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SEVEN IMPORTANT ISSUES

1. STRATEGY FOR NEW INDIA @ 75: NITI AAYOG

Why in News?

The NITI Aayog has unveiled its comprehensive national Strategy, for New India, which defines clear objectives for 2022-23. It is a detailed exposition across forty-one crucial areas, that recognizes the progress already made, identifies binding constraints and suggested the way forward for achieving the clearly stated objectives.

Introduction

India is on the cusp of a major transformation. India has regained its position as the fastest growing large economy in the world. This is highly commendable. However, to meet the rising aspirations of our young population, India needs to achieve and sustain a high rate of GDP growth for the next three decades. There will be several milestones in this long and arduous journey. The first of these milestones will be in 2022 when India celebrates the 75th anniversary of its independence. The government's goal for India is to be a USD 4.0 trillion economy when we celebrate the platinum jubilee of our independence.

The Indian economy grew at 6.7 per cent in 2017-18. Sound policy will always put the economy on track in which it will get perpetually people out of poverty and give them a better quality of life. The development strategy includes doubling of farmers' income, boosting 'Make in India', upgrading the science, technology and innovation ecosystem and promoting

sunrise sectors like fintech and tourism. It also called for increasing the investment rate as measured by gross fixed capital formation (GFCF) from present 29 per cent to 36 per cent of GDP by 2022.

Highlights of the Report

The overarching focus of the strategy document is to further improve the policy environment in which private investors and other stakeholders can contribute their fullest towards achieving the goals set out for New India 2022 and propel India towards a USD 5 trillion economy by 2030. The report identifies 41 key areas, placed under four categories: Drivers, Infrastructure, Inclusion and Governance.

Drivers

The first section on 'Drivers' focuses on the engines of economic performance with chapters on growth and employment, doubling of farmers' incomes; upgrading the science, technology and innovation eco-system; and promoting sunrise sectors like fintech and tourism.

Some of the key recommendations in the section on drivers include:

- ◆ Steadily accelerate the economy to achieve a GDP growth rate of about 8% on average during 2018-23. This will raise the economy's size in real terms from USD 2.7 trillion in 2017-18 to nearly USD 4 trillion by 2022-23. Increase the investment rate as measured by gross fixed capital formation (GFCF) from the present 29% to 36% of GDP by 2022.

- ◆ In agriculture, shift the emphasis to converting farmers to 'agripreneurs' by further expanding-National Agriculture Markets and replacing the Agricultural Produce Marketing Committee Act with the Agricultural Produce and Livestock Marketing Act.
- ◆ Give a strong push to 'Zero Budget Natural Farming' techniques that reduce costs, improve land quality and increase farmers' incomes. This has emerged as a tested method for putting environment carbon back into the land.
- ◆ To ensure maximum employment creation, complete codification of labor laws and a massive effort must be made to upscale and expand apprenticeships.
- ◆ Launch a mission 'Explore in India' by revamping minerals exploration and licensing policy.

Infrastructure

The second section on 'Infrastructure' deals with the physical foundations of growth which are crucial to enhance the competitiveness of Indian business as also ensuring the citizens' ease of living.

Some of the key recommendations in the section on infrastructure include:

- ◆ Expedite the establishment of the 'Rail Development Authority (RDA),' which is already approved. RDA will advise or make informed decisions on an integrated, transparent and

dynamic pricing mechanism for the railways.

- ◆ Double the share of freight transported by coastal shipping and inland waterways. Initially, viability gap funding will be provided until the infrastructure is fully developed. Develop an IT-enabled platform for integrating different modes of transport and promoting multi-modal and digitized mobility.
- ◆ With the completion of the 'Bharat Net' programme in 2019, all 2.5 lakh gram panchayats will be digitally connected. It aims to deliver all government services at the state, district and gram panchayat level digitally by 2022-23.

Inclusion

The section on 'Inclusion' deals with the urgent task of investing in the capabilities of all of Indian citizens. The three themes in this section revolve around the dimensions of health, education and mainstreaming of traditionally marginalized sections of the population.

Some of the key recommendations in the section on inclusion include:

- ◆ Successfully implementing the 'Ayushman Bharat' programme including the establishment of 150,000 health and wellness centres across the country and rolling out the 'Pradhan Mantri Jan Arogya Abhiyaan (PM-JAY)'.
- ◆ Create a focal point for public health at the central level with state counterparts. Promote integrative medicine curriculum.
- ◆ Upgrade the quality of the school education system and skills, including the creation of a new innovation ecosystem at the ground level by establishing at least 10,000 'Atal Tinkering Labs' by 2020.
- ◆ Conceptualize an electronic national educational registry for tracking each child's learning outcomes.

- ◆ As already done in rural areas, give a huge push to affordable housing in urban areas to improve workers' living conditions and ensure equity while providing a strong impetus to economic growth.

Governance

The final section on 'Governance' delves deep into how the governance structures can be streamlined and processes optimized to achieve better developmental outcomes.

Some of the key recommendations in the section on governance include:

- ◆ Implement the recommendations of the 'Second Administrative Reforms Commission' as a prelude to appointing a successor for designing reforms in the changing context of emerging technologies and growing complexity of the economy.
- ◆ Set up a new autonomous body, viz., the Arbitration Council of India to grade arbitral institutions and accredit arbitrators to make the arbitration process cost effective and speedy and to preempt the need for court intervention.
- ◆ Address the backlog of pending cases - shift part of workload out of regular court system.
- ◆ Expand the scope of 'Swachh Bharat Mission' to cover initiatives for landfills, plastic waste and municipal waste and generating wealth from waste.

Strategy for New India

The 'Strategy for New India @ 75' captures three key messages. These are:

- ◆ First, development must become a mass movement, in which every Indian recognizes her role and also experiences the tangible benefits accruing to her in the form of better ease of living. Collective effort and resolve will ensure that we achieve a New India by 2022 just like

independence was achieved within five years of Mahatma Gandhi giving his call of 'Quit India' in 1942. The direct implication of ensuring rapid growth with inclusion is that policymaking will have to be rooted in Indian ground realities and emphasize the welfare of all in both design and implementation.

- ◆ Second, development strategy should help achieve broad-based economic growth to ensure balanced development across all regions and states and across sectors. This implies embracing new technologies fostering innovation and upskilling. We will have to focus on the necessary modernization of our agriculture and mainstreaming of regions such as the North East, hilly states and the 115 Aspirational Districts. The direct outcome of this will be improved regional and inter-personal equity and elimination of dualism that has so far characterised our economy. We will put in place an economy that is predominantly formal, rule-driven and facilitates investment and innovation.
- ◆ Third, the strategy when implemented, will bridge the gap between public and private sector performance. The Prime Minister has focused on putting in place a 'development state' in place of the 'soft state' that this government had inherited. In this context, the government has focused on the efficient delivery of public services, rooting out corruption and black economy, formalizing the economy and expanding the tax base, improving the ease of doing business, nursing the stressed commercial banking sector back to a healthy state, and stopping leakages through direct benefit transfers and widespread use of the JAN (Jandhan Aadhar Mobile Trinity).

Efficient, transparent and accountable governance has come to be recognized as this government's unique selling proposition (USP). This will ensure that India will not only achieve its ambitious goals for 2022, but also go on to become one of the two largest economies in the world by 2047, when we celebrate the centenary of our independence.

Criticism New India Strategy

NITI Aayog's document sets out economic goals, but there is no road map.

- ◆ The report implicitly lays store by technology to raise efficiency, but it is not clear whether smart technologies alone can act as a magic bullet.
- ◆ A focus on capital expenditure is welcome, provided it is implemented; housing and physical infrastructure have been identified as potential areas that can absorb investment. However, the debate on whether certain social sector expenditures need to be capitalised for their long-term worth, needs to be revisited.
- ◆ The government's focus on improving waterways and on digitisation as a means to enhance financial inclusion is reiterated. Emphasis has been laid on improving farm incomes, no doubt to address recent misgivings. However, there can be no escaping the feeling that the report reiterates goals that have been spelt out in the past, without taking a hard look at what's holding back India's socio-economic progress.
- ◆ There has to be an equal emphasis on socio-political empowerment through education, for which governments need to put the money where their mouth is. An overarching vision, located in political economy, is sorely missing.

The Imperative for Strong, Equitable and Sustainable Growth

India is one of the fastest growing large countries in the world, having grown at an average of almost 7 percent for the last 25 years. There have been many notable reforms over this period – most recently, the co-operative fiscal federalism that has brought the Goods and Services Tax into being, the enactment of the Indian Bankruptcy Code and the dramatic disinflation of recent years, partly as a result of a move to an inflation targeting regime.

While commendable, we should not be satisfied with this. India is still one of the poorest countries in the G-20 and poor countries ought to grow faster because catch-up growth is easier. As important, the benefits of growth in India have been distributed extremely unequally, with top incomes rising much faster than the rest. We have seen new environmental challenges, in the form of sharp increases in both local pollution levels and in CO₂ emissions that, if unchecked, threaten to stall or reverse progress. India is also not creating enough jobs: even though data on employment in India are both low quality and controversial, the recent news that 28 million applied for 90,000 low level railway jobs suggests we are not satisfying the demand for jobs. Unfortunately, we are not well-positioned to follow the export-led growth path that allowed many Asian countries to climb out of poverty. Despite abundant cheap labor, we are not part of many global supply chains. Even as global firms seek to diversify away from China so as to reduce political risk, India is rarely seen as an obvious alternative.

Way Forward

There are tremendous possibilities for reforms that will take us towards faster and more equitable growth. However,

we have to allocate scarce resources carefully to make sure that there is enough investment in sectors such as infrastructure to create jobs. India's aggregate fiscal deficit (state plus center) is still close to 6.5 percent of GDP, higher than almost any in the G-20 and not significantly lower than levels that existed five years ago. However, our investment rate has fallen sharply in recent years. Despite that, our external financing requirement (as measured by the current account deficit) increased appreciably earlier this year, increasing vulnerability. Moreover, to the extent that India grows while being more reliant on domestic demand than were other Asian emerging markets, it needs a much greater focus on macroeconomic stability than they did. For all these reasons, it needs to prioritize government spending better, focusing on filling clear investment gaps and protecting the vulnerable. It also needs to increase revenues by making the tax system more progressive both in taxes levied as well as through more effective collection from rich non-payers, by bringing more people into the tax net and by charging users for government services where appropriate.

By 2022, New India will provide a solid foundation for clean, inclusive, sustained and sustainable growth for the next three decades. The 'Strategy for New India @ 75' reflects our preparedness to make this transition. All levels of government must work together to achieve the reversion of New India.

General Studies Paper- II

Topic: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.



2. THE CULTURE OF FREEBIES: IS UNDERMINING THE SANCTITY OF ELECTIONS

Why in News?

Former Governor of the Reserve Bank of India C. Rangarajan has emphasised the need for sustained economic growth in Tamil Nadu, even as the State implements various welfare schemes. He cautioned against distributing freebies without focus and a forethought approach.

In another event, the Madras High Court also disapproved of the practice of the State government providing freebies to people irrespective of their economic status.

Introduction

India, the world's largest democracy is truly incredible in its size and stature. The concept of democracy in India took a mammoth leap forward when the first general elections were held in 1951-1952. Democracy is the most efficacious form of government, in which the citizens of a country have a prerogative right of adult suffrage whereby people actively participating in the selection of the government by periodic conducting election. This, shows to indicate that the people hold the sovereign power to determine. So, in democracy the people are the ultimate source of power and its success and failure depend on their wisdom, consciousness and vigilance.

A government "by the people and of the people" should quite naturally deliver ideal governance "for the people", but in reality it is far apart. Basic issue with democracy is that voters do not make rational or truly informed choices. There political decision making seems to be driven by pre- conceived criteria plus have a prejudice for instant gratification, thus keeping most democracies focused on the short term growth aspect. Thus, freebies vitiate the sanctity of elections, smearing campaigns by

candidates have a large bearing on the voter's personality and their choices.

Distribution of freebies in election or pre-election existence is a deeply ingrained tradition which is accustomed to democratic India. Freebies often takes the form of cash, bribes, free rice, saris, or loan waiver and its mandatory practice by parties has predominantly overtaken the centre stage in all election campaigns. Therefore, there is an upsurge trend of doling out freebies to voters in cash or kind during pre and post elections period. The growing likeliness towards such luring schemes is a factor for their apparent success in garnering votes, creating a vote-bank in process. So, the spectre of corruption and hoodwinking of the credulous, gullible masses, thus hangs over all electoral processes.

Freebies Culture

A practice by political parties which has blatantly showcased the illicit use and abuse of the manifestos has become a scenario for competitive populism, where major parties can buy their seats to victory.

Political parties abuse the contents and the manifesto in whole. It is pitiful to note that the election manifesto have long stopped being stern documents containing elaborated, calculated policies and tangible promises for the rapid growth and steps forward of the nation in all sectors. A nauseating late pattern is that numerous national and state political parties issue their announcements in which they straightforwardly guarantee such things which in like manner are termed as "FREEBIES", targeting the gullible, credulous, impressionable masses, thereby hoodwinking them to promises which stand upon a thin line of fulfilment. Elections are rarely fought on policy issues. Elections are contested mainly on the personal popularity in most of the state and on

competition in freebies. Using state revenue to improve basic state services like education and health is defensible. Using it for freebies is a political race between parties to the fiscal bottom. It can only end in tears.

The distribution of bicycles to girl students and mixies to rural women were understandable, but the distribution of TV sets not welfare for society instead influencing voter. Freebies have come to stay and are, unfortunately, going to become bigger. Given that freebies have historically impacted the socio-economic quality of life, it was just a short step to offering what should be considered non-essential items. Once the belief has sent in that the only way to win votes is by giving such gifts, there is no end to it.

Distribution of Election Freebies - A Critical Analysis

A distribution trend which is engulfing the society, mentioned in the lavish manifestos of political parties. Through the manifesto the political parties lay out their plans, activities for the betterment of a niche community or the people in general in all spheres.

The promising and distributing of freebies is quickly grabbing mandate all over. So, it becomes essential to realize the detail, that whether these freebies promised or distributed during pre-election or post-election are having a benevolent or an adverse effect on the society.

Existing Model Code of Conduct (MCC)

As per the existing MCC, there are few relevant provisions on general conduct of the political parties and candidates and the promises made during election by the parties. The Election Commission (EC) stipulated that the parties and their candidates should refrain from all corrupt practices and offences under election law. Such

as bribing of voters, intimidation of voters, impersonation of the voters, canvassing within 100 meters of polling stations, holding public meeting during the period of 48 hours ending with the hour fixed for the close of poll and the transport and conveyance of voters to and from polling stations.

The MCC directs the party in power to abstain from announcing financial grants in any form or promise, laying foundation stones for any project, construction of roads, drinking facilities, ad-hoc appointments in government or PSU's and sanctioning grants out of the discretionary funds from the date that the election schedule is announced. These guidelines meant to be only the relevant provisions that could be applied to election manifestos, these are not to be guiding principles for generations and disbursement of election manifesto.

New Guidelines Added to the Code

Even though distribution of freebies by political parties does not amount to bribery under the provision of the MCC, it did influence the voters at some extent, shaking the roots of free and fair elections. Thus, in this regard the Court instructed the EC to frame guidelines, in exercise of its plenary power, to regulate the contents of election manifesto after consulting the political parties.

In the fresh guidelines to political parties on election manifesto, EC in the interest of free and fair elections directed political parties to adhere to few guidelines. The guidelines are:

- I. The election manifesto shall not contain anything repugnant to the ideals and principles enshrined in the Constitution and further that it shall be consistent with the latter and spirit of other provisions of Model Code of Conduct.
- II. The Directive Principles of State Policy enshrined in the Constitution enjoin upon the State to frame various welfare measures for the citizens and therefore there can

be no objection to the promise of such welfare measures in election manifestos. However, political parties should avoid making those promises which are likely to vitiate the purity of the election process or exert undue influence on the voters in exercising their franchise.

- III. In the interest of transparency, level playing field and credibility of promises, it is expected that manifestos also reflect the rationale for the promises and broadly indicate the ways and means to meet the financial requirements for it. Trust of voters should be sought only on those promises which are possible to be fulfilled.

Whether Culture of Rampant Freebies is a Corrupt Practice or Not?

Parties having tasted success, the think-tanks within the ruling party sincerely believe whatever be the quality of administration, law and order, growth trajectory of the state, power and water crises, quality of infrastructure and corruption charges hurled against it by the opposition, they can get away. The lucid explanation for why they voluntarily in their manifesto talk about the freebies are, as the political parties act as arms for handling democratic election and in tandem stand up for the various citizens privileges as envisaged in the Constitution and the Preamble of India.

The parties while allocating state largesse as stated in their manifestos, linking it with the spirit of Directive Principle of State Policy. DPSP's are contained in Part-IV, from Article 36-51, of the Constitution which sets out the aims and objectives. It enumerates the high sense of moral duty, promotion of the welfare of the people and achieve economic democracy. As the DPSP's domain is subject of states, these are used ideal by centre and states while formulating policy and law. It is an obligation upon government for its implementation, in instances of

Article-38(welfare of people), Article 39(Means of livelihood and distribution of resources), and Article-46 (Education for weaker sections) and so on and so forth. Largesse are doled out with view to sub serve the common good of a socialistic welfare state.

The state largesse is in direct correlation with the principle of socialism which form the basic structure to our constitution. Therefore freebies distribution cannot be questioned because it provides with livelihood and raise the living standards. The distribution of freebies has become a necessary activity as it aims at the betterment and upliftment of the eligible persons.

But fact of reality is that the political parties through their manifesto does indirectly what a candidate cannot do directly. Freebies in form of manifesto, which in actuality is bribe and inducement, constitute Corrupt Practices.

Corrupt practices is defined under section 2(1)(c) the Representation of People Act, 1951 (RP Act, 1951) as any of the practices defined under section 123 of the RP Act. This section was infused in the Act, so, that elections are conducted in a free and fair manner. Thus keeping intact the piousness and purity in the elections. To elaborately and exhaustively define the various corrupt practice are- bribery, undue influence, appeal on the ground of religion, false statement, the hiring or procuring vehicles for the conveyance of voters, the incurring or authorizing of expenditure in contravention of section of the RP Act, obtain or procuring the assistance of a person in the service of the government and booth capturing.

Distribution of freebies by a political party, candidate or his agents is on rampant upsurge. Therefore, making of a charitable gift on an extensive scale would lead to an inference that this was made to influence voters. To obtain success in election, they resort to corrupt practices such as distributing gifts, offers or promises by which

there is instant gratification by voters, bargain for votes from voter. This practice is violating the level playing pitch between the candidates. Any gratification with the motive to erode the essence and sacrosanct nature of election constitutes corrupt practice of bribery under RP Act.

The culture of rampant free growth to the forms of freebie has created an adverse on society at large. The freebies which are promised at the elections are delivered by parties. It symbolises that a reward is being forwarded to voters and it clearly represents the perks of election triumph.

Suggestions and Reforms

The contents of manifesto helps the political parties in interpreting in mirror reality on functioning towards achievement of the welfare goals. But contrary to its role and function it has been used as tool whereby cogent revealing inducement and enticement of voters through the volley of free goodies. The way in which manifesto is drafted can be described as farfetched and wondrous document which is capable of promising to an extent of giraffe in a tiny glass.

Unfortunately there no regulation of malpractice, unprofessionalism or wrongdoing in manifesto preparedness nor there is a systematic mechanism for the supervision and control of these wrongdoing and malpractices. MCC has its own design flaws as they conceptualize broad framing of envisioned principles and ideals of Constitutions and no stringent law for its applicability and accountability. One of pertinent drawback of MCC is that, MCC are formed by the Election Commission of India by exercising its executive powers, a plenary power under Article 324. As it has a backing of executive power not legislative power, so if any law is made by parliament under Article 327 and state assembly under Article 328 thereby causing an ambiguity between legislative enactment and the guidelines by the EC.

It is suggested that,

- ◆ The freebies should be daunted upon, if not completely dispensed away with. It should not be an obligation upon EC or legislatures to dispense it. But, be superlatively left to be decided by the public opinion and concerns of moral righteousness. All public delinquencies cannot be contracted away by political parties. It should be citizen's jobs to draft problems and make these parties and candidates collectively devise promises otherwise a cynical private benefit will entail.
- ◆ MCC should get a legislative backing. In order to facilitate enforceability.
- ◆ It should be made obligatory for each political party to publish and submit their Manifesto to the Election Commission before the deadline of the first phase of the nomination, failure of which should lead to debarring the party from contesting the particular election. Election Commission should scrutinize all these manifestos and give suitable instructions to the political parties.
- ◆ Manifesto should be legally binding document on the parties to implement the promises made before the pre-elections so as to avoid the unpractical claims. The claims and promises stated shall be unambiguous, achievable (within time frame), realistic, problem solving and aiming towards the steady growth of society and economic conditions. Serious punishments for non-implementation and non-fulfilment of such claims, like banning of that party from contesting elections should be executed. This should be done establishment of the post election grievance redressal mechanism.
- ◆ The political parties should very carefully take the statistical data to be used in the Manifestos from reliable sources, preferably

from government documents and database. Moreover, the manifesto should lay down the fiscal roadmaps to achieve such targets and the impact of such commodity on the financial reserves.

