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1. Protecting India’s natural laboratories

Introduction:

Like social diversity, India’s geodiversity, or variety of the geological and physical elements of nature, is unique.

India has tall mountains, deep valleys, sculpted landforms, long-winding coastlines, hot mineral springs, active volcanoes, diverse soil types, mineralised areas, and globally important fossil-bearing sites.

It is long known as the world’s ‘natural laboratory’ for geo-scientific learning.
Geo-heritage Sites in India:

1. Geo-heritage refers to the geological features which are inherently or culturally significant offering insight to earth’s evolution or history to earth science or that can be utilized for education.

2. **Geological Survey of India (GSI)** is the parent body which is making efforts towards identification and protection of geo-heritage sites/national geological monuments in the country.

3. **Some of these sites are:** Marine Gondwana fossil park in Chhattisgarh; Siwalik vertebrate fossil park in Himachal Pradesh; Stromatolite park in Rajasthan; Pillow lava in Karnataka, Eparchaean unconformity and Tirumala hills in Andhra Pradesh, Lonar Lake in Maharashtra, etc.

Background of Geological heritage of our planet:

1. The importance of the shared geological heritage of our planet was first recognised in 1991 at an UNESCO-sponsored event, ‘First International Symposium on the Conservation of our Geological Heritage’.

2. The delegates assembled in Digne, France, and endorsed the concept of a shared legacy: “Man and the Earth share a common heritage, of which we and our governments are but the custodians.”

3. This declaration foresaw the establishment of geo-parks as sites that commemorate unique geological features and landscapes within their assigned territories; and as spaces that educate the public on geological importance.

4. These sites thus promote geo-tourism that generates revenue and employment.

5. In the late 1990s, in what may be considered as a continuation of the Digne resolution, UNESCO facilitated efforts to create a formal programme promoting a global network of geo-heritage sites.

6. These were intended to complement the World Heritage Convention and the UNESCO Man and the Biosphere programme.

7. UNESCO provided guidelines for developing national geo-parks so that they become part of the Global Geoparks Network. Today, there are **169 Global Geoparks across 44 countries.**
8. Countries like Vietnam and Thailand have also implemented laws to conserve their geological and natural heritage. Unfortunately, India does not have any such legislation and policy for conservation.

9. Though the Geological Survey of India (GSI) has identified 32 sites as National Geological Monuments, there is not a single geo-park in India which is recognised by the UNESCO.

10. This is despite the fact that India is a signatory to the establishment of UNESCO Global Geoparks.

**The development juggernaut of unregulated activities:**

1. Despite international progress in this field, the concept of geo-conservation has not found much traction in India.

2. Many fossil-bearing sites have been destroyed in the name of development. This indifference strange as it may seem given the current dispensation’s penchant for crying itself hoarse about India’s heritage is going to take a toll on our heritage.

3. The development juggernaut will soon overwhelm almost all our sites of geo-heritage.

4. For example, the high concentration of iridium in the geological section at Anjar, Kutch district, provides evidence for a massive meteoritic impact that caused the extinction of dinosaurs about 65 million years ago.

5. This site was destroyed due to the laying of a new rail track in the area. Similarly, a national geological monument exhibiting a unique rock called Nepheline Syenite in Ajmer district of Rajasthan was destroyed in a road-widening project.

6. The Lonar impact crater in Buldhana district of Maharashtra is an important geo-heritage site of international significance.

7. It is under threat of destruction, although conservation work is now in progress under the High Court’s supervision.

8. We are inching towards the disappearance of most of our geological heritage sites. Thanks to unplanned and booming real estate business, many such features have been destroyed.

9. Unregulated stone mining activities have also contributed to this destruction. This situation calls for immediate implementation of sustainable conservation measures such as those formulated for protecting biodiversity.

10. Natural assets, once destroyed, can never be recreated. And if they are uprooted, they lose much of their scientific value.
Unfortunately, Lack of geological literacy in India:

1. **Geo-heritage sites** are educational spaces where people find themselves acquiring badly needed geological literacy, especially at a time when **India’s collective regard for this legacy is abysmal**.

2. **Indian classrooms** view disciplines like environmental science and geology with disdain compared to how they view other ‘pure’ subjects like physics, biology, and chemistry.

3. This lack of interest in the government and our academic circles towards geological literacy is unfortunate at a time when we **face a crisis like global warming**.

4. The **geological features and landscapes** that evolved over billions of years through numerous cycles of tectonic and climate upheavals are recorded in India’s rock formations and terrains, and are part of the **country’s heritage**.

5. For example, the Kutch region in Gujarat has dinosaur fossils and is our version of a Jurassic Park.

6. The **Tiruchirappalli region of Tamil Nadu**, originally a **Mesozoic Ocean**, is a store house of Cretaceous (60 million years ago) marine fossils.

7. **Broken loose from a supercontinent 150 million years ago**, the **Indian landmass**, with all its strange-looking plants and animals, drifted northwards all by itself **for 100 million years** until it settled under the southern margin of the Asian continent. It **got entwined with the world’s youngest plate boundary**.

8. To know how physical geography gets transformed into a cultural entity, we need to study **the environmental history of the Indus River Valley**, one of the cradles of human civilisation. India offers plenty of such examples.

Geo-conservation legislation needed:

The **protection of geo-heritage sites** requires legislation.

1. **The Biological Diversity Act** was implemented in 2002 and now there are **18 notified biosphere reserves in India**.

2. **Geo-conservation** should be a major guiding factor in land-use planning.

3. A **progressive legal framework** is needed to support such strategies. In 2009, there was a half-hearted attempt to constitute a **National Commission for Heritage Sites** through a bill introduced in the Rajya Sabha.

4. Though it was eventually referred to the **Standing Committee**, for some unstated reasons the government backtracked and the bill was withdrawn.
In 2019, a group of geologists under the auspices of the Society of Earth Scientists petitioned the Prime Minister and the Ministries concerned about the **need for a national conservation policy** under the direct supervision of a national body committed to the **protection of geo-heritage sites**.

**Conclusion:**

The Geological Survey of India had submitted a **draft legislation for geo-heritage conservation** to the Ministry of Mines in 2014, but it did not make any impact. But the government’s apathy continues.

As the **climate of the future is uncertain**, decision-making is difficult.

Learning from the geological past, like the warmer intervals during the **Miocene Epoch (23 to 5 million years ago)**, whose climate can be reconstructed using proxies and simulations, may **serve as an analogue for future climate**.

The **awareness accrued through educational activities** in geo-heritage parks will make it easy for us to memorialise past events of climate change and appreciate the **adaptive measures** to be followed for survival.

**2. Why Poshan 2.0 needs more power after Covid**

**POSHAN Abhiyaan: Objectives and Targets**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Targets</th>
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<tbody>
<tr>
<td>Prevent and reduce stunting in children (0-6 years)</td>
<td>By 6 percentage points at a reduction rate of 2 per cent per annum by 2022</td>
</tr>
<tr>
<td>Prevent and reduce undernutrition (underweight prevalence) in children (0-6 years)</td>
<td>By 6 percentage points at a reduction rate(453,668),(650,688) of 2 per cent per annum</td>
</tr>
<tr>
<td>Reduce the prevalence of anaemia among young children (6-59 months)</td>
<td>By 9 percentage points at a reduction rate of 3 per cent per annum</td>
</tr>
<tr>
<td>Reduce the prevalence of anaemia among women and adolescent girls (15-49 years)</td>
<td>By 9 percentage points at a reduction rate of 3 per cent per annum</td>
</tr>
<tr>
<td>Reduce Low Birth Weight (LBW)</td>
<td>By 6 percentage points at a reduction rate of 2 per cent per annum</td>
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Introduction:

Children are the future of our country. Well-being of children is essential for the country’s development as they contribute to the future human resource of the country.

To strengthen nutritional content, delivery, outreach, and outcomes, Government is merging the Supplementary Nutrition Programme and Poshan Abhiyan to launch Mission POSHAN 2.0.

The Ministry of Women and Child Development has taken many initiatives to ensure safety and well-being of children.

Ministry of Women and Child Development strives to ensure well-nourished and happy children growing in a safe and secure environment and empower women by providing them with an environment which is accessible, affordable, reliable and free from all forms of discrimination and violence.

Context:

Recently, the Ministry for Women and Child Development inaugurated Poshan 2.0 and urged all Aspirational Districts to establish a Poshan Vatika (nutrition garden) during the Nutrition Month (Poshan Mah) from 1st September.

For effective implementation of various schemes and programmes of the Ministry of Women and Child Development, all major schemes of the Ministry have been classified under 3 umbrella schemes viz. Mission Poshan 2.0, Mission Vatsalya and Mission Shakti.

A month-long celebration of the POSHAN Abhiyan mission places special attention on Severe Acute Malnourished (SAM) children.

Background:

In 2008, when distinguished international economists including many Nobel laureates were asked by the Copenhagen Center to build consensus on the most important development agenda in which policymakers and philanthropists should invest, ‘battling malnutrition’ emerged as the top priority.

It took time for this to sink in our country. For generations, malnutrition and undernutrition remained an all-pervasive but largely invisible issue in India and it didn’t receive the attention it deserved.

What is POSHAN Abhiyaan?
1. The **POSHAN (Prime Minister’s Overarching Scheme for Holistic Nutrition) Abhiyaan** was launched by PM Narendra Modi on March 8, 2018, in Rajasthan.

2. The Abhiyaan is India’s flagship programme to **improve nutritional outcomes for children, pregnant, women, and lactating mothers**.

3. The **POSHAN Abhiyaan aims to make India a malnutrition-free country by 2022**. The Abhiyaan aims to reduce stunting in children from 38.4 per cent to 25 per cent by 2022.

4. Under the POSHAN Abhiyaan, the 1st POSHAN Maah was celebrated in September 2018 with a **special focus on Social Behavioural Change and Communication (SBCC)**.

5. Themes included eating healthy – food fortification, hygiene and sanitation, right age of marriage, antenatal care, optimal breastfeeding, anaemia, and education of girls.

**Malnutrition in India:**

1. **About 68% of the deaths of children under the age of five in India** can be attributed to child and maternal malnutrition, said Lancet in 2019.

2. This basically means that **tackling malnutrition as a whole**, instead of addressing one disease at a time, will keep our children much safer and make their futures brighter.

3. As per the **Global Nutrition Report 2020**, India is among 88 countries that are likely to miss global nutrition targets by 2025.

4. Over half of our children under five years were found to be either stunted (too short for their age) or wasted (too thin for their age) or both, reckoned this **Comprehensive National Nutrition Survey**, released in 2019.

5. The **Food and Agriculture Organization (FAO)** estimates that 194.4 million people in India (about 14.5% of the total population) are undernourished.

6. Covid-19 has posed serious threats to children and their health and nutritional rights.

7. According to recent estimates, even in the best possible scenario and accounting for changes in the **provision of essential health and nutrition services** due to COVID-19, India could have around **additional 60,000 child deaths** (around 3,00,000 in the worst-case scenario) in the next six months.

8. The results were alarming for what it meant for the future of our children, but they were broadly in sync with other independent estimates on malnutrition’s prevalence.

9. Malnutrition **adversely affects the physical and mental growth of the child** and is the single most important risk for acquiring other diseases.
10. Research also shows malnourished children are less likely to go to school and more likely to drop out.

11. This meant half of our children were silently falling behind, and no development can be truly meaningful without ensuring that our children and mothers are better fed and healthy.

**How Poshan scheme affected by Covid-19?**

1. Covid-related shocks could lead to an additional 9 million children under the age of five suffering from wasting, of which two-thirds will be in South Asia, predicted research in Nature.

2. So, it is important to not only renew but **multiply our efforts towards Poshan 2.0 with full vigour while practising physical distancing, mask wearing and hand hygiene.**

3. Under Poshan 2.0, several related schemes have been **merged to tap the synergies,** malnutrition hotspots are being **identified and 112 aspiring districts will receive extra attention.**

4. Under the **current Poshan Maah,** the **drive to identify children** suffering from severe acute malnutrition has been intensified and Anganwadi workers have been asked to refer those having medical complications to health institutions and NRCs.

5. For those facing severe acute malnutrition without medical complications, **community management protocols** should be strengthened, so that they do not go on to develop medical complications in times of the pandemic.

6. **Fresh waves of Covid cannot be ruled out in the near future, and we must adapt our nutrition interventions to the possibility of such repeated shocks.**

7. The momentum set by this entire nutrition movement was disturbed once Covid lockdowns led to the shutting of schools, Anganwadi centres, Nutritional Rehabilitation Centres;

8. Further, frontline workers had to be engaged in Covid-related work that took precedence over their daily duties, which **entailed identifying, referring and monitoring children** suffering from severe acute malnutrition and moderate acute malnutrition among other nutrition-strengthening activities.

States tried to cope to the best of their abilities by replacing hot-cooked meals **with dry ration or cash transfers.**

**Way Forward steps for make India free of malnutrition by 2022:**

**Poshan Abhiyan,** which vowed **to make India free of malnutrition by 2022,** repositioned nutrition as central to development and emphasised its multi-factorial and multi-sectoral nature.
1. First, the **movement built in its approach** that, on top of direct interventions, nutrition can be improved in many ways, including:
   
a. **Better sanitation that addresses intestinal diseases and**
   b. **Allows people to absorb more nutrients;**
   c. **Increasing dietary diversity;**
   d. **Vaccinating children against diseases;**
   e. **Counselling more women to breastfeed babies for longer, which in turn improves immunity.**

2. Second, **by involving many ministries and departments outside the nodal ones**, along with bringing on board other stakeholders including communities, Poshan Abhiyan helped to **build a comprehensive nutrition response**, never seen before in this country’s history.

3. Given that the damage malnutrition does in the first 1,000 days of life is irreversible, it beamed **intense focus on nutrition-related intervention** to **improve maternal and child health** in that window since conception.

4. The nutrition mission also measured and monitored indicators real-time during the programme using technology, so that timely course corrections could be made in different contexts.

5. However, what really stood out as a stellar achievement of Poshan Abhiyan was the way the **senior political leadership committed itself** to eradicating malnutrition and **galvanised it into a people’s movement**, with the celebration of **Poshan Maah in September and Poshan Pakhwara in March**, along with several other activities.

**Conclusion:**

A safe and bright future for our children will translate into a safe and bright future for the country. And that’s the message we want every fellow citizen to internalise—**Sahi Poshan, Desh Roshan**.

Other activities, such as **making new mothers breastfeed for longer, managing childhood diarrhoea, distributing deworming tablets and iron and folic acid diligently while convincing target groups to take these diligently will go a long way in improving the nutrition status of children and new mothers.**

It is important **to document and learn from states** like Gujarat, Madhya Pradesh and Rajasthan, which have scaled up **Community-based Management of Malnutrition practices** in recent times, so that best practices can be adopted and incorporated.
3. India needs a caste count

Introduction:

The Constituent Assembly sat together 114 times to draft a visionary Constitution for India, targeted at transforming an ancient civilisation into a modern nation state.

The Preamble inter alia stated that there would be justice (social, economic and political) and equality of status and opportunity.

The Sachar Committee Report recommended setting up a national data bank.

The Justice Rohini committee was appointed in 2017 to look into the sub-categorisation of the OBC communities, however, in the absence of data, there can be no data bank or any proper sub-categorisation.

Background for Reservation system emerged for OBCs:

1. In 1990, a step was taken in this direction when the then Prime Minister V.P. Singh decided to act on the recommendations of the Mandal Commission report and provide 27% reservation in public employment to Other Backward Classes (OBCs).

2. This was subsequently extended to educational institutions. This added to the existing 22.5% reservation quota for SCs and STs thereby increasing reservations in educational institutions to 49.5%.

3. This decision led to a nationwide tumult in university campuses and a legal challenge in the Supreme Court.
4. In Indra Sawhney v. Union of India, the Supreme Court upheld 27% reservation for OBCs but struck down the 10% quota based on economic criteria.

5. It further fixed the ceiling of reservations at 50%. It also held that a “caste can be and quite often is a social class. If it is backward socially, it would be a backward class for the purposes of Article 16(4).”

6. It also evolved the concept of a creamy layer. It held that individuals from backward classes who had attained a certain social, educational and vocational status in life would not be classified as OBCs for the purposes of reservation. This was done to ensure that those who really require reservation get it.

7. The OBC reservations sparked off similar demands from socially powerful and upwardly mobile caste groups.

8. Reservations provided by successive governments either within the 27% quota for OBCs or beyond the 50% ceiling to various communities were struck down by various courts or are still being challenged.

An economic and social fillip by Constitution:

1. In order to fulfil the egalitarian construct of the Constitution, the makers of modern India incorporated into the chapter on Fundamental Rights three path-breaking postulates:
   a. Article 17 (abolishing untouchability),
   b. Article 23 (prohibition of traffic in human beings and forced labour) and
   c. Article 24 (prohibition of child labour).

2. The Constitution outlaw’s discrimination on the grounds of religion, race, caste, sex and place of birth and mandates equality of opportunity in matters of public employment albeit with caveats to promote the interests of the underprivileged.

3. Part XVI delineates Special Provisions relating to certain classes, including reservation of seats for Scheduled Castes (SCs), Scheduled Tribes (STs) and Anglo-Indians in the Legislatures.

4. This reservation system was supposed to end 10 years after the commencement of the Constitution.

5. However, it has been extended every 10 years since. The objective is to provide a political voice to the disempowered.

6. Article 335 provides for reservations for SCs and STs in public employment both under the Union and the States.

7. The Constitution thus provides both an economic and social fillip to the weaker sections who had been discriminated against historically.
8. The **aim is to bring about social integration** that could pave the way for the **creation of a classless ethos**.

**Caste Census will benefit in Policy Making:**

The purpose of a caste census is not merely geared to the reservation issue; a caste census would actually **bring to the fore the large number of issues** that any democratic country needs to attend to, particularly the number of people who are at the margins, or who are deprived, or the kind of occupations they pursue.

A caste census, which will **generate exhaustive data** will allow policymakers to develop better policies, implementation strategies, and will also **enable a more rational debate on sensitive issues**.

The Supreme court has time and again asked governments to provide the data related to castes, however, this has not been possible due to the **non-availability of such data**.

As a result, our national life suffers from mutual mistrust and misconceptions among different castes. All such commissions have had **to rely on data from the last caste census (1931)**.

**Demand for a caste census for real transformation of India:**

1. The demand for a caste census is growing louder as its findings can be **used to cross the 50% hurdle**.

2. If it can be empirically established that the **OBCs are numerically higher**, perhaps it could be argued that the **50% cap on reservation is redundant**.

3. **Nations are built by an intricate interplay of social inclusion and meritocracies.** The previous government had, albeit reluctantly, acquiesced to a **Socio-Economic and Caste Census in 2011** that it then rigorously implemented.

