).

### About Unlawful Activities (Prevention) Act, 1967

It is primarily an anti-terror law aimed at effective prevention of certain unlawful activities of individuals and associations. Its main objective is to empower the state for dealing with activities directed against the integrity and sovereignty of India.

The Act assigns absolute power to the Central Government. It can declare an activity as unlawful, by way of an Official Gazette. Under the act, **both Indian and foreign nationals can be charged**. The act has the **death penalty and life imprisonment as the highest punishments**.

Under section-43D, police are empowered to detain the accused in police custody for 30 days and in judicial custody for a period of 180 days without the charge sheet. This duration can be extended further after information to the court.

### About the recent amendment and the changes introduced

So far the Act has been amended six times and the last one being 2019. The significant changes under the 2019 amendment are

1. Allowed the State to designate **individuals as 'terrorist'**,
2. Empowers the Director-General, National Investigation Agency (NIA) **to grant approval of seizure or attachment of property** when the case is under investigation by the agency,
3. **Reversed the innocent until proven guilty principle**.

### What are the challenges in the UAPA?

The UAPA was formulated to strengthen the security framework of the country and preserve the unity and integrity of the nation. However, it has currently become a [tool to curb free speech](#) and political dissent in our country.

1. The **definition of terrorism** in Section 15 of UAPA is **indefinite**, as it covers almost every kind of violent act.
2. **Against Fundamental Rights:** UAPA is against Articles 14, 19 and 21, representing the Right to Equality, Freedom of Speech and Expressions, and Right to Life, respectively.
3. **Issue of bail:** There are instances where the accused had spent over one year in jail without trial. Further, the accused does not have the option of anticipatory bail. It presumes the accused is guilty solely on the basis of the evidence collected.
4. **Low conviction rate:** The [cases filed under the UAPA have been rising](#) for a few years. But, on the other hand, the conviction rate is going down. It was merely 2.2% between 2016-19.

5. **Data Deficit:** The NCRB does not maintain UAPA data on the basis of religion, race, caste or gender. This creates a barrier in identifying the vulnerable groups who face greater abuse under the act. 6. Under section-44, secret witnesses are allowed during the case proceedings.

**Read more:** [UAPA or Unlawful Activities Prevention Act – Explained, Pointwise](#)

### What are the recent observations by Judiciary regarding UAPA?

Recently, the Judiciary held three important judgements regarding stringent provisions under UAPA.

**Thwaha Faisal v Union of India case, 2021** Recently, SC granted bail to Thwaha Faisal and held that

1. Vague allegations of conspiracy, based on the general behaviour of the accused, or of the materials that might have been recovered from them, is not enough to file a charge sheet under UAPA,
2. Mere support to a terrorist organisation as a member or otherwise is insufficient to attract an offence under the UAPA.

**Asif Iqbal Tanha v State of NCT of Delhi, 2021:** The court held that

1. Exceptionally stringent provisions of the UAPA are meant to apply only to exceptional cases, and not as substitutes for ordinary penal law,
2. There should be a distinction between the state of exception and the state of normalcy,
3. criticised the state's tendency to confuse "protest" for "terrorist activity",
4. The word "terrorism" has to be given a specific meaning that distinguishes it from offences that are dealt with under ordinary law.

**Iqbal Ahmed Kabir Ahmed v State of Maharashtra, 2021:**

1. The allegations in the chargesheet must be individualised, factual, and particularistic.
2. The gap between what an individual is accused of, and the actual events, cannot be filled by inferences or speculation.

### What can be done to improve the UAPA?

1. **Supreme Court intervention:** The court has to intervene with a set of guidelines for invocation of UAPA.
2. **Incorporate the necessary changes:** The government has to incorporate recent Judicial verdicts to make the law only for the intended purpose and not for political dissent or anything else,
3. **Better governance:** All detentions under the Act should have higher levels of clearance, with a record kept of the rationale applied (for future scrutiny),
4. **Deploying educational modules:** deploying relevant models on the basic principles of justice at every level of law-and-order will reduce misuse of UAPA.