- ◆ Due to the strict interpretation of the penal statues of Section 123 of RP Act only candidates and its agents come under its preview. It should encompass its horizons to include political parties as well.

To constitute distribution of freebies as a corrupt practice would be very harsh expounding because few parties prior to election strive to achieve better social condition and public welfare. Parties acting in genuine may face a lot of difficulties because of this. So firstly these practices should be constituted as an evil practice then as a corrupt practice. There is a fine line which distinguishes these two.

Conclusion

Elections are the festival of democracy. Extravagant doling out of freebies and monies are being utilized for captivating the elections, the widespread 'gifting' of items to tempt votes and the disregard of the poll manifesto is a trend that is worrisome for the health of democracy.

Freebies in general is bribery not just the cash- from laptops to cows to mixes grinders to all sort other goodies. Political parties of all ilk, belief and ethics have infused a draconian culture in the Indian democracy, a culture where freebies has been not used as a tool to cure the social apathy, but conducted to create financial gains, private assets and to achieve major vote pluralities.

General Studies Paper-II

Topic: Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations and potential; citizens charters, transparency & accountability and institutional and other measures.

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3. CHINA-MYANMAR ECONOMIC CORRIDOR: AN OVERVIEW

Why in News?

In September Myanmar signed a memorandum of understanding (MoU) with China to establish the China - Myanmar Economic Corridor (CMEC), part of Beijing's sprawling Belt and Road Initiative. While the Chinese government calls the initiative a bid to enhance regional connectivity, critics see it as a push for Chinese dominance in global affairs and for a China-centered trading network.

Introduction

In South Asia now, geo-economics seems all set to shape the region's geo-politics with Beijing's ambitious US\$ 50 billion China-Pakistan Economic Corridor (CPEC), designed ostensibly to integrate economies of the restive Xingian and Western provinces with that of Pakistan. But its real strategic objective is to develop the sea ports of Pakistan's Baluchistan to enable Western China and the energy-rich Central Asian republics to gain unfettered access to the Gulf and the Arabian Sea. China's reported move to build an economic corridor with Myanmar is cause for some concern

Myanmar: Background

Myanmar is located at the crossroads of South and Southeast Asia. It is connected to India and China at its Northwest and Northeastern borders respectively. Additionally, its reserves of energy resources, emerging consumer class, youthful population and its access to the Bay of Bengal and Indian Ocean make it an important stakeholder in the Asia-Pacific (and Indo-Pacific) region. Myanmar has figured in the foreign policy discussions of most of its neighbours, including China, India and the countries of the Association of Southeast Asian Nations (ASEAN). It also factored into the United States' "pivot to Asia" policy during former President Barack Obama's administration. To Washington, Myanmar was important both as a member of the ASEAN grouping and as yet another avenue for reducing the influence and dominance enjoyed by China in the region.

in India. The CMEC might have come as a surprise as it runs parallel to the Bangladesh-China-India and Myanmar Initiative (BCIM), but the fact remains that it has been a non-starter, especially after China launched CPEC, which passes through the areas of Jammu and Kashmir under illegal occupation of Pakistan and is seen as a China-led initiative.

China-Myanmar Economic Corridor

The Myanmar government has formed a central committee as well as a joint committee to establish the economic corridor. The committee consists of Union-level ministers as well as the planning and finance ministers of the five regions and states — Yangon, Mandalay, Shan, Rakhine and Irrawaddy — that the corridor will pass through. The CMEC agreement is two things.

- ◆ First, it is a physical corridor that would connect China's landlocked Yunnan through Mandalay to Kyaukphyu and Yangon, on new roads and a high-speed railway.
- ◆ Second, it is a conceptual corridor. The overall aim is greater economic integration through initiatives such as industrial zones, trade quotas and tax breaks, but the CMEC can also include cooperation in areas not directly connected to the economy, such as disaster mitigation and public health.

The corridor connects Yunnan and three important economic centers in Myanmar, including Mandalay, Yangon New City and Kyaukphyu Special Economic Zone (SEZ) and aims to promote the economic integration of the region. This also coincides with the national development plan of Myanmar in which Myanmar leaders are trying to address economic imbalances by enhancing connectivity between

developed Yangon and remote and undeveloped Rakhine State. Hence, the economic corridor is the convergence of common interests of Myanmar and China. The CMEC agreement is likely to see tens of billions of dollars of investment funnelled into Myanmar from private and state-owned Chinese firms under the One Belt, One Road initiative.

Implications on Myanmar

A resource-rich country with a relatively low population of 50 million, Myanmar runs the added risk of experiencing again a neo-colonial "extractive" economic relation with China. The commissioning of 1,060 km of gas and oil pipelines from Kunming in China to Kyaukphyu port in Rakhine in 2013 and 2015 respectively, involving the Chinese investment of USD 7.5 billion, has firmly established the Chinese strategic footprint in Myanmar.

Two Ocean Strategy of China

In its narrow definition, the strategy — as it is today — specifies the "two-oceans" as being the Pacific Ocean and the Indian Ocean. This is due to two reasons. Militarily speaking, the Pacific Ocean — the regions which are close to China — carries many concerns for the country's political and military elite. For example, Taiwan is still considered a "rogue" state; American presence in South Korea and Japan still remains a thorn to China's side; and disputes over territorial claims with Japan, the Philippines, and Vietnam are too close to home for China.

The Indian Ocean, on the other hand, is considered to be a top region for naval training for the PLAN, and the next-step in China's sea power projection. To the former point, since the Indian Ocean is considered to be part of the far-seas, it provides conditions for the PLAN to navigate and operate in a deep-water region. And on the latter point, China is due to establish its first overseas military base in Djibouti for logistical facilities geared for naval rest and supply. Moreover, China also has numerous economic and trading interests in the regions bordering the Indian Ocean.

Two years after the Belt and Road Summit in Beijing, Myanmar seems ready to be integrated into Beijing's Belt and Road Initiative via the China-Myanmar Economic Corridor (CMEC) — despite criticisms and concern over a potential debt trap. A 1,700-plus kilometer corridor stretching from Kunming, the capital of Yunnan province in China, to the seaport at Kyaukpyu in Myanmar's Rakhine state, CMEC will be one of the largest single packages of foreign direct investment in Myanmar in decades and the government in Naypyidaw is anticipating a quick economic lift.

Given Myanmar's worsening relationship with the West due to the crisis in Rakhine state as well as the need for high investments to keep the economy afloat, CMEC is very attractive for the government in Naypyidaw. Myanmar's desire to minimise Beijing's overbearing influence is often neutralised by the interlinked political and security considerations at their shared borderlands and the need to seek diplomatic and economic support from China in the face of international pressures.

China's Western Development Strategy

China's Western Development Strategy (WDS) has been carried out since 1999 with stipulated 10 measures for the further development of the western region, covering six provinces (Gansu, Guizhou, Qinghai, Shaanxi, Sichuan and Yunnan), five autonomous regions (Guangxi, Inner Mongolia, Ningxia, Tibet and Xinjiang) and one municipality (Chongqing). This strategy has achieved remarkable achievements, whereby Western China also experienced a rapid and stable development during the past decade.

Issues and Challenges

The access to the Indian Ocean granted by the Kyaukpyu seaport project and infrastructure linking Rakhine state to Yunnan is still the top of Beijing's checklist. That route, however, crosses two politically complex regions — northern Shan state and Kachin state. The CMEC corridor, which has in its

plans the construction of a highway and highspeed railway, will run through multiethnic areas where existing interethnic and religious conflicts have contributed to instability in recent years. Conflicts along the China-Myanmar trade route in northern Shan state is a major obstacle to the realization of CMEC.

Beijing likely understands that the viability of CMEC is closely tied with the restoration of peace and stability in Myanmar. China has been increasingly active in facilitating meetings between the government and members of the Federal Political Negotiation and Consultative Committee (FPNCC), a seven-member alliance of ethnic armed organizations situated in Kachin and northern Shan states. The intervention by China, with the goal of smoothing the way to implement CMEC, will likely have an impact on Myanmar's peace process.

Land issues and disputes between local communities and contractors are a common occurrence, but not the only obstacle to the project. The rise of inequality, weak strategic trade controls, and poor financial controls, among other things, also contribute to instability and risk escalating social conflicts in CMEC project areas.

China's Motive Behind Corridor

History is a factor conditioning China's perception of China Myanmar transport corridor as well as Myanmar strategic significance as it has a bearing on Beijing's strategic thinking and policies towards its Southern neighbor. Under China's overall strategy, Sino-Myanmar transport corridor is the base of "Two-Ocean" strategy and a step of "Western Development" strategy. Beijing proposed the China-Myanmar Economic Corridor (CMEC) as part of the BRI at a time when Myanmar was increasingly under international

pressure owing to its conduct on the Rohingya crisis. Beijing is aware that Myanmar needs its political and diplomatic support to fend-off mounting international scrutiny.

On regional cooperation's part, Sino-Myanmar transport corridor is an important measure of maintaining Beijing's influence and leading role in the arrangement of regional and subregional cooperation and a result that China participates in the cooperation in Southeast Asia and South Asia. China's long-term strategic interests of seeing Myanmar as a "land bridge" to reach the Indian Ocean will continue to drive Beijing's strategy. This interdependency defining the relationship is unlikely to change in the near future.

Act East Policy

The policy which was originally (1992) envisaged as an economic initiative, has now gained political, strategic and cultural dimensions including establishment of institutional mechanisms for dialogue and cooperation thereby clearly highlighting the new approach of India. Also, India has now upgraded its relations to a strategic partnership with Indonesia, Vietnam, Malaysia, Japan, Republic of Korea, Australia, Singapore and ASEAN. Also, India is now actively engaged in regional initiatives such as Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), Asia Cooperation Dialogue, Mekong Ganga cooperation. India's Act East Policy focusses on the extended neighbourhood in the Asia-Pacific region.

The North East of India has been a priority in our Act East Policy (AEP). AEP provides an interface between North East India including the state of Arunachal Pradesh and the ASEAN region. Various plans at bilateral and regional levels include steady efforts to develop and strengthen connectivity of Northeast with the ASEAN region through trade, culture, people-to-people contacts and physical infrastructure (road, airport, telecommunication, power, etc.). Some of the major projects include Kaladan Multi-modal Transit Transport Project, the India-Myanmar-Thailand Trilateral Highway Project, Rhi-Tiddim Road Project, Border Haats, etc.

India's Concern

India and Myanmar have committed towards the 'Act East' and 'Neighbourhood First' initiatives. These two policies aim to put together an "independent, active and non-aligned" foreign policy between the two countries.

Myanmar, in particular, occupies a special position in India's matrix of ties with ASEAN states. After all, it is contiguous to India's Northeast region, sharing a land boundary of 1,700 km with four states including Manipur, Mizoram, Nagaland and Arunachal Pradesh. Major infrastructure projects such as the India Myanmar-Thailand Trilateral Highway can prove to be a game-changer to connect India's Northeast with ASEAN. India is also party to the ambitious Trans-Asian railway project, though progress has been less than satisfactory because of the weak political will of the stakeholders and differences in alignment of the rail network among participating countries. Without adequate cross-border connectivity, it would be highly difficult for India's

Northeastern states to reap the full potential of the Act East Policy.

CMEC deal is seen as a positive in Myanmar, the same cannot be said in India where the deal is viewed as a threat to security. This new seaport is just one of the latest addition to what many called the Chinese "string of pearls" which are seaports and sea facilities that are scattered across the Indian Ocean. Chief among these "pearls" are the ports in Hambantota in Sri Lanka and Gwadar in Pakistan. India claims that these projects will give the Chinese military greater access within the immediate region.

Although Beijing has never admitted "Two-Ocean" strategy, its efforts in pursuit of an export and import outlet to mainland Southeast Asia and access to the Indian Ocean via Myanmar, are so obvious. It undoubtedly incurs Indian suspicions and worries both political and strategic interests into Southeast Asia and the Indian Ocean. Both China and India, however, share an interest in stability in the Rakhine State. India seeks access for its northeastern states to the Bay

of Bengal, through the northern part of the Rakhine State. Both China and India seek access to the Bay of Bengal across the Southern Rakhine State, through the port of Sittwe that India has built and the port of Kyaukpadaung that China is developing.

Conclusion

The realization of CMEC requires both political commitments and business agreements. The peace process and the impact of CMEC on local communities are critical determinants to the success of the effort to link Yunnan with the Indian Ocean via Myanmar. But it is still questionable whether Myanmar can afford the project, both in terms of financial as well as political capital.

General Studies Paper- II

Topic: India and its neighborhood-relations.

Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.



4. BREXIT DEAL: JOURNEY SO FAR

Why in News?

On 12 December 2018, Theresa May, Prime Minister of the United Kingdom, faced a vote of no confidence in her leadership over opposition to her negotiated Brexit deal from her own party. It was reported that May would step down as Prime Minister after delivering Brexit and would not lead the Conservative Party into the next General Election in exchange for Conservative MP's voting to have confidence in her leadership so that she would be able to keep the party, Parliament and the UK stable during the final stages of Brexit.

Introduction

'Brexit' is a word that is used as a shorthand way of saying the United

Kingdom (UK) leaving the EU - merging the words Britain and exit to get 'Brexit', in the same way as a possible 'Greek' exit from the euro was dubbed Grexit in the past.

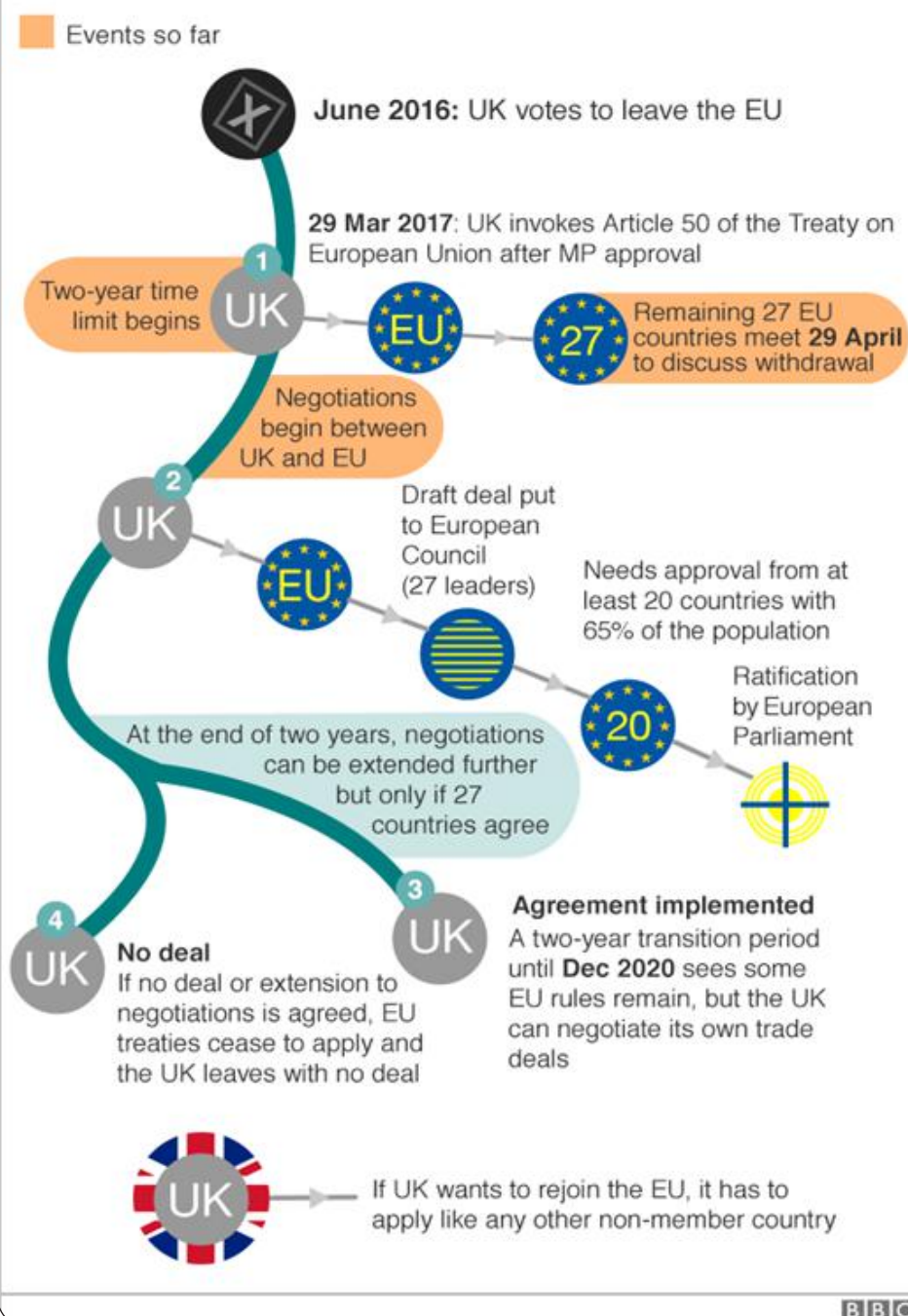
A referendum - a vote in which everyone (or nearly everyone) of voting age can take part - was held on 23rd June, 2016, to decide whether the UK should leave or remain in the European Union. Leave won by 51.9% to 48.1%. The referendum turnout was 71.8%, with more than 30 million people voting.

The U.K., as it is called, is a sovereign state that consists of four individual countries: England, Scotland, Wales and Northern Ireland. Within the U.K., Parliament is sovereign, but each country has autonomy to some extent. While England and Wales

voted for Brexit, Scotland and Northern Ireland both backed staying in the EU. The European Union - often known as the EU - is an economic and political partnership involving 28 European countries. It began after World War II to foster economic co-operation, with the idea that countries, which had strong trade relations, were more likely to avoid going to war with each other.

It has since grown to become a "single market" allowing goods and people to move around, basically as if the member states were one country. It has its own currency, the euro, which is used by 19 of the member countries, its own parliament and it now sets rules in a wide range of areas - including on the environment, transport, consumer rights and even things such as mobile phone charges.

Steps to UK leaving the European Union



When is the UK due to leave the EU?

For the UK to leave the EU, it had to invoke Article 50 of the 'Lisbon Treaty' which gives the two sides two years to agree the terms of the split. Since UK has triggered this process on 29th March, 2017, meaning the UK is scheduled to leave on, 29th March 2019. It's the law, regardless of whether there is a deal with the EU or not. Stopping Brexit would require a change in the law in the UK. The European Court of Justice

ruled in December 2018 that the UK could cancel the Article 50 Brexit process without the permission of the other 27 EU members and remain a member of the EU on its existing terms, provided the decision followed a "democratic process". Alternatively EU might agree to extend Article 50 by a few months, if its leaders thought there was a chance the UK could end up staying in, possibly through another referendum. But at present moment all sides are focusing on that date as being

the key one and Theresa May has put it into British law.

Current Position and Analysis of Brexit deal

After months of negotiation, the UK and EU agreed a Brexit deal. It comes in two parts. The draft Brexit withdrawal agreement stands at 585 pages long. This is a legally-binding text that sets the terms of the UK's divorce from the EU. Below are some key points from the agreement and their meaning:

Transition

- ◆ The transition period (which the UK government calls "implementation period") will begin on 29th March 2019 and lasts until 31st December 2020.
- ◆ The UK will need to abide by all EU rules, but will lose membership of its institutions.
- ◆ The draft withdrawal agreement says the transition can be extended, but only for a period of one or two years (in other words up to the end of 2022 at most). Both the UK and EU must agree to any extension.

There will be no UK presence in the European Parliament, at the top table of the European Commission or in the European Court of Justice. The UK will have no formal say in making or amending EU rules and regulations, but it will have to follow them to the letter. The great advantage of transition, of course, is that it will buy more time for businesses and governments to prepare for a new regime and it will smoothen the path out of the EU. Transition also gives the UK continued access to EU databases on crucial issues like security while a future relationship is negotiated.

Financial Settlements

- ◆ The draft agreement sets out the calculations for the financial settlement (or "divorce bill") that the UK will need to pay to the EU to settle all of its obligations.

- ◆ While no figure appears in the document, it is expected to be at least £39bn and it will be paid over a number of years. Part of that money will be the financial contribution that the UK has to make during the transition period.

Since the size of the "divorce bill" is the big issue that will take time to get resolved, but without a financial settlement, progress on other issues would be impossible. Money remains a cause of controversy, though, because many Brexit supporters hate the fact that large sums will be handed over without any cast-iron guarantee about the nature of the UK's future trade relationship with the EU.

Citizens' Rights

- ◆ This is broadly unchanged from the initial draft of the withdrawal agreement which came out in March. UK citizens in the EU and EU citizens in the UK, will retain their residency and social security rights after Brexit.
- ◆ Citizens who take up residency in another EU country during the transition period (including the UK of course) will be allowed to stay in that country after the transition. Anyone that stays in the same EU country for five years will be allowed to apply for permanent residence.

The European Parliament has promised to make citizens' rights its top priority. But while politicians on all sides are telling citizens that they want them to stay, the Brexit process has caused an enormous amount of anxiety and uncertainty. British citizens in other EU countries, for example, still don't know whether they will be able to work across borders in the future, because their right to reside only applies to the specific country where they live. Recognition of professional qualifications, and access to university education on the same terms they have now, are also unresolved issues.