4. In 2016, the **Parliamentary Standing Committee of Rural Development** observed that “the data has been examined and **98.87% data on individuals’ caste and religion is error free**”.

5. However, the present government told the Supreme Court and Parliament that the **caste census data are flawed and cannot be released**.

6. This assertion that flies in the face of the **observations of the Parliamentary Standing Committee on Rural Development**.

7. Over time, what has been forgotten is the **original dream of transforming India into an egalitarian and classless society**.
8. Undoubtedly, while reservations have ameliorated socio-economic backwardness, they have equally created silos whereby the benefits of reservation have been more far-reaching vertically than horizontally.

Conclusion:

Therefore, a new paradigm of affirmative action is required to fulfil the vision of the makers of independent India given that economic stimuli have not brought about societal integration. Since it has been judicially determined that caste is synonymous with class, a fresh socio-economic caste census is imperative if the previous one is flawed and cannot be released.

Once it is known what the economic and social status of every caste group is, a new intervention strategy can then be fashioned to emancipate caste groups that are still at the bottom of the ladder and require that socio-economic impetus.

The focus of affirmative action would thus shift from emancipating an individual to a caste group as a whole. Only when all castes are equal can society become egalitarian.
1. Making parties constitutional

**System Caught in a Vicious Cycle**

- Inexhaustible demand for illegitimate funds
- Most expenditure incurred for vote buying
- Rise of political fiefdoms
- Vote delinked from public good
- Taxes delinked from services
- Political survival and honesty incompatible
- Social divisions exacerbated
- Competence and integrity excluded
- National parties marginalized

**Introduction: Political Parties in India:**

In a democracy, political parties provide an agency to the society to gather different views on various issues and to present these to the government.

They bring various representatives together so that a responsible government could be formed.

They provide a mechanism to support or restrain the government, make policies, justify or oppose them. India has a multi-party system.

According to the Election Commission of India, there are over 2000 political parties in India, which include eight "recognized national" and more than 50 "recognized state" parties.

**Political party system in India:**

A political party is an *organised group of citizens* who hold common views on governance and act as a *political unit* that seeks to obtain control of government with a view to further the agenda and policy they profess.
In India, the Election Commission of India recognises the political parties and provides certain benefits to them based on their voting share.

Further, India also has the largest number of political parties in the world. For example, Bharatiya Janata Party (BJP), Indian National Congress (INC), etc.

**Working of a political party:**

1. Political parties are **indispensable links** between the people and the representative machinery of government.

2. Political parties **maintain a continuous connection** between the people and those who represent them either in government or in the opposition.

3. Political parties have **extralegal growth** in almost every democratic country. The American Constitution does not presume the existence of political parties. In Britain too, political parties are still unknown to the law.

4. Nonetheless, Sir Ivor Jennings, in The British Constitution, opined that “a realistic survey of the British Constitution today must begin and end with parties and discuss them at length in the middle”.

5. **Similarly, political parties in India are extra-constitutional**, but they are the **breathing air of the political system**.

**Political Party formation and Indian Constitution:**

1. The Indian Constitution is one of the **longest Constitutions** in the world. It even elaborately deals with the **co-operative societies**.

2. The **right to form co-operative societies is a fundamental right under Article 19 (1)(c)**, but the **right to form political parties is not**.

3. It is astonishing that such a meticulous Constitution **overlooked political parties**, the vital players in the political system, for constitutional regulation.

4. Most of the parties are **openly caste- or religious-based**. Their finances are dubious and opaque.

5. Almost all the parties are **family fiefdoms**. The Congress high command is only a euphemism for the Gandhi family. There are **no periodical in-party elections** in Indian parties except in a few like the CPI(M).
Political parties in developed nations maintain high levels of internal democracy.

In the U.K., the Conservative Party has the National Conservative Convention as its top body. It has a Central Council and an Executive Committee.

The Central Council elects its President, a Chairman and Vice Chairmen at its annual meeting. It also elects an Executive Committee which meets once a month.

In the U.S., both the Democratic and the Republican Party have the National Committee as their top decision-making body. The National Committee plays an important role in the presidential election and agenda setting.

Example can follow: The German model:

2. Article 21 of the Basic Law deals with their status, rights, duties and functions. It provides:
3. Political parties shall participate in the formation of the political will of the people. They may be freely established.
4. Their internal organisation must conform to democratic principles. They must publicly account for their assets and for the sources and use of their funds.
5. Parties that, by reason of their aims or the behaviour of their adherents, seek to undermine or abolish the free democratic basic order or to endanger the existence of the Federal Republic of Germany shall be unconstitutional.
6. The Federal Constitutional Court shall rule on the question of unconstitutionality. Details shall be regulated by federal laws.

Other Reforms under consideration

More systemic reforms are needed to address the problems of money power, decline of national political parties and abdication of the best and the brightest.

Such a reform must be broadly acceptable, easily achievable, and must have minimal risk of unintended negative consequences. Therefore, FDR is strongly advocating for the following:

1. Removal of the significance of the marginal vote - Mixed Proportional Representation system– Best suited Model for India.
2. Decriminalization of Politics-Stringent disqualification norms
3. Clear Separation of Powers at the State and Local Levels through Direct Election of Head of Government

4. Internal democracy in political parties

5. Compulsory voting

6. Timely conduct of elections – Election Commission’s functioning

7. Reducing the Burden of “imposed” elections – Candidates contesting from multiple constituencies and/or causing bye-elections.


9. Minimizing the number of non-serious electoral candidates – Need for increasing the security deposit of candidates.

Conclusion:

The German model of constitutionalising political parties is more desirable for India than the U.S. and the U.K. models.

Section 29A(5) of the Representation of the People Act, 1951 is the only major statutory provision dealing with political parties in India.

It orders that a political party shall bear true faith and allegiance to the Constitution of India as by law established, and to the principles of socialism, secularism and democracy, and would uphold the sovereignty, unity and integrity of India.

Political parties are the agents of democracy and safety valves in the political system.

They desperately need reform. Hence, it is high time to constitutionalise political parties to ensure in-party democracy, to impart transparency in their finances, and to de-communalise them.

2. A fund without a care for the RTI

PM CARES Versus RTI ACT 2005

Why PM CARES is not a Public Authority ??
Context:
The Government has recently claimed that the PM CARES Fund is not a public authority.
The manner in which the Prime Minister’s Citizen Assistance and Relief in Emergency Situations (PM CARES) Fund was set up, with its acronym created to publicise the point that the Prime Minister cares for people shows a bypassing of the statutory obligations of a public authority.

It may not be an exaggeration to say that when it comes to seeking answers and information under the Right to Information (RTI) Act, the Prime Minister’s Office (PMO) is consistent in putting up a screen.

Background of PM CARES Fund:
1. In March 2020, the government has set up the Prime Minister’s Citizen Assistance and Relief in Emergency Situations Fund (PM-CARES Fund) to deal with any kind of emergency or distress situation like posed by the COVID-19 pandemic.
2. The Fund is a public charitable trust with the Prime Minister as its Chairman. Other Members include Defence Minister, Home Minister and Finance Minister.
3. The Fund enables micro-donations as a result of which a large number of people will be able to contribute with the smallest of denominations.
4. The Fund will strengthen disaster management capacities and encourage research on protecting citizens.

Is the PM Cares Fund under RTI?
1. The Prime Minister’s Office (PMO) has consistently refused to divulge any information about the PM-CARES (Prime Minister’s Citizen Assistance and Relief in Emergency Situations) Fund’s spending, citing that it is not a “public authority” under the Right to Information Act, 2005.
2. However, file noting accessed by RTI activists show that the Ministry of Corporate Affairs (MCA) had declared that the fund was set up by the Central government on the day the fund was created, thus making it a public authority under the ambit of Section 2(h) of the RTI Act, 2005.
3. The point is that the PMO operates the Fund, but says it cannot supply any information about the PM CARES Fund because it is not a public authority.
4. The PMO completely glosses over the fact that the PMO is a public authority and has to give us answers about the fund under the RTI.

Affidavit filed in Delhi High court:

1. The PM CARES Fund page lists its structure, functions and duties in an arbitrary manner.
2. The official appeals for funds are made under the emblem of the Saranath lions and ‘Satyameva Jayathe’, which means “Truth Alone Triumphs”.
3. Therefore, the recent affidavit, where the Delhi High Court was informed that “the PM CARES Fund is not a Government of India fund and that the amount collected by it does not go to the Consolidated Fund of India”, is strange.
4. The affidavit was filed by an Under Secretary at the Prime Minister’s Office (PMO), who added that the trust functions with transparency.
5. The most significant lie of this sworn statement is that the Government has no control over the Fund.

Critics arguments regarding PM CARES Fund:

1. A statutorily constituted National Disaster Response Fund (NDRF), which was established under the Disaster Management (DM) Act of 2005, is deliberately ignored while a new, controversial, unanswerable, and ‘non-accountable’ vehicle, PM CARES Fund had created; its character is not spelt out till today.
2. The NDRF is mandated to be accountable, and answerable under the RTI Act, being a public authority, and auditable by the Comptroller and Auditor General of India.
3. The Government seems to consider statutory provisions for enquiry and information seeking to be embarrassing obstacles.
4. The DM Act provided for a Disaster Response Fund, state and district level funds (besides the national level) and also to collect and use the donations at the local level, with mandatory transparency and audit provisions.
5. The PM CARES Fund centralises the collection of donations and its utility, which is not only against the federal character but also practically inconvenient.
6. In January 1948, the Prime Minister’s National Relief Fund (PMNRF) was established with public contributions to assist displaced persons from Pakistan.
7. The resources, are now utilised primarily to render immediate relief to families of those killed in natural calamities and to the victims of the major accidents and riots.
8. The fund is **recognised as a Trust under the Income-Tax Act** and the same is managed by the Prime Minister or multiple delegates for national causes.

9. The PMNRF has the President of India and the Leader of Opposition also as trustees. The Centre now considers it as another obstacle and has created a new trust with the Prime Minister and his Ministers only.

10. Both funds, **the NDRF and the PMNRF**, have been relegated to the back burner, the PM CARES Fund is in the limelight.

11. It has been **created not by law, not by notification**, but by the **mere creation of a webpage**, and set up last year in March to raise funds for those affected by the COVID-19 pandemic.

**Funding Avenues and Tax Exemptions:**

1. The mere grant of **certain tax exemptions** with regard to the voluntary donations made to a public trust is **not a determinative factor** for the **purpose of Section 2(h) of the RTI Act**.

2. An ordinance was promulgated to amend Income Tax Act, 1961 and declare that the donations to the PM CARES Fund “would qualify for 80G benefits for 100% exemption”.

3. The official website and the Press Information Bureau also declared that donations to the PM CARES Fund “would qualify for 80G benefits for 100% exemption under the Income Tax Act, 1961.

4. **Donations to PM CARES** Fund will also qualify to be **counted as Corporate Social Responsibility (CSR) expenditure** under the Companies Act, 2013.

5. PM CARES Fund has also got **exemption under the FCRA** [Foreign Contribution Regulation Act] and a separate account for receiving foreign donations has been opened”. **All this amounts to substantive funding.**

6. **Section 19 of the Indian Trusts Act** mandates the trustees to present full and accurate information of the amount and state of the trust property to the beneficiaries.

7. The claim that the **PM CARES Fund is not a public authority is absurd to say the least.**

**Conclusion:**

By agreeing that **it is a public trust managed by the Prime Minister** and three Ministers in their ex-officio capacity, the Government cannot say that it was irrelevant to declare it as a public authority. The Prime Minister and the Ministers do not take decisions in their personal capacity. They have to work to implement the objectives of the trust.
The PM openly seeks support for donations towards PM CARES. But given the non-transparent nature of this fund, it needs to be closely scrutinized.

At the very least, RTI requests that seek to understand how funds are being received and how they are being disbursed so far should be seen as legitimate.

Also, more needs to be done by the government to publicise donations to the more accountable NDRF which allows for a transfer of funds to States.

3. Reflections on the ‘quasi-federal’ democracy

Context:

1. Events coinciding with the jubilee of India’s Independence draw attention to the federal structure of India’s Constitution, which is a democratic imperative of multi-cultural India, where the constituent units of the sovereign states are based on language, against competing identities such as caste, tribe or religion.

2. This built-in structural potential for conflict within and among the units, and that between them and the sovereign state, need imaginative federal craftsmanship and sensitive political management.

3. With universal adult suffrage and free institutions of justice and governance, it is nearly impossible to polarise its wide-ranging diversity within any single divisive identity, despite
its operational flaws, the democratic structure and national integrity are **dialectically interlinked**.

4. But its operational fault lines are increasingly denting liberal institutions, **undermining the federal democratic structure** as recent events have underscored.

**Some fault lines happened in recent times:**

1. First, the tempestuous Parliament session, where the **Rajya Sabha Chairperson** broke down (in August 2021), **unable to conduct proceedings** despite the use of marshals; yet, the House passed a record number of Bills amidst a record number of adjournments.

2. Second, **cross-border police firing** by one constituent State against another, **inflicting fatalities**, which also resulted in **retaliatory action** in the form of an **embargo on goods trade and travel links** with its land-locked neighbour.

3. The Union Law Minister (while in Opposition) said that **Legislative disruptions** are ‘legitimate democratic right, and duty’, **justifying the current debate and discussion**.

4. **Indian federalism needs institutional amendment to be democratically federal:**

5. But India’s federal structure is constitutionally hamstrung by deficits on all these counts, and operationally impaired by the institutional dents in the overall democratic process.

6. **Structural conflicts**- All India Services, including the State cadres. The role of Governors: appointed by the Centre, a political patronage.

7. Thus, most of India’s federal conflicts are structural, reinforced by operational abuses.

8. Yet, there is **no federal chamber to politically resolve such conflicts**.

9. The Rajya Sabha indirectly represents the States whose legislators elect it; this House is a major source of political and financial patronage for all political parties, at the cost of the people of the State they “represent”.

10. The Rajya Sabha is not empowered to neutralise the demographic weight of the populous States with larger representation in the popular chamber; it cannot veto its legislations, unlike the U.S. Senate. It can only delay, which explains the disruptions.

11. **Joint sessions** of Lok Sabha and Rajya Sabha do not appear as successful as expected.

**Many deficits that hampering Federalism:**

1. **Democratic federalism** presupposes institutions to ensure equality between and among the units and the Centre so that they coordinate with each other, and are **subordinate to the**
sovereign constitution and their disputes adjudicated by an independent judiciary with impeccable professional and moral credibility.

2. The Indian Constitution itself has been amended 105 times in 70 years compared with 27 times in over 250 years in the United States.

3. With ‘nation-building” as priority, the constitutional division of power and resources remains heavily skewed in favour of the Centre;

4. Along with “Residual”, “Concurrent” and “Implied” powers, it compromises on the elementary federal principle of equality among them, operationally reinforced by extra-constitutional accretion.

5. While the judiciary is empowered to adjudicate on their conflicts, with higher judicial appointments (41% lying vacant), promotion and transfers becoming a central prerogative, their operations are becoming increasingly controversial.

6. India’s bicameral legislature, without ensuring a Federal Chamber, lives up to the usual criticism: “when the second chamber agrees with the first, it is superfluous, when it disagrees, it is pernicious”.

7. The critical instruments of national governance have been either assigned or appropriated by the Centre, with the States left with politically controversial subjects such as law and order and land reforms.

8. The Rajya Sabha indirectly represents the States whose legislators elect it, but continue even after the electors are outvoted or dismissed;

9. With no residential qualification, Rajya Sabha House is a major source of political and financial patronage for all political parties, at the cost of the people of the State they “represent”.

10. Thus, most of India’s federal conflicts are structural, reinforced by operational abuses.

Federalism: A Universal View:

1. Prior to scrutinizing the nature of the Indian constitution, it is exceedingly essential to appreciate the meaning and quintessence of Federalism.

2. Federalism is one of the most significant factors of modern constitutionalism.

3. It is established all over the world perhaps, as the only form of political organization suited to communities with diversified pattern of objectives, interests and traditions, who seek to join together in the pursuit of common objectives and interests and the cultivation of common tradition.
4. The basic objective of federalism is **unity in diversity, devolution in authority and decentralization in administration.**

5. The basic condition of federalism is **plurality;** its fundamental tendency is **harmonization** and **its regulative principle is solidarity.**

6. According to Daniel J. Elazara, Federal system provides a so as to allow each to maintain its fundamental political integrity.

7. Federalism or Federal Structure is a **complex governmental mechanism** of a country which seeks to establish a balance between the forces working in favour of concentration of power in the centre and those urging a disposal of it in a number of units.

8. A federation is a political contrivance to **reconcile national unity with state rights.** Its originality lies in the fact that power at once is, concentrated as well as divided.

**Way Forward: Key changes needed:**

1. Federal theorist K.C. Wheare analyses India’s “centralized state with some federal features” as “quasi-federal”.

2. He underscores the structural fault lines of Indian federalism not simply as operational.

3. So, while many democratic distortions are amenable to mitigation by institutional professionalism, Indian federalism, to be **democratically federal,** needs **institutional amendment despite being a “basic structure”**.

4. There is no reason to believe that empowering our States would **cause national disintegration.**

5. Therefore, the powers of States vis-à-vis the Centre contained in the Lists has to be increased.

6. The role and composition of the Rajya Sabha, **must be expanded.** This would allow smaller States a kind of brake over national majoritarian politics that adversely impact them.

7. Serious thought must be given to breaking up the biggest States into smaller units that will not by themselves dominate the national conversation.

**Conclusion:**

The ability of the Indian Constitution to keep its **wide-ranging diversity within one sovereign state,** with a formal democratic framework is noteworthy.
However, it is a threat to national security by incubating **regional cultural challenges to national sovereignty**, and reciprocal repression.

We might learn from the mistakes of neighbouring Sri Lanka and Pakistan rather than be condemned to relive them.

Empirical and scholarly evidence suggest Wheare’s prefix about **federalism** arguably applies to other constitutional goals, while the **federal flaws** are structural, reinforcing conflicts and violence, endemic in the distorted democratic process.

India’s national security deserves a **functional democratic federal alternative** to its dysfunctional “quasi-federal” structure, which is neither federal nor democratic but a constitutional “basic structure”.

### 4. How to grease the wheels of justice

#### Context:

Recently, speaking at an event organised by the Karnataka Bar Council, **Chief Justice of India** quoted a former Chief Justice of the U.S. Supreme Court, Warren Burger, *The notion that ordinary people want black robed judges, well-dressed lawyers in fine courtrooms as settings to resolve their disputes is incorrect.*

People with problems, like people with pains, want relief and they want it as quickly and inexpensively as possible.
He made a **plea to ‘Indianise’ courts** to make them **responsive to the needs of the Indian citizens.**

**Justice delivery system and mostly prisoners in undertrials:**

1. The Chief Justice of India has the **historic opportunity** to make this happen.

2. At present, despite good intentions, the nation’s judiciary is hurtling towards a disaster and **needs immediate attention.**

3. A measure of the **justice delivery system** is the **pendency of cases in courts** across the country. We have seen a significant deterioration in this aspect as shown in the table.