UAPA gives unfettered powers to the government and leaves a person vulnerable in front of the government. However, given the evolving nature of crime and terrorist activities, it is not possible to completely abandon the law. Hence, the UAPA has to be amended to balance the security interests with fundamental freedoms.

**GGI-OSOWOG project – Explained, pointwise****Introduction**

**Green Grids Initiative: One Sun One World One Grid** (GGI – OSOWOG) – was recently launched by India and UK at COP26 meeting at Glasgow.

It is an ambitious plan for the **world's first transnational network of interconnected solar power grids**.

The Prime Ministers of the two countries also presented **One Sun Declaration**, endorsed by more than 80 countries, setting out GGI-OSOWOG's aims.

Let's take a deep dive into the topic.

**What is the GGI-OSOWOG project?**

The initiative will **interconnect generators and demand centres across continents** with an international power transportation grid.

The idea of a trans-national electricity grid supplying solar power across the globe is based on the concept that the **sun never sets** and it is possible that one part of the world uses night-time power that is being generated elsewhere in the day time.

**Must Read: [Green Grids Initiative – OSOWOG NorthWest Europe Cooperative Event](#)**

It includes **smart grids** connecting millions of solar panels and charging points for electric vehicles, and **microgrids for rural communities** and to ensure resilience during extreme weather events.

The project is being spearheaded by the governments of India and the UK in partnership with the **International Solar Alliance (ISA)** and the **World Bank Group**.

**Must Read: [India, UK launch first transnational solar grid plan: On OSOWOG initiative](#)**

US has also backed the GGI-OSOWOG project and is part of the **Steering Committee** which comprises five members besides **India** and the **UK** – the **US, Australia** and **France**.

**How the project will be implemented?**

The OSOWOG project will be implemented in three phases based on geopolitical strategy:

- **Phase 1:** In the first phase, the Indian Grid will interconnect with the Middle East, South Asia, and Southeast Asia grids to share solar and other renewable energy resources for meeting electricity needs, including during peak demand.
- **Phase 2:** It will then be interconnected with the African power pools in the second phase.
- **Phase 3:** The third phase would cover the global interconnection of the power transmission grid to achieve the OSOWOG's vision

**What is the rationale behind the project?**

In countries with large-scale renewable energy capacity, **variability and intermittency of renewable energy-based power generation** is a major concern. Often this acts as a **barrier for capacity expansion plans** at the national level.

An important strategy for managing the variability of renewable energy is to **spread the electricity supply over large areas** by building regional and international grids.

Meanwhile, mini-grids can help communities to harness **local energy resources**, bringing electricity to off-grid villages and ensuring a more resilient supply during the heatwaves, storms, and floods that are now battering all parts of the planet.

**Geopolitical reasons:** Several countries, including China, have initiated infrastructure projects in other countries, a step seen as a sign of asserting supremacy. With ISA and OSOWOG India

is planning to take a **leadership position**. It is also being seen as India's counter to China's Belt and Road initiative (BRI).

### What is the aim of the GGI-OSOWOG?

It aims to **promote cross-border flow of green energy** through an exclusive network of large generators, decentralised energy systems, storage, and transmission and distribution systems. OSOWOG envisions **building and scaling interregional energy grids** to share solar energy across the globe, leveraging the differences in time zones, seasons, resources, and prices between countries and regions.

It will also help **decarbonise energy production**, which is today the largest source of global greenhouse gas emissions.

Ultimately, it will help in **reducing the reliance on non-renewable energy** such as coal by enabling the purchase of affordable solar power from other countries

#### India:

**Electricity for all:** Government aims to provide 24\*7 electricity to all to ensure uniform economic development. OSOWOG will provide the platform to provide electricity in border and strategic areas like North Eastern State like Arunachal Pradesh, Western Himalayan states and Bihar and Uttar Pradesh.