Ireland and Custom Union Backstop

"Backstop" is a kind of safety net to ensure there is no a hard border-physical check or infrastructure, whatever the outcome of future trade talks between the UK and the EU. The UK is committed to avoiding any hard border between Ireland and Northern Ireland and upholding the '1998 Good Friday Agreement', the peace deal that ended three decades of conflict and created the present-day political institutions.

The deal outlines a "backstop" arrangement to prevent the return of border checks between Northern Ireland and Ireland if the sides fail to agree a free trade pact after a 21-month transition period. In a bid to allay British concerns that Northern Ireland would be split from the rest of Britain, the two sides agreed to an EU-UK single customs territory. In the single EU-UK customs territory, UK goods will enjoy tariff and quota free access to the remaining 27 EU countries. Both sides have given themselves until July 1, 2020 to outline a deal to replace the backstop. If one is not ready by then, they could extend the transition period. At any point after the transition period, either side can rule that the arrangement is no longer necessary, but they must take the decision together.

The single customs territory is basically another name for a temporary customs union and, if it were needed, it would ensure that completely frictionless trade could continue across the Irish border. But it would also prevent the UK implementing any trade deals with other countries around the world that involve removing tariffs on goods. That upsets supporters of Brexit, especially as there is no guaranteed route out of this backstop unless the EU gives its consent. The Protocol on Ireland/Northern Ireland was the toughest part of the draft agreement to negotiate and, now it has been published, it has triggered a series of government resignations in UK.

Fishing

- ◆ The agreement says that a separate agreement will need to be reached on access to EU fishing in UK waters.

Fishing is always a hot button issue, even though in most countries the fishing sector forms a tiny part of the economy. Fishing has been left out of plans for a single customs territory because several countries objected to the idea that UK fish produce would be allowed unimpeded access to EU markets, without any corresponding guarantee that EU boats would be granted access to UK fishing waters.

The deal also consists of a 26-page statement on future relations. This is not legally-binding and sketches out the kind of long-term relationship the UK and EU want to have in a range of areas, including trade, defence and security.

What happens if there is no Deal with the EU?

Theresa May's government must need to pass this deal through British Parliament. Without an agreement on trade, the UK would operate with the EU under World Trade Organisation rules, which could mean customs checks and tariffs on goods as well as longer border checks for travellers. It would harm the economy and could cause chaos at the UK's borders.

There are also questions about what would happen to Britain's position as a global financial centre and the land border between the UK and the Republic of Ireland. There is also concern that Brits living abroad in the EU could lose residency rights and access to free emergency health care. Custom delays could also create food shortages. The U.K. is vulnerable because an extreme heat wave and summer drought caused by global warming have already reduced food output.

Implications for UK

The transition plan does not allow the U.K. to prohibit the free flow of people from the EU. That was the primary reason people voted for Brexit. They were concerned about an increase in refugees from Africa and the Middle East. Uncertainty over Brexit has slowed the U.K.'s growth to 1.3 percent in 2018. The British pound is 14 percent lower than before the pre referendum level. That helps exports but at the sametime increases the prices of imports.

A hard Brexit would be disastrous for the U.K.'s financial center. It would no longer be the base for companies that use it as an English-speaking entry into the EU economy. Real estate sector could collapse. Housing prices have already started to fall. The United Kingdom would also lose the advantages of EU's state-of-the-art technologies. The EU grants these to its members in environmental protection, research and development and energy sector. The most significant loss to London is in services, especially banking. Practitioners will lose the ability to operate in all member countries. This could also raise the cost of airfares, the internet and even phone services.

EU is a large market. 45% of British exports are directed towards EU. EU is the largest market for UK's exports and one of the major sources of UK's imports. Except Germany and Sweden, UK has a positive Balance of Trade with all other countries of EU. Post Brexit, access to EU markets would suffer for UK. A hard Brexit would hurt Britain's younger workers. Germany is projected to have a labor shortage of two million workers by 2030. Those jobs will no longer be as readily available to the U.K.'s workers after Brexit.

Geopolitically, it raises questions over the future of Scotland and Northern Ireland. In an interconnected

world, being a part of multilateral organizations is key to influence policy matters. No country can do it alone in a rapidly changing international environment. UK could lose some of its leverage now as it has voted for Brexit. Pursuit of sovereignty in purist terms in an interconnected world is a utopian idea.

Consequences for the EU

The idea of EU stands challenged. EU whose origin lied in the centuries of war that ravaged Europe was a transformative idea in international relations, enmeshing countries in cooperation. With the exit of UK, there is a possibility of other countries such as Greece etc. to follow suit. Thus the idea of EU stands challenged.

The Brexit vote is strengthening anti-immigration parties throughout Europe. If these parties gain enough ground in countries like, France and Germany, they could force an anti-EU vote. If either of those countries left, the EU would lose its most robust economies and would dissolve.

EU is currently under multiple crisis emanating from financial slowdown, Russian challenge, security concerns. EU and Britain separately would not be able to handle a resurgent Russia. Similarly to deal with the security threats in Europe requires countries to act in concert and not independently.

Implications for India

According to an IANS report, Britain ranks 12th in terms of India's bilateral trade with individual countries. It is also among 7 in top 25 countries with which India enjoys a trade surplus. India invests more in UK than the rest of Europe combined, emerging as the 3rd largest FDI investor. Access to European markets, therefore, is a key driver for Indian companies setting shop in UK. Britain coming out of EU is likely to affect the business prospects of these companies. Rupee may depreciate

because of the double effect of foreign fund outflow and dollar rise.

While on the positive side, Brexit has driven away fears of a US Fed rate hike and could lead to lower commodity prices. Brexit's impact will be a fateful one for commodity producers and producing nations. Also, devaluation of rupee might enhance India's export competitiveness.

Conclusion

Besides setting a precedent for being the first member to officially leave the European Union, the reason why Brexit is such a big deal is that we just don't know how it will turn out yet. It's a big, dramatic move that will take years to complete; years of shifts that will impact the pound and European markets along the way. It will certainly make the UK countries seem less hospitable to new immigrants but whether Brexit will deter terrorism, buoy the economy and make the UK stronger through independence has yet to be seen. So maybe the big deal is just not knowing the extent of the impact on jobs, homes, trade relationships with other countries and whether countries outside of the union will see a fragmented Europe as a weakened one. One that, say, might give up some power over the Balkan states to Russia.

The National Association of Software and Services Companies (NASSCOM) in a recent report held that IT and ITes industry of India will have a negative impact of close to \$108bn. The impact can be seen in medium term (2-3 years). While the long term impact and its actual evaluation is still a matter to be unfolded in future.

General Studies Paper- II

Topic: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.



5. COAL: IS STILL THE SECRET OF WORLD ENERGY

Why in News?

The Trump administration is rolling back a climate change regulation that restricted new coal plants. The Environmental Protection Agency, now led by acting Administrator Andrew Wheeler, a former coal lobbyist, has announced more rollbacks regulations on coal-fired power plants. The proposed rolling back an Obama-era rule requiring new U.S. coal plants to slash carbon emissions, a move that could crack open the door in coming years for new plants fired by the fossil fuel.

Introduction

Coal is an anachronism that also happens to be the single largest source of electricity on the planet. Growth in global coal consumption slows sharply relatively to the past, with falls in China and Organisation for Economic Co-operation and Development (OECD) offset by increasing demand in India and other emerging Asia. In the evolving transition (ET) scenario, coal demand flatlines, in sharp contrast to the past 25 years, during which coal was the largest source of energy growth. Much of that slowing is driven by China, where coal consumption is broadly flat over the next 10 years or so, before declining thereafter. Even so, China remains the world's largest market for coal, accounting for 40% of global coal demand in 2040.

Coal demand within the OECD declines, largely driven by environmental policies, except in the US where the availability of low-cost natural gas is the main factor driving out coal. In contrast, coal demand within India and other emerging Asian economies increases, as these economies continue to industrialize and electrify their economies. According to International Energy Agency (IEA), "the

rapid change anticipated for the Indian energy system in the New Policies Scenario does not translate into a dramatic shift in the energy mix. Coal retains a central position in the mix, increasing its overall share in primary energy from 44% in 2013 to 49% in 2040."

Coal Scenario in India

India's total coal reserve is estimated at a little more than 300 billion tonnes. If 50% of that is extractable, a 1-billion-tonne annual consumption will translate into availability for 150 years. Nearly 63 percent of the India's total energy requirements are met from coal. The country continues to significantly rely on coal for electricity generation and this abundant and affordable fossil fuel accounts for 61 percent of the country's electricity output. The available coal reserves in India are sufficient to meet our needs for at least another 100 years. India is the world's third largest coal producing country and second largest coal importer.

As coal will continue to power a large and possibly even increasing share of the Indian economy in the foreseeable future, managing the negative side effects of the power industry due to environmental degradation should be seen as a continued priority. In India, coal has always been thought of as the raw material for power. Because the demand from the power sector was much more than the availability of coal in the last 10 years, no serious thought has gone into any other use for coal. Coal-fired power contributes substantially more to output than to overall costs, helping to keep electricity tariffs affordable for consumers in a period when India is adding more costly sources of power.

Coal and Its Uses

Coal is one of the most important primary fossil fuels, a solid carbon-rich material that is usually brown or black and most often occurs in stratified sedimentary deposits. Coal is an abundant natural resource that can be used as a source of energy, as a chemical source from which numerous synthetic compounds (e.g., dyes, oils, waxes, pharmaceuticals and pesticides) can be derived and in the production of coke for metallurgical processes. Coal is a major source of energy in the production of electrical power using steam generation.

Types of Coal

There are four major types (or "ranks") of coal. Rank refers to steps in a slow, natural process called "coalification," during which buried plant matter changes into an ever denser, drier, more carbon rich, and harder material. The four ranks are:

- **Anthracite:** The highest rank of coal. It is a hard, brittle and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter.
- **Bituminous:** Bituminous coal is a middle rank coal between subbituminous and anthracite. Bituminous usually has a high heating (Btu) value and is the most common type of coal used in electricity generation in the United States. Bituminous coal appears shiny and smooth when you first see it, but look closer and you may see it has layers.
- **Subbituminous:** Subbituminous coal is black in color and dull (not shiny) and has a higher heating value than lignite.
- **Lignite:** Lignite coal, aka brown coal, is the lowest grade coal with the least concentration of carbon.
- **Peat:** Peat is not actually coal, but rather the precursor to coal. Peat is a soft organic material consisting of partly decayed plant and, in some cases, deposited mineral matter. When peat is placed under high pressure and heat, it becomes coal.

In addition, gasification and liquefaction of coal produce gaseous and liquid fuels that can be easily transported (e.g., by pipeline) and conveniently stored in tanks. After the tremendous rise in coal use in the early 2000s, which was primarily driven by the growth of China's economy, coal use worldwide peaked in 2012. Since then coal use has experienced a steady decline, offset largely by increases in natural gas use.

According to the BP Statistical Review of World Energy, world coal consumption was 3,732 million tons of oil equivalent in 2017. Between 2007 and 2017, world coal consumption grew at an average annual rate of 0.8 percent. Coal's share in the global energy mix is forecast to decline from 27% in 2016 to 26% in 2022 on sluggish demand growth relative to other fuels.

Growth through 2022 is concentrated in India, Southeast Asia and a few other countries in Asia. Coal demand declines in Europe, Canada, the United States and China. As a result of these contrasting trends, global coal demand reaches 5 530 Mtce in 2022, which is only marginally higher than current levels. This means that coal use stagnates for around a decade. Although coal-fired power generation increases by 1.2% per year in the period 2016-22, its share of the power mix falls to just below 36% by 2022, the lowest level since International Energy Agency (IEA) statistics began.

Developed Economy

The higher-income countries tend to be both less energy-intensive and use less coal. Looking at those anomalous developed economies, coal is clearly on the decline in most.

- ♦ Australia sticks out for being rich, energy efficient and yet addicted to coal—not a big surprise, given it is a huge producer. Coal power still dominates in Australia today, but its prospects are waning.

- ♦ The U.S. electricity system continues to replace aging coal and nuclear with cheaper gas and renewable resources, assuming there is no lasting federal policy intervention to prevent their retirement. Coal and nuclear are pushed out by age and economics, such that by 2050 both nuclear and coal have almost disappeared from the electricity mix.
- ♦ The U.K.'s plan to close its remaining coal-fired power stations by 2025 reduces the role of fossil fuels in generation to 12% by 2030. At the same time, growth in high capacity factor offshore wind pushes renewables up to 73% of generation. By 2050, the U.K. has added 158 GW of wind and solar, as well as 49 GW of batteries and renewables provide 83% of generation.
- ♦ Poland and Germany also have long-established mining industries. Even Poland, hosted UN climate talks, has just released a target to reduce coal's share of power to 32% by 2040.
- ♦ Netherlands has used more coal in recent years to compensate for shortfalls in natural gas. The Netherlands announced earlier this year that it would ban coal power in the coming decade.

Developing Economy

China and India: The two countries that really matter, though, are those that fit the junk-food analogy best. According to the International Energy Agency's World Energy Outlook, these two countries dominate any projected growth in coal burnt for power or contribute a large part of the decline in a greener climate.

China is the world's largest coal consumer. In 2017, China's coal consumption was 1,893 million tons of oil equivalent, accounting for 51

percent of the world coal consumption. China's per capita coal consumption peaked at 1.45 tons of oil equivalent in 2013. By 2017, China's per capita coal consumption fell to 1.37 tons of oil equivalent.

India is the world's second largest coal consumer. In 2017, India's coal consumption reached 424 million tons of oil equivalent, accounting for 11 percent of the world coal consumption. From 1990 to 2017, India's per capita coal consumption rose from 126 kilograms of oil equivalent to 317 kilograms of oil equivalent. If India's per capita coal consumption continues to follow its historical trend in relation to per capita GDP, India's per capita coal consumption will rise to 676 kilograms of oil equivalent by 2050 (when India's per capita GDP is projected to rise to about 19,000 dollars). India's population is expected to grow to 1.72 billion by 2050. Given these projections, India's coal demand will rise to about 1.2 billion tons of oil equivalent by 2050.

Impact on Health

When coal is burned it releases a number of airborne toxins and pollutants. They include mercury, lead, sulfur dioxide, nitrogen oxides, particulates and various other heavy metals. Health impacts can range from asthma and breathing difficulties, to brain damage, heart problems, cancer, neurological disorders and premature death.

Conflict with the West

The Chinese share in global emissions is now close to 30%, whereas its share in global population is just about 17%. India's share in global population is 16%, while its share in emissions is only 6%-7%. Developed countries did want to club India with China and said that what applied to China, applied to India too. Fortunately, India has not succumbed to that. Using more coal to meet the energy demand from the same thermal capacity for the next 20

years will not put India at disadvantage given its commitment to meet the Climate Change COP 21 obligations.

As per the obligations, India's renewable capacity should be 40% of the total capacity by 2030. Including hydro-based power, that capacity is currently at 28%. Once India implements the 175 GW renewable programme, the 40% criteria will be achieved. Besides, India is well within the COP 21 obligation till it uses 1,500 million tonnes of coal a year as compared with 800 million tonnes now to generate energy. Analysts also said India could continue with a coal-based growth plan, which is cost effective. This is what China has done to place its economy on a solid footing.

Way Forward

Coal supplies a third of all energy used worldwide and makes up 40%

of electricity generation, as well as playing a crucial role in industries such as iron and steel. Despite legitimate concerns about air pollution and greenhouse gas emissions, coal use will continue to be significant in the future. Therefore greater efforts are needed by government and industry to embrace less polluting and more efficient technologies to ensure that coal becomes a much cleaner source of energy in the decades to come.

Over the last two centuries, humanity has become increasingly reliant on fossil fuels. Over that time, the consequences of constantly burning fossil fuels have accumulated into a threat to industrialized cities. The burning of fossil fuels causes acid rain to shower on cities and ecosystems around the world, tormenting their inhabitants. The increasingly deadly

pollution caused by the burning of fossil fuels has caused the deaths of many people around the world by causing respiratory problems. Not only has the pollution worsened, but the supply of fossil fuels is not limitless – as humanity's reliance increases the supply decreases, and that is all the more reason to break humanity's reliance on fossil fuels. Fossil fuels should be replaced with cleaner alternatives because fossil fuels cause environmental hazards, are non-renewable, and are detrimental to human health.

General Studies Paper- III

Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.



6. A CLIMATE RULEBOOK: TOWARDS ACHIEVING CLIMATE TARGETS

Why in News?

The global fight against climate change reached another milestone when negotiators from 196 countries finalised a rulebook for the 2015 Paris Agreement in recently concluded 24th meeting of the Conference of the Parties (COP24) to the United Nations Framework Convention on Climate Change (UNFCCC) held in the city of Katowice, Poland. The finalisation paves the way for implementation of the Paris Agreement, which is supposed to replace the existing Kyoto Protocol in 2020.

Introduction

The creation of the rulebook at the annual year-ending, two-week climate change conference, this time held in Katowice, Poland, has been hailed as an important step that has breathed life into the Paris Agreement. While there was some progress on the process by which the Paris Agreement of 2015 would be implemented, key issues of

concern for the poorest and developing nations were diluted or postponed. At the same time, several countries and nongovernmental organisations have said the deal reached in Katowice, though welcome, was not enough.

The 1.5 Degree Report, which was produced by the Intergovernmental Panel on Climate Change in October 2018, showed that the Earth is close to a climate catastrophe. It issued a stark warning on man-made emissions. It said that to cap the rise in global average temperature over pre-industrial levels at 1.5°C, a 45% reduction in emissions over 2010 levels must be made by 2030.

It was widely believed, before the commencement of the conference, that the absence of an agreement on climate finance would be a deal breaker. Africa and the small islands had pitched their hopes on such an agreement, in the beginning. However, weakened alliances and disagreements from within the G77 and China ensured that

the conference extracted little more than platitudes on climate finance. Vulnerable countries had to remain content with mere reiteration of the international wish to mobilise support for such global needs. Not only was no roadmap adopted for the mobilisation of funds till 2020, no specific process has been initiated for fixing the long-term goals of finance by 2025, which is a legal mandate of the Paris Agreement. No clear guarantees could be obtained from the developed countries to even report their commitments through an international process.

However, the heart of the conference lay elsewhere. The most intense debates took place on devising Modalities, Procedures and Guidelines (MPGs) of the Transparency Framework, whose objective is to hold each country accountable for its promised actions. The Paris Agreement binds each country, irrespective of its status, in terms of development, to report and, inter alia, account for

its emissions as part of Nationally Determined Contributions (NDCs). It also mandates that MPGs for transparency be finalised early so as to track progress made by countries in achieving their targets or actions. And on this front, more or less, COP24 was successful in devising a rulebook.

What is in the Rulebook?

Broadly, the Paris Agreement, which seeks to keep the global average temperatures “well below” 2°C from pre-industrial times, specifies what steps countries need to take in the fight against climate change. The rulebook prescribes how to do those things and how each of them would be measured and verified.

For example, the Paris Agreement says every country must have a climate action plan and that this should be periodically updated and submitted to the UN climate body. The rulebook now specifies what actions can be included in the action plan, how and when to submit them. Further, the Paris Agreement asks every member nation to submit information about their greenhouse gas emissions every two years. The rulebook specifies which gases to measure, what methodologies and standards to apply while measuring them and the kinds of information to be included in their submissions.

Again, under the Paris Agreement, developed countries are supposed to provide “climate finance” to developing countries to help them deal with climate change and submit an account of this. The rulebook says what kinds of financial flows — loans, concessions, grants — can be classified as climate finance, how they should be accounted for and the kind of information about them needed to be submitted.

The rulebook contains various other processes and guidelines needed for implementing the other provisions of the Paris Agreement. In short, it holds the operational details of the Paris Agreement. The rulebook is a dynamic document, meaning new rules can be added, or existing rules can be amended.

One important element could not be agreed upon relates to Article 6 of the Paris Agreement which talks about setting up a market mechanism for trading of carbon emissions. In the last few years, as several countries walked out of the Kyoto Protocol, and no country was feeling compelled to meet its 2020 emission reduction targets, there has been virtually no demand for carbon credits. As a result, developing countries like China, India and Brazil have accumulated huge amounts of unused carbon credits. Together, China and Brazil are estimated to account for about 70% of global unused carbon credits. When the rulebook was being discussed in Katowice, these countries argued that their unused carbon credits should be considered valid in the new market mechanism that was being created, something that the developed countries opposed strongly. The developed countries questioned the authenticity of the unused carbon credits, pointing to weak verification mechanisms of the Kyoto Protocol that allowed dubious projects to claim carbon credits. The stalemate proved intractable and, eventually, the decision on both forms of market had to be deferred to the next climate conference.

Was COP24 only About the Rulebook?

It was primarily about the rulebook. But a few other discussions had also become important, particularly the one around the need to step up climate actions in the light of several studies that pointed out that current level of actions were insufficient to hold the global average temperature within 2°C above pre-industrial levels. The special report of the Intergovernmental Panel on Climate Change (IPCC) on the feasibility of attaining a 1.5°C target, which had come out weeks ahead of the Katowice meeting, had added urgency to the discussions.