4. **More than 40% of cases** are decided after three years in India, while in many other countries less than 1% of cases are decided after three years.

5. If India does not act decisively and quickly, this percentage will keep increasing. The rich, the powerful and the wrongdoers have a field day by getting their cases expedited or delayed as they wish.

6. The **increase in corruption and crime** is a direct fallout of the **sluggish justice delivery system.**

7. This severely **impacts the poor and marginalised.** For them, the judicial process itself becomes a punishment.

8. **Data show that about 70% of prisoners in India are undertrials and are mostly poor citizens.**

**Filling vacancies: where the actual problem lies in?**

Reduce the pendency of cases by filling **sanctioned judicial positions.** Analysis shows that between 2006 and 2019, the average increase in pendency was less than 2% per year whereas the **average vacancy in sanctioned judicial positions was about 21%.**

If the sanctioned positions had been filled, pendency of cases would have gone down each year.

1. The **nation neither needs 70,000 judges**, as claimed by former Chief Justice of India T.S. Thakur, nor does it need to double the present number of judges. It **needs to add about 20% of judges.**

2. This is in line with the sanctioned strength. This figure has been endorsed by Justice B.N. Srikrishna, Justice R.C. Chavan and 100 IIT alumni.

3. The responsibility of selecting judges is largely with the judiciary itself. The **responsibility of appointments in the subordinate judiciary lies with the State governments and their respective High Courts.**
4. The responsibility of **ensuring near-zero vacancies** should be with the Chief Justices of the High Courts and the Chief Justice of India and they **should be held accountable for the same**.

5. Right now, nobody believes that they are **accountable**, and filling judicial vacancies is not considered a **matter of priority**.

6. **Filling all vacancies** may result in a requirement of **about 5,000 courtrooms**. A simple solution would be to run 5,000 courts in two shifts.

**Use of technology is the need of the hour:**

To improve working with the use of technology, the e-Committee of the Supreme Court has been in existence since 2005.

It has made **three outstanding recommendations** which are not being followed.

1. One, **computer algorithms** should decide on case listing, case allocation and adjournments with **only a 5% override given to judges**.
   a. It said **all rational reasons and limits** should be put on adjournments; case listing should give **main weightage to ‘first in, first out’**; and case allocation should take into account logical criteria.
   b. This would be a big step in **reducing arbitrariness** and the **unfair advantage** that the powerful enjoy.

2. Two, the courts **should focus on e-filing**. The e-Committee made detailed Standard of Procedures on how petitions and affidavits can be filed and payment of fees can be done electronically without lawyers or litigants having to travel to the courts or use paper.
   a. This should be implemented in all seriousness and would also save about three lakh trees annually.

3. Three, it **focused on virtual hearings**. COVID-19 prompted the courts to adopt virtual hearings.
   a. However, virtual hearings were held only in some cases while physical hearings were held in most. In pre-COVID-19 years, the increase in the pendency of cases in all courts used to be about **5.7 lakh cases a year**.
   b. In 2020 alone, it increased to an astonishing 51 lakh. It appears that if a hybrid virtual hearing model is not adopted, the **backlog of cases could cross 5 crore in 2022**.
   c. The dysfunctional justice system will be perpetually overwhelmed.
Integrated Digital System in Indian Justice System:

1. An **effective justice system** should be strong enough to **ensure justice for everyone**, irrespective of the economic condition of an individual.

2. Implementation of an integrated digital system for the criminal justice system **will help in speedy justice**.

3. It allows the **interaction between various institutions** through a digital platform. This system normalizes the format and content of data across all the systems.

4. **Thereby, it helps in smooth communication and avoiding duplication of data.**

5. This system will notify the registry about the defects in a particular appeal, un-rectified for an extended period.

6. The system would also inform the accused that his lawyer was not pursuing his case carefully.

7. The legal service authority would be informed of the case and the lawyer could be replaced. The system should **monitor the quality of representation of the lawyer**.

8. After 14 years of imprisonment, the system would have notified the State government that the prisoner was **eligible for re-sentencing of his sentence**.

**For implementing the recommendations: No change in laws needed:**

All the recommendations: — e-filing of petitions, affidavits and payment of fees; algorithm-based computerised listing, roster, case allocation and adjournments with only a 5% override to be given to judges; hybrid virtual hearings; filling judicial vacancies; and holding Chief Justices responsible for ensuring that vacancies in judicial positions are less than 5% are based on the **Supreme Court’s various decisions and the e-Committee’s recommendations.**

These would require **no changes in laws**. At a conference, High Court Chief Justices and the Chief Justice of India and the government could make decisions on all of this.

**Conclusion:**

All the courts in the country must **switch to a hybrid virtual mode immediately and start disposing cases.**

Even after the COVID-19 crisis ends, it would be beneficial to continue hybrid virtual courts.

This will make access to justice easier for litigants, reduce costs, and also give a fair opportunity to young lawyers from small towns. The required **hardware is available in all courts.**
Priority must be given to speeding up the implementation of such a system. It will help in providing transparent, real-time access to criminal justice information to all stakeholders, including accused persons.

If all this is done, India’s judicial system can rank among the 10 top countries of the world.

These changes would make India the preferred nation for international investments and also fulfil the fundamental right to speedy justice of citizens.

5. How severe is India’s coal crisis, and what is the govt doing to address it?

Context:

India is facing a severe coal shortage. The coal stocks at its thermal power plants can supply just days of fuel. Union Power Minister has said the situation is “touch and go”, and could be “uncomfortable” for up to six months.

The Prime Minister’s Office reviewed the coal stock situation in India’s thermal power plants in a meeting with senior officials of the coal and power ministries.
India’s thermal power plants currently have an average of four days’ worth of coal stock against a recommended level of 15-30 days, with a number of states highlighting concerns about blackouts as a result of the coal shortage.

History of coal sector in India:

1. **Coal sector in India started in 1774** with the commercial exploitation of the Raniganj Coalfield in West Bengal by the East India Company.

2. However, it was only in 1853 when the sector really surged forward with the introduction of steam engine, driving the demand for coal. The two World Wars also contributed to increase in coal production.

3. The National Coal Development Corporation was set up in 1956 to improve the sector further. The nationalisation of the private coal mines was by 2 phases:

4. Coal Mines (Nationalization) Act, 1973 was enacted to nationalise all the coal mines in India. It was repealed in 2018.

5. The demand-supply mismatch started in 1991 (the liberalisation period) and started widening. This led the government to allow captive mining. mining for own use only. This coal cannot be sold to other players.

6. The 2015 legislation (Coal Mines (Special provisions) Act, 2015) allowed re-entry of private players into the sector. It enabled auctioning of coal mines.

7. The 2018 Cabinet Committee on Economic Affairs allowed the auctioning of mines to the private players on basis of offer of highest price/ tonne.

What is the extent of the current coal crisis?

1. A number of states including Delhi, Punjab and Rajasthan have raised concerns about potential blackouts as a result of **low coal inventory at thermal power plants**.

2. Rajasthan, Punjab and Bihar have already reported **load shedding** as a result of **thermal power plants operating at low capacity**.

3. The **shortage in coal** is a result of a sharp uptick in power demand as the economy recovered from the effects of the pandemic.
4. Total power demand in August was 124 billion units up from 106 billion units in August 2019.

5. A sharp increase in the international prices of coal due to a shortage in China and low accumulation of stock by thermal power plants in the April-June period have also contributed to the coal shortage.

6. Heavy rains in coal bearing areas in September had also led to a slowdown in the supply of coal to thermal plants.

7. Coal and lignite fired thermal power plants account for about 54 per cent of India’s installed power generation capacity but currently account for about 70 per cent of power generated in the country.

Importance of Coal to India:

Coal is the most important and abundant fossil fuel in India. It accounts for 55% of the country's energy needs. The country's industrial heritage was built upon indigenous coal.

Considering the limited reserve potentiality of petroleum & natural gas, eco-conservation restriction on hydel project and geo-political perception of nuclear power, coal will continue to occupy centre-stage of India's energy scenario.

Commercial primary energy consumption in India has grown by about 700% in the last four decades.

Driven by the rising population, expanding economy and a quest for improved quality of life, energy usage in India is expected to rise.

Coal Reserves in India:

1. Coal is originated from organic matter wood. When large tracts of forests are buried under sediments, wood is burnt and decomposed due to heat from below and pressure from above. The phenomenon makes coal but takes centuries to complete.

2. Hard coal deposit spread over 27 major coalfields, are mainly confined to eastern and south-central parts of the country.

3. The Coal resources of India are available in older Gondwana Formations of peninsular India and younger tertiary formations of north-eastern region.

4. The lignite reserves stand at a level around 36 billion tonnes, of which 90% occur in the southern State of Tamil Nadu.

5. Top 5 States in terms of total coal reserves in India are: Jharkhand > Odisha > Chhattisgarh > West Bengal > Madhya Pradesh.
What is the government doing to address the situation?

1. Officials at the power, coal and railways ministries are monitoring the coal supplies to thermal plants and have taken steps to increase the daily shipments of coal to power generators.

2. Coal minister mentioned that coal shipments to thermal power plants had crossed 2 million tonnes against a daily requirement of about 1.87 million tonnes of coal as on October 11.

3. The power ministry has also permitted power generators using local coal to use up to a 10 per cent blend of imported coal to boost coal stocks.

4. Despite international coal prices being near record highs, the government estimates that a 10 per cent blend of imported coal would likely lead to a 20-22 paise increase in the per unit (kilowatt-hour) cost of power generation.

5. Officials noted that generators could seek to increase the price they charge to DISCOMS under Power Purchase Agreements with power distribution companies as these companies are currently meeting shortfalls in power supply by purchasing power at significantly higher rates on power exchanges.

6. Purchase bids on the Day Ahead Market (DAM) on the India Energy Exchange (IEX) on October 12 were for 430,778 MWh (Megawatt-hours) up from 174,373 MWh a month ago.

7. Purchase bids far outstripped supply leading to the average market clearing price Rs 15.85 per unit up from Rs 2.35 per unit a month ago.

What measures is the government taking to address the situation?

1. An inter-ministerial team, including representatives of the Power and Railway Ministries, Coal India Ltd, the Central Electricity Authority and Power System Operation Corporation, is monitoring the supply of coal to thermal power plants.

2. The government is pressing thermal plants with captive coal mines to boost their coal output so that they can meet more of their own demand and is also prioritising coal supplies for thermal power plants with low levels of stock.

3. The Power Ministry is also trying to increase the supply of coal by expediting the start of production from a number of mines that already have all requisite clearances in place.

4. Somewhere, the clearances are available, the bidding for MDOs (Mine Developer and Operator) etc is (going on).
5. **Clean coal as an idea has huge potential in India** because of the age and inefficiency of some of our plants.

6. With government’s efforts to push renewable energy due to international conventions on climate change, increase in carbon cess and other initiatives for lesser use of coal, there is a need for ‘**Vision 2030 for the coal sector**’, which takes into account **the environmental factors** such as reduction of carbon footprint, abatement of global warming.

**Conclusion:**

There is a need for **increasing production and competition** by leveraging higher producing mines to enable more world-scale operations.

Government should **revisit coal grades pricing mechanism** from grades based on coal mined to grades based on coal desired for end use.

The government has also **boosted the number of rakes of coal** being transported to thermal power plants daily with 263 rakes of coal dispatched from coal mines on Monday up from 248 rakes on Sunday.

**Government said that it is expected that the dispatches from coal lines will increase further.**

6. **Recognising altruism: On rewarding Good Samaritans on road**

**Introduction:**

**What is Good Samaritan Law?**

A law that allows a person, without expectation of payment or reward & without any duty of care or special relationship, voluntarily come forward to administer immediate assistance or emergency care to a person injured in an accident, or crash, or emergency medical condition.

It protects Good Samaritans from harassment on the actions being taken by them to save the life of the road accident victims!
The initiative of the Ministry of Road Transport and Highways to award Good Samaritans who save lives of road accident victims with a cash prize is a welcome attempt to reduce India’s staggering annual death toll from mishaps.

Ranking third among 20 nations that have the highest number of accidents, India fares far worse on an important metric cases to fatalities ratio compared to the U.S. and Japan, which have more recorded crashes but fewer deaths.

The medical community states that more than 50% of accident victims die because they don’t receive treatment during the Golden Hour.

The Golden Hour is a time window during which an immediate medical intervention can prevent death. Only bystanders are capable of intervening during the golden hour.

Context:

1. The Union government has launched a scheme for ‘Good Samaritan’ under which anyone who saves the life of a road accident victim by rushing them to a hospital within the “golden hour” will get a cash reward of ₹5,000, the Ministry of road transport and highways (MoRTH) said in a statement adding the scheme will be implemented from October 15.

2. The term ‘golden hour’ generally refers to the one-hour time period following a traumatic injury.

3. It is during this time period that the likelihood of preventing death by providing prompt medical care to the victim is the highest.

4. During 2020, even with severely disrupted mobility due to COVID-19, National Crime Records Bureau data show 1,33,715 lives were lost in 1,20,716 cases attributed to negligence relating to road accidents.

Features and Guidelines of the scheme of Good Samaritan in Motor Vehicles Law:

1. Under the Motor Vehicles law, a Good Samaritan voluntarily helps an accident victim with no expectation of payment or reward, and has no legal obligation to record his involvement or aid the investigation in the case.

2. In spite of an entire chapter being added to the Motor Vehicles Act last year to sensitise police forces and hospitals on this, altruism is affected by the perception of harassment and legal complications.

3. The Ministry’s latest move seeks to overcome reticence by rewarding socially minded individuals who offer immediate assistance and rush a victim with certain kinds of injuries to hospital, with ₹5,000 and a certificate of recognition for saving a life.
4. In order to get the related data for the reward, the ministry will **start a new portal**, where every month the details of the name, address, mobile number, incident information, etc. of the citizen helping the injured will be **entered on the portal by the district administration.**

5. **Local police or Hospital trauma center staff** will also be able to upload this information on the portal.

6. **State governments are responsible for the plan**, with the Centre providing an initial grant, but the Union Transport Ministry will **give its own award of ₹1 lakh each to the 10 best Good Samaritans in a year.**

7. Achieving a reduction in mortality on India’s largely lawless roads warrants determined action on several factors, **beginning with scientific road design and standards, and zero tolerance enforcement.**

8. It was only on September 3 that the Centre notified the **long-pending National Road Safety Board**, with a mandate to formulate standards on, among other things, safety and trauma management, to build capacity among traffic police, and put crash investigation on a scientific footing.

9. The law is not just for an accident victim. It is for any injured person on the road.

10. The state government has to **first allocate funds** from the state budget to the health ministry that is the **custodian of the law.**

11. **Grievance redressal systems** need to be set up to take penal action against those who do not abide by the law and harass the Good Samaritans or medical professionals.

**Good Samaritan Law impact:**

Although it’s been five years since the passing of the judgement, it has been found that as per the statistics 84% of citizens have no clue about the existence of such a law.

And, nearly, 59% of the Good Samaritans were **illegally detained** at the police station and hospitals and were compelled to do the legal paperwork.

The lack of awareness among the general public is only leading to a misuse of the law by the law enforcement.

**Objective of the scheme for ‘Good Samaritan’:**

1. The **problem of road safety is multi-faceted** and requires to be assessed from a **much broader lens of understanding.**
2. There is a **larger problem of law and order**. Unplanned, flawed road design and engineering, road rage are other issues that need serious attention of policy makers.

3. It has been found that bystanders often **refrain from helping accident victims due to the fear of legal and procedural hassles.**

4. The legislation aims to give protection to Good Samaritans and ensure immediate medical assistance for road accident victims **within the ‘golden hour’** and encourage people to offer first aid to victims without fear of harassment in the hands of police and investigations.

### 1.2 lakh people died in road accidents in 2020: NCRB:

1. According to government data, **India recorded 1.2 lakh cases of “deaths due to negligence relating to road accidents” in 2020**, with 328 persons losing their lives every day on an average, despite the COVID-19 lockdown.

2. As many as 3.92 lakh lives have been lost in three years in deaths due to negligence related to road accidents, the **National Crime Records Bureau (NCRB) revealed in its annual ‘Crime India’ report for 2020.**

3. While 1.2 lakh deaths were recorded in 2020, the figures stood at 1.36 lakh in 2019 and 1.35 lakh in 2018, the data show.

4. The **country logged 1.35 lakh cases of “hit and run” since 2018**, the report of the NCRB, which functions under the Union Home Ministry.

5. On an average, there were **112 cases of “hit and run” reported across the country every day in the past year**, according to the data. The cases of causing “hurt” by rash or negligent driving on public way stood at 1.30 lakh in 2020.

6. The NCRB stated in the report that the country remained under complete lockdown from March 25, 2020 till May 31, 2020 due to the COVID-19 pandemic, during which the **movement in public space was “very limited”**.

**Conclusion:**

The latest guidelines state that in case the Good Samaritan informs the police about the accident, the latter would provide an acknowledgement to the person after verifying details from a doctor on an official letter head.

The copy of the acknowledgement would then be sent to the appraisal committee formed at the district level under the chairmanship of the district magistrate by the concerned police station. Besides, a copy would be marked to the Good Samaritan.
As a steadily motorising country, the goal must be to reduce accidents and the ratio of deaths and injuries to cases.

The Good Samaritan plan can work well if District Committees tasked with awarding these individuals readily recognise their contribution, aided by the police, hospitals and RTOs.

Many more people will continue to be impelled by sheer altruism to help road users involved in a crash, and governments should get bureaucratic barriers out of their way.

Government should start with scientific road design and standards, and zero-tolerance enforcement for violations.

7. Seeding a data revolution in Indian agriculture

Introduction:
In June 2021, two significant documents relating to the Indian agriculture sector were released. The first is a consultation paper on the India Digital Ecosystem of Agriculture (IDEA) from the Ministry of Agriculture and Farmers’ Welfare (MoA&FW) and the second on Indian Agriculture: Ripe for Disruption from a private organisation, Bain and Company.

The first talks about a digital revolution in the agriculture sector and later predicts a revolutionary investment growth in agri-logistics, offtake, and agri-input delivery by 2025; these are, surprisingly, highly complementary.
Challenges of agriculture sector:

1. **Agriculture cannot be seen in isolation.** It should be seen as an integral part of a larger ecosystem spanning the entire primary sector including horticulture, animal husbandry, fisheries, dairy, poultry, and other allied activities.

2. India’s agriculture sector accounts for about 15.9% of the country’s US$ 2.7 trillion economy and 49% of employment (2018-19).