As a responsible member of UN, India aims to remove the economic and social disparities across the globe through promoting cooperation and coordination among solar energy-rich nations and solar energy scarce nations. OSOWOG would also **strengthen the alliance of Coalition for Disaster Resilient Infrastructure (CDRI)**.

### Is GGI-OSOWOG a unique project?

Regional grids are not a new idea.

– **China's GEIDCO** aims to link Asia, Europe, and Africa through an intercontinental grid by 2035

– **Nord Pool**, already functional, connects Scandinavian countries.

But OSOWOG will be the **first attempt** at creating a global solar energy network.

### What are the challenges/issues with the GGI-OSOWOG project?

**Geopolitical implications:** Under the project, economies will share a common grid. Any disruption caused due to any bilateral/multilateral issues can potentially affect critical services in multiple continents and countries. Hence, not many countries may be willing to participate.

**Era of protectionism:** In this era of protectionism, trade-wars, and a shift from multilateralism to bilateral and regional agreements, GGI-OSOWOG may face difficulties. The COVID pandemic has further raised questions on the concept of globalisation. Dealing with different governments and different market forces and thus different rules and regulations will be a challenging task.

**Transmission costs:** The supply of energy through this integrated grid, will require thousands of kilometers of transmission of electricity. The transmission costs may thus outweigh the benefits of land and solar radiation.

**Grid stability:** There is a difference in voltage, frequency, and specifications of the grid in most regions. Maintaining grid stability with just renewable generation would be technically difficult. GGI-OSOWOG does not take into account the overlaps with the solar generation across regions where transmission lines are passing through. Thus, for the remote regions, distributed generation would be preferred over centralised generation.

**Non-existence of Grid-level networks for green power in India:** India currently has only localised transmission lines to carry renewable power from generation centres. The only pure green power lines are those where electricity is produced from renewable sources for captive use or for selling through distributed renewable energy (DREs) systems to nearby customers. Grid-level networks for green power currently do not exist in the country.

#### **What is the way forward?**

**Institutional Financing:** To build technological and business capabilities to have exclusive grids for green power within states and countries, significant deployment of resources exclusively for renewable power would be needed. But this may not be prudent for cash-strapped local and national governments. This is where institutional financing, both from philanthropists and multilateral agencies, can be crucial.

**Battery storage infra:** Addressing the intermittent nature of renewable power through battery storage and building in for the outages caused by unfavorable weather conditions will be essential. This nonetheless will add costs into the systems requiring an even larger scale of trading for a sustainable business model.

**Transmission of energy across neighboring borders:** The first step of OSWOG would be solar power transfer between neighboring countries. India, Bhutan, Bangladesh, Myanmar and Nepal already share transmission capacity for energy transfer across borders which can be expanded further and utilized for the transfer of solar power between these countries.

## The Issue of Withdrawal of General Consent to CBI – Explained, pointwise

### Introduction

Recently, the Supreme Court expressed concern about states withdrawing general consent to the [Central Bureau of Investigation \(CBI\)](#) for investigating cases. At present, eight states have withdrawn general consent to the agency. The court observed this as “**not a desirable position.**”

### What was the case?

SC was hearing an appeal filed by CBI against the Jammu and Kashmir High Court order. The Court observed the delay of 542 days in filing the appeal and inquired about the challenges faced by the CBI in ensuring the timely prosecution. In response, CBI filed an affidavit in the Court stating the issue of withdrawal of consent by the states.

### About CBI's jurisdiction and its power to investigate cases in states

CBI is governed by The **Delhi Special Police Establishment (DSPE) Act, 1946**. However, the unlimited jurisdiction of CBI is confined to Union Territories and Railway areas, under this Act. **Section 5** of the DSPE Act empowers special police establishments (SPEs), including CBI, to investigate cases in the states. **Section 6** of the DSPE Act restricts the powers of SPEs under section 5 and puts the condition of the consent of the state government to investigate any case in that state.