It was expected that the countries would give some indication of their willingness to do more than what they were currently committed to

and would agree to start a process towards that. But that did not happen. Instead, an ugly battle was fought over how to acknowledge the IPCC report. It was not suitably acknowledged as an evidence-based cause for alarm by the countries like U.S., Saudi Arabia and Russia, however. These countries wanted the report to be “noted” but not “welcomed”.

Similarly, the absence of any indication towards increasing “ambition” of climate actions was one major disappointment of the Katowice conference and it was voiced repeatedly by the small island states and the least developing countries, which are expected to face the worst impacts of climate change.

Funds were also required from rich countries for the losses and damages borne by poor nations. While this meeting was not about loss and damage per se, this item will take greater precedence as warming effects intensify. Technology transfer and capacity building support are also issues of importance to vulnerable countries and poor, developing countries that need help to transition from high to low carbon economies.

There is little to no finance available for poor and developing nations. The details on funding and building capacity have been postponed. References to “equity” in the draft rule book were erased. Article 9 (the provision of financial support to developing countries from industrialised nations) was ignored; instead, there was an emphasis on carbon markets and insurance mechanisms.

COP24 and Challenges for India

Considering the fact that global emissions are rising and emerging countries are expected to contribute to emission reductions, the challenge for a country like India is to keep a healthy balance between national developmental needs and international obligations to account for the emissions. The Paris Agreement does

assure flexibility to those developing countries that need it, according to their capacity. However, two decisions taken in Katowice would determine the extent of the flexibility available to India.

The first relates to the year when all countries have to begin furnishing their national inventory of emissions, and other actions, under the new arrangements. The year chosen at Katowice is 2024. India will need to have its emissions data of 2022 ready in 2024 to be able to report under the new arrangements.

The second, more important decision, relates to the retention of flexibility by developing countries in the accounting of their actions for international review. At Katowice, almost all developing countries argued for avoiding limitations on flexibility — needed by countries like India without a national inventory management system, which requires time to be built up.

While developing economies can use flexibility in applying the 2006 IPCC Guidelines for preparation of inventories as per their capacity, an obligation has also been placed on them to indicate a time schedule for exhausting these flexibilities. Moreover, adverse transparency findings can also result in the initiation of compliance proceedings against a country.

Climate Change and India

The IPCC climate change report makes it clear that the world will witness greater sea level rise, higher frequency of droughts and floods and heatwaves and countries like India with large populations dependent on the agricultural and fishery sectors, would be highly impacted. This is a challenge for all big economies, including India, which is among the top five emitters of carbon dioxide. In the Indian context, it highlights the need for action on several fronts: scaling up solar and wind power in line with the goal of reaching 175 GW of renewable energy by 2022, steadily reducing reliance on

coal, shifting substantially to electric mobility and adopting green industrial processes. Taxing luxury emissions and using the dividend to give the poor energy access has to be the policy target, building on international green climate funding linkages.

After all, at an estimated 1.2 tonnes of CO₂ per capita, India emits far below the global average of 4.2 tonnes. Yet, cumulative emissions determine the impact on climate and India's emissions grew at an estimated 6.3% in 2018. The prospect of increased frequency and intensity of extreme weather events and sea level rise in a warming world affecting small island states allows little room for complacency. The task now is to achieve a paradigm shift that will slow down the addition of new sources of carbon emissions. As a party to the global climate compact, India has to systematically assess its emissions and measure mitigation actions for reporting to the UNFCCC at stock-taking meetings. This is an opportunity to bring major sectors such as energy production, building, agriculture and transport on board and make changes to regulations that favour environment-friendly alternatives. China has taken the lead in advancing electric mobility, while individual States and cities are ahead of national governments, as in the U.S., in reducing their carbon footprint. A clean-up in India will help meet emissions commitments and remove the blanket of air pollution that is suffocating entire cities.

Way Forward

The UN Climate Conference held in Katowice, Poland, has moved ahead with the implementation of the Paris Agreement through a single rulebook which has been produced for all countries and will serve as a foundation for more detailed rules and structures. It reflects strong support among citizens of all countries for urgent action to avert dangerous climate change. Public pressure has prevailed over skepticism.

Although the outcome does not adequately reflect the short window available to make deep greenhouse gas emissions cuts. Many international civil society groups expressed utter dismay over the disregard of equity. Poor and developing countries whose greenhouse gas emissions have been low or negligible will bear the brunt of warming effects. Whether or not funds will be replenished even for the implementation of the current NDCs is unclear. Funds for finance, better terms for new technologies to be transferred to developing and vulnerable countries and economic and non-economic support for loss and damage and their equitable moorings in the text have been eliminated, minimised or footnoted. Yet, the Paris Agreement, endorsed by 195 countries under the UN Framework Convention on Climate Change (UNFCCC), has a long road ahead before carbon emissions can be pegged at levels flagged by scientists.

Local and state-level action that keeps climate change at the centre and fully incorporated into "good development" is the most critical policy perspective nations can adopt. As long as people and governments treat climate and environment as marginal to development and well-being as marginal to GDP growth, climate change impacts will strain and tear every weak stitch of the world's economic and development fabric. There is hope in youth action in various parts of the globe, from Europe to Australia to the U.S. As Greta Thunberg, a 15-year-old activist from Sweden said:

"If solutions within the system are so impossible to find, maybe we should change the system itself."

General Studies Paper- III

Topic: Conservation, environmental pollution and degradation, environmental impact assessment.



7. THE GRAVITY OF AIR POLLUTION IN INDIA IS BECOMING SEVERE

Why in News?

Air pollution accounts for one out of every eight deaths in India. As an environmental scourge that killed an estimated 1.24 million people in India in 2017. The deadly results of official apathy are outlined in the Global Burden of Disease 2017 report on the impact of air pollution on deaths, disease burden, and life expectancy across the states of India, published by The Lancet.

Introduction

Today millions of people are without basic needs of cloth, shelter, health, education and employment. This is not due to overpopulation alone but also due to environmental consequences. The loss of forests, fertility of soil, productivity and energy crisis have created many problems. The pollution created by industries, vehicles etc. and over-consumption by the affluent society lead to the rapid depletion of basic natural resources. Many human problems are also due to mismanagement of environment which is created by man himself. Air quality is a cause for concern in India, particularly in cities where air pollutants including particulate matter (PM), sulfur dioxide (O_2), nitrogen oxides (NOx), carbon monoxide (CO), and ozone (O_3) often exceed the National Ambient Air Quality Standards (NAAQS).

The nature of urban and rural air pollution is quite different in India, therefore, their respective causes, effects and remedies are also different. Air pollution in the environment is determined by various sources of contamination. In urban areas this is mainly due to road traffic, combustion of energetic materials and industrial emission. Specific composition of rural air particulate contents is rich of pollen, animal and microbial allergens.

Quite unexpectedly to different characteristics of air pollution with solid particles, the incidence of allergy is consistently higher in the towns people than inhabitants of rural areas. The increase in the intensity of road traffic shows a parallel increase with allergy, what leads to the hypothesis that environmental air particulate matter pollution may be at least partially responsible for the increase of the incidence of allergic diseases.

What is Air Pollution?

Air pollution can be defined as the presence of toxic chemicals or compounds (including those of biological origin) in the air, at levels that pose a health risk. In an even broader sense, air pollution means the presence of chemicals or compounds in the air which are usually not present and which lower the quality of the air or cause detrimental changes to the quality of life (such as the damaging of the ozone layer or causing global warming).

Which Pollutants Are Dangerous?

While all pollutants in the atmosphere cause harm to the planet, there are some that are more dangerous than others. The more dangerous air pollutants are:

- ♦ **Sulphur Dioxide** – High concentrations can result in breathing impairment for asthmatics who are active outdoors.
- ♦ **Ozone at ground level** - Exposure to this can irritate breathing, decrease lung function, inflame airways and worsen lung conditions such as asthma. It can also affect crops and other vegetation and even buildings.

- ♦ **Lead** – Extended exposure may lead to seizures, mental problems and behavioural disorders. At low doses lead exposure is linked to damage of the nervous systems in young children.
- ♦ **Carbon monoxide** - CO reduces oxygen in the blood stream, when it enters the body through the lungs. The danger of this pollutant increases in people who suffer cardiovascular diseases such as angina.
- ♦ **Benzene**– Long term inhalation can cause disorders in the blood – including reduced red blood cells and anemia
- ♦ **Particulate matter** – These particulates are so small that they get deep into your respiratory tract and increase the risk of disorders.
- ♦ **Oxides of Nitrogen** – it has a direct effect on health, as short-term exposure reduces lung function while long term exposure is linked to increased risk of respiratory infection in children. NOx levels in urban areas are influenced by weather episodes, which accounts for some of the variation seen in annual results.

Particulate Matter (PM)

PM stands for particulate matter (also called particle pollution); the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope.

Particle pollution includes:

- ♦ **PM10** : inhalable particles, with diameters that are generally 10 micrometers and smaller; and

- ♦ **PM2.5:** fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.

Particulate Lead (Pb): Lead arises from natural as well as anthropogenic sources in ambient air. Human exposure to lead can result in a wide range of biological effects depending on the level and duration of exposure.

Particulate Nickel (Ni) Nickel in ambient air mainly comes from combustion of fuel oil, coke in power plants, refineries and other industries.

Particulate Arsenic (As) Arsenic is a highly toxic semi-metallic element. Arsenic has both natural and anthropogenic sources. Rock pyrite leaches Arsenic in soil through aberration and fossil fuel burning (coal) also adds Arsenic in Environment.

Air Pollution in India

According to the study, India has one of the highest annual average ambient particulate matter PM2.5 exposure levels in the world. The effects of PM2.5 are more dangerous than any other particulate matter, as these particles with a size equal to, or

smaller than 2.5mm, can easily get into the respiratory tract and settle in the lungs, and some may even get into our bloodstream.

- ♦ The study estimates that 1.24 million deaths in India in 2017 could be attributed to air pollution, including 0.67 million to ambient particulate matter pollution, and 0.48 million to household air pollution.
- ♦ Millions of people are forced to lead morbid lives or face premature death due to bad air quality. At least 11% of premature deaths in people younger than 70 years were due to polluted air.
- ♦ The life expectancy in India would have been increased by 1.7 years if pollution levels had been lower than the minimum levels associated with health loss.
- ♦ No State met the annual average exposure norm for PM2.5 of 10 micrograms per cubic metre set by the World Health Organisation.
- ♦ If the country paid greater attention to ambient air quality

and household air pollution, the researchers say, people living in the worst-affected States of Uttar Pradesh, Bihar, Rajasthan and Jharkhand could add more than 1.7 years to their life expectancy.

- ♦ India's annual average level of fine inhalable particles in the air, commonly referred to as PM 2.5, was 90 µg/m³--the fourth highest in the world and more than twice the limit of 40 µg/m³ recommended by the NAAQS in India and nine times the World Health Organization annual limit of 10 µg/m³.
- ♦ In 2017, about 77% of India's population was found to be exposed to ambient air pollution levels above the national safe limit.

As per the latest emission inventory prepared by System of Air Quality and Weather Forecasting and Research (SAFAR), emissions attributable to the transport sector have increased by at least 40% in the last eight years in the National Capital Region.

Urban Air Pollution: Urban air quality has generally been deteriorated throughout the Indian cities. The reasons are raising number of motor vehicles, especially poorly maintained, and growing industrialisation without any priority for pollution abatement. Indian cities are considered as some of the most polluted cities in the world and on the top of the list is the national capital, New Delhi.

The single most factors responsible for this deterioration of air quality in cities are the exponential increase in petrol and diesel fuelled vehicles. Industries are also responsible for the air pollution in India. Most of the industries are located near cities, irrespective any environmental consideration. In addition, there is a large concentration of chemical units within 30 km of the city.

Rural Air Pollution: In India, rural population uses substantial quantities of non-commercial fuel, i.e., crop

A few Measures to Reduce the Air Pollution

Urban Air Pollution	Rural Air Pollution
1. Strengthening and introduction of mass transit system as these use significantly less fuel per person per kilometre.	(i) Providing an affordable clean fuel for substitute to bio-fuels,
2. Vehicles with old technology should be banned from big cities.	(ii) Installation of efficient smokeless chullahs (much effort has been done in this direction by government),
3. Two/three-wheelers should be upgraded to four-stroke engines.	(iii) Good ventilation to houses,
4. Heavy duty vehicles should not be allowed to ply on the inner city roads at peak hours (8 to 12 noon and 4 to 8 p.m.) so as to reduce traffic stagnation.	(iv) Providing bio-gas facilities, and above all
5. Catalytic converters should be made compulsory for all petrol-driven vehicles and diesel vehicles must have a particle trap.	(v) The habits of rural masses be changed, therefore, awareness regarding ill-effects of the use of bio-fuels should be developed among rural people.
6. Better urban design to avoid congestion and reduce transport needs.	
7. Better and efficient traffic control plan.	
8. Encourage the introduction of modern technology in vehicles and also, the use of electric or battery-operated vehicles.	

residues, animal dung or wood in cooking. Although, gradually, its use is decreasing as a percentage of total fuel consumption or in terms of per capita use, but it still provides 80 per cent of rural energy for cooking. Air pollutants due to bio-fuels are largely released directly where people are inside or near households during lunch/dinner every day.

Although the emissions are relatively modest, the actual exposure to people is significant in many millions of households around the country. Several health effects are suspected to arise due to smoke such as respiratory infection in children, chronic lung diseases and lung cancer in adults, and adverse pregnancy outcomes, such as low birth weight and still birth, for women exposed during pregnancy.

Steps Taken By Government for Prevention and Control of Pollution in India

As population migrating to cities steadily rise, it is important that a sustainability agenda to reduce air pollution be included in the government's Smart Cities Mission. It is time that we take self-regulated measures to control air pollution in ways that we can, or face dire consequences. The discerning and alarmed consumer must rise to the occasion and take charge to efficiently control particulate matter emissions. Adhering to stricter vehicle emissions

regulation and upgrading vehicles to more fuel-efficient standards is a step in that direction.

A big step has been taken in controlling household air pollution with the launch of the Prime Minister Ujjwala Yojana to provide clean cooking-gas connections. A shift away from solid fuels to LPG in millions of low-income homes has provided health benefits. The potential of domestic biogas units, solar cookers and improved biomass cookstoves has to be explored, since they impose no additional expenditure on rural and less affluent households. Such measures should, of course, be complemented by strong control over urban sources of pollution.

The Government after realizing the gravity of pollution, have also taken the following measures:

- ◆ Clean India Mission (Swatch Bharat Abhiyan) has been launched;
- ◆ Draft Rules for handling and management of municipal waste have been notified for comments of stakeholders.
- ◆ Standards for sewage treatment plants have been notified for comments of stakeholders.
- ◆ BS-VI norms for vehicular emission are scheduled to be implemented across India in April 2020.
- ◆ National Air Quality index was launched by the Prime Minister in April, 2015.

- ◆ Banning of burning of leaves/ biomass.
- ◆ Relevant draft rules, including those pertaining to construction and demolition waste have been notified.
- ◆ Stringent industrial standards have been formulated and notified for public/stakeholder's comments.
- ◆ Government is giving high priority for public partnership in lane discipline, car pooling, vehicle maintenance, pollution under control certification etc.
- ◆ Out of 2800 major industries, 920 industries have installed on-line continuous (24X7) monitoring devices.

National Air Quality Monitoring Programme

A network of 295 Ambient Air Quality Monitoring Stations, covering 90 towns/cities all over the country, has been set up by Central Pollution Control Board in coordination with the State Pollution Control Boards/Pollution Control Committees and other institutions for carrying out regular monitoring.

Under National Air Quality Monitoring Programme (NAMP), four air pollutants, viz., sulphur dioxide (SO₂), oxides of nitrogen as NO₂, Suspended Particulate Matter (SPM) and Respirable Suspended Particulate Matter (RSPM/PM₁₀), have been identified for regular monitoring at all the locations. Besides this, additional parameters such as respirable lead and other toxic trace metals and polycyclic aromatic hydrocarbons (PAHs) are also being monitored in seven metro cities of the country.

The monitoring of meteorological parameters, such as wind speed and direction, relative humidity and temperature, was also integrated with the monitoring of air quality. The monitoring of pollutants is carried out for 24 hours with a frequency of twice a week, to have 104 observations in a year.

- ◆ Revision of emission standards including thermal power plants, cement plants, etc.;
- ◆ Ban on stubble burning in NCR States.

Where Do They Come From?

Man-Made Sources	Natural sources
➤ Power plants - PM₁₀ (Particulate Matter up to 10 micrometers in size), NO_x, Sulphur, Benzene ➤ Waste incinerators - Sulphur, Benzene ➤ Motor vehicles - PM₁₀ (diesel engines), NO_x, lead (petrol), Benzene / Carbon monoxide (exhaust fumes) ➤ Aircraft ➤ Marine vessels ➤ Fertilisers ➤ Landfills ➤ Cigarette smoke - Benzene	➤ Volcanoes - these produce chlorine, ash and sulphur ➤ Radon - this is found in radioactive decay in the Earth's crust ➤ Smoke - caused by wildfires ➤ Methane - from animals' digestive systems ➤ Dust - from expanses of land with little or no vegetation: PM₁₀ ➤ Windblown sea salt - PM₁₀ ➤ Air masses - Ozone

Air Pollution And Climate Change

Climate change is a major threat to the health of our planet. Air pollution is closely linked but they are usually treated as separate problems. Rising levels of CO₂ and other air-polluting gases increase the greenhouse effect, which in turn raises temperatures and affects global weather patterns. So, while climate change and air pollution are not the same issue per se, there are strong linkages and synergies between the two areas.

The Kyoto Protocol: The United Nations agreed a Convention to tackle the problem. Later this was strengthened by the Kyoto Protocol, when developed countries agreed to reduce their emissions of greenhouse gas (GHG) by 5.2% below the 1990 level. The Kyoto Protocol's first commitment period started in 2008 and ended in 2012.

During the second Kyoto Protocol commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first. Current EU

directives after the Paris agreement in 2015 recommend a reduction in emissions of 40% by 2030.

Way Forward

Today, India has the unique opportunity to further the air pollution abatement measures, at the urban and the regional scale, but these depend on effective inter-sector and inter-ministerial collaboration. This is primarily due to the fact that all the sources contributing to the air pollution are interlinked. Among the sectors, transportation is the most critical and most connected. Following the review, two challenges have emerged for better air quality in Indian cities the need to secure greater public awareness of the problems and commitment to action at civic, commercial, and political levels to ensure that action to tackle air pollution is seen in the context of wider social and economic development policies. For example, how much can these interventions help reduce the local challenges, like providing safer and reliable public transportation systems; cleaner and efficient waste management; dust free roads; and pollution free industries and power plants.

There is an emergent need for people to adopt a sustainable lifestyle that relies on lesser energy consumption technologies and equipment. Sustainable building designs that reduce energy consumption and maintain proper air-light balance to substantially reduce heating and cooling costs are effective steps. Less energy consumption means less carbon dioxide emissions from power plants that help generate that energy. At present, nearly two-thirds of the electricity in India is produced from fossil fuels, mainly coal, and India has pledged in the Paris Climate Agreement to generate 40% of its electricity from renewable sources by 2030. A complete transition to cleaner fuels is the need of the hour and efforts need to be supported by application of emission-controlling strategies and policies to reduce total energy consumption in household and workplaces.

General Studies Paper- III

Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

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SEVEN SUBJECTIVE QUESTIONS WITH MODEL ANSWERS

Strategy for New India @ 75: NITI Aayog

Q1. "The 'Strategy for New India @ 75' reflects our solid foundation for clean, inclusive and sustainable growth for the next three decades." Critically examine.

Hints:

- ◆ The NITI Aayog unveiled its comprehensive national Strategy for New India, which defines clear objectives for 2022-23. It is a detailed exposition across forty-one crucial areas, that recognizes the progress already made, identifies binding constraints and suggests the way forward for achieving the clearly stated objectives.
- ◆ The report identifies 41 key areas, placed under four categories: Drivers, Infrastructure, Inclusion and Governance.
- ◆ The first section on 'Drivers' focuses on the engines of economic performance with chapters on growth and employment, doubling of farmers' incomes; upgrading the science, technology and innovation eco-system; and promoting sunrise sectors like fintech and tourism.
- ◆ The second section on 'Infrastructure' deals with the physical foundations of growth which are crucial to enhancing the competitiveness of Indian business as also ensuring the citizens' ease of living.
- ◆ The section on 'Inclusion' deals with the urgent task of investing in the capabilities of all of India's citizens. The three themes in this section revolve around the dimensions of health, education and mainstreaming of traditionally marginalized sections of the population.
- ◆ The final section on 'Governance' delves deep into how the governance structures can be streamlined and process optimised to achieve better developmental outcomes.
- ◆ India is still one of the poorest countries in the G-20 and poor countries ought to grow faster because catch-up growth is easier. As important, the benefits of growth in India have been distributed extremely unequally, with top incomes rising much faster than the rest. We have seen new environmental challenges, in the form

of sharp increases in both local pollution levels and in CO₂ emissions that, if unchecked, threaten to stall or reverse progress. India is also not creating enough jobs: even though data on employment in India are both low quality and controversial. Unfortunately, we are not well-positioned to follow the export-led growth path that allowed many Asian countries to climb out of poverty. Despite abundant cheap labor, we are not part of many global supply chains. Even as global firms seek to diversify away from China so as to reduce political risk, India is rarely seen as an obvious alternative.