3. Viewed from the socio-economic point, agriculture is the most important sector that needs focus and attention at all levels.

4. The call of the Government of India to achieve the **goal of Doubling Farmer’s Income (DFI) by 2022**, in a way, epitomizes the need to pursue all possible ways of increasing the agricultural productivity and profitability of the farmers.

5. It also touches upon the need to accelerate our efforts to achieve the **Sustainable Development Goal of ending hunger, poverty, and malnutrition** in a sustainable manner.

The forecast: Data-based prediction on agri-business:

1. The **Bain report** is a data-based prediction on agri-business scenarios, anchored to the agricultural set-up at present and predicting its future trajectories in another 20 years.

2. It includes targeting the production of alternative proteins, and food cell-based food/ingredients and initiating ocean farming, etc.

3. The report has a ‘today forward– future back approach’ and predicts a drastic investment opportunity development by 2025.

4. The agriculture sector (currently worth $370 billion), is estimated to receive an additional $35 billion investment.

5. The two enabling conditions for such investment opportunities are:
   - The changes in the regulatory framework, especially recent changes in the Farm Acts and Digital disruption.

6. The report argues that benefiting from the huge investments into the agri-ecosystem, doubling farmers’ income targets can be achieved in near future.
The idea of integration:

1. The IDEA-consulting paper is based on the Task Force and Working Group report constituted by the MoA&FW to design the blueprint of “digital agriculture” — which is similar to the digital disruption mentioned in the Bain report.

2. Eventually, the farmer and the improvement of farmers’ livelihood is the aim of the IDEA concept and it is proposed to happen through tight integration of agri-tech innovation and the agriculture industry ecosystem to farming and food systems.

3. To be precise, the IDEA concept profund the creation of second enabling conditions (which is described in the Bain report).

4. The IDEA principles explicitly talk about openness of data, which means open to businesses and farmers, indicating the kind of integration it aims at.

5. Value-added innovative services by agri-tech industries and start-ups are an integral part of the IDEA architecture.

6. Beyond the architecture, these services listed in the document (to be available on the platform) are equally important data for farmers and businesses.

7. The Indian agriculture sector in future will encompass farm to fork and pave the way for a single national market with a national platform with better connection between producer and consumers.

8. Through their work, the management experts have depicted the agriculture reforms announced by the union government as a game-changer in the agriculture sector.

IDEA Vision: National Digital Agriculture Ecosystem:

The following vision statement reflects the medium- and long-term outcomes sought to be attained by the IDEA initiative.

To build a National Digital Agriculture Ecosystem, to elevate Indian Agriculture Sector to higher levels of efficiency and productivity, and to improve the welfare and income of farmers.

The objectives of National Digital Agriculture Ecosystem are as follows:

1. To enable the farmer to realize higher income and better profitability through access to right information at the right time, and from innovative services.

2. To enable better planning and execution of policies, programs, and schemes of the Central and State governments, and, also of the private sector and Farmers Producer Organizations (FPOs).
3. To **enhance efficiencies in the usage of resources** including land, water, seeds, fertilizers, pesticides, and farm mechanization by providing easier access to information.

4. To provide **location-specific and personalized extension services** across agriculture lifecycle, with simultaneous protection of privacy of personal data.

5. To build capacities across the **gamut of digital agriculture and precision agriculture**.

6. To promote **adoption of standards for interoperability** and seamless exchange of information across ecosystem, while ensuring that **the digital rights are properly managed**.

7. To give a fillip to **R&D and Innovations in agriculture** through access to high-quality data.

8. To **adopt the best principles of cooperative federalism** while working with the states and union territories for the realization of the vision of IDEA.

9. To formulate and leverage PPP frameworks for **realizing the ‘power of the digital’**.

**Way Ahead: Focus on the farmer:**

Agreeing on the fact that a **data revolution is inevitable in the agriculture sector**, given its socio-political complexities, we cannot just count on technology fixes and agri-business investments for **improving farmers’ livelihoods**.

There need to be immense efforts to improve the capacities of the farmers in India – at least until the **educated young farmers** replace the existing under-educated small and medium farmers.

This **capacity building** can be done **through a mixed approach** – preferably building the capacities of individual farmers or coping with the new situation by establishing support systems, through FPOs and other farmers associations where technical support is available for farmers.

**Conclusion:**

The fact is that every segment of present-day life is **data-hungry**. The MoA&FW report describes **creating data to fuel the growth** predicted by Bain and Company.

Considering the **size of the agriculture sector of the country** this is not going to be an easy task but would **need a separate programme** across the country with **considerable investment**.
8. End the impasse: On prolonged impasse over three farm laws

Context:

The time may have come for a more concerted effort by the Government and the protesting farmers to find a solution to the prolonged impasse over the three agriculture-related laws enacted last year.

The Supreme Court has emphasised that public roads cannot be blocked indefinitely by protesters.

In an observation in the context of more petitions from members of the public, complaining that their right of free movement has been curtailed by the ongoing protests by farmers, the Court has said a solution has to be found, that roads cannot be blocked for long and there is no reason for it to lay down the law again and again.

The reference was to last year’s judgment on the Shaheen Bagh protest against the Citizenship (Amendment) Act, wherein it was held that public ways and public spaces cannot be blocked indefinitely even during a peaceful protest.

The observation can be seen either as a disapproval of the tactic of holding interminable protests or as an implicit criticism of the Government for being unable to find a solution to the farmers’ grievances.
Fundamental Right: Right to Protest in India:

The right to protest is the manifestation of three Fundamental Rights:

1. Right to Freedom of Assembly
2. Right to Freedom of Association and
3. Right to Freedom of Speech

The Constitution of India provides the right of freedom, given in Article 19 with the view of guaranteeing individual rights that were considered vital by the framers of the constitution.

The Right to protest peacefully is enshrined in **Article 19(1)(a)** guarantees the freedom of speech and expression;

**Article 19(1)(b)** assures citizens the right to assemble peaceably and without arms.

Fundamental Right: Right to protest and express dissent:

1. The Constitution guarantees the right to protest and express dissent, but with an obligation towards certain duties.
2. **Article 19** confers upon citizens the right to freedom of speech and expression under **Article 19(1)(a)** and right to assemble peacefully **without arms under Article 19(1)(b)**.
3. These rights, in cohesion, enable every citizen to assemble peacefully and protest against action or inaction of the State.
4. However, these rights are also subject to reasonable restrictions mentioned under Article 19(2), imposed in the interest of sovereignty, integrity and public order with the help of police regulations.
5. Fundamental rights do not live-in isolation. The right of the protester has to be balanced with the right of the commuter and has to **co-exist in mutual respect**.

Freedom to protest vs. Right to free movement of the public:

1. The conflict between the two competing rights, freedom to protest and the right to free movement of the public is not the only aspect that requires immediate attention.
2. There seems to be no attempt to break the deadlock on the core issue, with the farmers demanding an outright repeal of the laws and statutory validation for the claim that the MSP regime will not come to an end.
3. Previously, SC appreciated the existence of the right to peaceful protest against the legislation and held that “**democracy and dissent go hand in hand**, but then the demonstrations expressing dissent have to be in designated places alone”.
4. The seeds of protest and dissent were sown deep during the Freedom struggle but dissent against the colonial rule cannot be equated with dissent in a self-ruled democracy.

Protestor’s viewpoints:
The protestors argued that the protest is for the democracy, protest is to protect the integrity of flaws in the country. Something which was passed in our Parliament both in Rajya Sabha and Lok Sabha, because the protest was against the Citizenship amendment Act. Subsequently, government said that they are right now not going ahead with it and the protest was supposed to protect the constitutional values. The court said that the protestors themselves did not adhere to the constitutional values i.e. that you cannot inconvenience others and in name of democracy you cannot create problems.

Way ahead steps:
1. Late last year, the protesting farmers and Union Ministers did come to a partial agreement on decriminalising stubble-burning and safeguarding power subsidies, but the two core demands have not seen any breakthrough.
2. It is not out of place to recall that an expert committee constituted by the Court has submitted its report, but nothing has been heard about it after that.
3. To an extent, the fact that the Court has not taken it up again or made the report public may be a factor in the continuing impasse.
4. An expedited hearing that involves further review of the panel’s recommendations, or any such similar initiative from the Government, is needed to arrive at a solution.
5. The objective must not be merely to resolve the incidental issue of blocked roads, but to reconcile or eliminate the deep differences over what the Government sees as necessary reforms in the farm sector.
6. Any reform that seeks to eliminate distortions in the sector must also win the confidence of farmers, the principal stakeholders.

Need to address Farm laws as early as possible:
Government should massively fund the expansion of the APMC market system, make efforts to remove trade cartels, and provide farmers good roads, logistics of scale and real time information.
Rather than opting for heavy centralisation, the emphasis should be on empowering farmers through State Farmers Commissions recommended by the National Commission for Farmers, to bring about a speedy government response to issues.

The Centre should reach out to those opposing the Bills, including farmers, explain to them the need for reform, and get them on board.

Without strong institutional arrangements, the free market may harm lakhs of unorganised small farmers, who have been remarkably productive and shored up the economy even during a pandemic.

**Conclusion:**

In a democracy, the rights of free speech and peaceful protest are “treasured” and must be encouraged and respected.

However, the most important observation that was made by court and it categorically said that Peaceful protest is a constitutional right of protestors, peaceful protest should be allowed.

But it does not mean that there can be a blockage, people can be inconvenienced or a protest which disrupts the normal life.

The court’s verdict strengthens that right to protest is constitutional right but it can be restricted if it harms the rights of other people as it happened in Shaheen Bagh case as the protestors blocked a stretch of the road for several months which caused a lot of problem to commuters.

**9. Connecting ministries for infrastructure projects**
Context:

In recent, Prime Minister Narendra Modi launched the **“PM GatiShakti — National Master Plan”** for **infrastructure development** aimed at boosting multimodal connectivity and driving down logistics costs.

**PM Gati Shakti** aims to institutionalize **holistic planning for major infrastructure projects**.

The projects will be designed and executed with a **common vision** and will incorporate the infrastructure schemes of various ministries and state governments such as the Bharatmala road project, Sagarmala waterways plan, ports and the UDAN scheme.

**What is the project?**

**PM GatiShakti** is a digital platform that **connects 16 ministries** — including Roads and Highways, Railways, Shipping, Petroleum and Gas, Power, Telecom, Shipping, and Aviation, with a view to ensuring holistic planning and execution of infrastructure projects.

The portal will offer **200 layers of geospatial data**, including on existing infrastructure such as roads, highways, railways, and toll plazas, as well as geographic information about forests, rivers and district boundaries to aid in planning and obtaining clearances.

The portal will also allow various government departments to track, in real time and at one centralised place, the progress of various projects, especially those **with multi-sectoral and multi-regional impact**.

**Objective of the PM GatiShakti — National Master Plan”:**

1. The objective is to ensure that each and every department now have visibility of each other’s activities **providing critical data** while planning and execution of projects in a **comprehensive manner**.

2. Through this, different departments will be able to prioritise their projects through **cross-sectoral interactions**.

3. The Prime Minister, while launching the project, said examples of poor infrastructure planning included **newly-built roads being dug up by the water department to lay pipes**.

4. The GatiShakti platform aims to prevent such situations by addressing the **issue of government departments working in silos**.

5. The government expects the platform to enable various government departments to synchronise their efforts into a multi-modal network.
6. It will also **offer satellite imagery for monitoring of projects.** It is also expected to help state governments give commitments to investors regarding **timeframes for the creation of infrastructure.**

How will the platform help bring down logistics costs?

1. Studies estimate that **logistics costs in India** are about **13-14% of GDP** as against about 7-8% of GDP in developed economies.

2. High logistics costs impact cost structures within the economy, and also make it more expensive for exporters to ship merchandise to buyers.

3. By **incorporating infrastructure schemes** under various ministries and state governments, including the Bharatmala and inland waterways schemes, and economic zones such as textile and pharmaceutical clusters and electronics parks, the GatiShakti platform aims to **boosting last-mile connectivity and bringing down logistics costs with integrated planning and reducing implementation overlaps.**

4. Currently, a number of economic zones and industrial parks are not able to reach their full productive potential due to inefficient multi-modal connectivity.

How will progress under the National Master Plan be monitored?

The **National Master Plan** has set targets for all infrastructure ministries.

1. India is targeting an **increase in the total cargo handled at Indian ports** to 1,759 million tonnes per annum (MTPA) by 2024-25, up from 1,282 MTPA in 2020 — as well as **increasing cargo movement on national waterways** to 95 million tonnes from about 74 million tonnes in the same period.

2. The PM said the government was aiming at adding over 200 airports, helipads, and water aerodromes over the next 4-5 years beside nearly doubling the existing natural gas pipeline network, which is about 19,000 km.

3. A project monitoring group under the Department for Promotion of Industry and Internal Trade (DPIIT) will monitor the progress of key projects in real time, and report any inter-ministerial issues to an empowered group of ministers, who will then aim to resolve these.

How will this impact coordination between ministries for projects?

Currently, any inter-ministerial issues that arise relating to a project are addressed in regular meetings of infrastructure-related ministries. These issues are raised in advance, and then taken up.
Through the **PM PRAGATI (Pro-Active Governance And Timely Implementation) portal**, many issues were resolved even prior to such meetings.

The GatiShakti portal would help reduce the human intervention required as ministries will be in constant touch, and projects will be reviewed by the project monitoring group in real time.

**Challenges associated with the functioning of PM Gati Shakti:**

1. The **Economic Survey for 2020-21** underscored the role of active Centre-State partnerships for infrastructure building.

2. The Survey projects maximum investments towards NIP sectors such as energy, roads, urban infrastructure and railways for FY 2021 and 22, with about ₹8.5-lakh crore to be invested by either side annually.

3. With the pandemic and its associated challenges, the state governments don’t have enough finances to invest such large amounts. This will delay the implementation of the master plan.

4. According to the RBI’s paper, the growth rate in credit off-take has steeply declined to 5.8% in November 2020, as against 14.2% in 2013.

5. This will reduce private investment in infrastructure projects. At present, there are concerns about the declining credit offtake trends from banks as they don’t want to get into another Non-Performing Asset (NPA) crisis in future.

6. **The plan does not address a few key infrastructural challenges:** Land acquisition is often the biggest impediment in the development of India. Many development projects get delayed due to land acquisition issues.

7. Further, these delays add up to the costs of many projects, making them a less efficient and more costly project for development.

8. There are other issues such as litigation issues, alienation of local communities and the violation of environmental norms, etc.

9. These issues make the rate of implementation of projects is very slow on global standards. The Gati Shakti master plan offers little or no solution to these major challenges.

**Conclusion:**

The portal would help states avoid both cost and time overruns, and allow them to provide the benefit of valuable infrastructure to their residents sooner.
The Gati Shakti will boost economic growth, attract foreign investments and enhance the country’s global competitiveness thereby enabling smooth transportation of goods, people and services and creating employment opportunities.

Thus, the PM Gati Shakti will help India to realise its dream of becoming the “business capital” of the world. But all the challenges must be addressed on priority in order for the project to be a success.

10. Responding to adversity with achievement

Context:

India has completed vaccination of 100 crore doses on October 21, 2021, in just about nine months since starting vaccination.

This has been a tremendous journey in dealing with COVID-19, especially when we recall how things stood in early 2020.

Humanity was dealing with such a pandemic after 100 years and no one knew much about the virus.
We remember how unpredictable the situation appeared then, as we were faced by an unknown and invisible enemy mutating rapidly.

**An example of team work:**

In my Independence Day Address in 2015, I had said that our country is moving ahead because of ‘Team India’ and this ‘Team India’ is a big team of our 130 crore people. People’s participation is the **biggest strength of democracy**.

If we run the country through the **participation of 130 crore Indians**, our country will be moving ahead 130 crore steps every moment.

Our vaccination drive has yet again showed the **power of this ‘Team India’**.

**The scale and trust by Indians resulted in Bhagirath effort:**

1. The journey from anxiety to **assurance** has happened and our nation has emerged stronger, thanks to the **world’s largest vaccination drive**.

2. It has been a truly **bhagirath effort** involving multiple sections of society. To get a sense of the scale, assume that **each vaccination** took just two minutes for a health-care worker.

3. For any effort to attain and sustain speed and scale, the **trust of all stakeholders** is crucial.

4. One of the reasons for the success of the campaign was the **trust** that people developed in the vaccine and the process followed, despite various efforts to **create mistrust and panic**.

5. When it came to something as crucial as the COVID-19 vaccine, the people of India unanimously trusted ‘Made in India’ vaccines. This is a significant paradigm shift.

6. **India’s vaccine drive** is an example of what India can achieve if the citizens and the Government come **together with a common goal** in the spirit of Jan Bhagidari.

7. When India started its vaccination program, there were many people who doubted the capabilities of 130 crore Indians.

8. Some said India would take three to four years. Some others said people will not come forward to get vaccinated.

9. There were those who said there will be gross mismanagement and chaos in the vaccination process. Some even said that India will not be able to **manage supply chains**.

**Preparing early: Institutional assistance, Scientific research, Funding:**
1. In early 2020, when COVID-19 was rampaging across the world, it was clear to us that this pandemic will have to be eventually fought with the help of vaccines. We started preparing early.

2. **India’s entire vaccination program** is born in the womb of science, has grown on scientific grounds and has reached all four directions through **scientific methods**.

3. It is a matter of pride for all of us that the entire vaccination program of India has been **Science born, Science driven and Science-based**.

4. He said that before the vaccine was made and until the vaccine was administered, the entire campaign was based on a **scientific approach**. The challenge was also a need to scale up the production.

5. We **constituted expert groups** and started preparing a road map right from April 2020.

6. It is here that credit should be given to **Indian scientists and entrepreneurs** for rising to the occasion.

7. It is due to their talent and hard work that India is truly **Aatmanirbhar** when it comes to vaccines.

8. Our vaccine manufacturers, by scaling up to meet the demands of such a large population, have shown that they are second to none.

9. In a nation where governments used to be known as a roadblock impeding forward movement, our government has instead been an **accelerator and enabler of progress**.

10. The Government partnered with the vaccine makers right from day one and gave them support in the form of institutional assistance, scientific research, funding, as well as accelerated regulatory processes.

11. All Ministries of the Government came together to facilitate the vaccine makers and remove any bottlenecks as a result of **our ‘whole of Government’ approach**.

**How India resolved the logistics and supply chain problem:**

1. In a country of the scale of India, it is not enough to just produce. **Focus has to be on last mile delivery and seamless logistics.**

2. To understand the challenges involved, imagine the journey taken by one vial of vaccines. From a plant in Pune or Hyderabad, the vial is sent to a hub in any of the States, from where it is transported to the district hub.

3. From there, it reaches a vaccination centre. This entails the deployment of thousands of trips taken by flights and trains.
4. During this entire journey, the temperature has to be maintained in a particular range which is centrally monitored. For this, over one lakh cold chain equipment’s were utilised.