So, the CBI must **mandatorily** obtain the consent of the state government concerned before beginning to investigate a crime in a state.

### What is general consent?

A consent to CBI can be either case-specific or general.

A “**general consent**” is normally given by states to help the CBI in the seamless investigation of corruption against central government employees. It means CBI doesn't require permission from the state government before starting an investigation in that state.

If a state doesn't give general consent to the CBI, it would have to apply to the state government in every case, and before taking even small actions.

### Why States are withdrawing general consent?

Although this is not a new trend, states have been withdrawing their consent throughout the history of the agency. But, after the 2018 amendment to the **Prevention of Corruption Act (PCA), 1988**, many states have withdrawn the consent.

**In 2018, an amendment to the Prevention of Corruption Act (PCA), 1988 was enacted.** This amendment made it mandatory for the CBI to seek the Centre's permission before registering a case of corruption against any government servant. Earlier, permission was required for cases against officials of the level of joint secretary and higher.

This created the following problems – **1)** The Centre now exercises the power over the CBI not just administratively, but also legally, **2)** Agency can investigate only the officers that the central government wants to be investigated, **3)** Corruption cases registered by the CBI dropped by over 40% between 2017 and 2019.

**How does the withdrawal of general consent affect CBI powers and jurisdiction?**

1) CBI will **not be able to register any fresh case** against any central government official or a private person, **without the consent** of the state, 2) CBI officers will **lose all powers of a police officer**, whenever they enter the state.

However, CBI can investigate a case in the following conditions:

1) CBI has the power to investigate cases that had been **registered before consent** was withdrawn. 2) CBI can investigate a case against a person if it is **registered outside the state** in which he is stationed. For example, it can file a case in Delhi, if the case involves a Delhi connection, and investigate a case in any state. 3) CBI can get a **warrant from a local court in the state** and conduct the search. 4) Consent is not required in the cases, where a **person is caught red-handed**, taking a bribe. 5) **Section 166 of the Criminal Procedure Code (CrPC)** allows a police officer of one jurisdiction to ask an officer of another to carry out a search on their behalf. If there is a fear of loss of evidence due to this arrangement, the officer of another jurisdiction can carry out a search by himself and provide the notice for the same later.

**Must Read – [Other issues facing CBI](#)**

**Various court rulings and their implications**

**Vinay Mishra vs the CBI case, 2021:** In this, the Calcutta High Court ruled, 1) **Corruption cases must be treated equally across the country**, 2) A central government employee could not be “distinguished” just because his office was located in a state that had withdrawn general consent, 3) Withdrawal of consent would apply in cases where only employees of the state government were involved.

The ruling has been challenged in the Supreme Court. If it is upheld, CBI will be able to investigate cases against Central government employees in any state, even if consent is not given.

**Delhi High Court:** In 2018, the court ruled that the CBI can probe anyone in a state that has withdrawn general consent if the case was not registered in that state. Thus, Delhi HC allowed investigation in Chhattisgarh, because the case was registered in Delhi.

**Implications of withdrawal of general consent to CBI**

1) It is increasing the **pendency of cases**. As per an affidavit filed by CBI in Supreme Court, CBI’s requests in 78% of cases are pending with the states that have withdrawn the consent.

2) **Economic Impacts:** Some of the pending cases include important cases such as bank frauds, which can impact the Indian economy.

## Climate change and its impact on children – Explained, pointwise

### Introduction

The future of our children is inextricably linked to the fate of this world. And the fate of this world now rests on the swiftness of our action against the threats posed by the climate change. Presently, world over, children are paying an enormous price for climate change. Exacerbating the impact of problems like flooding, heatwaves, pollution, droughts and diseases etc., it has put a question mark on the sustainability of our planet for the future generations.

Time is slipping away, and we need to address this issue.

Multiple solutions are indeed possible.