- ◆ By 2022, 'New India' will provide a solid foundation for clean, inclusive, sustained and sustainable growth for the next three decades. The 'Strategy for New India @ 75' reflects our preparedness to make this transition. All levels of government must work together to achieve the vision of 'New India'. Working together as 'Team India' will ensure prosperity for all while protecting our environment and promoting the emergence of an innovative eco-system, propelling India to the front ranks of the global economy.

The Culture of Freebies: Is Undermining the Sanctity of Elections

Q2. Fair and free elections are essential requisites to maintain the purity of election and to sustain the faith of the people in the election itself in a democratic setup. Examine how freebies culture impacted the purity of the election process or exert undue influence on the voters in exercising their franchise.

Hints:

- ◆ Former Governor of the Reserve Bank of India C. Rangarajan has emphasised the need for sustained economic growth in Tamil Nadu, even as the State implements various welfare schemes. He also cautioned against distributing freebies without focus and a targeted approach. In another event the Madras High Court also disapproved of the practice of the State government providing freebies to people irrespective of their economic status.
- ◆ A government "by the people and of the people" should quite naturally deliver ideal governance "for the people", but in reality it is far apart. Basic issue

with democracy is that voters do not make rational or truly informed choices. There political decision making seems to be driven by pre- conceived criteria plus have a prejudice for instant gratification, thus keeping most democracies focused on the short term growth aspect. Thus, freebies vitiate the sanctity of elections; smearing campaigns by candidates have a large bearing on the voter's personality and their choices.

- ◆ Elections are rarely fought on policy issues. Political parties abuse the contents and the manifesto in whole. The national and state political parties issue their announcements in which they straightforwardly guarantee such things which in like manner are termed as "FREEBIES", targeting the gullible, credulous, impressionable masses, thereby hoodwinking them to promises which stand upon a thin line of fulfillment.
- ◆ The culture of rampant free growth to the forms of freebie is has created an adverse on society at large. The freebies which are promised at the elections are delivered by parties. It symbolises that a reward is being forwarded to voters and it clearly represents the perks of election triumph.
- ◆ Elections are the festival of democracy, extravagant doling out of freebies and monies are being utilized for captivating the elections, the widespread 'gifting' of items to tempt votes and the disregard of the poll manifesto is a trend that is worrisome for the health of democracy.
- ◆ Freebies in general is bribery not just the cash- from laptops to cows to mixes grinders to all sort other goodies, political parties of all ilk, belief and ethics have infused a draconian culture in the Indian democracy, a culture where freebies has been not used as a tool to cure the social apathy, but conducted to create financial gains, private assets and to achieve major vote pluralities.

China-Myanmar Economic Corridor: An Overview

Q3. Discuss the rationale behind China-Myanmar economic corridor and its implication to India's 'Act East Policy'.

Hints:

- ◆ In September Myanmar signed a memorandum of understanding (MoU) with China to establish the China-Myanmar Economic Corridor (CMEC), part of Beijing's sprawling Belt and Road Initiative. While the Chinese government calls the initiative a bid to enhance regional connectivity, critics see it as a push

for Chinese dominance in global affairs and for a China-centered trading network.

- ◆ The proposed China Myanmar Economic Corridor (CMEC) will begin from Kunming in Yunnan province of China to Mandalay in central Myanmar and extend East to Yangon and West to Kyaukphyu Special Economic Zone that China helped Myanmar to establish; and from Kyaukphyu port begins the strategic 1,060 km gas and oil pipelines that China built across Myanmar to link Kunming at an investment of \$7.5 billion.
- ◆ Given Myanmar's worsening relationship with the West due to the crisis in Rakhine state as well as the need for high investments to keep the economy afloat, CMEC is very attractive for the government in Naypyidaw. Myanmar's desire to minimise Beijing's overbearing influence is often neutralised by the interlinked political and security considerations at their shared borderlands and the need to seek diplomatic and economic support from China in the face of international pressures.
- ◆ Beijing likely understands that the viability of CMEC is closely tied with the restoration of peace and stability in Myanmar. China has been increasingly active in facilitating meetings between the government and members of the Federal Political Negotiation and Consultative Committee (FPNCC), a seven-member alliance of ethnic armed organizations situated in Kachin and northern Shan states. The intervention by China, with the goal of smoothing the way to implement CMEC, will likely have an impact on Myanmar's peace process.
- ◆ Land issues and disputes between local communities and contractors are a common occurrence, but not the only obstacle to the project. The rise of inequality, weak strategic trade controls, and poor financial controls, among other things, also contribute to instability and risk escalating social conflicts in CMEC project areas.
- ◆ Both countries India and Myanmar have committed towards to the 'Act East' and 'Neighbourhood First' initiatives. These two policies aim to put together an "independent, active and non-aligned" foreign policy between the two countries. CMEC deal is seen as a positive in Myanmar; the same cannot be said in India where the deal is viewed as a threat to security. This new seaport is just one of the latest additions to what many called the Chinese "string of pearls" which are seaports and sea facilities that are scattered across the Indian Ocean. Chief among these "pearls" are the ports in Hambantota in Sri Lanka and Gwadar in Pakistan. India claims that these projects will give the Chinese military greater access within the immediate region.

- ◆ Myanmar, in particular, occupies a special position in India's matrix of ties with ASEAN states. After all, it is contiguous to India's Northeast region, sharing a land boundary of 1,700 km with four states including Manipur, Mizoram, Nagaland and Arunachal Pradesh. Major infrastructure projects such as the IndiaMyanmar-Thailand Trilateral Highway can prove to be a game-changer to connect India's Northeast with ASEAN. India is also party to the ambitious Trans-Asian railway project, though progress has been less than satisfactory because of the weak political will of the stakeholders and differences in alignment of the rail network among participating countries. Without adequate cross-border connectivity, it would be highly difficult for India's Northeastern states to reap the full potential of the Act East Policy.
- ◆ The draft agreement sets out the calculations for the financial settlement (or "divorce bill") that the UK will need to pay to the EU to settle all of its obligations.
- ◆ UK citizens in the EU and EU citizens in the UK, will retain their residency and social security rights after Brexit. The European Parliament has promised to make citizens' rights its top priority. But while politicians on all sides are telling citizens that they want them to stay, the Brexit process has caused an enormous amount of anxiety and uncertainty.
- ◆ The transition plan does not allow the U.K. to prohibit the free flow of people from the EU. That was the primary reason people voted for Brexit. A hard Brexit would be disastrous for the U.K.'s financial center. It would no longer be the base for companies that use it as an English-speaking entry into the EU economy. It would hurt Britain's younger workers. Germany is projected to have a labor shortage of two million workers by 2030. Those jobs will no longer be as readily available to the U.K.'s workers after Brexit.
- ◆ The idea of EU stands challenged. EU whose origin lied in the centuries of war that ravaged Europe was a transformative idea in international relations, enmeshing countries in cooperation. With the exit of UK, there is a possibility of other countries such as Greece etc to follow suit. Thus the idea of EU stands challenged.
- ◆ Access to European markets, therefore, is a key driver for Indian companies setting shop in UK. Britain coming out of EU is likely to affect the business prospects of these companies. Rupee may depreciate because of the double effect of foreign fund outflow and dollar rise. While on the positive side, Brexit has driven away fears of a US Fed rate hike and could lead to lower commodity prices. Brexit's impact will be a fateful one for commodity producers and producing nations. Also, devaluation of rupee might enhance India's export competitiveness.

Brexit Deal: Journey so Far

Q4. What is 'Brexit deal'? Discuss its consequences on UK and European Union. Also discuss its implication on India.

Hints:

- ◆ 'Brexit' is a word that is used as a shorthand way of saying the United Kingdom (UK) leaving the EU - merging the words Britain and exit to get Brexit. A referendum - a vote in which everyone (or nearly everyone) of voting age can take part - was held on 23 June, 2016, to decide whether the UK should leave or remain in the European Union. Leave won by 51.9% to 48.1%. The referendum turnout was 71.8%, with more than 30 million people voting.
- ◆ For the UK to leave the EU it had to invoke Article 50 of the 'Lisbon Treaty' which gives the two sides two years to agree the terms of the split. Since UK has triggered this process on 29 March, 2017, meaning the UK is scheduled to leave on, 29 March 2019.
- ◆ The draft Brexit withdrawal agreement stands at 585 pages long. This is a legally-binding text that sets the terms of the UK's divorce from the EU. Below are some key points from the agreement and their meaning:
- ◆ There will be no UK presence in the European Parliament, at the top table of the European Commission or in the European Court of Justice. The UK will have no formal say in making or amending EU rules and regulations, but it will have to follow them to the letter. The great advantage of transition, of course, is that it buys more time for businesses and governments to prepare for a new regime and it smoothes the path out of the EU. Transition also gives the UK continued access to EU databases on crucial issues like security while a future relationship is negotiated.

Coal: Is Still the Secret of World Energy

Q5. Despite legitimate concerns about air pollution and greenhouse gas emissions, coal use will continue to be significant in the future. Critically Analyse.

Hints:

- ◆ Coal is an anachronism that also happens to be the single largest source of electricity on the planet. Growth in global coal consumption slows sharply relative to the past, with falls in China and Organisation for Economic

Co-operation and Development (OECD) offset by increasing demand in India and other emerging Asia.

- ◆ Between 2007 and 2017, world coal consumption grew at an average annual rate of 0.8 percent. Coal's share in the global energy mix is forecast to decline from 27% in 2016 to 26% in 2022 on sluggish demand growth relative to other fuels.
- ◆ The higher-income countries tend to be both less energy-intensive and use less coal. Looking at those anomalous developed economies, coal is clearly on the decline in most. Australia sticks out for being rich, energy efficient and yet addicted to coal—not a big surprise, given it is a huge producer. Coal power still dominates in Australia today, but its prospects are waning.
- ◆ The U.S. electricity system continues to replace aging coal and nuclear with cheaper gas and renewable resources, assuming there is no lasting federal policy intervention to prevent their retirement. Coal and nuclear are pushed out by age and economics, such that by 2050 both nuclear and coal have almost disappeared from the electricity mix.
- ◆ China is the world's largest coal consumer. In 2017, China's coal consumption was 1,893 million tons of oil equivalents, accounting for 51 percent of the world coal consumption. China's per capita coal consumption peaked at 1.45 tons of oil equivalent in 2013. By 2017, China's per capita coal consumption fell to 1.37 tons of oil equivalent.
- ◆ India is the world's second largest coal consumer. In 2017, India's coal consumption reached 424 million tons of oil equivalents, accounting for 11 percent of the world coal consumption. From 1990 to 2017, India's per capita coal consumption rose from 126 kilograms of oil equivalent to 317 kilograms of oil equivalent.
- ◆ The Chinese share in global emissions is now close to 30%, whereas its share in global population is just about 17%. India's share in global population is 16%, while its share in emissions is only 6%-7%. Developed countries did want to club India with China and said that what applied to China, applied to India too. Using more coal to meet the energy demand from the same thermal capacity for the next 20 years will not put India at disadvantage given its commitment to meet the Climate Change COP 21 obligations. Analysts also said India could continue with a coal-based growth plan, which is cost effective. This is what China has done to place its economy on a solid footing.
- ◆ Coal supplies a third of all energy used worldwide and makes up 40% of electricity generation, as well

as playing a crucial role in industries such as iron and steel. Despite legitimate concerns about air pollution and greenhouse gas emissions, coal use will continue to be significant in the future. Therefore greater efforts are needed by government and industry to embrace less polluting and more efficient technologies to ensure that coal becomes a much cleaner source of energy in the decades to come.

A Climate Rulebook: Towards Achieving Climate Targets

Q6. The creation of the rulebook at COP24 has been hailed as an important step as it paves the way for implementation of the Paris Agreement. At the same time, several countries and non-governmental organisations have said the deal is good step but not enough. Critically discuss.

Hints:

- ◆ The global fight against climate change reached another milestone when negotiators from 196 countries finalised a rulebook for the 2015 Paris Agreement in recently concluded 24th meeting of the Conference of the Parties (COP24) to the United Nations Framework Convention on Climate Change held in the city of Katowice, Poland. The finalisation paves the way for implementation of the Paris Agreement, which is supposed to replace the existing Kyoto Protocol in 2020.
- ◆ The creation of the rulebook has been hailed as an important step that has breathed life into the Paris Agreement. While there was some progress on the process by which the Paris Agreement of 2015 would be implemented, key issues of concern for the poorest and developing nations were diluted or postponed. At the same time, several countries and non-governmental organisations have said the deal reached in Katowice, though welcome, was not enough.
- ◆ The rulebook contains various other processes and guidelines needed for implementing the other provisions of the Paris Agreement. In short, it holds the operational details of the Paris Agreement. The rulebook is a dynamic document, meaning new rules can be added, or existing rules amended.
- ◆ It was expected that the countries would give some indication of their willingness to do more than what they were currently committed to, and would agree to start a process towards that. But that did not happen.
- ◆ Similarly, the absence of any indication towards increasing "ambition" of climate actions was one major

disappointment of the Katowice conference, and it was voiced repeatedly by the small island states and the least developing countries, which are expected to face the worst impacts of climate change.

- ◆ The details on funding and building capacity have been postponed. References to “equity” in the draft rule book were erased. Article 9 (the provision of financial support to developing countries from industrialised nations) was ignored; instead, there was an emphasis on carbon markets and insurance mechanisms.
- ◆ Although the outcome does not adequately reflect the short window available to make deep greenhouse gas emissions cuts. Many international civil society groups expressed utter dismay over the disregard of equity. Poor and developing countries whose greenhouse gas emissions have been low or negligible will bear the brunt of warming effects. Yet, the Paris Agreement, endorsed by 195 countries under the UN Framework Convention on Climate Change (UNFCCC), has a long road ahead before carbon emissions can be pegged at levels flagged by scientists.

The Gravity of Air Pollution in India is Becoming Severe

Q7. Despite several measures have taken by government, air pollution accounts for one out of every eight deaths in India. The gravity of air pollution in India is becoming severe. Discuss why India's strategy to tackle air pollution needs an overhaul.

Hints:

- ◆ Air pollution accounts for one out of every eight deaths in India. As an environmental scourge that killed an estimated 1.24 million people in India in 2017. Many human problems are also due to mismanagement of environment which is created by man himself. Air quality is a cause for concern in India, particularly in cities and air pollutants including particulate matter (PM), sulfur dioxide (O₂), nitrogen oxides (NO_x), carbon monoxide (CO) and ozone (O₃) often exceed the National Ambient Air Quality Standards (NAAQS).
- ◆ The nature of urban and rural air pollution is quite different in India, therefore, their respective causes, effects and remedies are also different. Air pollution in the environment is determined by various sources of contamination. In urban areas this is mainly due to road traffic, combustion of energetic materials and industrial emission. Specific composition of rural air particulate contents are rich of pollen, animal and microbial allergens.
- ◆ Rising levels of CO₂ and other air-polluting gases increase the greenhouse effect, which in turn raises temperatures and affects global weather patterns. So, while climate change and air pollution are not the same issue per se, there are strong linkages and synergies between the two areas.
- ◆ The two challenges have emerged for better air quality in Indian cities the need to secure greater public awareness of the problems and commitment to action at civic, commercial and political levels to ensure that action to tackle air pollution is seen in the context of wider social and economic development policies. For example, how much can these interventions help reduce the local challenges, like providing safer and reliable public transportation systems; cleaner and efficient waste management; dust free roads; and pollution free industries and power plants.
- ◆ There is an emergent need for people to adopt a sustainable lifestyle that relies on lesser energy consumption technologies and equipment. Sustainable building designs that reduce energy consumption and maintain proper air-light balance to substantially reduce heating and cooling costs are effective steps. Less energy consumption means less carbon dioxide emissions from power plants that help generate that energy.
- ◆ At present, nearly two-thirds of the electricity in India is produced from fossil fuels, mainly coal and India has pledged in the Paris Climate Agreement to generate 40% of its electricity from renewable sources by 2030. A complete transition to cleaner fuels is the need of the hour and efforts need to be supported by application of emission-controlling strategies and policies to reduce total energy consumption in household and workplaces.



SEVEN IMPORTANT NATIONAL & INTERNATIONAL NEWS

NATIONAL

1. ISRO has Launched GSAT-7A

The Indian Space Research Organisation (ISRO) has launched its latest advanced satellite, GSAT-7A, from Andhra Pradesh's Sriharikota. The launch was the seventh mission of ISRO from Satish Dhawan Space Centre in 2018. GSLV-F11 was also the seventh flight carrying indigenously developed cryogenic upper stage.

About GSAT-7A

- ◆ GSAT-7A (angry bird) is a geosynchronous communication satellite.
- ◆ It is expected to give a boost to the strategic communication and networking capabilities of the Indian Air Force (IAF) and will

help the IAF to interlink different ground radar stations, airbases and Airborne Warning And Control System (AWACS) aircraft. The idea is to improve the IAF's network-centric warfare capabilities.

- ◆ The GSAT-7A has the Ku-band transponders and two deployable solar arrays onboard.
- ◆ The GSAT-7A is also expected to be a big push for drone operations as it will help the Navy reduce the reliance on on-ground control stations and take satellite-control of military unmanned aerial vehicles (UAV) which should help boost the range and endurance of the UAVs.

- ◆ In addition to GSAT-7A, the IAF would also be getting the GSAT-7C in a few years, to boost the network-centric operations.

About GSAT-7 Series

The GSAT 7 series was launched in 2013 as a dedicated communications satellite for the Indian Navy, which made the Navy completely independent of relying on foreign satellites for its blue water capabilities, thanks to GSAT 7 having a 2,000 nautical mile footprint. This helps in providing real-time inputs to Indian warships, submarines and maritime aircraft.

2. Law Banning Sexual Exploitation of Women

The State Administrative Council (SAC) under the chairmanship of Governor Satya Pal Malik has approved the 'Jammu and Kashmir Criminal Laws (Amendment) Bill, 2018. Jammu and Kashmir has become the first state in the country to have a law banning sexual exploitation of women by those in positions of authority, having a fiduciary relationship or a public servant.

The Bill seeks to amend the state Ranbir Penal Code (RPC)—a criminal code applicable in Jammu and Kashmir—whereby specific offence under Section 354E is being inserted to

provide for the offence of 'sextortion' (the practice of extorting money or sexual favours from someone by threatening to reveal evidence of their sexual activity).

Background

The amendment came after an order was passed by Jammu and Kashmir High Court Chief Justice Geeta Mittal and Justice Alok Aradhe on October 15. The court had directed the state to examine the concept of 'Sextortion; in the context of applicable laws. So that illegal acts, unwarranted demands for sexual favours and inappropriate

contacts by the person in authority are made punishable.

About RPC

RPC is the main criminal code applicable in the Indian state of Jammu and Kashmir. Indian Penal Code is not applicable here under Article 370 of the Constitution of India. The code was introduced by Ranbir Singh during the Dogra Dynasty and it came in effect from 1932. The provision of code was prepared by Thomas Babington Macaulay.

3. Indian Flight and Maritime Connectivity Rules, 2018

The government has paved the way for passengers of air travel and sea voyage to use internet and make calls with their mobile phones in Indian airspace by notifying the Indian Flight and Maritime Connectivity (IFMC) Rules, 2018.

- ◆ According to the notification, Indian and foreign airlines and shipping companies operating in the country can provide in-flight and maritime voice and data services in partnership with a valid Indian telecom licence holder.
- ◆ The services will be activated once the aircraft attains a minimum height of 3,000 metres in Indian airspace to avoid interference with terrestrial mobile networks.
- ◆ The IFMC licences will be granted against an annual fee of Re 1 for a

period of 10 years and the permit holder will have to pay licence fees and spectrum charges based on revenue earned from providing services. However, airlines, shipping companies and service providers will decide how much they want to charge the customer. It is also up to them whether they want to offer both internet and calling services or limit themselves to Wi-Fi services only.

- ◆ This development helps India, one of the fastest growing aviation markets and the second largest smartphone market, join a long list of countries like the US, UK, Canada and China that have been offering the services for a couple of years now.

- ◆ IFMC can be provided using telecom networks on the ground as well as using satellites. The services can be provided by a valid telecom licence holder in India through domestic and foreign satellites having permission of the Department of Space.
- ◆ In case of using satellite system for providing IFMC, the telegraph message shall be passed through the satellite gateway Earth station located within India. Such satellite gateway Earth stations shall be interconnected with the national long distance (NLD) or access service or ISP licensee's network for further delivery of service.

■

4. MHA has Authorised 10 agencies to Monitor Computer Resources

The Ministry of Home Affairs (MHA) has issued an order granting ten central intelligence and security agencies access to information stored, received or transmitted in computers. The agencies can intercept, monitor and decrypt "any information generated, transmitted, received or stored in any computer.

The agencies include the following — The Intelligence Bureau, Narcotics Control Bureau, National Investigation Agency, Enforcement Directorate, Central Board of Direct Taxes, Directorate of Revenue Intelligence, Central Bureau of Investigation, Cabinet Secretariat (R&AW), Directorate of Signal Intelligence (For service areas of Jammu & Kashmir, North-East and Assam only) and Commissioner of Police, Delhi.