5. States were given advance notice of the delivery schedule of the vaccines so that they could plan their drives better and vaccines reached them on the pre-decided days. This has been an unprecedented effort in the history of independent India.

6. All these efforts were complemented by a robust tech platform in CoWIN. It ensured that the vaccine drive was equitable, scalable, trackable, and transparent.

7. This ensured that there was no scope for favouritism or jumping the queue. It also ensured that a poor worker could take the first dose in his village and the second dose of the same vaccine in the city where he works, after the required time interval.

8. In addition to a real-time dashboard to boost transparency, the QR-coded certificates ensured verifiability. There are hardly any examples of such efforts not only in India but also the world.

PM Modi lauded the achieving India’s 100 crore vaccination drive:

1. Democracy means taking everyone along - Sabka Saath. The country started the campaign of 'Free Vaccine and Vaccine for Everyone'.

2. Vaccinations were given to Poor-rich, Rural-urban alike. He remarked that the country has only one mantra that if the disease does not discriminate, then there cannot be any discrimination in the vaccination.

3. He said that’s why it was ensured that the VIP culture of entitlement does not dominate the vaccination campaign.

4. The Prime Minister said questions were raised that most of the people in India would not go to the vaccination centre to get vaccinated.

5. Vaccine hesitancy remains a major challenge even today in many major developed countries of the world.

6. But the people of India have answered it by taking 100 crore vaccine doses. He said a campaign is 'everybody’s effort' and if everyone’s efforts are synergized, the results are amazing.

7. He said that the Government made public participation the first line of defence in the country's fight against the pandemic.

8. After that, distribution to different states and timely delivery of vaccines to far-flung areas.
9. With **scientific methods** and **new innovations**, the country has found solutions to these challenges.

**Conclusion:**

When everyone takes ownership, nothing is impossible. Our health-care workers traversed hills and crossed rivers across difficult geographies to vaccinate people.

Our youth, social workers, health-care workers, social and religious leaders, all deserve credit for the fact that India faces **minimal vaccine hesitancy** when compared to even developed nations.

India’s success in its vaccination drive has also demonstrated to the whole world that ‘**democracy can deliver**’.

The success achieved in the **world’s largest vaccination drive** need to further spur our youth, our innovators and all levels of Government to **set new benchmarks of public service delivery** which will be a model not only for our country but also for the world.

**11. Preparing for outbreaks**
Context:

COVID-19 overburdened the country’s health system and services. The early months of the outbreak were particularly taxing for the States with weaker health systems.

The inability of the private sector to share the burden drove the point home that healthcare services cannot be left to independent forces.

Public health experience in India:

In India, health-related public policies and healthcare infrastructure have often been a matter of discussion among policymakers.

Yet, they rarely become a political issue. However, it would be a mistake to imagine that citizens do not care about health facilities. Years before the ongoing pandemic drew attention to these issues, a study (*State of Democracy in South Asia (SDSA)—Round 3*) by Lokniti-CSDS in 2019 found that people expect the government to take maximum responsibility for providing basic medical care.

But when it comes to voting, **health never becomes an electoral issue for voters**; nor do political parties generally focus on health infrastructure in their manifesto or campaign.

Ayushman Bharat Health Infrastructure Mission (ABHIM):

It is one of the largest pan-India schemes for strengthening healthcare infrastructure across the country.

It will provide support to 17,788 rural Health and Wellness Centres in 10 ‘high focus’ states and establish 11,024 urban Health and Wellness Centres across the country.

Through this, critical care services will be available in all the districts of the country with more than five lakh population through exclusive critical care hospital blocks, while the remaining districts will be covered through referral services.

Under the scheme, a national institution for one health, four new national institutes for virology, a regional research platform for WHO (World Health Organization) South East Asia Region, nine biosafety level-III laboratories, and five new regional national centres for disease control will be set up.

Aims of ABHIM:

1. The Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (ABHIM) is another addition to the arsenal we have to prepare for such outbreaks in the future.
2. This was launched with an outlay of Rs.64,180 crore over a period of five years.

3. In addition to the National Health Mission, this scheme will work towards strengthening public health institutions and governance capacities for wide-ranging diagnostics and treatment, including critical care services.

4. The latter goal would be met with the establishment of critical care hospital blocks in 12 central institutions such as the All India Institute of Medical Sciences, and in government medical colleges and district hospitals in 602 districts.

5. The importance of laboratories and their lack of readiness during an outbreak in terms of having a robust surveillance system and diagnostic interface has never been more pronounced than in recent times.

6. The government will be establishing integrated district public health labs in 730 districts to provide comprehensive laboratory services.

7. The current labs for different programmes shall be integrated to deliver clinical, public health surveillance and diagnostic services for predicting outbreaks, epidemics, and more.

8. ABHIM will focus on supporting research on COVID-19 and other infectious diseases, including biomedical research to generate evidence to inform short-term and medium-term responses to such pandemics.

9. The government also aims to develop a core capacity to deliver the ‘one health’ approach to prevent, detect, and respond to infectious disease outbreaks in humans and animals.

10. The plan to achieve that bio-security preparedness and pandemic research strengthening would be realised via four regional National Institutes for Virology, the regional research platform for the World Health Organization Southeast Asia Region, and nine Biosafety Level III laboratories.

**Why is the scheme significant?**

1. India has long been in need of a ubiquitous healthcare system. A study (‘State of Democracy in South Asia (SDSA)–Round 3’) by Lokniti-CSDS in 2019 highlighted how access to public health care remained elusive to those living on the margins.

2. The study found that 70 per cent of the locations have public healthcare services. However, availability was less in rural areas (65 per cent) compared to urban areas (87 per cent).

3. In 45 per cent of the surveyed locations, people could access healthcare services by walking, whereas in 43 per cent of the locations they needed to use transport.
4. The survey also found that proximity to healthcare services is higher in urban localities: 64 per cent of the enumerators in urban areas observed that people can access healthcare services by walking, while only 37 per cent in rural areas can do so.

5. The Prime Minister had recently launched another scheme, the Ayushman Bharat Digital Mission (ABDM), a flagship digital initiative involving the creation of not just a unique health ID for every citizen, but also a digital healthcare professionals and facilities registry.

**Boosting surveillance will prevent and combat health emergencies and outbreaks:**

1. In India’s endeavour to keep ahead of the infectious organisms that bring our life to a halt, expanding and building an IT-enabled disease surveillance system is on the cards too.

2. A network of surveillance labs will be developed at the block, district, regional and national levels for detecting, investigating, preventing, and combating health emergencies and outbreaks.

3. Surveillance will get a huge boost with 20 metropolitan surveillance units, five regional National Centre for Disease Control branches, and an integrated health promotion platform in all the States.

4. The points of entry will be reinforced with 17 new points of entry health units upgrading 33 existing units.

5. The upgraded and intensified system of surveillance will be in addition to a state-of-the-art national digital health ecosystem for IT-enabled healthcare service delivery, for managing the core digital health data and for ensuring national portability in the provision of health services through a secure system of electronic health records.

6. This will be based on international standards and easily accessible to citizens.

7. A major highlight of the current pandemic has been the requirement of local capacities in urban areas.

8. The services from the existing urban primary health centres will be expanded to smaller units – Ayushman Bharat Urban Health and Wellness Centres and polyclinics or specialist clinics.

9. The urban primary health centres will be established closer to the community to meet the needs of the urban population and polyclinics will guarantee care through improved access to expanded high-quality services and establish referral linkages.

**Conclusion:**
The healthcare system in India needs to be made accessible to the needy and people living on the margins of society.

The absence of a positive experience with public healthcare not only pushes people towards private healthcare facilities, but also pushes the issue of health out of public political considerations.

12. Sowing better to eat better

Introduction:

The health of a country’s agri-food systems determines the health of its people.

The findings from the first round of the Fifth National Family Health Survey suggest that nutrition-related indicators have worsened in most States.

The survey covers 17 States and five Union Territories, which comprise 54% of India’s population. In addition, findings from the Comprehensive National Nutrition Survey (2016-18) have highlighted the role of micro-nutrient malnutrition.

Context:

World Food Day is celebrated every year on October 16 to commemorate the date of the founding of the United Nations Food and Agriculture Organisation in 1945.

The day is also observed by organisations like World Food Programme and International Fund for Agricultural Development.
Since 1981, World Food Day has celebrated various themes to highlight the importance of food security, with most of them revolving around agriculture.

The theme for World Food Day this year is “Our actions are our future- Better production, better nutrition, a better environment and a better life”.

Challenges for Nutritional Security:

1. The **biggest impact of Covid-19 on food security** has been on almost all low-and middle-income countries.

2. The **Global Food Policy Report 2021** (by the International Food Policy Research Institute (IFPRI)) stated that the impacts of rising poverty and reduced livelihoods are reflected clearly in rising levels of food insecurity and decreasing diet quality.

3. According to UNICEF, 38% of children younger than five years of age in India are stunted, a manifestation of chronic undernutrition.

4. **Stunting and other forms of under-nutrition** are thought to be responsible for nearly half of all child deaths globally.

5. In Bihar and Uttar Pradesh, the stunting rate is around 48% and 46% respectively. It shows that in these states almost every 2nd child is stunted.

6. There are **high rates of stunting among children** in the poorest wealth quintile is (51.4%), Scheduled Tribes (43.6%) and Scheduled Castes (42.5%), and children born to mothers with no education (51%).

7. The country has observed **an increase in the prevalence of obesity** among the adult population from 3.1% in 2012 to 3.9% in 2016.

8. The **prevalence of anaemia among women of reproductive age** has only marginally improved from 53.2% in 2012 to 53% in 2019.

A multi-pronged approach for Nutritional Security:

1. Addressing the complex problem of malnutrition is a colossal task for which we need to look at agri-food systems as a whole and adopt a multi-pronged approach.

2. While COVID-19 has exacerbated the nutrition issue, climate change has challenged agricultural production itself.

3. However, the country’s agri-food systems are facing new and unprecedented challenges, especially related to economic and ecological sustainability, nutrition and the adoption of new agricultural technologies.
4. The edifice of India’s biosecurity remains vulnerable to disasters and extreme events.

5. The agri-food systems are the most important part of the Indian economy.

6. India produces sufficient food, feed and fibre to sustain about 18% of the world’s population (as of 2020).

7. Agriculture contributes about 16.5% to India’s GDP and employs 42.3% of the workforce (2019-20). For Indians to eat better, India must sow better.

8. A structural shift in dietary pattern and nutrition requires a shift in production.

9. Pathways for nutritional security consist of improving dietary diversity, kitchen gardens, reducing post-harvest losses, making safety net programmes more nutrition-sensitive, women’s empowerment, enforcement of standards and regulations, improving Water, Sanitation and Hygiene, nutrition education, and effective use of digital technology.

Way Forward:

1. There is an urgent need for reorientation of the long-term direction of agri-food systems to not only enhance farm incomes but also ensure better access to safe and nutritious foods.

2. Additionally, the agri-food systems need to be reoriented to minimise cost on the environment and the climate.

3. This need is recognised by the theme of World Food Day 2021: ‘Our actions are our future.

4. Better production, better nutrition, a better environment and a better life’. The four betters represent the Food and Agriculture Organization (FAO)’s contribution to the Sustainable Development Goals and other high-level aspirational goals.

5. World Food Day marks the foundation day of the FAO. FAO has enjoyed valuable partnership with India since it began operations in 1948.

6. More recently, FAO has been engaged with the Indian government for mainstreaming agrobiodiversity, greening agriculture, promoting nutrition-sensitive agriculture and strengthening national food security.

7. FAO’s support for the transformation of agri-food systems is rooted in agro-ecology. The more diverse an agricultural system, the greater its ability to adapt to shocks.

8. Different combinations of integrated crop-livestock-forestry-fishery systems can help farmers produce a variety of products in the same area, at the same time or in rotation.

Conclusion:
India also has to **transform its food systems**, which have to be **inclusive and sustainable** for higher farm incomes and nutrition security. In this context, it would be useful to look at India’s policies across food systems.

In January 2021, FAO in collaboration with NITI Aayog and the Ministry of Agriculture convened a **National Dialogue to evolve a framework for the transition to a more sustainable agri-food systems by 2030** and identify pathways for enhancing farmers’ income and achieving nutritional security.

A **sustainable agri-food system** is one in which a **variety of sufficient, nutritious and safe foods** are made available at an **affordable price to everyone**, and nobody goes hungry or suffers from any form of malnutrition.

Less food is wasted, and the **food supply chain is more resilient to shocks**.

**Food systems** can help combat environmental degradation or climate change. Sustainable agri-food systems can **deliver food security and nutrition for all**, without compromising the economic, social, and environmental bases.

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### 13. The other Quad: On virtual meet of Foreign Ministers of India, US, Israel and UAE

Context:

**West Asia** occupies an important position in international relations due to its **geographical location and proximity to continents** and countries South Asia, China, Central Asia, Europe, and Africa.
The virtual meet of the Foreign Ministers of India, the U.S., Israel and the UAE is a strong manifestation of the changes in West Asian geopolitics.

If Israel and the UAE did not even have formal diplomatic relations a year ago, their growing economic and strategic cooperation is opening up opportunities for other powers, including India.

Indian External Affairs, now in Israel, joined the quadrilateral conference after meeting his Israeli counterpart, where they had agreed to launch talks for a free trade agreement.

The four-nation meeting also points to India’s strategic desire to adopt a regional foreign policy strategy towards West Asia, transcending its bilateralism.

Brief about Abraham Accord:

1. The Israel–UAE normalization agreement is officially called the Abraham Accords Peace Agreement.

2. It was initially agreed to in a joint statement by the United States, Israel and the United Arab Emirates (UAE) on August 13, 2020.

3. The UAE thus became the third Arab country, after Egypt in 1979 and Jordan in 1994, to agree to formally normalize its relationship with Israel as well as the first Persian Gulf country to do so.

4. Concurrently, Israel agreed to suspend plans for annexing parts of the West Bank.

5. Full diplomatic ties established between Israel, the United Arab Emirates and Bahrain which had a positive impact on the entire region.

6. The deal buys UAE a lot of goodwill in the US, where its image has been tarnished by its involvement in the Yemen war.

7. The agreement normalized what had long been informal but robust foreign relations between the two countries.

8. The West Asia region is strategically significant due to its enormous energy resources, trade route links to different parts of the world.

9. It is the world's largest oil-producing region accounting for 34% of world production, 45% of crude oil exports and 48% of oil proven reserves.
India’s policy towards with West Asia:

1. Over the years, India has built vibrant bilateral ties with all the countries in the grouping.

2. It is a member of the Quad with the U.S., Australia and Japan, which have common concerns and shared interests on East Asia. Israel is one of India’s top defence suppliers.

3. The UAE is vital for India’s energy security. The Gulf country, which hosts millions of Indian workers, has also shown interest to mediate between India and Pakistan.

4. In the past, there were three pillars to India’s West Asia policy — the Sunni Gulf monarchies, Israel and Iran.

5. Now that the gulf between the Sunni kingdoms and Israel is being narrowed, especially after the Abraham Accords, the normalisation agreements signed between Israel and the UAE and Bahrain under the tutelage of the Trump administration, India faces fewer challenges to a regionalist approach.

India, Israel shares similar challenges from radicalism, terrorism:

1. India and Israel share similar challenges to their societies from radicalism and terrorism apart from many other emerging developments on the geopolitical landscape.

2. India and Israel, two countries share values of democracy and pluralism. We also share some of our guiding civilizational philosophies: Vasudhaiva Kutumbakam in India, or the world is one family, and Tikun Olam in Israel, or heal the world.

3. We also share similar challenges to our society from radicalism and terrorism, apart from many other emerging developments on the geopolitical landscape.

4. India has been facing major threats emanating from across the border from Pakistan and Israel is also surrounded by hostile neighbours.

5. India and Israel have a Joint Working Group on Counter-terrorism and the two countries also share real-time intelligence to deal with the menace.

Post Abraham Accords, signs of stability in West Asia:

1. Reports have indicated a new quad post the Abraham accords being inked last year.

2. In August 2020, Israel, the UAE and the US signed Abraham Accords. The accord helped Israel and the UAE normalise their ties.

3. India had welcomed the agreement, saying it “has always supported peace and stability in West Asia which is our extended neighbourhood.”
4. India and Israel elevated bilateral relations to a strategic partnership during the historic visit of PM Narendra Modi to Israel in July 2017.

5. Since then, the relationship between the two countries has focused on expanding knowledge-based partnership, including collaboration in innovation and research.

6. According to Indian spokespersons, India already has substantial ties with all of them.

7. The grouping has no strategic value. Basically, they are exploring those areas they can work together, which mostly would be in the area of technology.

8. While the more well-known ‘Quad’ had been formed with an eye on China, the four countries that met shared no similar strategic challenge in the region.

**Way Ahead for India with West Asia:**

India should also be mindful of the challenges in the region. The U.S. is clearly seeking to lessen its footprint here as part of its pivot to East Asia to tackle China's rise, which is redraw West Asia's traditional equations.

India should be careful not to get sucked into the many conflicts of West Asia that could intensify amid growing regional rivalries.

While the Abraham Accords made it easier for India to find common ground with the Israelis and the Emiratis, the contradiction between this emerging bloc and Iran remains as intense as ever.

India, which sees itself aligned with the U.S. in the Indo-Pacific, faces deepening insecurities in continental Asia after the American withdrawal from Afghanistan.

And it will have to work closely with countries such as Iran to deal with the challenges emanating from a post-American Afghanistan.

**Conclusion:**

The challenge before New Delhi is to retain a healthy relationship with Iran even as it seeks to build a stronger regional partnership with the U.S.-Israel-UAE bloc.

India should leverage its economy for a bigger opening in this region. Importantly, India can use its good offices to ensure that any future deal on a regional security framework gives adequate space to Iran.

There is a need to talk about of the strategic significance of such a India, the U.S., Israel and the UAE grouping, there are areas where it can deepen its engagement — trade, energy ties, fighting climate change and enhancing maritime security.
14. How Delhi came to see Europe as a valuable strategic partner

Context:

Recently, in-person summit in Delhi was with the Danish prime minister, Mette Frederiksen.

This was apt, since Europe looms so large in the Indian diplomatic agenda today and smaller European states draw unprecedented political attention from India.

The European Union (EU) is set to push for a closer relationship and stronger presence in the Indo-Pacific, as released in the EU Strategy for Cooperation in the Indo-Pacific.

India’s engagement with Europe in recent past:

1. As the deepening confrontation between the US and China begins to squeeze South East Asia, Europe is widely seen as widening the strategic options for the region.

2. The perspective is similar in Delhi, which now sees Brussels as a critical element in the construction of a multipolar world.