Let's take a deep dive into the topic.

### What is the scale of the issue?

The scale of the issue can be understood from the following:

As per **UNICEF**, one billion children — almost half of all kids on Earth — are at extremely high risk to climate impacts.

As per the **World Economic Forum (WEF)**, a child born now faces 6.8 times more **heatwaves**, 2.6 times more **drought** and 2.8 times more **floods** and **crop failures** than a person born in 1960.

As per **UN findings**,

- 90% of the global **burden of disease** linked to climate change is borne by children under five.
- 90% of children globally are exposed to **air pollution**, caused by the combustion of fossil fuels.

920 million children (over 30% of children globally) are highly exposed to **water scarcity**. This will intensify as climate change increases water stress, droughts and competition for water

### What are the impacts of climate change on children?

There are direct and indirect impacts.

#### Direct impacts –

- **Extreme heat** is a direct impact. Children are least able to cope with heatwaves.
- **Flooding**: Fast-moving waters dangerously impact children — adults cannot effectively protect small children in such floods. With sea levels rising and the intensification of cyclones, worldwide flooding will exacerbate. The effects could be particularly harmful for children in developing nations and children of poorer communities in wealthy countries.
- **Air pollution** can significantly impact cognitive development in children and generate respiratory diseases like asthma.

**India has the added challenge of dust** blowing around from land use changes, including deforestation and agriculture.

- **Reduction in crop yields**: Children, the most vulnerable parts of a population, are most likely to be exposed to reductions in crop yields due to variable precipitation. **For instance**: Monsoon in India could see an increase in average precipitation during the monsoon but further drying after it. Changes around the edges of the monsoon season could be harmful to crop yields by **decreasing moisture**. In the middle of the monsoon, there could be **increased flooding**, which can also destroy crops. This can impact food availability, prices and security, impacting children, particularly from poorer communities.

- **Health impacts**: Climate can alter child health even before a child is born. Heat and air pollution can increase premature births, which are associated with multiple childhood health issues.

– **Diseases:** Climate change is also driving vector-borne diseases like malaria and dengue, which affect children.

**Indirect impacts –**

– **Poverty:** Currently, 82.4 million people have been forcibly displaced worldwide, due to climate conflicts over land, water and food. Their children have lost a home of dignity and peace. These children face working like adults to survive, their lost education locking them into endemic poverty.

– **Psychological:** Damage to historical monuments will result in a loss of aesthetic value and continuity in cultures. This will impact psychological well-being. Such losses are likely to be intensified over coming decades; and children, growing up in a world where there isn't much that is stable to hang onto, can be damaged by this.

It is a vicious cycle wherein the poor are not only disproportionately affected by climate change, but are also left poorer than before due to the climate change itself.

India is home to 32 of the world's 40 most polluted cities but while wealthier households can buy air purifiers and stay indoors, poorer households and their children simply cannot.

**What is the way forward?**

– **Educating children:** Children should be made aware of the fact that more climate change is likely to happen before the situation gets better. Simultaneously, they also need to be given a sense of hope that the situation can be improved. Further, they must be educated about the importance of the environment they live in.

– **Participation of children:** Children should participate in the process of building a society that is stable and secure from a climate point of view.

– **Resource deployment by the community:** As a community, people should deploy resources to protect the vulnerable and press public services for more mitigations. India could do a very good job of opening community centers, like in the US, to shield its most vulnerable from harsh climate impacts.

– **Realizing its solar potential:** India has amazing solar energy resources. With initiatives like [GGI-OSOWOG](#), India is now not only realizing its solar potential but also aiming for a more leadership role in the process.

– **Health initiatives:** Health policies must be centered around advocacy of sustainable lifestyles. Also, health benefits of climate action in India are actually significantly higher than other places. As per Harvard School of Public Health study, a solar panel or a wind turbine in India can save 30 times more lives because by using renewable energy, one can reduce associated pollution impacts right away.