- ◆ The order mandates for a subscriber or service provider or any person in charge of the computer resource to extend technical assistance to the agencies.
- ◆ Non-compliance will invite seven-year imprisonment and fine.
- ◆ The authorisation has been given under Section 69 of the Information Technology Act, 2000. It allows the government to direct any agency in the interest of the sovereignty, defence of India and security of the state among other reasons. According to Section 69(1) of the Information Technology Act, 2000, central or state governments allow agencies to intercept, monitor or decrypt any information generated, transmitted, received or stored in any computer resource.

Concerns

- ◆ According to a report, only data in motion could be intercepted earlier. But now data received, stored and generated can also be intercepted as powers of seizure have been given. Earlier IB had no power to seize devices but now it can. This means not just calls or emails, but any data found on a computer can be intercepted.
- ◆ The sweeping powers given to agencies to snoop phone calls and computers without any checks and balances are extremely worrisome. This is likely to be misused. This order is a "direct assault on civil liberties and personal freedom of citizens".

■

5. Process of Amending the Backbone of Forest Governance in India

The Ministry of Environment, Forest and Climate Change has started the process of “comprehensively amending” the backbone of forest governance in India—the Indian Forest Act, 1927 (IFA). It would involve the examination of all the sections of the Act. The obsolete provisions will be weeded out and provisions fit for the present will be introduced.

The amendments will also include definitions of terms like forests, pollution, ecological services etc. There is no definition of forest in any Indian law pertaining to forest or its governance. According to the 1996 Supreme Court order, the dictionary

definition of the word forest is taken to be the legal definition too.

The legal definition of forests will have huge ramifications on the conservation of forests as well as the implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. The amendments will include changes to punishments and fines prescribed in the IFA, incorporate provisions related to carbon sequestering, ecological services etc.

Need

The provisions of IFA, like the amount of the fines prescribed for violating

the law, were set according to that time and they are very low for today. Moreover, many laws concerning forest government have been implemented since 1927.

Background

Earlier this year, the ministry had formed a committee, under the chairmanship of the additional director general of forests, which is mandated to work out the amendments. Many reports like the MB Shah report of 2010 and the TSR Subramanian report of 2015, have talked about amending the IFA.

6. National Medical Devices Promotion Council to be set up under DIPP

Union Minister of Commerce and Industry and Civil Aviation has announced setting up of a National Medical Devices Promotion Council, to give a fillip to the medical device sector, which is a sunrise sector, under the Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce & Industry.

The National Medical Devices Promotion Council will have the following objectives and activities:

- ◆ Act as a facilitating and promotion & developmental body for the Indian Medical Device Industry (MDI).
- ◆ Hold periodic seminars, workshops and all related networking activities to garner views of the industry and understand best global practices in the sector and deliberate on various parameters for inclusion in the industrial and trade policies in medical devices.
- ◆ Identify redundant processes and render technical assistance to the agencies and departments

concerned to simplify the approval processes involved in medical device industry promotion & development.

- ◆ Enable entry of emerging interventions and support certifications for manufacturers to reach levels of global trade norms and lead India to an export driven market in the sector.
- ◆ Support dissemination and documentation of international norms and standards for medical devices, by capturing the best practices in the global market and facilitate domestic manufacturers to rise to international level of understanding of regulatory and non-regulatory needs of the industry.
- ◆ Drive a robust and dynamic Preferential Market Access (PMA) policy, by identifying the strengths of the Indian manufacturers and discouraging unfair trade practices in imports; while ensuring proactive monitoring of public

procurement notices across India to ensure compliance with PMA guidelines of DIPP and DoP.

- ◆ Undertake validation of Limited Liability Partnerships (LLPs) and other such entities within MDI sector, which add value to the industry strength in manufacturing to gain foothold for new entrants.
- ◆ Make recommendations to government based on industry feedback and global practices on policy and process interventions to strengthen the medical technology sector, including trade interventions for related markets.

The Council will be headed by Secretary, DIPP. Apart from the concerned departments of Government of India, it will also have representatives from health care industry and quality control institutions. Andhra Pradesh MedTech Zone, Visakhapatnam, will provide technical support to the Council.

7. NavIC Enabled Communication Devices

After facing severe criticism for failing to provide timely weather alerts to fishermen, the Tamil Nadu government has provided Navigation with Indian Constellation (NavIC) enabled communication devices to 80 fishing boat groups. Touted as the Indian version of the American Global Positioning System (GPS), NavIC enabled communication devices will provide fishermen with real-time alerts on cyclone and weather updates.

- ◆ The devices are the size of a soap box and are Bluetooth enabled.

The alerts can be accessed by downloading the NavIC App in android phones and the alerts will appear in Tamil language.

- ◆ These gadgets have been distributed free of cost and there are also no recurring costs. These gadgets have to be maintained properly.

Background

During cyclone Ockhi last year, several fishermen went missing. After that the state government had announced in

the 2018-19 budget that the gadgets would be provided to fishermen engaged in deep sea fishing.

About NavIC

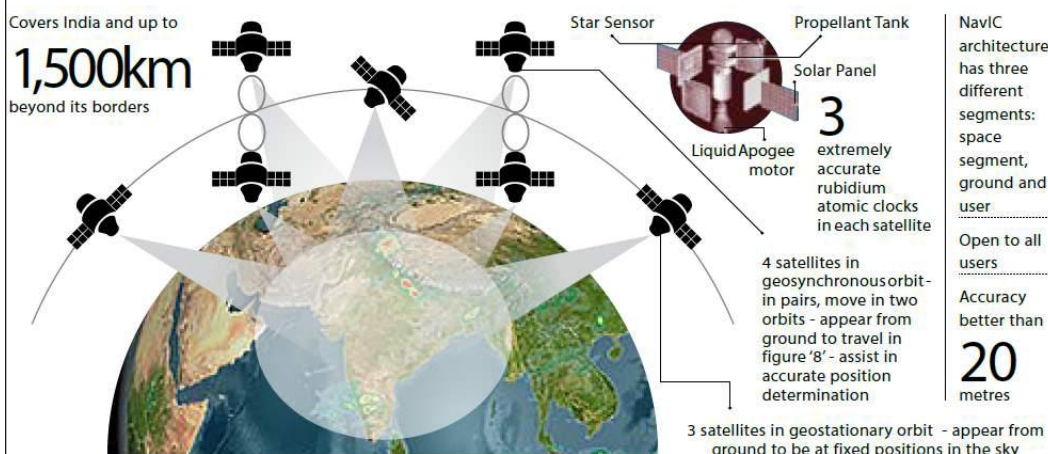
The Indian Regional Navigation Satellite System constellation of 7 satellites, named "NavIC", provides position, navigation and timing services over India and 1500 km around the Indian mainland.

India's NavIC provides service equivalent to the Global Navigation Satellite System (GNSS), the United States' GPS, China's Beidou, Russia's Glonass and Europe's Galileo. However, India's NavIC offers regional, not global coverage. Once fully operational, NavIC is intended to provide two specific services: unencrypted Standard Positioning Service (SPS) with an accuracy of less than 10 meters for all users and an encrypted Restricted Service (RS), with an undisclosed but higher accuracy for use by India's security services.

The seven sisters in space

The NavIC or Navigation Indian Constellation is an independent regional navigation satellite system which works through seven eyes in the sky. It is designed to provide position information in India and 1500 km around the Indian mainland. Here's a look at how it works

Covers India and up to
1,500km
beyond its borders



INTERNATIONAL

1. Asbestos in Baby Powder

Recent investigations from Reuters and the New York Times has claimed the talcum powder of Johnson & Johnson brand was contaminated by carcinogenic asbestos, making it poisonous and life-threatening for women using it on themselves. More than 12,000 women in the US have sued the company over claims that the talcum powder manufactured by them is the prime cause behind their ovarian cancer.

- ◆ Talc is a naturally occurring mineral, found in clay, which is mined from the soil. Being the softest mineral known to mankind, it can be crushed into white powder known as 'talcum powder'.

◆ Now, asbestos is also a naturally occurring mineral found underground. Thin asbestos fibers which are soft and flexible often seep inside the talc deposits. This is how asbestos contaminates the talc mined from the soil.

◆ What makes the contamination even more dangerous is that talc is also widely used in cosmetics and other personal care items.

◆ Breathing asbestos can lead to scarring of the lungs.

About Asbestos

Asbestos is a naturally occurring mineral substance that can be pulled into a fluffy consistency. Asbestos

fibers are soft and flexible yet resistant to heat, electricity and chemical corrosion. Pure asbestos is an effective insulator and it can also be mixed into cloth, paper, cement, plastic and other materials to make them stronger.

Asbestos is not a single type of mineral — rather, it refers to a group of silicate minerals that share the same fibrous nature. Asbestos minerals have two broad classifications: serpentine and amphibole. The only member of the serpentine class is chrysotile (white asbestos).

Others are less often used "blue asbestos" (crocidolite) and "brown asbestos" (amosite).

2. Joint Task Force to Protect Wildlife

The governments of India, Nepal and Bhutan are actively considering having

a joint task force for allowing free movement of wildlife across political boundaries and checking smuggling of wildlife across the Kanchenjunga Landscape, a trans-boundary region spread across Nepal, India and Bhutan.

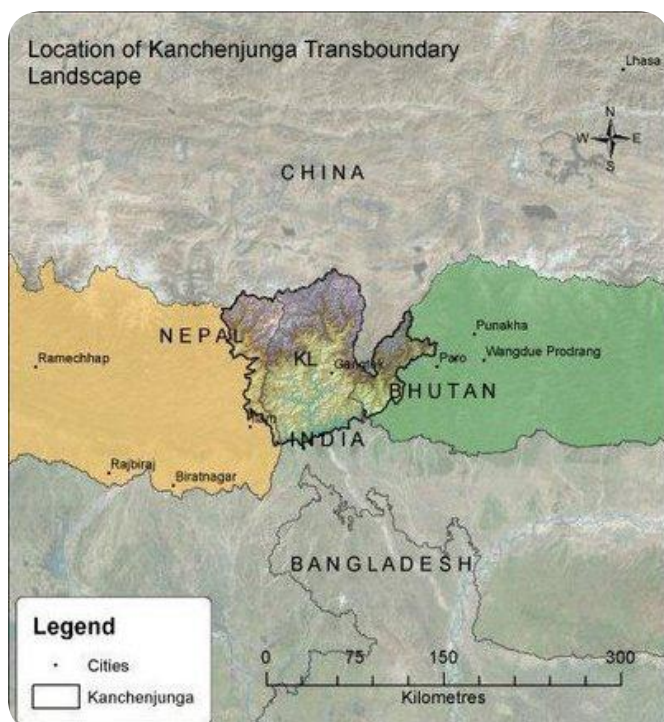
The landscape stretches along the Southern side of Mount Kanchenjunga covers an area of 25,080 sq km spread across parts of Eastern Nepal (21%), Sikkim and West Bengal (56%) and Western and South-Western parts of Bhutan (23%). Other than seven million

people, the Kanchenjunga Landscape is also home to 169 species of mammals and 713 species of birds.

Concerns

According to the International Centre for Integrated Mountain Development (ICIMOD), a regional knowledge development and learning centre, 1,118 sq km of riverine grassland and tree cover were lost in the landscape between 2000 and 2010. 74 % of the area was converted into rangeland and 26% to agricultural land.

According to the ICIMOD, between 1986 and 2015, as many as 425 people were killed by elephants (an average of 14 human deaths every year) and 144 elephants were killed between 1958 and 2013 (an average of three elephants every year).



3. Trans Regional Maritime Network

India has signed an ascension pact to the 30-member Trans-Regional Maritime Network (T-RMN) which is steered by Italy. The pact will give India the access to information on ships which pass through the Indian Ocean region that will greatly help the security forces in keeping a tab on any suspicious activity.

Under the T-RMN, information is available mainly through the Automatic Identification System (AIS), fitted on the merchant ships with more than 300 Gross Registered Tonnage as mandated by the International Maritime Organisation. Among the information that is available through AIS includes name, Maritime Mobile

Service Identity (MMSI) number, position, course, speed, last port visited and destination. This is picked up through various AIS sensors including coastal AIS chains and satellite based receivers. The Indian Navy has the approval from the government to get in touch with a number of nations on technical agreement on exchanging information on white-shipping. India already has bilateral White Shipping Agreements with 36 countries. Exchange of White Shipping Information would enable India to progressively increase awareness of its primary maritime areas of interest, with significant benefits, both in peace and conflict.

The Indian Navy is also in the process of setting-up an Information Fusion Centre-Indian Ocean Region (IFC- IOR) to further their commitment towards achieving collective maritime security in the IOR, this is a separate platform and all members of the Indian Ocean Naval Symposium (IONS) are expected to be part of it.

		
V-RMTC 24 COUNTRIES	5+5 COMMUNITY 10 COUNTRIES	TRANS-REGIONAL MARITIME NETWORK
ALBANIA BELGIUM BULGARIA CROATIA CYPRUS FRANCE GEORGIA GERMANY GREECE ISRAEL ITALY JORDAN MALTA MONTENEGRO NETHERLANDS PORTUGAL ROMANIA SENEGAL SLOVENIA SPAIN TURKEY UKRAINE U.K. U.S.A.	ALGERIA FRANCE ITALY LIBYA MALTA MAURITANIA MOROCCO PORTUGAL SPAIN TUNISIA	V-RMTC + ARGENTINA BRAZIL CHILE NIGERIA PERU SINGAPORE SOUTH AFRICA

Service Identity (MMSI) number, position, course, speed, last port visited and destination. This is picked up through various AIS sensors including coastal AIS chains and satellite based receivers. The Indian Navy has

4. India – South Korea CEPA Negotiations

The 7th round of India – South Korea Comprehensive Economic Partnership Agreement (CEPA) negotiations were held in South Korea from 11-13 December, 2018.

The Indian sugar industry delegation had detailed discussions with top representatives of all the three sugar refineries of South Korea. South Korea imports around 15 lac tonnes of raw sugar annually and the Indian sugar industry is making efforts to export raw sugar from India during 2018-19 sugar season.

The discussions were positive and subject to Indian sugar industry meeting the quality standards and specifications prescribed by the South Korean Government. The Indian sugar industry will undertake further

discussions and talks with the sugar refineries in South Korea to pursue the matter further so that sugar exports may take place from India to South Korea.

About CEPA between India and South Korea

The Comprehensive Economic Partnership Agreement (CEPA) between the two countries was implemented in January 2010 and is currently under revision. The two countries agreed to finalise the CEPA upgrading negotiations at the earliest date in 2019.

In 2017-18, India exported goods worth \$4.4 billion to South Korea while imports from the latter were worth \$16.3 billion. India allowed

imports of South Korean pears and had asked Seoul to reduce duties on sesame imports. South Korea imposes quantitative restrictions on sesame imports and levies a whopping 630% duty on Indian sesame, which India wants reduced.

India has a \$12-billion trade deficit with Korea which would have further widened if India gave 17 open lines on trade that their visiting delegation was asking.

Korea, however, did not give the status of 'native English speaking nation' to India, though it had accorded this to some other countries, including South Africa. The status would have opened up an E2 visa for Indians.

5. Australia Recognized West Jerusalem as Capital of Israel

Australia has decided to formally recognize West Jerusalem as Israel's capital, but won't move its embassy until there's a peace settlement between Israel and the Palestinians. Australia becomes the third country to recognize Jerusalem as Israel's capital, following the U.S. and Guatemala. The announcement represents a change in the country's long-held policy on the negotiations between Israel and the Palestinians.

Unlike its predecessors, however, Australia recognized only the Western part of the city. The move, therefore, is unlikely to please either side entirely. For the Palestinians, it offers a partial

resolution to an issue that they believe should be resolved through negotiations. That decision is softened, though, by recognizing their claim to east Jerusalem.

Background

Both Israel and the Palestinians claim Jerusalem as their Capital. United States President Donald Trump's administration had also announced recognition of Jerusalem as Israel's capital on December 6, 2017.

The UN General Assembly passed a resolution in opposition to declare the US President's declaration of Jerusalem as Israel's capital "null and void". India

also supported the resolution, which was approved with a majority of 127-9 at the UN General Assembly calling for the US to withdraw its decision.

About Jerusalem

Israel captured East Jerusalem in the 1967 Mideast war and annexed it in a move that is not internationally recognized. Israel considers East Jerusalem an indivisible part of its capital, while the Palestinians seek the area, home to the city's most sensitive holy sites, as the capital of a future state.

6. Planet Saturn is Losing Its Rings

New NASA research confirms that Saturn is losing its iconic rings at the maximum rate estimated from Voyager 1 & 2 observations made decades ago. The rings are being pulled into Saturn by gravity as a dusty rain of ice particles under the influence of Saturn's magnetic field.

Saturn's Rings

Saturn's rings are mostly chunks of water ice ranging in size from microscopic dust grains to boulders

several yards (meters) across. Ring particles are caught in a balancing act between the pull of Saturn's gravity, which wants to draw them back into the planet and their orbital velocity, which wants to throw them outwards into space.

Tiny particles can get electrically charged by ultraviolet light from the Sun or by plasma clouds emanating from micrometeoroid bombardment of the rings. When this happens, the particles can feel the pull of Saturn's

magnetic field, which curves inward toward the planet at Saturn's rings. In some parts of the rings, once charged, the balance of forces on these tiny particles changes dramatically, and Saturn's gravity pulls them in along the magnetic field lines into the upper atmosphere.

Saturn is not the only planet in the solar system to have rings — Jupiter, Uranus and Neptune also contain faint ring systems.

7. Yellow Vests Protest in France

France has been experiencing one of the most significant social mobilisations in its recent history, which laid bare the country's social ills, anti-elite sentiment, growing inequalities and thirst for social justice. It all started on November 17 when tens of thousands of people took to the streets across the country to protest against rising fuel prices. The protesters, dubbed "Les gilets jaunes" (the yellow vests) after

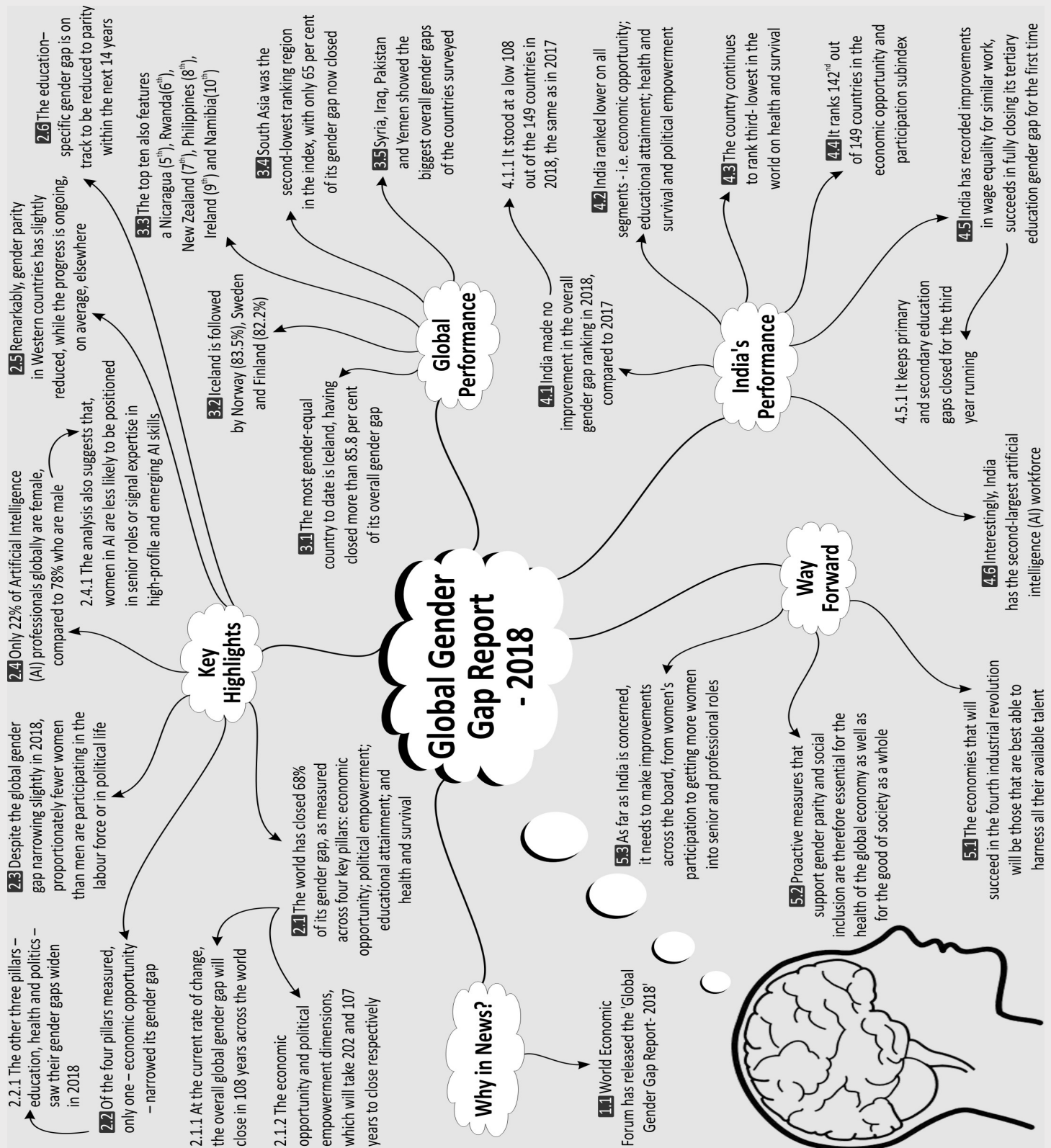
the high-visibility jackets they adopted as a symbol of their complaint, blocked roundabouts, burned effigies and clashed with the police. They were angry about the almost 20 percent increases in the price of diesel since the start of the year, as well as the planned fuel tax hike President Emmanuel Macron had recently announced.