3. As External Affairs Minister Subrahmanyam Jaishankar puts it, India’s strategy is to “engage America, manage China, cultivate Europe, reassure Russia, bring Japan into play”. For the students of Indian foreign policy, the command to “cultivate Europe” is certainly new.
4. The Cold War, which divided Europe into East and West, had distorted India’s perspective of the region. In the colonial era, both the nationalists and the princes developed a wide-ranging engagement with Europe.

5. After independence, India viewed Western Europe as an extension of the US and saw Eastern Europe through Moscow’s eyes.

6. As it tilted to the Soviet Union during the Cold War, India developed a political prickliness towards the western part of Europe and took the East for granted.

The EU outlined a strategy for India in 2018:

EU outlined a strategy for India to focus on four themes — sustainable economic modernisation, promotion of a rules-based order, foreign policy coordination, and security cooperation.

At the summit in Portugal in May 2021, the EU and India agreed to resume free trade talks and develop a new connectivity partnership that would widen options for the world beyond the Belt and Road Initiative.

Above all, there is a recognition in both Delhi and Brussels that the India-EU strategic partnership is crucial for the rebalancing of the international system amidst the current global flux.

India and EU role in Indo-Pacific region:

1. With an enhanced focus on their strategic relations and engagement with other like-minded regional players, India and EU can play a significant role in preserving an open, free, inclusive and rules-based order in the Indo-Pacific.

2. India’s support for France’s membership of the Indian Ocean Rim Association (IORA).

3. India’s backing for a larger European role in the Indo-Pacific. India has welcomed the interest of Germany and Netherlands in building a new geopolitical architecture in the Indo-Pacific.

4. Increasing competition, power rivalry, unilateral actions challenging the multilateral order and international laws are some of the common concerns shared by India and Europe.

5. Some of the crucial areas that India and EU can work together include joint efforts in capacity building against challenges like piracy, counter-terrorism etc and cooperation in enhancing interoperability and domain awareness, maritime technologies, blue economy etc.

Wants and Needs of European countries: Stronger Europe with greater Geo-political agency:
1. The clamour in Europe for “strategic autonomy” has certainly increased in the wake of AUKUS that pushed France out of its submarine deal with Australia. USA has moved quickly to rebuild trust with France.

2. In a joint statement issued after talks with French President, Joe Biden affirmed the “strategic importance of French and European engagement in the Indo-Pacific region, including in the framework of the European Union’s recently published strategy for the Indo-Pacific.”

3. Whatever the specific circumstances of the AUKUS deal and its impact on France, the US wants all its partners, especially Europe, to contribute actively to the reconstitution of the Asian balance of power.

4. The EU strategy, in turn, sees room for working with the Quad in the Indo-Pacific, while stepping up security cooperation with a number of Asian partners, including India, Indonesia, Japan, the Republic of Korea, Singapore and Vietnam.

5. A stronger Europe with greater geopolitical agency is very welcome in Delhi. India is conscious that Europe can’t match America’s military heft in the Indo-Pacific.

6. But it could help strengthen the military balance and contribute to regional security in multiple other ways.

7. India knows that Europe could significantly boost India’s capacity to influence future outcomes in the Indo-Pacific. It would also be a valuable complement to India’s Quad coalition with Australia, Japan and the United States.

Now, India needs to realise the untapped potential of European Union countries:

1. The Danish encounter highlighted India’s immense possibilities with the smaller European countries, the prospects for larger strategic cooperation with the European collective have opened up with the articulation of a comprehensive Indo-Pacific strategy by the European Union.

2. That Denmark, a country of barely six million people, can establish a significant green partnership with India, is a reminder that smaller countries of Europe have much to offer in India’s economic, technological, and social transformation.

3. If tiny Luxembourg brings great financial clout, Norway offers impressive maritime technologies, Estonia is a cyber power, Czechia has deep strengths in optoelectronics, Portugal is a window to the Lusophone world, and Slovenia offers commercial access to the heart of Europe through its Adriatic sea port at Koper. The list goes on.
4. As India begins to realise this untapped potential, there are new openings with the 27-nation EU headquartered in Brussels.

5. The EU’s Indo-Pacific strategy, is likely to have a much greater impact on the region more immediately and on a wider range of areas than military security.

6. They range from trade and investment to green partnerships, the construction of quality infrastructure to digital partnerships, and from strengthening ocean governance to promoting research and innovation.

Conclusion:

Defence and security are important elements of the EU’s Indo-Pacific strategy that “seeks to promote an open and rules-based regional security architecture, including secure sea lines of communication, capacity-building and enhanced naval presence in the Indo-Pacific.

It was Russia that defined India’s discourse on the multipolar world after the Cold War.

Today, it is Europe with its much greater economic weight, technological strength, and normative power that promises to boost India’s own quest for a multipolar world and a rebalanced Indo-Pacific.

15. India’s Central Asian outreach
Introduction:

The dramatic developments in Afghanistan have catalysed new geostrategic and geo-economic concerns for the region.

The evolving situation has also thrown up renewed challenges for India’s regional and bilateral ties with Central Asia and the Caucasus, prompting India to recalibrate its rules of engagement with the region.

Context:

1. External Affairs Minister was in the region earlier this month, his third within a span of four months.

2. In Kyrgyzstan, External Affairs Minister extended a credit line of $200 million for the support of development projects and signed a memorandum of understanding (MoU) on High-Impact Community Development Projects (HICDP).

3. At Foreign Minister’s Conference on Interaction and Confidence-Building Measures in Asia (CICA), India targeted China’s Belt and Road Initiative (BRI).

4. Admonishing China’s methods in promoting the BRI, he said while greater connectivity was essential for the promotion of regional stability, it must not be pursued for parochial interests.

5. He also confronted Pakistan for its support towards cross-border terrorism. Before reaching Armenia, External Affairs Minister met his counterparts from Russia, Uzbekistan and Turkmenistan to discuss regional cooperation.

India and Central Asia Relation:

1. India’s relations with Central Asia has a long history. The two regions have shared deep cultural linkages with each other over the past two millennia in terms of people to people contact, trade, and commerce.

2. Ancient kingdoms like the Kushana Empire had territory in parts of both regions.

3. Both regions had been connected through the Silk route from 3rd century BC till 15th Century AD until the sea route from Europe to India was discovered.

4. The Silk Route connected both regions not only for transportation of goods like silk and spices but was also an effective channel of exchange of thoughts, ideas, religion and philosophy.

5. Buddhism travelled over this route from India to Central Asia and from there to West China.
6. The **historical and civilizational linkages** have spilled over into many areas including religion and culture.

7. **Contacts between the both regions** were further strengthened during the medieval ages with the **advent of Islam** and later with the **establishment of Muslim rule in India**, many of whose rulers had **their origins in Central Asia**.

**Importance of the Central Asia Region:**

**Energy Security:**

1. The Central Asian countries are bestowed with **substantial hydrocarbon fields, natural gas and oil reserves** which makes them an attractive point for investment.

2. Kazakhstan is the **leading manufacturer of uranium** and has **enormous gas and oil reserves** as well.

3. Uzbekistan is also **rich in gas**, and is a significant local producer of gold together with Kyrgyzstan.

4. Tajikistan has **enormous hydropower potential** and Turkmenistan has the **fourth largest gas reserves** of the world.

**Regional Security:**

1. To tackle the challenges of terrorism, drug trafficking and arms smuggling.

2. Keeping a check on the rise of radical Islamist groups that may pose a **threat to India’s security**.

**Strategic Location:**

1. Geographically, the strategic location of Central Asian countries makes them a **bridge between different regions of Asia and between Europe and Asia**.

2. **Strategic location of Central Asia** is a central point of geopolitical manoeuvring affecting India’s relations with Pakistan, China, the US, Russia and other powers in the region.

**Commercial:**
1. Central Asia offers a relatively **untapped market for Indian consumer goods**. Indian tea and pharmaceutical industries have acquired a foothold in the Central Asian market.

2. The **rapid economic development of Central Asia** has sparked a construction boom and development of sectors like IT and tourism.

**India’s Evolution of Relationship with Central Asia:**

1. After the breakup of the Soviet Union and the formation of the independent republics in Central Asia, India reset its ties with the strategically critical region.

2. India provided financial aid to the region and established diplomatic relations.

3. India signed the Strategic Partnership Agreements (SPA) with Kazakhstan, Tajikistan and Uzbekistan to stimulate defence cooperation and deepen trade relations.

4. In 2012, India’s ‘Connect Central Asia’ policy aimed at furthering India’s political, economic, historical and cultural connections with the region.

5. However, India’s efforts were stonewalled by Pakistan’s lack of willingness to allow India passage through its territory. China took advantage of the situation and unveiled the much-hyped BRI in Kazakhstan.

6. The growing geostrategic and security concerns regarding the **BRI’s China-Pakistan Economic Corridor (CPEC)** and its violation of India’s sovereignty forced New Delhi to fix its lethargic strategy.

7. India signed MoUs with Iran in 2015 to develop the Chabahar port in the Sistan-Baluchistan province that was in the doldrums from 2003.

8. Most of the Central Asian leaders view India’s Chabahar port as an **opportunity to diversify their export markets** and control China’s ambitions.

9. **China’s assertive approach** led to rising social discontent on the ill-treatment of their ethnic brethren in neighbouring Xinjiang.

**Recent India-Armenia ties:**

1. India has become the first Indian External Affairs Minister to visit Armenia.

2. The Minister and his Armenian counterpart, agreed to **enhance trade and cultural exchanges to boost bilateral relations**.
3. During the visit, Mr. Jaishankar also supported efforts for a peaceful solution of the Nagorno-Karabakh conflict between Azerbaijan and Armenia under the Organization for Security and Cooperation in Europe’s (OSCE) Minsk group.

4. The Taliban re-establishing its supremacy over Afghanistan has also exposed the weaknesses of coalitions such as the Shanghai Cooperation Organization (SCO), created in response to the threats of terrorism that sprang from Afghanistan.

5. However, the SCO has been used by most member countries for their own regional, geostrategic and security interests, increasing the trust-deficit and divergence within the forum.

6. As the SCO failed to collectively respond to the Afghan crisis, the Central Asian leaders met in Turkmenistan in August to voice their concerns over the Afghan situation, and also discussed the presence of Central Asian terror groups within Afghanistan and along their borders.

Conclusion:

Central Asian countries have been keen to have India as a partner as they have sought to diversify their strategic ties.

Central Asian regional dynamics will become very interesting with India’s involvement in the region in the coming years.

Rising anti-Chinese sentiments within the region and security threats from the Taliban allow New Delhi and Central Asia to reimagine their engagement.

India cannot afford to lose any time in recalibrating its regional engagements.

Central Asian countries have admitted India into the Ashgabat Agreement, allowing India access to connectivity networks to facilitate trade and commercial interactions with both Central Asia and Eurasia, and also access the natural resources of the region.
1. RBI microfinance proposals that are anti-poor

Introduction:
In June 2021, the Reserve Bank of India (RBI) published a “Consultative Document on Regulation of Microfinance”.

While the declared objective of this review is to promote the financial inclusion of the poor and competition among lenders, the likely impact of the recommendations is unfavourable to the poor.

If implemented, they will result in an expansion of microfinance lending by private financial institutions, in the provision of credit at high rates of interest to the poor, and in huge profits for private lenders.

While microfinance lending has been in place since the 1990s, what is different about the recent phase of growth of financial services is that the privately-owned for-profit financial agencies are “regulated entities”.

Microfinance: Crucial for rural households: with Tamil Nadu Case study:
Microfinance is becoming increasingly important in the loan portfolio of poorer rural households.
1. In a study of two villages from southern Tamil Nadu, done by the Foundation for Agrarian Studies, we found that a little more than half of the total borrowing by households’ resident in these two villages was of **unsecured or collateral-free loans from private financial agencies** (SFBs, NBFCs, NBFC-MFIs and some private banks).

2. There was a clear differentiation by caste and socio-economic class in terms of source and purpose of borrowing.
   a. First, **unsecured microfinance loans** from private financial agencies were of disproportionate significance to the poorest households to poor peasants and wage workers, to persons from the Scheduled Castes and Most Backward Classes.
   b. Second, these microfinance loans were **rarely for productive activity** and almost never for any group-based enterprise, but **mainly for house improvement and meeting basic consumption needs**.

3. Our data showed that poor borrowers took microfinance loans, at reported rates of **interest of 22% to 26% a year**, to meet day-to-day expenses and costs of house repair. How does this compare with credit from public sector banks and cooperatives?

4. Crop loans from Primary Agricultural Credit Societies (PACS) in Tamil Nadu had a nil or zero interest charge if repaid in eight months.

5. Kisan credit card loans from banks were charged 4% per annum (9% with an interest subvention of 5%) if paid in 12 months (or a penalty rate of 11%).

6. Other types of loans from scheduled commercial banks carried an interest rate of 9%-12% a year.

7. As even the **RBI now recognises**, the rate of interest charged by private agencies on microfinance is the maximum permissible, **a rate of interest that is a far cry from any notion of cheap credit**.

**The recommendations given in consultative document:**

The consultative document recommends that:

1. The **current ceiling on rate of interest** charged by non-banking finance company-microfinance institutions (NBFC-MFIs) or regulated private microfinance companies **needs to be done away** with, as it is **biased against one lender** (NBFC-MFIs) among the many (commercial banks, small finance banks, and NBFCs).

2. It proposes that the rate of interest be determined by the governing board of each agency, and assumes that **“competitive forces” will bring down interest rates**.
3. Not only has the RBI abandoned any initiative to expand low-cost credit through public sector commercial banks to the rural poor, the bulk of whom are rural women (as most loans are given to members of women’s groups).

4. In addition, it also proposes to de-regulate the rate of interest charged by private microfinance agencies.

5. According to current guidelines, the ‘maximum rate of interest rate charged by an NBFC-MFI shall be the lower of the following:
   a. The cost of funds plus a margin of 10% for larger MFIs (a loan portfolio of over ₹100 crore) and 12% for others; or
   b. The average base rate of the five largest commercial banks multiplied by 2.75’.

6. In June 2021, the average base rate announced by the RBI was 7.98%. A quick look at the website of some Small Finance Banks (SFBs) and NBFC-MFIs showed that the “official” rate of interest on microfinance was between 22% and 26% — roughly three times the base rate.

How private financial institutions have grown exponentially?

1. In the 1990s, microcredit was given by scheduled commercial banks either directly or via non-governmental organisations to women’s self-help groups, but given the lack of regulation and scope for high returns, several for-profit financial agencies such as NBFCs and MFIs emerged.

2. By the mid-2000s, there were widespread accounts of the malpractices of MFIs and a crisis in some States such as Andhra Pradesh, arising out of a rapid and unregulated expansion of private for-profit micro-lending.

3. The microfinance crisis of Andhra Pradesh led the RBI to review the matter, and based on the recommendations of the Malegam Committee, a new regulatory framework for NBFC-MFIs was introduced in December 2011.

4. A few years later, the RBI permitted a new type of private lender, SFBs, with the objective of taking banking activities to the “unserved and underserved” sections of the population.

5. Today, as the RBI’s consultative document notes, 31% of microfinance is provided by NBFC-MFIs, and another 19% by SFBs and 9% by NBFCs.

6. These private financial institutions have grown exponentially over the last few years, garnering high profits, and at this pace, the current share of public sector banks in microfinance (the SHG-bank linked microcredit), of 41%, is likely to fall sharply.
7. The proposals in the RBI’s consultative document will lead to a further privatisation of rural credit, reducing the share of direct and cheap credit from banks and leaving poor borrowers at the mercy of private financial agencies.

Maximum instances of NBFC-MFI’s not following RBI guidelines:

Contrary to the RBI guideline of “no recovery at the borrower’s residence”, collection was at the doorstep.

Note that a shift to digital transactions refers only to the sanction of a loan, as repayment is entirely in cash.

Many borrowers said the debt collector used bad language in a loud voice, shaming them in front of their neighbours.

If the borrower is unable to pay the instalment, other members of the group have to contribute, with the group leader taking responsibility.

In our survey, there was no organic connection of microfinance to any group activity or enterprise.

As an agent of a NBFC-MFI told us, “We have used the groups formed earlier for other activities solely to show that we lend to a group”.

Way forward:

RBI should encourage all institutions to monitor their impact on society by means of a ‘social impact scorecard’.

MFIs need to focus on creating a sustainable and scalable microfinance model with a mandate that is unequivocal about both economic and social good.

MFIs should ensure that the ‘stated purpose of the loan’ that is often asked from customers at the loan-application stage is verified at the end of the tenure of the loan.

Conclusion:

The proposals of RBI’s consultative document is beyond comprehension at a time of widespread post-pandemic distress among the working poor.

The All-India Democratic Women’s Association, in its response to this document, has raised concerns about the implications for women borrowers and demanded that the rate of interest on microfinance not exceed 12% per annum.
To meet the credit needs of poorer households, **we need a policy reversal**: strengthening of public sector commercial banks and firm regulation of private entities.

2. Why recovery in employment may lag the recovery in GDP

**Context:**
Over the past week, a big part of the focus on the IMF has been due to the controversy surrounding its Managing Director’s role in the alleged rigging of the World Bank’s Ease of Doing Business Rankings while she was the chief executive at the Bank.

But, away from the controversies, the IMF has also been in the news for unveiling its **second World Economic Outlook (WEO).**

To be sure, **twice every year**, April and October, the IMF **comes out** with its WEO.

The WEO reports are significant because they are based on a wide set of assumptions about a whole host of parameters such as the **international price of crude oil** and set the benchmark for all economies to compare and contrast.

On the whole, the IMF’s central message was that the **global economic recovery momentum** had weakened a tad, thanks largely to the pandemic-induced supply disruptions across the planet.
IMF’s second World Economic Outlook (WEO) in 2021:

1. Compared to July forecast, the global growth projection for 2021 has been revised down marginally to 5.9 per cent and is **unchanged for 2022 at 4.9 per cent**.

2. This modest headline revision, however, masks large downgrades for some countries.

3. The outlook for the low-income developing country group has darkened considerably **due to worsening pandemic dynamics**.

4. But more than just the marginal headline numbers for global growth, it is **increasing inequality among nations** that the IMF was most concerned about.

5. The **dangerous divergence in economic prospects** across countries remains a major concern.

6. Aggregate output for the advanced economy group is expected to regain its pre-pandemic trend path in 2022 and exceed it by 0.9 per cent in 2024.

7. By contrast, aggregate output for the emerging market and developing economy group (excluding China) is expected to remain 5.5 per cent below the pre-pandemic forecast in 2024, resulting in a larger setback to improvements in their living standards.

Two key reasons for the economic divergences:

**One, Large disparities in vaccine access** and,

**Two, the difference in policy support** (or the help provided by the respective governments).

While almost **60 per cent of the population** in advanced economies are **fully vaccinated** and some are **now receiving booster shots**, about **96 per cent** of the population in low-income countries remain vaccinated.