– **Political initiative:** We need leaders who can make investments in solutions which they won't get credit for because the benefits will come later. Every country requires leaders who can put their self-interest aside.

We must foster more holistic connections between humans and nature that include various forms of sustainable use with aesthetic and cultural values. For this to happen, we must begin with children and the values which they internalize from childhood.

– **Other measures:** Mitigations include sustainable water use, regenerative agriculture, protecting mangroves, urban greens and wetlands, reducing fossil fuel combustion and adopting renewable energy swiftly.

**Conclusion**

A healthy planet will automatically mean healthier children. Moreover, as it is often said:

*'We do not inherit the earth from our ancestors, we borrow it from our children'*

It is high time when we realize the gravity of these words and ensure that we leave our world a better place to live in.

ForumIAS

## Glasgow Climate Pact – Explained, pointwise

### Introduction

The Glasgow Climate Pact (GCP) was adopted by 196 parties at the Glasgow climate change conference (COP26).

The pact is being termed as a mixed bag, with some tangible achievements and multiple unfulfilled expectations.

Most countries insisted that the agreement was an important, though small, step in keeping alive the hopes of achieving the 1.5°C temperature goal. On the other hand, observers and civil society groups saw it as a missed opportunity to enhance global climate action.

Let's take a deeper look.

### What are the key points of Glasgow Climate Pact?

**On mitigation:** The Glasgow agreement has emphasized that stronger action in the current decade was most critical to achieving the 1.5-degree target. Accordingly, it has:

- Asked countries to strengthen their 2030 climate action plans, or NDCs (nationally-determined contributions), by next year.
- Requested the UN Secretary General to convene a meeting of the world leaders in 2023 to scale-up ambition of climate action.
- Called for a phase-down of coal, and phase-out of fossil fuels.

**On Adaptation:** Most of the countries, especially the smaller and poorer ones, and the small island states, consider adaptation to be the most important component of climate action. The pact has:

- Asked the developed countries to **at least double the money** being provided for adaptation by 2025 from the 2019 levels. In 2019, about \$15 billion was made available for adaptation.
- Created a two-year work programme to define a global goal on adaptation.
- The agreement will also fund the **Santiago Network**, which is supposed to build technical expertise about climate adaptation in vulnerable nations. *(The Santiago Network is a network to enable loss and damage fund flow from developed to developing countries)*

**On climate finance:** In 2009, developed countries had promised to mobilise at least \$100 billion every year from 2020. This promise was reaffirmed during the Paris Agreement, which also asked the developed countries to scale up this amount from 2025. The developed nations have now said that they will arrange this amount by **2023**.

**Must Read:** [The coal controversy at the Glasgow summit](#)

**Target of 1.5°C kept alive:** The agreement acknowledges that commitments made by countries so far to cut emissions of greenhouse gases are not enough to prevent planetary warming from exceeding 1.5 degrees above pre-industrial temperatures. To attempt to solve this, it asks governments to **strengthen those targets by the end of next year**, rather than every five years, as previously required.

**On burning of fossil fuels:** The pact for the **first time** includes language that asks countries to reduce their reliance on coal and roll back fossil fuel subsidies.

**On Net Zero** – Glasgow has brought both developed and developing countries on board, offering to reduce emissions to net zero. Brazil, for example, said it would advance its **net-zero** target year from 2060 to 2050. China promised to come out with a detailed roadmap for its commitment to let emissions peak in 2030, and also for its 2060 net-zero target. Israel announced a net zero target for 2050.

**On Loss and Damage:** Also, for the **first time**, a mention of “loss and damage” has been made in the cover section of the agreement. Under the deal, though, developed countries have essentially just **agreed to continue discussions on the topic**. It is now part of the multilateral discourse and the US has agreed that it should be examined in working groups.