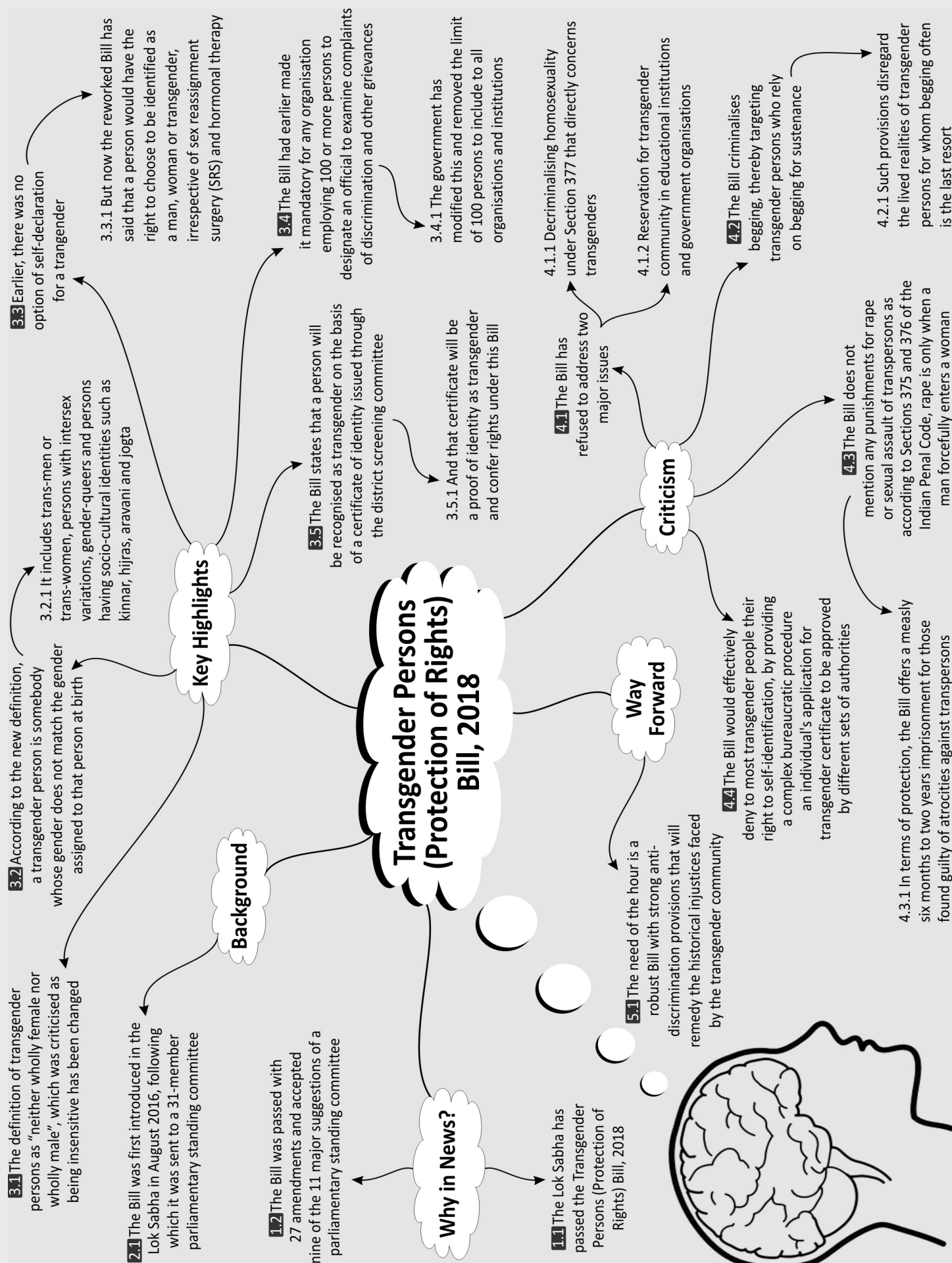
The "yellow vests" want further concessions from the government.

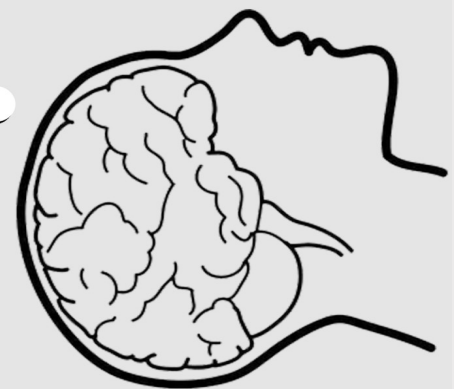
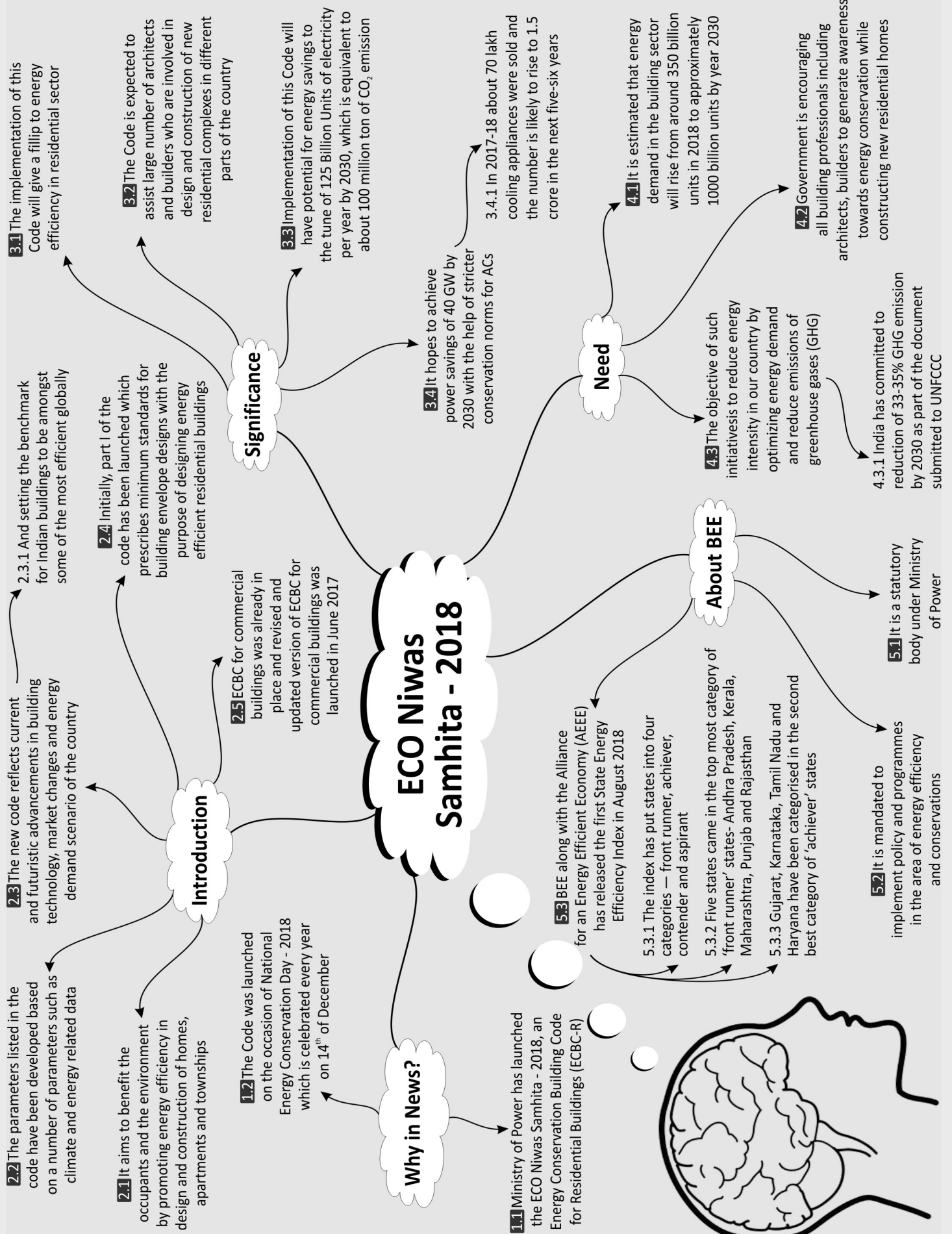
Their demands include a redistribution of wealth as well as the increase of salaries, pensions, social security payments and the minimum wage.

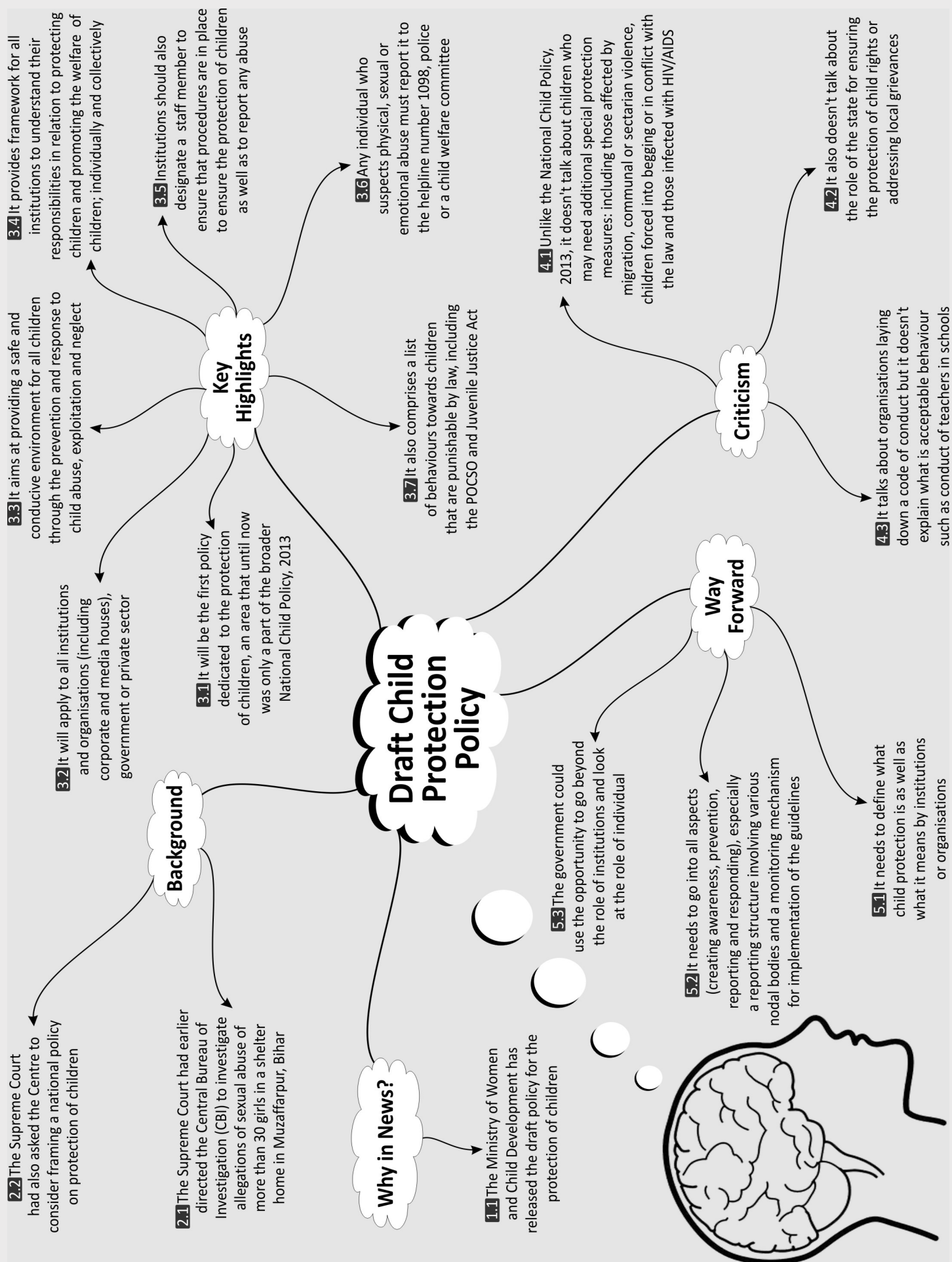
It all comes down to Macron's apparent failure to connect with the people, understand their concerns and steer France away from destructive neoliberal policies.