Emerging and developing economies, faced with **tighter financing conditions** and a **greater risk of de-anchoring inflation expectations**, are withdrawing policy support more quickly despite larger shortfalls in output.

IMF recent statements in unveiling of World Economic Outlook (WEO):

**Employment** around the world **remains below its pre-pandemic levels**, reflecting a mix of negative output gaps, worker fears of on-the-job infection in contact-intensive occupations, childcare constraints, labour demand changes as automation picks up in some sectors, replacement income through furlough schemes or unemployment benefits helping to cushion income losses, and frictions in job searches and matching.
Within this overall theme, what is particularly worrisome is that this gap between recovery in output and employment is likely to be larger in emerging markets and developing economies than in advanced economies.

Further, young and low-skilled workers are likely to be worse off than prime-age and high-skilled workers, respectively.

On the whole, India’s growth rate hasn’t been tweaked for the worse. In fact, beyond the IMF, there are several high-frequency indicators that have suggested that India’s economic recovery is gaining ground.

What about employment?

1. The informal worker is defined as “a worker with no written contract, paid leave, health benefits or social security”.

2. The organised sector refers to firms that are registered. Typically, it is expected that organised sector firms will provide formal employment.

3. It is clear that the bulk of India’s employment is both in the unorganised sector and is of an informal nature.

4. What this data shows is that if the informal/unorganised sector recovers at a slower pace than the formal sector, then the recovery in employment (relative to the recovery in output) will be even slower in India.

How big is India’s informal economy? How many people does it employ?

1. In a 2019 paper, titled “Measuring Informal Economy in India”, National Statistical Office estimated the extent of India’s informal economy.

2. The terms unorganised/ informal sector is used interchangeably in the Indian context.

3. The informal sector/unorganised sector consists of enterprises which are own account enterprises and operated by own account workers or unorganised enterprises employing hired workers. They are essentially proprietary and partnership enterprises.

4. The share of informal/unorganised sector GVA to the total is more than 50%. (Source: Computed from National Accounts Statistics, 2019)

5. Of course, there are sectors such as Agriculture and allied industries where almost all the sector’s GVA is produced by those working in the informal sector.

6. Then there are sectors such as Manufacturing where less than 23 per cent of the total GVA comes from the informal sector.
That was the contribution of the informal sector in total output.

**Preparing for the post-pandemic economy:**

Finally, it is important to deal with the challenges of the post-pandemic economy: reversing the pandemic-induced setback to human capital accumulation, facilitating new growth opportunities related to green technology and digitalization, reducing inequality, and ensuring sustainable public finances.

Recent developments have made it abundantly clear that we are all in this together and the pandemic is not over anywhere until it is over everywhere.

If Covid-19 were to have a prolonged impact into the medium term, it could reduce global GDP by a cumulative $5.3 trillion over the next five years relative to our current projection. It does not have to be this way.

The global community must step up efforts to ensure equitable vaccine access for every country, overcome vaccine hesitancy where there is adequate supply, and secure better economic prospects for all.

**Conclusion:**

In the context of what the IMF said about recovery in unemployment lagging output recovery, it matters to understand why we may not know about the unemployment distress in a large part of India.

That’s because, as it is often said, 90% of India’s jobs are in the so-called informal sector. More often than not, data on this part of the economy is quite patchy and inadequate.

The global economic recovery is continuing, even as the pandemic resurges.

The fault lines opened up by COVID-19 are looking more persistent near-term divergences are expected to leave lasting imprints on medium-term performance.

**Vaccine access and early policy support** are the principal drivers of the gaps.
3. Improving livestock breeding

Introduction:

Livestock breeding in India has been largely unorganised because of which there have been gaps in forward and backward integration across the value chain.

Such a scenario impacts the quality of livestock that is produced and in turn negatively impacts the return on investment for livestock farmers.

Approximately 200 million Indians are involved in livestock farming, including around 100 million dairy farmers.

Roughly 80% bovines in the country are low on productivity and are reared by small and marginal farmers.

To enhance the productivity of cattle, the Rashtriya Gokul Mission was initiated in 2014 with a focus on the genetic upgradation of the bovine population through widespread initiatives on artificial insemination, sex-sorted semen, and in vitro fertilization.

Livestock sector in India:

1. Animal rearing has multidimensional potential. India is the highest livestock owner of the world.

2. Animal husbandry refers to livestock raising and selective breeding. It is the management and care of animals in which the genetic qualities and behaviour of animals are further developed for profit.
3. It is a **major risk mitigation approach** for small and marginal farmers, particularly across the rain-fed regions of India.

4. It is at the **centre of poverty alleviation programs** from equity and livelihood standpoints.

5. Livestock productivity has been identified as one of the seven sources of income growth by the Inter-Ministerial Committee under the **government's target of doubling farmers' income by the year 2022**.

6. As per the **20th Livestock Census**, the total Livestock population is 535.78 million in the country showing an increase of 4.6% over Livestock Census-2012.

7. A large number of farmers depend upon animal husbandry for their livelihood. It supports the livelihood of almost 55% of the rural population.

8. As per the **Economic Survey-2021**, the contribution of Livestock in total agriculture and allied sector Gross Value Added (at Constant Prices) has increased from 24.32% (2014-15) to 28.63% (2018-19).

9. For instance, **Operation Flood**, launched in 1970, helped dairy farmers direct their own development, increased milk production, augmented rural incomes and ensured reasonable prices for consumers.

**About Rashtriya Gokul Mission:**

It was initiated in 2014 with a focus on the conservation and development of **indigenous breeds** and **improve their genetic makeup**.

The scheme is implemented on 100% grant-in-aid basis. The components include:

1. Establishment of integrated indigenous cattle centres - Gokul Gram
2. Establishment of breeder’s societies - Gopalan Sangh
3. Gopal Ratna award to Farmers and Kamadhenu award to breeders’ societies
4. National Kamdhenu Breeding Centres are being established as Centres of Excellence
5. Provision for capital subsidy up to Rs. 200 lakh for setting up breeding farm with at least 200 milch cows/buffalo using latest breeding technology.
6. E-Pashu Haat- An e-market portal connecting breeders and farmers to provide quality-disease free bovine germplasm
7. Pashu Sanjivni: An Animal Wellness Programme with the provision of animal health cards along with UID identification

**Entrepreneurship development: Revised version of Rashtriya Gokul Mission and National Livestock Mission (NLM):**
The revised version of the Rashtriya Gokul Mission and National Livestock Mission (NLM) proposes to bring focus on entrepreneurship development and breed improvement in cattle, buffalo, poultry, sheep, goat, and piggery by providing incentives to individual entrepreneurs, farmer producer organisations, farmer cooperatives, joint liability groups, self-help groups, Section 8 companies for entrepreneurship development and State governments for breed improvement infrastructure.

1. The **breed multiplication farm component** of the Rashtriya Gokul Mission is going to provide for capital subsidy up to Rs.200 lakh for setting up breeding farm with at least 200 milch cows/ buffalo using latest breeding technology.

2. The entrepreneur will also start generating income out of the sale of 15 kg of milk per animal per day for around 180 animals from the first year.

3. This breeding farm will break even from the first year of the project after induction of milk in animals.

4. Moreover, the **strategy of incentivising breed multiplication farm** will result in the **employment of 1 lakh farmers**.

5. The **grassroots initiatives** in this sphere will be further amplified by web applications like e-Gopala that provide real-time information to livestock farmers on the availability of disease-free germplasm in relevant centres, veterinary care, etc.

6. The poultry entrepreneurship programme of the NLM will provide for capital subsidy up to Rs.25 lakh for **setting up of a parent farm** with a capacity to rear 1,000 chicks. Thereafter, the chicks can be supplied to local farmers for rearing.

7. Under this model, the **rural entrepreneur** running the hatchery will be **supplying chicks to the farmers**.

8. An entrepreneur will be able to break even within 18 months after launching the business. This is expected to provide employment to at least 14 lakh people.

9. In the context of sheep and goat entrepreneurship, there is a **provision of capital subsidy of 50% up to 50 lakh**.

10. An entrepreneur under this model shall set up a breeder farm, develop the whole chain will eventually **sell the animals to the farmers or in the open market**.

**Gokul Gram: Integrated cattle development centres:**

The **Rashtriya Gokul Mission** also envisions establishment of integrated cattle development centres ‘Gokul Grams’ to develop indigenous breeds including up to 40% nondescript breeds.

1. To promote **indigenous cattle rearing and conservation in a scientific manner**.
2. To propagate high genetic merit bulls of indigenous breeds.
3. To optimize modern Farm Management practices and promote Common Resource Management.
4. To utilize animal waste in economical way i.e. Cow Dung, Cow Urine.

National Kamdhenu Breeding Centre:
Under RGM, two “National Kamdhenu Breeding Centres” (NKBC) are being established as Centres of Excellence to develop and conserve Indigenous Breeds in a holistic and scientific manner.

The main objectives NKBC are as follows:
1. Conservation, promotion and development of 41 species of cattle and 13 species of animals.
2. 1000 High Genetic Merit Indigenous animals will be maintained at each centre of all registered breeds.
3. Each centre will be set up in about 1000 hectares for this purpose. Machinery for making modern semen centres, veterinary clinics, Biogas plants, arrangements of balanced diet, gumutra and dung materials etc. will also be established.
4. Apart from this, arrangements for Vermi-Compost, Silage Pit, Training, Milk Processing etc. will also be arranged.
5. Special emphasis on development of extinct species.
6. Marking the characteristics of all species and early evolution.

Conclusion:
An e-market portal connecting breeders and farmers, an authentic market for quality- disease free bovine germplasm in the form of: i) semen; ii) embryos; iii) calves; iv) heifers and v) adult bovines with different agencies/stake holders;
The revised scheme of NLM coupled with the Rashtriya Gokul Mission and the Animal Husbandry Infrastructure Development Fund has the potential to dramatically enhance the productivity and traceability standards of our livestock.
4. First Nobel for climate science

Context:

The **2021 Nobel Prize in Physics** is awarded with one half jointly to Syukuro Manabe, Klaus Hasselmann and the other half to Giorgio Parisi.

The Nobel Prize Committee said the Physics Prize this year was given for **“ground-breaking contributions to our understanding of complex systems”**.

This is the first-time climate scientists (Manabe and Hasselmann) have been awarded the Physics Nobel. Last year, the award was given for the research into black holes.

One-half of the Nobel Prize worth $1.5 million (10 million Swedish crowns) was given in equal parts to Manabe and Hasselmann who worked on **modeling Earth’s climate and predicting global warming in a reliable manner**.

The other half of the Nobel Prize went to Parisi for **discovering the hidden rules behind random movements and swirls in gases or liquids**.

**Nobel Prize- overview:**
1. Alfred Nobel, a Swedish chemist, engineer, industrialist, and the inventor of dynamite, in his last will and testament in 1895, gave the largest share of his fortune to a series of prizes in Physics, Chemistry, Physiology/Medicine, Literature, and Peace, to be called the “Nobel Prizes”.

2. In 1968, the sixth award, the Prize in Economic Sciences was started.

3. The Nobel Prize consists of a Nobel Medal and Diploma, and a document confirming the prize amount.

4. Between 1901 and 2018, the Prizes have been awarded 590 times, the recipients during this period being 908 Laureates and 27 organisations.

5. The following Indians (or individuals of Indian origin) have been honoured with the Nobel:
   a. Rabindranath Tagore (Literature, 1913), C V Raman (Physics, 1930), Hargobind Khorana (Medicine, 1968), Mother Teresa (Peace, 1979), Subramanian Chandrashekhar (Physics, 1983), the Dalai Lama (Peace, 1989), Amartya Sen (Economics, 1998), Venkatraman Ramakrishnan (2009), and Kailash Satyarthi (Peace, 2014).

2021 Nobel Prize in Physics:

1. The Swedish Academy of Sciences in a statement said, “Complex systems are characterized by randomness and disorder and are difficult to understand.”

2. The Nobel Prize in Physics 2021 recognizes new methods for describing them and predicting their long-term behaviour.

3. Syukuro Manabe is a Japanese-American meteorologist and climatologist who led the projects that used computers to simulate natural climate variations and global climate change.

4. He has been awarded the Nobel Prize in Physics 2021 for his work in the physical modeling of Earth’s climate, reliable prediction of global warming, and quantifying variability.

5. Klaus Hasselmann is a German oceanographer and climate modeler. He is popular for his Hasselmann model of climate variability.

6. Hasselmann has been awarded the Nobel Prize in Physics 2021 for his works in physical modeling of Earth’s climate, reliably predicting global warming, quantifying variability, and understanding complex systems.

Background of climate science recognition:
In 2015, Carbon Brief, a UK-based climate-focused online publication, asked the main authors of the fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC) to identify the three most influential climate change research papers ever published.

The paper that received the most votes was one by Syukuro Manabe and Richard Wetherald way back in 1967, that, for the first time, had described the impact of carbon dioxide and water vapour on global warming.

The Manabe shared one half of the prize with Klaus Hasselmann, another climate scientist, while the other half went to Georgio Parisi for his contributions in advancing the understanding of complex systems.

These are systems with a very high degree of randomness; weather and climate phenomena are examples of complex systems.

First recognition for climate scientists:

1. This is the first time, climate scientists have been awarded the Physics Nobel. The IPCC had won the Peace Nobel in 2007, an acknowledgement of its efforts in creating awareness for the fight against climate change.
2. While a Chemistry Nobel to Paul Crutzen in 1995, for his work on the ozone layer, is considered the only other time someone from atmospheric sciences has won this honour.
3. The recognition of Manabe and Hasselmann, therefore, is being seen as an acknowledgment of the importance that climate science holds in today’s world.
4. That 1967 paper was seminal work. It was the first description of the processes of global warming. Manabe and Wetherald also created a climate model for the first time.
5. The sophisticated models that we run today, which are so crucial to climate science, trace their ancestry to that model created by Manabe. He was a pioneer in so many ways, and the father of climate modelling.

Mainstreaming climate science:

1. Several scientists said that the delayed recognition to climate science couldn’t have come at a more appropriate time.
2. Climate change is the biggest crisis facing the world, and the humanity, today.
3. Unfortunately, there still are some people, and governments, that are not convinced of the reality, although that is changing quickly.
4. Apart from the fact that the recognition of Manabe and Hasselmann is richly deserved and long awaited, this Nobel Prize will, hopefully, also help in more people believing in climate science.

**Understanding complex systems:**

The study of complex physical systems has applications ranging from neuroscience to biology and machine learning.

But in the press release accompanying the announcement, the Nobel Committee for Physics highlighted one complex system in particular: the Earth’s climate.

The discoveries being recognised this year demonstrate that our knowledge about the climate rests on a solid scientific foundation, based on a rigorous analysis of observations.

This year’s Laureates have all contributed to us gaining deeper insight into the properties and evolution of complex physical systems.

**Conclusion:**

Until very recently, climate science was not considered important even in scientific circles.

Perhaps that was because our weather forecasts were not very accurate. Not everyone appreciated the fact that this science itself was uncertain and chaotic.

Climate science never had the aura of particle physics or string theory, for example. But that perception is changing now.

Weather forecasts have become far more accurate, the evidence on climate change have been compelling, thanks to the works of scientists like Manabe and Hasselmann. This Nobel Prize would probably help in further mainstreaming of climate science.
5. Mitigating a crisis: On COP26 Glasgow climate meet

Context:

The COP 26 United Nations Climate Change Conference will be hosted by the UK from 31st October to 12th November.

Heads of state from at least 120 countries are expected to convene in Glasgow for the 26th meeting of the United Nations Conference of the Parties (COP).

The year 2020 was to have been an important year in the COP calendar as most of the major economies were expected to review the actions undertaken so far in meeting voluntary targets to reduce greenhouse gas emissions in line with the Paris Agreement of 2015.

To this end, it has sent emissaries and multiple delegations to several countries to coax them into committing to some sort of a deadline or a ‘net zero’ timeline by when their emissions would peak and eventually abate.

About Conference of Parties (COP):

The Conference of Parties comes under the UNFCCC which was formed in 1994. The UNFCCC was established to work towards stabilisation of greenhouse gas concentrations in the atmosphere. COP is the apex decision-making authority of UNFCCC.
The UNFCCC has 198 parties including India, China and the USA. COP members have been meeting every year since 1995.

It laid out a list of **responsibilities for the member states** which included: Formulating measures to mitigate climate change. Cooperating in preparing for adaptation to the impact of climate change. Promoting education, training and public awareness related to climate change.

**COP1 to COP25:**

1. COP members have been meeting every year since 1995. The UNFCCC has 198 parties including India, China and the USA.

2. The first conference (COP1) was held in 1995 in Berlin. At COP3 held in Kyoto, Japan, in 1997, the famous **Kyoto Protocol was adopted**.

3. It commits the member states to pursue limitation or reduction of greenhouse gas emissions. It entered into force on 16 February 2005 and there are 192 Parties in the Kyoto Protocol.

4. India hosted the eighth COP from October 23 to November 1, 2002 in New Delhi.

5. The conference laid out seven measures including, ‘strengthening of technology transfer in all relevant sectors, including energy, transport and the promotion of technological advances through research and development and the strengthening of institutions for sustainable development.’

6. One of the most important conferences, COP21 took place from November 30 to December 11, 2015, in Paris, France.

7. Member countries agreed to work together to ‘limit global warming to well below 2\degree Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.’

**What do we need to achieve at COP26?**

1. **Secure global net zero by mid-century and keep 1.5 degrees within reach**

Countries are being asked to come forward with ambitious 2030 emissions reductions targets that align with reaching net zero by the middle of the century.

To deliver on these stretching targets, countries will need to:

1. accelerate the phase-out of coal
2. curtail deforestation
3. speed up the switch to electric vehicles
4. encourage investment in renewables.

2. **Adapt to protect communities and natural habitats:**
The climate is already changing and it will continue to change even as we reduce emissions, with devastating effects.

At COP26 we need to work together to enable and encourage countries affected by climate change to:

1. Protect and restore ecosystems
2. Build defences, warning systems and resilient infrastructure and agriculture to avoid loss of homes, livelihoods and even lives

3. Mobilise finance

To deliver on our first two goals, developed countries must make good on their promise to mobilise at least $100bn in climate finance per year by 2020.

International financial institutions must play their part and we need work towards unleashing the trillions in private and public sector finance required to secure global net zero.

4. Work together to deliver

We can only rise to the challenges of the climate crisis by working together.

At COP26 we must:

1. Finalise the Paris Rulebook (the detailed rules that make the Paris Agreement operational)
2. Accelerate action to tackle the climate crisis through collaboration between governments, businesses and civil society.