*Loss and damage refers to the costs that some countries are already facing from climate change, and these countries have for years wanted payment to help deal with it.*

**On global carbon markets:** A carbon market existed under Kyoto Protocol but is no longer there because the Protocol expired last year. The developing countries wanted their unused carbon credits to be transitioned to the new market. The Glasgow pact has allowed these carbon credits to be used in meeting countries’ first NDC targets.

These cannot be used for meeting targets in subsequent NDCs. That means, if a developed country wants to buy these credits to meet its own emission reduction targets, it can do so till 2025.

Credits issued before 2013 will not be carried forward. That is intended to ensure too many old credits don’t flood the market and encourage purchases instead of new emissions cuts.

The resolution of the deadlock over carbon markets represents one of the major successes of COP26.

**Multiple Side deals:** There were a number of notable side deals too. For instance: [The Global Methane Pledge](#), [US-China Joint Declaration on Climate Change](#), [Glasgow Leaders’ Declaration on Forests and Land Use](#), [Glasgow Breakthrough Agenda](#)

#### **What is the significance of the pact?**

- **First clear recognition of the need to transition away from fossil fuels**, though the focus was on giving up coal-based power altogether.
- **Recognition of the importance of Adaptation** and a commitment to double the current finance available for this to developing countries.
- This is the **first time that coal has been explicitly mentioned** in any COP decision.
- India announced a **Panchamrita** (a mixture of five elements) of climate actions.

#### **What are the issues/concerns with the climate pact?**

**Climate finance:** A new commitment has now been made to deliver on the earlier climate finance pledge in the 2020-2025 period, with a promise of an enhanced flow thereafter. But in a post-pandemic global economic slowdown, it is unlikely these promises will be met. In any event, it is unlikely that India will get even a small slice of the pie.

Moreover, the earlier finance commitment (*of \$100 bn per year*) is based on a time when the full extent of the adjustment developing countries would need to make was not adequately known. The emission-reduction targets agreed in Glasgow will call for much larger investments.

Amar Bhattacharya and professor Lord Nicholas Stern have estimated that developing countries (excluding China) would need about **\$800 billion per year by 2025, going up to \$2 trillion per year by 2030**. This is a huge sum, and the Glasgow text makes no mention of it.

**Loss and Damage:** Though, adaptation and loss and damage have received much more attention than before, the demands for setting up of a standalone facility to coordinate loss and damage activities were not met. As a result, little progress made in the climate pact is unlikely to translate into a meaningful flow of funds any time soon.

**Voluntary targets with no compliance mechanism:** The new targets are voluntary with no mechanism for enforcement or penalties for non-compliance, and many are also conditional on availability of adequate financial support.

**Lack of specificity on Net Zero measures:** Many countries are yet to provide details on specific actions to be taken which would determine the actual trajectory to net zero. Since it's the shape of the trajectory that determines the total emissions for each country, this introduces some uncertainty about what will be achieved.

**Must Read:** [The coal controversy at the Glasgow summit](#)

### What is the way forward?

Developing countries should **actively push the financing agenda at CoP-27** next year in Egypt to ensure enough finance is made available.

India, should also have a clear idea on how it'll **move away from fuel taxes and fossil fuel subsidies** to a carbon tax that eases the domestic economy's green transition. It should be able to present clear systems for **phasing down** its coal capacity in return for financial commitments, as several nations in Southeast Asia and Africa did this year.

But it must also keep up pressure on the developed world regarding deeper emission cuts and the sharing of technology and finance.

COP26 has shifted some additional pressure on to COP27, to be held next year in Cairo. Before then, substantial moves will have to be made in both India and in the developed world if COP27 is to succeed.

### Conclusion

With the UN terming it as a 'global compromise', there is more ambition in the pact, but little to show in terms of concrete actions. What provides hope is the incredible and passionate advocacy of urgent action by young people across the world. This is putting enormous pressure on governments and leaders and, if sustained, may become irresistible.

As for how much COP26 finally delivers, it completely depends on how different governments finally finesse their pledges.