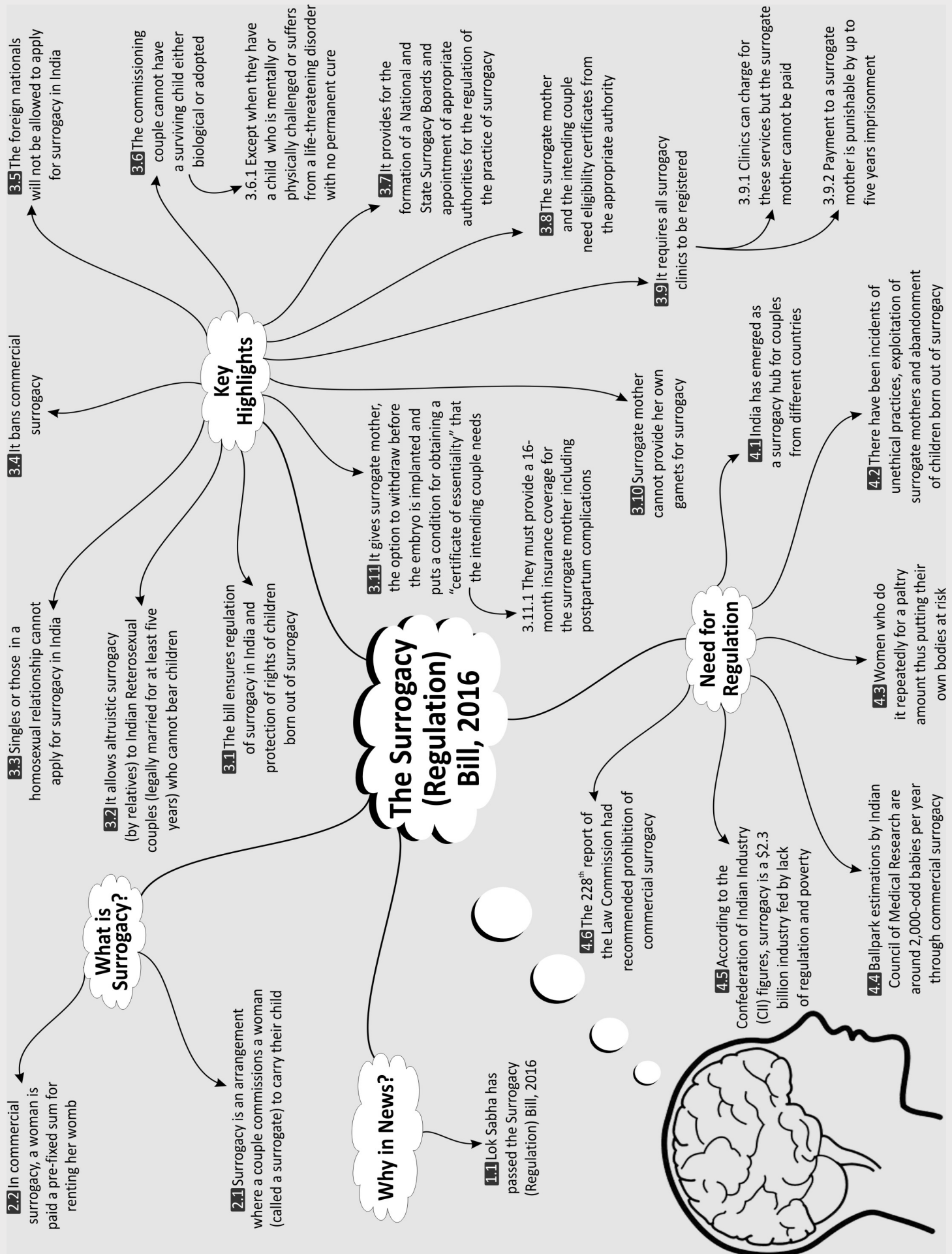
SEVEN BRAIN BOOSTERS

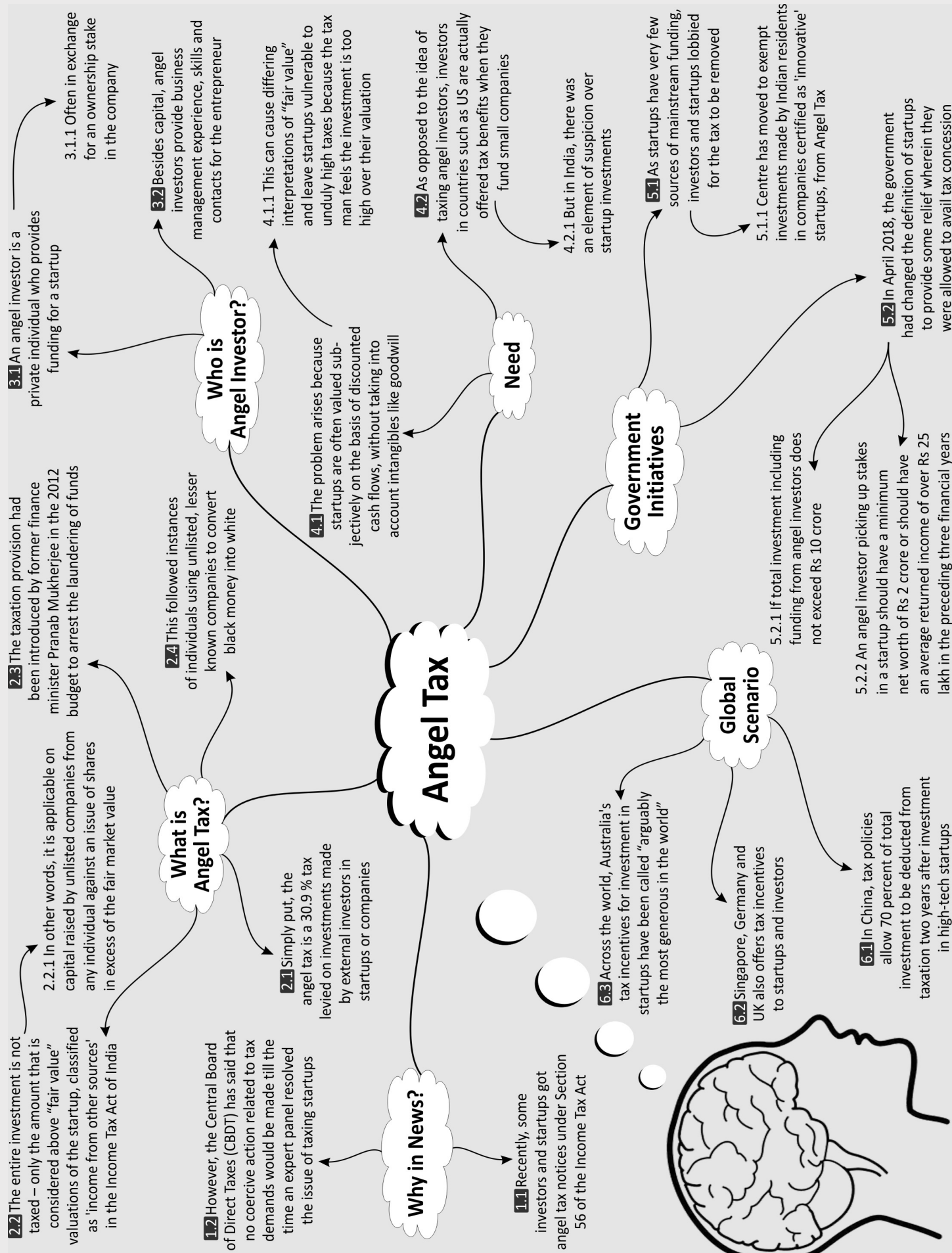


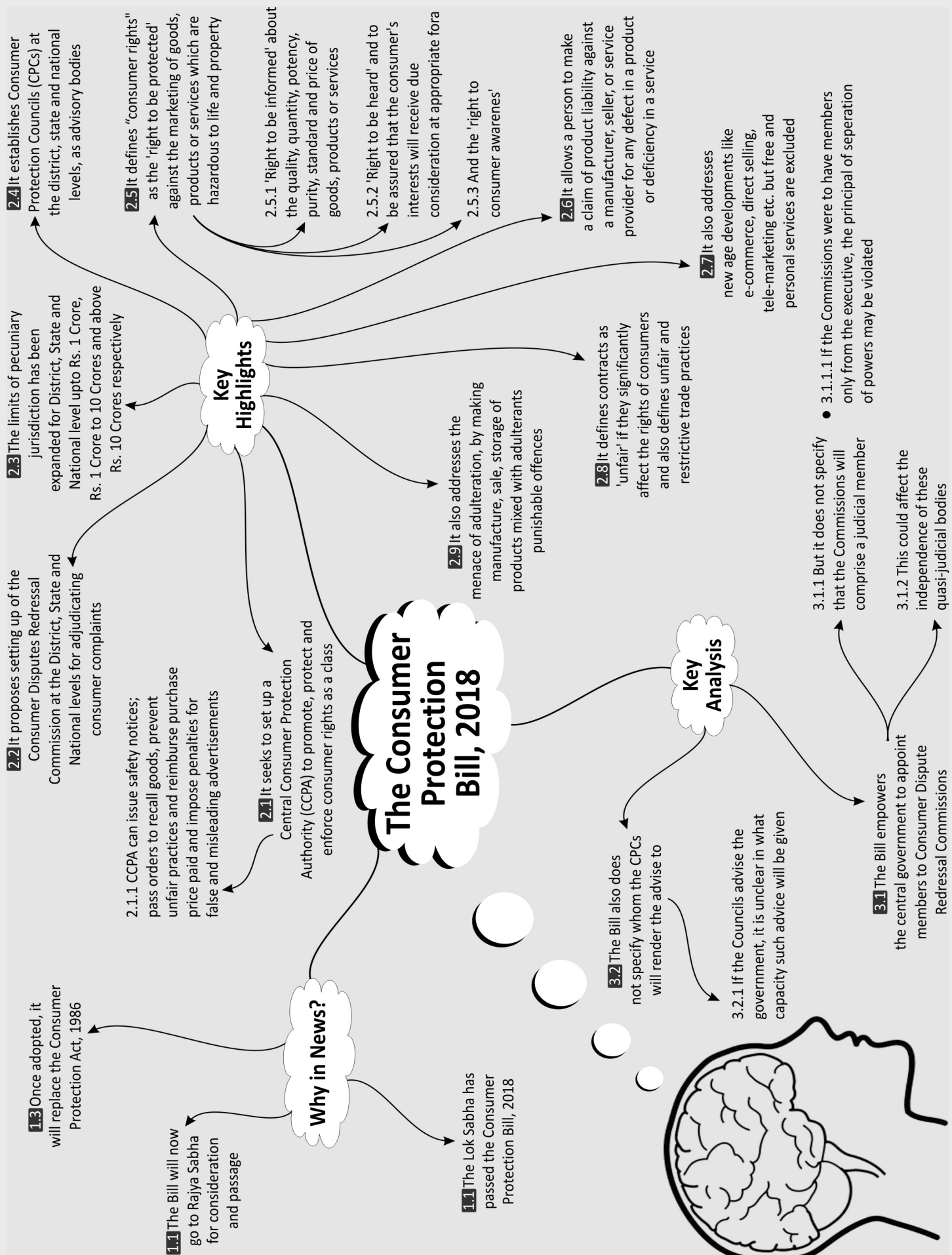












SEVEN MCQ's WITH EXPLANATORY ANSWERS (Based on Brain Boosters)

Global Gender Gap Report - 2018

Q1. Consider the following statements in respect of Global Gender Gap Report-2018:

1. The report is released by International Monetary Fund (IMF).
2. The report measures gender gap across four key pillars i.e. economic opportunity; political empowerment; educational attainment; and health & survival.

Which of the statements given above is/are correct?

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

Answer: (b)

Explanation: Statement 1 is not correct because the report is released by the World Economic Forum on annual basis.

Statement 2 is correct. Gender gap is measured across four key pillars: economic opportunity; political empowerment; educational attainment; and health and survival. Of the four pillars measured, only one – economic opportunity – narrowed its gender gap.

Transgender Persons (Protection of Rights) Bill, 2018

Q2. Consider the following statements in respect of Transgender Persons (Protection of Rights) Bill, 2018:

1. According to the bill, a transgender person is somebody whose gender doesn't match the gender assigned to that person at birth and it includes trans-men or trans-women, persons with intersex variations, gender-queers and persons having socio-cultural identities such as kinnar, hijras, aravani and jogta.
2. It is mandatory for all organizations and institutions to designate an official to examine complaints of discrimination and other grievances.
3. A person will be recognised as transgender on the basis of a certificate of identity issued through the district screening committee.

Which of the statements given above is/are incorrect?

- a) 1 and 2 only b) 2 and 3 only
c) 1 and 3 only d) None of the above

Answer: (d)

Explanation: All statements are correct. According to the bill, a transgender person is somebody "whose gender does not match the gender assigned to that person at birth. It includes trans-men or trans-women, persons with intersex variations, gender-queers and persons having socio-cultural identities such as kinnar, hijras, aravani and jogta.

The Bill had earlier made it mandatory for any organisation employing 100 or more persons to designate an official to examine complaints of discrimination and other grievances. The government has modified this and removed the limit of 100 persons to include to all organisations and institutions.

A person will be recognised as transgender on the basis of a certificate of identity issued through the district screening committee. That certificate will be a proof of identity as transgender and confer rights under this Bill.

ECO Niwas Samhita - 2018

Q3. Consider the following statements in respect of ECO Niwas Samhita – 2018:

1. Ministry of New and Renewable Energy has launched the ECO Niwas Samhita – 2018.
2. ECO Niwas Samhita is an Energy Conservation Building Code for Residential Buildings (ECBC-R).
3. It aims to benefit the occupants and the environment by promoting energy efficiency in design and construction of homes, apartments and townships.
4. ECBC for commercial buildings was already launched in June 2017.

Which of the statements given above is/are correct?

- a) 1, 2 and 3 only b) 1, 3 and 4 only
c) 2, 3 and 4 only d) 1, 2, 3 and 4

Answer: (c)

Explanation: Ministry of Power has launched the ECO Niwas Samhita - 2018, an Energy Conservation Building Code for Residential Buildings (ECBC-R), **hence statement 1 is not correct and statement 2 is correct.**

Statements 3 and 4 are correct. It aims to benefit the occupants and the environment by promoting energy efficiency in design and construction of homes, apartments and townships. ECBC for commercial buildings was already in place and revised and updated version of ECBC for commercial buildings was launched in June 2017.

Draft Child Protection Policy

Q4. Consider the following statements in respect of Draft Child Protection Policy:

1. The draft policy was released by the Ministry of Women and Child Development.
2. The draft policy will be the first policy dedicated to the protection of children.
3. The policy will apply to all institutions and organisations (including corporate and media houses), government or private sector.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation: All statements are correct. The Ministry of Women and Child Development has released the draft policy to the protection of children. It will be the first policy dedicated to the protection of children, an area that until now was only a part of the broader National Child Policy, 2013. It will apply to all institutions, and organisations (including corporate and media houses), government or private sector.

The Surrogacy (Regulation) Bill, 2016

Q5. Consider the following statements in respect of the Surrogacy (Regulation) Bill, 2016:

1. The Bill allows for commercial surrogacy but it totally ban altruistic surrogacy.
2. The foreign nationals will be allowed to apply for surrogacy in India.
3. The provisions of the Bill will boost medical tourism in India.

Which of the statements given above is/are correct?

- | | |
|-----------------|----------------------|
| a) 1 and 3 only | b) 2 and 3 only |
| c) 1, 2 and 3 | d) None of the above |

Answer: (d)

Explanation: All statements are incorrect. It allows altruistic surrogacy (by relatives) to Indian heterosexual couples (legally married for at least five years) who cannot bear children. The foreign nationals will not be

allowed to apply for surrogacy in India, thus, the Bill will be detrimental for medical tourism in India.

Angel Tax

Q6. Consider the following statements:

1. An angel investor is a private individual who provides funding for a startup.
2. Besides capital, angel investors provide business management experience, skills and contacts for the entrepreneur.
3. Angel tax is applicable on capital raised by unlisted companies from any individual against an issue of shares in excess of the fair market value.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation: All statements are correct. An angel investor is a private individual who provides funding for a startup often in exchange for an ownership stake in the company. Besides capital, angel investors provide business management experience, skills and contacts for the entrepreneur. The angel tax is a 30.9 % tax levied on investments made by external investors in startups or companies. It is applicable on capital raised by unlisted companies from any individual against an issue of shares in excess of the fair market value.

The Consumer Protection Bill, 2018

Q7. Consider the following statements in respect of the Consumer Protection Bill, 2018:

1. The bill will replace Consumer Protection Act, 1986.
2. A Central Consumer Protection Authority (CCPA) will be set up to promote, protect and enforce consumer rights as a class.

Which of the statements given above is/are correct?

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

Answer: (c)

Explanation: Both statements are correct. Consumer Protection Bill, 2018, if adopted, it will replace the Consumer Protection Act, 1986. It seeks to set up a Central Consumer Protection Authority (CCPA) to promote, protect and enforce consumer rights as a class. CCPA may issue safety notices; pass orders to recall goods, prevent unfair practices and reimburse purchase price paid and impose penalties for false and misleading advertisements.



SEVEN IMPORTANT FACTS FOR PRELIMS

1. Which state has been ranked as the 'Best Performer' in the States' Start-up Ranking-2018 by the Department of Industrial Policy and Promotion (DIPP)?

–Gujarat

2. Which Indian film has shortlisted for the 91st Oscar in the 'Documentary Short Subject Category'?

–Period. End of Sentence

3. Which state government has launched 'Shiksha Setu' mobile app to ensure better connectivity with college students?

–Haryana

4. Which states has been ranked as the 'Top Performer' by Niti Aayog in India's Index for Sustainable Development Goals (SDG) among all the states and Union Territories?

–Himachal Pradesh & Kerala

5. Which state has recently celebrated its 57th Liberation Day on 19th December?

–Goa

6. Who has been elected Georgia's first female President?

–Salome Zurbishvili

7. India's largest cancer institute, the National Cancer Institute (NCI) has been launched in which state?

–Haryana (Jhajjar District)



STATE ELECTION RESULTS- 2018

1. Chhattisgarh

- ◆ Total Constituencies - 90
- ◆ Required number of seats to form government - 46 seats
- ◆ The legislative assembly election in the state was held in two phases November 12 and 20.
- ◆ Indian National Congress (INC) won 68 seats out of 90 and got 43% vote share.
- ◆ Bharatiya Janata Party (BJP) won 15 seats (33% vote share) and slipped to the second largest party.
- ◆ Bahujan Samaj Party and Janta Congress (Chhattisgarh) won 2 and 5 seats respectively.
- ◆ The none of the above (NOTA) votes ranged as high as 2 per cent in Chhattisgarh.
- ◆ **Structure of State Legislature** - Unicameral
- ◆ **Governor** - Anandiben Patel
- ◆ **Chief Minister**- Bhupesh Baghel
- ◆ **Capital** - Raipur

2. Rajasthan

- ◆ Total Constituencies - 200
- ◆ Required number of seats to form government - 101 seats
- ◆ The legislative assembly election in the state was held on 7th December 2018.
- ◆ INC became the single largest party of the state in 2018.
- ◆ INC won 99 seats out of 200 and got 39.3% vote share.
- ◆ BJP won 73 seats (38.8 % vote share) and slipped to the second largest party.
- ◆ The none of the above (NOTA) option accounted for 1.3% of the votes in this election.

- ◆ **Structure of State Legislature** - Unicameral
- ◆ **Governor** - Kalyan Singh
- ◆ **Chief Minister** - Ashok Gehlot
- ◆ **Deputy Chief Minister** - Sachin Pilot
- ◆ **Leader of the Opposition** - Vasundhara Raje (BJP)
- ◆ **Capital**- Jaipur

3. Madhya Pradesh

- ◆ Total Constituencies - 230
- ◆ Required number of seats to form government - 116 seats
- ◆ Elections to the Madhya Pradesh Legislative Assembly were held on 28th November 2018.
- ◆ INC secured 114 seats with 40.9% vote share.
- ◆ BJP won 109 seats (41% vote share) and slipped to the second largest party.
- ◆ The none of the above (NOTA) option accounted for 1.4% of the votes in this election.
- ◆ **Structure of State Legislature** - Unicameral
- ◆ **Governor** - Anandiben Patel
- ◆ **Chief Minister** - Kamal Nath
- ◆ **Leader of the Opposition** - Shivraj Singh Chauhan (BJP)
- ◆ **Capital** - Bhopal

4. Telangana

- ◆ Total Constituencies - 119
- ◆ Required number of seats to form government - 60 seats
- ◆ Telangana, the youngest state of India, went to polls on 7th December 2018.

- ◆ Telangana was supposed to have its second election in May, 2019. However, the chief minister of the state, K Chandrasekhar Rao, dissolved the assembly in September 2018 and announced for early election.
- ◆ KCR led Telangana Rashtra Samiti (TRS) won 88 seats with 46.9% vote share.
- ◆ INC and BJP won 19 and 1 seat respectively.
- ◆ Akbaruddin Owaisi led All India Majlis-e-Ittehadul Muslimeen won 7 seats with 2.7% vote share.
- ◆ The none of the above (NOTA) option accounted for 1.1% of the votes in this election.
- ◆ **Structure of State Legislature** - Bicameral
- ◆ **Governor** - Ekkadu Srinivasan Lakshmi Narasimhan
- ◆ **Chief Minister** - K. Chandrashekar Rao
- ◆ **Capital** - Hyderabad

5. Karnataka

- ◆ Total Constituencies - 224
- ◆ Required number of seats to form government - 112 seats
- ◆ The 2018 Karnataka Legislative Assembly election was held on 12th May 2018.
- ◆ The election led to a hung assembly, with the BJP emerged as the single largest party, with 104 seats (36.22 %).
- ◆ INC won the popular vote 38.04% with 78 seats and secured second position.
- ◆ The Janata Dal-Secular (JD-S) became the third party with 37 seats.
- ◆ NOTA option constituted 0.9% of the votes polled.
- ◆ **Structure of State Legislature** - Bicameral
- ◆ **Governor** - Vajubhai Vala
- ◆ **Chief Minister** - H D Kumaraswamy
- ◆ **Leader of the Opposition** - B S Yeddyurappa
- ◆ **Capital** - Bengaluru

6. North-Eastern States- I

(i) Tripura

- ◆ Total Constituencies - 60
- ◆ Required number of seats to form government - 31 seats
- ◆ Elections were held in Tripura on 18th February 2018.
- ◆ The region in general had been under the political control of the Communist Party for 25 years prior to the election, leading to the region being dubbed a "red holdout".
- ◆ BJP has emerged a single largest party with 36 seats (42.4% vote share).
- ◆ Communist Party of India (Marxist) (CPM) was the second largest party in terms of seats and vote share of 16 and 43.2% respectively.
- ◆ **Structure of State Legislature** - Uicameral
- ◆ **Governor** - Kaptan Singh Solanki
- ◆ **Chief Minister** - Biplab Kumar Deb
- ◆ **Leader of the Opposition** - Manik Sarkar, CPI(M)
- ◆ **Capital** - Agartala

(ii) Meghalaya

- ◆ Total Constituencies - 60
- ◆ Required number of seats to form government - 31 seats
- ◆ Elections were held in Meghalaya on 27th February 2018.
- ◆ The elections resulted in a hung assembly.
- ◆ INC has secured 21 seats with 28.5% of votes share and became single largest party.
- ◆ National People's Party (NPP) Bagged 19 seats, United Democratic Party (UDP) and BJP clinched 6 and 2 seats respectively.
- ◆ **Structure of State Legislature** - Uicameral
- ◆ **Governor** - Tathagata Roy
- ◆ **Chief Minister** - Conrad Sangma
- ◆ **Leader of the Opposition** - Mukul Sangma
- ◆ **Capital** - Shillong

7. North-Eastern States- II

(i) Nagaland

- ◆ Total Constituencies - 60
- ◆ Required number of seats to form government - 31 seats
- ◆ Elections were held in Nagaland on 27th February 2018.
- ◆ Four prominent parties fought the poll battle in Nagaland - Nagaland People's Front (NPF), Nationalist Democratic Progressive Party (NDPP), Bhartiya Janta Party (BJP) and Indian National Congress (INC).
- ◆ Nagaland People's Front (NPF) got 26 seats with 38.8% vote share.
- ◆ NDPP and BJP begged 18 and 12 seats respectively.
- ◆ **Structure of State Legislature** - Uicameral
- ◆ **Governor** - Padmanabha Acharya
- ◆ **Chief Minister** - Neiphiu Rio
- ◆ **Deputy Chief Minister** - Yanthungo Patton

- ◆ **Leader of the Opposition** - T. R. Zeliang
- ◆ **Capital** - Kohima

(ii) Mizoram

- ◆ Total Constituencies - 40
- ◆ Required number of seats to form government - 21 seats
- ◆ Elections were held in Mizoram on 28th November 2018.
- ◆ Mizo National Front won 26 seats in the election with 37.6% vote share.
- ◆ BJP and INC won only 1 and 5 seat, respectively.
- ◆ This is the first time that Congress does not have any government in any of the states in Northeast India.
- ◆ **Structure of State Legislature** - Uicameral
- ◆ **Governor** - Kummanam Rajasekharan
- ◆ **Chief Minister** - Zoramthanga
- ◆ **Leader of the Opposition** - Lalduhawma
- ◆ **Capital** - Aizawl

○○○

SEVEN PRACTICE QUESTIONS FOR MAIN EXAM

Answer each of the following questions in 200 words:

- Q1. The government's latest announcement on capital infusion into banks suggests it is attempting to boost loan growth by empowering weaker lenders. What do you understand by recapitalisation of banks? Critically analyse its implications on banking industry as well as on Indian economy.
- Q2. Now days there is a wave of populism, such as loan waiver to farmers among others, is blowing. But it has its implications because loan waivers are poll bait. Critically discuss why India need a structured and stable income support policy instead of loan waiver.
- Q3. 'Climate change is the greatest challenge of mankind. In front of it no country is spared and destinies are shared.' Discuss it in the context of recently concluded COP24 Katowice, Poland.
- Q4. Critically discuss how fake news can impact Indian elections.
- Q5. What is an altruistic surrogacy arrangement? But just like in the case of organ donation, wherein 'strangers' were dressed up as 'near relatives', in altruistic surrogacy too, similar negotiations may be entered into. Critically discuss it in the context of recently passed Surrogacy (Regulation) Bill, 2016.
- Q6. The Right to Information Act is not all about citizens empowerment alone, it essentially redefines the concept of accountability. Discuss.
- Q7. ISRO has launched its latest advanced communication satellite, GSAT-7A, to give a boost to the strategic communication and networking capabilities of the Indian Air Force (IAF) and will help the IAF to interlink different ground radar stations, airbases and AWACS (Airborne Warning and Control System) aircraft. Discuss how it will improve the IAF's network-centric warfare capabilities.





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**02
Dec.**

Test-1 - (12:00Noon-3:00pm)

Modern India, India After Independence,
World History, History of Uttar Pradesh

**09
Dec.**

Test-2 - (12:00Noon-3:00pm)

Social Issues, Art & Culture ,
Uttar Pradesh (Social Issues, Art & Culture)

**16
Dec.**

Test-3 - (12:00Noon-3:00pm)

World Geography, Indian Geography,
Geography of Uttar Pradesh

**23
Dec.**

Test-4 - (12:00Noon-3:00pm)

Indian Polity, Constitution,
In special reference of Uttar Pradesh

**30
Dec.**

Test-5 - (12:00Noon-3:00pm)

Governance and Public Policy,
International Relation
In Special Reference of Uttar Pradesh

**06
Jan.**

Test-6 - (12:00Noon-3:00pm)

Indian Economy, Internal Security
in Special Reference of Uttar Pradesh

**13
Jan.**

Test-7 - (12:00Noon-3:00pm)

Science & Tech., Disaster Management,
Ecology & Environment

**20
Jan.**

Test-8 - (12:00Noon-3:00pm)

Ethics (Paper-I)
Ethics and Human Interface, Attitude,
E.I. and Thinkers with Case Study

**27
Jan.**

Test-9 - (12:00Noon-3:00pm)

Ethics (Paper-II)
Aptitude and Value of Civil Services, Ethics
in P.A., Probity in Govt. with Case Study

**03
Feb.**

Test-10 - (12:00Noon-3:00pm)

General Studies (Paper-I) Full Test

Test-11 - (3:30pm-6:30pm)

Hindi Full Test

**10
Feb.**

Test-12 - (12:00Noon-3:00pm)

General Studies (Paper-II) Full Test

Test-13 - (3:30pm-6:30pm)

Essay

**17
Feb.**

Test-14 - (12:00Noon-3:00pm)

General Studies (Paper-III) Full Test

Test-15 - (3:30pm-6:30pm)

Hindi Full Test

**24
Feb.**

Test-16 - (12:00Noon-3:00pm)

General Studies (Paper-IV) Full Test

Test-17 - (3:30pm-6:30pm)

Essay

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Address: 635, Ground Floor, Main Road, Dr. Mukherjee Nagar, Delhi 110009
Phone No: 011-47354625/ 26 , 9205274741/42, 011-49274400