Road map for reaching net zero by 2050 should be Global in scope:

1. The transition to net zero is for and about people. It is paramount to remain aware that not every worker in the fossil fuel industry can ease into a clean energy job, so governments need to promote training and devote resources to facilitating new opportunities.
2. Citizens must be active participants in the entire process, making them feel part of the transition and not simply subject to it.
3. These themes are among those being explored by the Global Commission on People-Centred Clean Energy Transitions, to examine how to enable citizens to benefit from the opportunities and navigate the disruptions of the shift to a clean energy economy.
4. The pathway laid out in our Roadmap is global in scope, but each country will need to design its own strategy, taking into account its specific circumstances.
5. There is no one-size-fits-all approach to clean energy transitions. Plans need to reflect countries’ differing stages of economic development: in our pathway, advanced economies reach net zero before developing economies do.

6. As the world’s leading energy authority, the IEA stands ready to provide governments with support and advice as they design and implement their own roadmaps, and to encourage the international co-operation across sectors that is so essential to reaching net zero by 2050.

Way ahead steps to take for Net zero emissions:

1. To limit global warming to 1.5°C, net zero emissions would have to be achieved by 2050 and emissions would need to be drastically cut by at least 45% from 2010 levels by 2030.

2. India and China are the major emitters of the world that haven’t committed to any 2050 deadline.

3. Their argument, which has been consistent for many years, is that the climate crisis exists because of excess emissions by the developed West for more than a century.

4. Any attempt at solving the crisis would involve the western countries doing much more than what they have committed to and, at the very least, making good on promises already enshrined in previous editions of the COP.

5. As years of COP negotiations have shown, progress is glacial and the effort is more on delivering a headline announcement rather than genuine operationalisation of the steps that need to be taken.

6. In real terms, for developed countries, complying with the demand by developing countries to pay reparations means shelling out sums of money unlikely to pass domestic political muster.

7. And for developing countries, yielding to calls for ‘net zero’ means that governments such as India will appear as having caved into international bullying.

Conclusion:

The COP, despite all the media interest it generates, can at best incentivise adaptation that aids a transition to clean energy.

But even without immediately retiring fossil fuel assets, the world needs to frame a meaningful response to a warming globe.

The world has a huge challenge ahead of it to move net zero by 2050 from a narrow possibility to a practical reality.
Global carbon dioxide emissions are already rebounding sharply as economies recover from last year’s pandemic-induced shock. It is past time for governments to act, and **act decisively to accelerate the clean energy transformation.**

**6. Taproots to help restore India’s fading green cover**

**Introduction: Status and trends in forest area:**

Forest ecosystems are a critical component of the world’s biodiversity as many forests are more biodiverse than other ecosystems.

**Forests cover 31 percent of the global land area.** Approximately half the forest area is relatively intact, and **more than one-third is primary forest** (i.e. naturally regenerated forests of native species).

**More than half of the world’s forests** are found in **only five countries** (the Russian Federation, Brazil, Canada, the United States of America and China) and **two-thirds (66 percent)** of forests are found in ten countries.
Building and maintaining activities help to improve ecological functions, productivity and create **resilient forests with multifarious capabilities**.

**Forests in protected areas:**

1. **Covering nearly 30% land surface** of the earth, forests around the globe provide a **wide variety of ecosystem services** and support **countless and diverse species**.

2. They also **stabilise the climate, sequester carbon and regulate the water regime**.

3. The **State of the World’s Forests report 2020**, says that since 1990, around 420 million hectares of forest have been lost through deforestation, conversion and land degradation.

4. Globally, **18 percent of the world’s forest area** fall within legally established protected areas such as national parks, conservation areas and game reserves (IUCN categories I-IV).

5. **Aichi Biodiversity Target 11 (to protect at least 17 percent of terrestrial area by 2020)** has thus been **exceeded for forest ecosystems as a whole**. However, these areas are not yet fully representative of the diversity of forest ecosystems.

**Situation of forests in India:**

1. **Nearly 5.03% of Indian forests** are under protection area (PA) management needing specific restoration strategies.

2. The remaining areas witness a range of disturbances including grazing, encroachment, fire, and climate change impacts that need area-specific considerations.

3. Further, much of the research done so far on restoration is **not fully compatible with India’s diverse ecological habitats** hence warranting due consideration of local factors.

4. The relevance of local research duly considering ecological aspects, local disturbances and forest-dependent communities is vital to formulate guidelines for **locally suitable interventions** and to **meet India’s global commitment**.

5. Though India’s increasing economic growth is helping to eliminate poverty, there is **continued degradation** and a **growing scarcity of natural resources**.

6. The intricate link between poverty and environmental degradation was first highlighted by India at the **first UN global conference on the human environment in Stockholm**.

7. Out of its 21.9% population living under the poverty line, nearly 275 million people including local tribals depend on the forest for subsistence.
Key challenges: without considering Local Ecology:

1. **Local ecology** with a research base: forest restoration and tree planting are leading strategies to fight global warming by way of carbon sequestration.

2. However, planting without considering the local ecology can result in more damage. Similarly, planting a forest in the wrong places such as savannah grasslands could be disastrous for local biodiversity.

3. Therefore, it is fundamental to consider the local ecology before implementing any restoration efforts to retain their biodiversity and ecosystem functions.

4. Restoration, being a scientific activity, needs research support for its success.

5. Dependence on forests by nearly 18% of the global human population has put immense pressure on ecosystems; in India, this has resulted in the degradation of 41% of its forests.

6. To combat this, India joined the Bonn Challenge with a pledge to restore 21 MHA of degraded and deforested land which was later revised to 26 MHA to be restored by 2030.

7. The first-ever country progress report under the Bonn Challenge submitted by India by bringing 9.8 million hectares since 2011 under restoration is an achievement.

8. However, continued degradation and deforestation need to be tackled effectively to achieve the remaining target of restoration by addressing various challenges.

9. Being less tech-sensitive, cost-effective and conserving more biodiversity, natural forest restoration is becoming more widely accepted.

10. The active approach of restoration which includes tree planting and the involvement of communities seeks incentives and rewards and make the whole affair quite cost-intensive.

11. The contribution of corporates in restoration efforts so far has been limited to 2% of the total achievement.

Conservation and sustainable use of forests and forest biodiversity:

1. There are ways to manage the world’s forest ecosystems that will ensure the conservation and sustainable use of their biodiversity.

2. Creation of protected areas has historically been the forest governance instrument most often adopted to pursue biodiversity objectives.

3. This approach has achieved positive results in terms of conserving species and establishing barriers to the progress of deforestation.
4. Natural reserves alone are not sufficient to conserve biodiversity. They are usually too small, **create barriers to species migration** and are **vulnerable to factors such as climate change**.

5. Additionally, protected areas contain only a fraction of existing forest biodiversity.

6. This means that there is a need to look beyond protected areas and to **mainstream biodiversity conservation into forest management practices**.

7. A realistic balance between conservation goals and local needs and demands for resources that support livelihoods and well-being must be struck.

8. This requires **effective governance**: integrated policies for interrelated issues; land-tenure security;

9. Respect for the rights and knowledge of local communities and indigenous peoples; and enhanced capacity for **monitoring of biodiversity outcomes**. It also requires **innovative financing modalities**.

Conclusion:

The conservation and sustainable management of forests within an **integrated landscape approach** is key to the **conservation of the world’s biodiversity** and to **food security and well-being of the world’s people**.

**Active engagement of stakeholders** including non-governmental organisations, awareness and capacity building of stakeholders with **enabling policy interventions and finance** can help a lot to achieve the remaining 16 MHA restoration objectives for India.

The need of the hour is an **inclusive approach** encompassing these concerns with the **required wherewithal**.

7. Development that is mindful of nature
**Context:**

*Environmental disaster* has struck Kerala once again. Unusually heavy rains have caused landslides in Kottayam and Idukki.

High loss of life due to such disaster must lead to a serious review of the land-use pattern in Kerala.

With a population density of 860 persons/sq. km against an all-India average of 368 persons/sq. km (Census 2011), **Kerala experiences very high pressure on the land**.

**Brief on Landslides:**

A landslide is defined as the movement of a mass of rock, debris or earth down a slope. Landslides are a type of mass wasting (a geomorphic process) which denotes any down-slope movement of soil and rock under the direct influence of gravity.

The important causes of Landslides are slow weathering of rocks as well as soil erosion, earthquakes and volcanic activity.

**Land-use change: Settlement of the highlands instead of Coastal plains:**

1. Historically, most of the settlements were *concentrated in the coastal plain*, the adjoining lowlands and parts of the midlands.

2. However, this scenario has *altered now*, with *significant land-use change* across topographic boundaries.

3. Population growth, agricultural expansion, economic growth, infrastructure development, particularly *road construction* and *intra-State migration* have all led to *settlement of the highlands*.

4. Kerala is experiencing *high growth of residential buildings*. The Census records that during the decade between 2001 and 2011, the *population grew by 5%* whereas the number of *houses grew by 19.9%*.

5. Such a pace of construction has *serious implications* for the *geo-environment*.

6. Not only the locations for siting settlements but also the demand for construction materials, with the attendant quarrying and excavations, is altering the landscape through terracing, slope modification, rock quarrying, and the construction of roads. The basin characteristics of all rivers have been altered.

7. This has resulted in *gross disturbance of the character of the terrain evolved through weathering and formation of soil under natural vegetation cover*. Consequently, the *water-
absorbing capacity of the river catchment is lost, contributing to increasing surface run-off and reduction in ground water recharge.

8. Road construction in hilly areas, even when cutting across the toe of the slope, is destabilising and creates conditions conducive to landslides.

On the unchecked land use pattern in the hilly districts:

It is important that for the hilly districts of Idukki and Wayanad, both the local and State authorities should rely on scientific reports on the landslide vulnerabilities to reach decisions on land allocations for various constructions.

While deciding on it, local soil properties and slope stability should be important factors to be considered rather than political expediency.

The incidents of landslides in the State have increased exponentially over the last several years.

Consequence of Hesitancy in implementation of Gadgil Committee recommendations:

1. Construction on hill slopes prone to disintegration during heavy rain is a threat not only to those who choose to live in the buildings but also to those who are in the path of the debris that gets dislodged in a landslide.

2. It is clear by now that in parts of the State the hills have been overbuilt, posing a danger to life.

3. Interestingly, the extremely complicated rules for registration of purchase and sale of property in Kerala are not matched by a due diligence of building plans.

4. It is not even clear that the authorities responsible for the oversight of construction are sufficiently aware of the nature of the problem.

5. While the idea of a construction-free Coastal Regulation Zone, instituted by the Government of India and applicable to the entire country, is fairly well recognised in the State, the Government of Kerala has been timid in enforcing similar regulation in its own backyard.

6. The hesitancy towards the implementation of the recommendations by the Western Ghats Ecology Expert Panel, commonly known as the Gadgil Committee, on protection of the Western Ghats is the best example of this. We can now see how prescient they were.

Review of two projects must be done:
1. While **evolving a land-use protocol** to be observed in all cases without exception cannot be delayed any further, it is understandable that it may take time.

2. However, the most recent landslide in Kerala should lead the government to **immediately review two major projects** with a potential to **lower ecological security**.

3. The first of these is the **Silver Line project**, a light railway connecting the two extremities of the State.

4. Its potential to **usurp agricultural land** and **cause ecological disturbance** is well known. The claim that it is vital to the development of the State, reportedly made by the government in the Legislature, is debatable.

5. After all, a railway line exists across the entire length of the State already, and how much a saving of a few hours’ travel time can contribute to the gross domestic product is not clear at all.

6. While infrastructure for growth is necessary, Kerala’s deficit is less with respect to transportation than what it is to **power generation**, **urban infrastructure** and a **well-trained workforce**.

7. As the Kochi Metro network was being expanded, a prominent entrepreneur of the city rightly observed that it **needs a sewage disposal system** more than it needs a rapid transit network.

8. Overnight, tree-lined roads have been converted to bare tarmac exposed to the sun. The **loss of vegetation and tree cover** is sure to have an **impact on local climate and water retention**, impacting its availability.

**Way Ahead steps:**

1. Climate change, population growth and related economic aspects should have compelled Kerala to move towards a **more integrated, catchment-based approach** to the management of land and water, if necessary, through **environmental legislation**.

2. A key component of this **integrated catchment-based approach** is the recognition that only by strengthening the natural processes, the rivers would be able to find their pathways for flood waters.

3. For that to happen, the immediate need is **to develop flood zonation maps** for various catchment areas.

4. By now, the State should have developed macro- and micro-level flood vulnerability maps based on flood histories.
5. These maps should have been used to issue both long-term and short-term warnings to the local population.

6. For the long term, these maps **available locally** should be **used for land zonation** and thus help the residents to move out in exchange for land elsewhere. The same procedure should be followed also in the case of landslides.

7. We need to follow the **land zonation map** in identifying the areas vulnerable to landslides and discourage building houses in such places.

**Conclusion:**

It is important to bring in **restrictions on machine-mediated quarrying activities**. A blueprint that demarcates areas suitable for habitation and those to be left untouched should help strictly implement the basic tenets of land zonation.

A **comprehensive master plan on land utilisation strategy** based on a clear environmental vision needs to be prepared at macro and micro-levels to ensure that encroachment is minimal.

These documents should contain **clear guidelines for constructions, including recommended designs of houses**, that will **match with local landscape and scenery**.

8. The global war on terror grinds along
Introduction:

Two decades after September 11, 2001, when al-Qaeda carried out its most audacious attacks ever on American soil, leading to the Global war on terror and triggering the invasion of Afghanistan by the United States, it might be worthwhile to do a fact check on the outcome.

More so given the latest turn of events, which has seen the return of the Taliban in Afghanistan, leading to the question as to whether the Global war on terror was a failure. Also, are there lessons to be learnt from it?

A grim warning of powerful unifying forces for disparate groups:

1. The return of the Taliban in Afghanistan, after humiliating the combined forces of the U.S., the North Atlantic Treaty Organization (NATO) and the Afghan Armed Forces is a grim warning of what lies in store for the neighbourhood.

2. Apart from giving radical Islam a fresh lease of life and a new thrust, it has come at a time when the democratic world is demonstrating a diminishing appetite to fight terror away from their own ‘locales’, thus leaving the field wide open to the forces of Terror Inc., of which the Taliban is an indispensable entity.

3. Moreover, while in the initial stages, Afghanistan and to an extent, Pakistan provided safe havens (which together with the presence of several disparate terror groups in a common milieu provided powerful unifying forces for disparate groups), the situation changed once the safe havens were no longer available.

4. In addition, the lack of visibility of the leaders of the movement over time and diminished authority also contributed to dissipation of the terror momentum and the capacity for militancy and violence.

Persistent challenge on Global war on terror:

Two decades of the Global war on terror did not, however, eradicate terrorism.

1. Notwithstanding leadership losses, including that of leaders like bin Laden and al Baghdadi, and despite organisational fracturing and territorial degradation, terror groups such as al-Qaeda and the IS today pose a persistent challenge.

2. Hard intelligence on the myriad terror modules has been hard to come by and the absence of a single core for either al-Qaeda or the IS, is making it even more difficult to assess the true nature of the threat that looms.
3. It would be tempting for intelligence agencies to think that the current low-tech attacks, involving small arms, the occasional use of Improvised Explosive Devices, and random ‘lone wolf’ attacks reflect the weakening of terror modules, including that of al-Qaeda and the IS.

4. Nothing could be more misleading. Not only the major terror groups but even smaller terror modules currently retain the potential for both sophisticated and mass casualty attacks.

5. Terrorism, stemming from a mixture of religious fervour and fundamentalist aims, remains vibrant.

6. The newer breed of terrorists may be less familiar with the teachings of the Egyptian, Sayyid Qutb or the Palestinian, Abdullah Azzam, but they are well-versed in the practical methodologies.

7. Hence, it is possible to surmise that notwithstanding some temporary setbacks caused by the Global war on terror, the broad contours of terrorism, specially Islamist terrorism, remain much the same.

In India: Reviving new wave of Terror Attacks:

1. One can already see emerging signs of what can be expected in Afghanistan given that its capital, Kabul, has been wracked by a series of bomb blasts, reflecting a more intensified intra-denominational strife which has the potential to become a ‘prairie fire’.

2. Nearer home, Kashmir is beginning to see a new wave of terror attacks reviving grim memories of the 1990s.

3. Targeted killings of minorities have begun to send shockwaves across not only Jammu & Kashmir (J&K), but many other pockets of the country.

4. Given the prevailing scenario, the dice is heavily loaded against India, with J&K being in the cross-hairs of several terror factions, further complicated by Pakistan’s efforts to aid and abet them through the use of its ‘regulars’.

5. That a Pakistani acolyte, holds a key position in the new interim Government of Afghanistan, makes it easier for forces inimical to India in the region, essentially Pakistan, to wage an ‘undeclared war’ against India.

6. While the past is often a good guide to the future in comprehending what shape terror could manifest itself going forward, it is even more important to recognise the paradigmatic changes beginning to take shape in the practice of violence in different parts of the world.
The forms of ‘new era’ terror: Remote controlled terror:

1. **Intelligence and terror specialists** must begin to anticipate how to deal with ‘new era terrorists’, recruited over the Internet, who would thereafter be guided through different steps, over a sustained period, by anonymous handlers located elsewhere.

2. This is not science fiction. There is already evidence of the existence of remote controllers who choose the targets, the actual operatives, the nature of the attack itself, and even the weaponry to be used, operating behind a wall of anonymity.

3. **Internet-enabled terrorism**, a completely new genre of terrorism would be very different from what we have seen so far.

4. Linked to this is the threat posed by cyber-terrorism. Digital sabotage has already entered the armoury of certain terror groups.

5. **Cyber sabotage** is a distinct possibility in certain situations today. It is well-known that terror groups that have state backing, have the capacity today to employ cyber techniques to carry out hostile attacks on the ICT-enabled infrastructure of another country.

6. While little is talked about these aspects, the reality is that the limits of human imagination have become the virtual parameters of terror threats today.

Conclusion:

The emerging shape of terror and terror attacks during coming periods is likely to be very different from what many of today’s experts possibly anticipate.

While ‘Zero-day’ attacks like New York (9/11) and Mumbai (26/11) are still very much on the drawing board of terror groups, it is also known that a new breed of terrorists is experimenting with newer forms of terror, specially the possibility of ‘enabled or remote controlled terror’. This is a frightening prospect.

History is, therefore, more relevant and important when assessing future threats such as terrorism. The broad sweep acquired by radical Islam in recent decades has, by no means, been eliminated.
ESSAYS
Write an essay on the following topic in not more than 1000-1200 words:

- October 03, 2021: Strength comes from an indomitable Will
- October 17, 2021: An interdependent world cannot be an inequitable world
- October 24, 2021: Science for the economic freedom of humanity
- October 30, 2021: What you do makes a difference, and you have to decide what kind of difference you want to make